INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Economics Department Working Paper No. 78

SOUTHEAST ASIA's ECONOMY IN THE 1970s

The Manufacturing Industry Sector

May 1970

This paper was prepared as one of six sector studies of Southeast Asia in the 1970s for the Executive Directors of the Asian Development Bank and for the eight Southeast Asian Governments requesting the study. The other sectors being studied are agriculture, foreign trade and aid, foreign investment, population and the impact of United States and United Kingdom withdrawal from Southeast Asia. An overall survey, based on the sector studies, will complete the project. It is expected that the completed study will be released by the Asian Development Bank in September 1970.

Economics of Industrialization Division.
Prepared by: Helen Hughes
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SOUTHEAST ASIA'S ECONOMY IN THE 1970s

The Manufacturing Industry Sector

1. Twenty five years ago the newly independent countries of Southeast Asia expected that industrialization would catapult them into the modern world, high prosperity and full employment. The Philippines began to pursue industrialization vigorously in the mid-1950s, and in the course of the next ten years all the Southeast Asian countries adopted policies fostering industrial growth. By the end of the 1960s most of the region's countries were seriously engaged in industrialization, and some had made substantial progress. Many articles of everyday use were now being made locally, and the use of manufactured goods was widespread in the large cities and moving into the countryside. Import substitution had extended into intermediate products such as cement and glass, and the market for intermediate goods was growing with the construction of roads, schools, power installations and harbors and with the development of industry itself. But there were also many disappointments. Many of the new manufacturing industries were burdened with high costs, and costs were rising in relation to international prices as industrial expansion outpaced simple import substitution opportunities. Singapore was the only country not building up a balance of payments burden with raw material imports for industry because its outward looking industrialization strategy led to the export of its manufactured products. In most countries industrial development had failed to make a substantial contribution to employment, and manufacturing industries were still a mere enclave.

1/ This study is based on research undertaken with the assistance of a Ford grant at the Australian National University between 1967 and 1968, missions and research carried out as a staff member of the International Bank for Reconstruction and Development since September 1968, and further country visits under the auspices of the Asian Development Bank in the early months of 1970.
in predominantly agricultural economies. Industrialization, and the inward looking policies used to encourage its growth, was hence beginning to be questioned, paradoxically mainly in the Philippines and Thailand which together with Singapore had made the greatest efforts to foster industrial growth and which could claim the highest degree of industrialization, but which also found themselves with the highest costs and most raw material import pressure on the balance of payments. The issues emphasized here arise out of such questioning.

I. INDUSTRIAL PROGRESS TO 1970

2. In the development of manufacturing industries, as in other aspects of their economic life, the countries of Southeast Asia reflect both the diversity which devolves from their distinct national destinies and the similarities which arise from their common geographic situation. The level of industrial development ranges from Laos where industrialization has scarcely begun, to Singapore where a number of sophisticated industries now compete in tough world markets. For most of the region, and for most of the countries it encompasses, however, a few primary processing industries, some simple consumer goods, and a few intermediate products still dominate a rather narrow range of industrial production which caters mainly to the domestic market.

3. The first modern factories to develop in Southeast Asia were in primary processing, and these industries are still the most important in terms of employment and value added in manufacturing production. In the nineteenth century rice milling grew in the major exporting ports; then came small country hullers and medium sized mills for local consumption. With the exception of Indonesia where some 80 percent of the rice crop is still handpounded, these small and medium
sized mills have driven the large mills out of business and they now dominate rice milling in the region. Sugar factories accompanied sugar exports, and there was an expansion of sugar processing as domestic sugar consumption rose. Saw milling became important in the nineteenth century, and, more recently, timber processing has been extended to plywood and other timber manufacturing. Tin mining led to tin concentration, and later to smelting in Singapore, Indonesia and Thailand, and oil was refined in Indonesia. Rubber cultivation at first involved only estate processing, but from the 1910s a substantial rubber processing industry developed in Singapore, and to a lesser extent in Malaysia and Indonesia. Copra drying and oil palm extraction were also at first predominantly estate activities, but copra and oil seed processing became important for local consumption and export in the 1950s.

4. Some food processing, especially the making of fish sauces, spinning and weaving, and crafts such as basket and pottery making were long established domestic industries in Southeast Asia, and more elaborate articles of silk, weapons, and building materials, were produced at the courts of kings and sultans, and widely traded throughout Asia. In the nineteenth century, the industrializing countries' inexorable pursuit of free trade led to the replacement of domestic and artisan produced articles by factory made imports from Europe, not only destroying the existing domestic industry and handicrafts, but also preventing the growth of small scale cottage industries on which European industrialization had been built at an earlier time. In the twentieth century, there was some attempt at the revival of handicrafts and their expansion into cottage industries particularly in Indonesia and the Republic of Vietnam where population pressure was making employment needs felt. Japanese competition began to make inroads into European
and United States' exports, and against Japanese imports the colonial powers were willing to protect Southeast Asian producers. There was also some growth, albeit not encouraged by colonial governments, of modern large scale industries such as mechanized cigarette manufacture and brewing which used local raw materials or had a great deal of natural protection in transport costs. On the whole, however, the bulk of consumers' needs of manufactured products was still met by imports from industrial countries in the 1930s, and this was the area where import substitution was easiest to accomplish after independence when demand recovered to pre-World War II levels. Food, beverages, tobacco, textiles, clothing and footwear, therefore became the first industries to be stimulated in the 1950s and 1960s, and these now form the second most important group of industries in Southeast Asia. Woodworking and furniture, and printing and publishing have also grown since independence with increasing local demand and in the shelter of the natural protection they enjoy.

5. Thus some of the most modern and relatively large scale industries in Southeast Asia today are food processing industries such as reconstituted milk factories, flour mills, soft drink factories and breweries, which rely on imported inputs. Large scale modern cigarette factories dominate production even in Indonesia where a substantial handmade krátek cigarette industry survives. Side by side with these large scale plants, domestic food processors have taken traditional articles of consumption such as fish sauces and noodles from the household into small factories. In textiles, import substitution at first concentrated on low and medium count cottons for use in the countryside and by the army, because these require relatively little finishing, but in more recent years there has been a move towards more sophisticated products for the towns,

1/ Cigarettes flavored with cloves.
and this is now leading to the introduction of synthetic textiles and mixtures which represent a growing share of local markets. Singapore is developing a small scale specialized textile industry for exports. Handloom weaving of silk, ramie and cotton, and the hand-printing of batiks, is generally restricted to speciality fabrics for the tourist trade and for exports. Indonesia is an exception, with small scale textiles supplying about a fifth of the domestic market.

6. The production of intermediate products was admittedly small in pre-colonial Southeast Asia, but it was driven out of existence even more completely than consumer goods by the low cost of factory made goods. Bricks and tiles which survived because of their great freight advantage were almost the only exception. Because of the protection of freight there was some development of cement production in the 1920s and 1930s, and basic building materials were the first and principal intermediate products to be introduced in the 1950s and 1960s. As the industrial sector grew, however, raw materials for other industries began to be produced, albeit on a small scale and almost inevitably at prices substantially above those at which imports were available. This is true of paper, chemicals such as caustic soda and sulphuric acid, and fertilizers. As oil refining moved from the oil fields to markets every Southeast Asian country except Laos acquired oil refining capacity.

7. Capital goods industries are the least developed. The bulk of production in this statistical category is taken up by the assembly of durable consumer goods such as television sets, electrical appliances and motor vehicles. Trucks are also assembled, and there is some bus and truck body building. The production of machinery is almost entirely devoted to small scale rice milling equipment, reconditioning and spare parts for sugar mills, rubber processing and tin
mining equipment, and some small diesel engines and pumps. Some tractors are assembled in the region, but power implements for agriculture are still little used, and many of the hand implements are still imported.

8. Within the broad framework of a preponderance of primary processing and non-durable consumer goods, the industry mix varies within the region, ranging from a negligible proportion of intermediate and capital goods in Indonesia to a relatively complex industrial structure in the Philippines. 1/ The degree of complexity corresponds closely to the importance of manufacturing in the economy.

9. Table 1 shows value added in manufacturing per head of population for the Southeast Asian countries for which this information is available for 1953, 1960 and 1968.

Table 1. Value added in manufacturing per head of population 1953, 1960 and 1968 (1966 prices)

<table>
<thead>
<tr>
<th>Country</th>
<th>1953</th>
<th>1960</th>
<th>1968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>10</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td>5</td>
<td>4/a</td>
</tr>
<tr>
<td>Malaysia (West)</td>
<td></td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>Philippines</td>
<td>16</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td>36</td>
<td>104</td>
</tr>
<tr>
<td>Thailand</td>
<td>12</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Vietnam</td>
<td>11</td>
<td>11</td>
<td>9/b</td>
</tr>
</tbody>
</table>

/a 1961
/b 1966

Source: Appendix II
It will be seen that the value added in manufacturing per head of population is highest in Singapore, followed by Malaysia, the Philippines and Thailand. However, the Philippines show the highest total value added in manufacturing followed by Thailand. The latter figures, shown in Table 2, also give some indication of the relative size of the manufacturing sectors in Southeast Asian countries.

Table 2. Value added in manufacturing industry, 1953, 1960 and 1968 (1966 prices)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>40</td>
<td>64</td>
<td>115</td>
</tr>
<tr>
<td>Indonesia</td>
<td>..</td>
<td>447</td>
<td>399 /a</td>
</tr>
<tr>
<td>Malaysia (West)</td>
<td>..</td>
<td>166</td>
<td>287</td>
</tr>
<tr>
<td>Philippines</td>
<td>327</td>
<td>622</td>
<td>912</td>
</tr>
<tr>
<td>Singapore</td>
<td>..</td>
<td>59</td>
<td>209</td>
</tr>
<tr>
<td>Thailand</td>
<td>236</td>
<td>302</td>
<td>808</td>
</tr>
<tr>
<td>Vietnam</td>
<td>..</td>
<td>159</td>
<td>110 /b</td>
</tr>
</tbody>
</table>

/a 1961
/b 1966

Source: Appendix II

10. These figures must of course be interpreted with considerable caution. Value added has been taken from national accounts series. It is intended to cover all manufacturing activities, including small scale enterprises and handicrafts, and this involves a great deal of estimation from not very reliable
data, making the coverage rather variable from country to country and year to year. Only Malaysia, Singapore and the Philippines had reliable manufacturing censuses in the early 1960s, and Singapore and Malaysia have annual, and the Philippines bi-annual, surveys of manufacturing industry on which to base annual value added estimates. The lack of reliable population data introduces another source of error. The conversion of national currencies to a common unit at official exchange rates also distorts the data for some years and some countries.

11. It is extremely difficult to assess the role of manufacturing in the Southeast Asian economies (Table 3). Not only are value added data for manufacturing imperfect, but gross domestic product data are also limited. Where subsistence agriculture is significant, the value added in agriculture, and hence the gross domestic product, appear generally to be understated. This tends to exaggerate the value added in industry, and this exaggeration is heightened where a protective structure has raised the price level of manufactured products above the world prices of these products, and above agricultural products which are traded at world prices. Singapore with its largely free trade economy and without a significant subsistence agricultural sector is the only country to escape this valuation problem, and its manufacturing figures are correspondingly understated in comparison with most of the other countries in the region, particularly with regard to the share of value added in manufacturing to the gross domestic product.

12. It appears that industry plays relatively the most important role in the Philippines. Singapore has the next highest ratio, but it is still relatively low because of the importance of its entrepot trade which falls into the service category. Thailand comes next.1/ In Malaysia the contribution of industry is relatively low

1/ The actual Philippine ratio is somewhat lower than the figures based on domestic product suggest; the actual Thai ratio is also considerably lower because total Thai gross domestic product appears to be too low because of the understatement of value added in agriculture.
because export agriculture and mining for export, with attendant commercial services, are highly developed. The Cambodian share of manufacturing appears to be greatly exaggerated, not only by relatively high prices of manufactured goods, but by a considerable undervaluation of subsistence agriculture. In Vietnam and Indonesia not surprisingly in view of the per capita value added in manufacturing figures, it falls lower still.

Table 3. Value added in manufacturing as a share of gross domestic product, /a 1953, 1960 and 1968 (1960 prices)

<table>
<thead>
<tr>
<th></th>
<th>1953</th>
<th>1960</th>
<th>1968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>9.2</td>
<td>8.8</td>
<td>11.7</td>
</tr>
<tr>
<td>Indonesia</td>
<td>..</td>
<td>8.1/b</td>
<td>6.7/c</td>
</tr>
<tr>
<td>Malaysia (West)</td>
<td>..</td>
<td>8.6</td>
<td>11.6</td>
</tr>
<tr>
<td>Philippines</td>
<td>11.4</td>
<td>16.2</td>
<td>17.3/b</td>
</tr>
<tr>
<td>Singapore</td>
<td>..</td>
<td>7.9</td>
<td>16.3</td>
</tr>
<tr>
<td>Thailand</td>
<td>12.8</td>
<td>11.7</td>
<td>15.5</td>
</tr>
<tr>
<td>Vietnam</td>
<td>..</td>
<td>10.6</td>
<td>6.9/d</td>
</tr>
</tbody>
</table>

/a At factor cost, except Thailand which is at market prices.
/b Net domestic product.
/c 1964
/d 1966
Source: Appendix II

13. Difficult as it is to evaluate the role of value added in manufacturing in gross domestic product, it is almost impossible to assess the contribution of
employment in manufacturing to total employment. Population censuses enumerate the total number of people engaged in the work force, (including those unemployed), but such figures can only be approximations in agricultural economies with a great deal of underemployment. The occupational breakdowns in these censuses include all independent craftsmen and a large proportion of home workers in the manufacturing category, and these figures are therefore much greater than the employment in manufacturing proper as enumerated in manufacturing censuses. 1/

Bringing together employment estimates made at different times and for different purposes can only give a very approximate indication of the role of manufacturing in the work force, but this has been attempted in Table 4. The Table shows that manufacturing employment as a percentage of the work force varied from 1.7 in Thailand to 4.1 percent in West Malaysia, but rose to 9.9 percent in the special case of Singapore in 1966.

<table>
<thead>
<tr>
<th>Country</th>
<th>Employment in manufacturing (number)</th>
<th>Employment in manufacturing as percentage of total work force (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia 1963</td>
<td>961,431</td>
<td>2.6</td>
</tr>
<tr>
<td>Malaysia (West) 1963</td>
<td>101,355</td>
<td>4.1</td>
</tr>
<tr>
<td>Philippines 1961</td>
<td>338,799</td>
<td>3.5</td>
</tr>
<tr>
<td>Singapore 1966</td>
<td>62,000 /a</td>
<td>9.9</td>
</tr>
<tr>
<td>Thailand 1963</td>
<td>250,000</td>
<td>1.7</td>
</tr>
</tbody>
</table>

/a Establishments with 5 or more workers

Source: Appendix III

1/ Appendix III
14. It is clear from a comparison of Tables 3 and 4 that productivity in industry was much higher than in other sectors (although price relatives also influence this relationship), and it is doubtful whether the ratio of manufacturing employment to the work force grew very much in the 1960s in spite of the growth of industry because industrial productivity was also increasing. In the Philippines industrial growth was most rapid in the 1950s,

<table>
<thead>
<tr>
<th>Table 5.</th>
<th>Annual growth rate in the value added in manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1953-60</td>
</tr>
<tr>
<td>Cambodia</td>
<td>6.9</td>
</tr>
<tr>
<td>Indonesia</td>
<td>..</td>
</tr>
<tr>
<td>Malaysia (West)</td>
<td>..</td>
</tr>
<tr>
<td>Philippines</td>
<td>9.7</td>
</tr>
<tr>
<td>Singapore</td>
<td>..</td>
</tr>
<tr>
<td>Thailand</td>
<td>3.6</td>
</tr>
<tr>
<td>Vietnam</td>
<td>..</td>
</tr>
</tbody>
</table>

/a 1960-64
/b 1960-66

Source: Table 2

averaging 9.7 percent per annum between 1953 and 1960, but falling to an average of 2.0 percent between 1960 and 1968. Thailand saw a sharp increase from 3.6 percent per annum from 1953 to 1960 to 13.1 percent per annum from 1960 to 1968, and an acceleration of the rate of growth was also true of
Malaysia and Singapore. In Cambodia there was little difference in growth between the 1950s and 1960s. It seems that while there was some expansion of industrial activity in Indonesia in the 1950s, value added declined in the mid 1960s and did not recover to the early 1960s level until about 1968. Vietnam saw a decline in the value added in manufacturing as fighting accelerated in the 1960s.

The market for manufactured products (the value of output in manufacturing plus the value of manufactured imports minus the value of manufactured exports)\(^1\) in general grew faster than population indicating rising standards of living, particularly in the cities.

<table>
<thead>
<tr>
<th>Country</th>
<th>1953</th>
<th>1960</th>
<th>1968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td></td>
<td>37.3</td>
<td>52.2</td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td>16.2</td>
<td>16.5</td>
</tr>
<tr>
<td>Malaysia (West)</td>
<td></td>
<td>136.6</td>
<td>161.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>44.2</td>
<td>63.5</td>
<td>82.7</td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td>372.7</td>
<td>660.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>45.9</td>
<td>46.1</td>
<td>86.2</td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td></td>
<td>43.3</td>
</tr>
</tbody>
</table>

Source: Appendix II

\(^1\) Note that this method of calculating the market includes much double counting because imports are frequently inputs into domestic production, and market figures are therefore not comparable to value added and gross domestic product data.
For Cambodia and the Philippines the market for manufactured goods also grew faster than the value added in manufacturing, so that in spite of import substitution locally produced manufactured products formed a smaller share of the total supply of manufactured goods than they had in the 1950s. In this sense the rate of import substitution was not as fast as the rate of market expansion. In Indonesia the value added in manufacturing declined, but the market grew. In Singapore in contrast the rate of growth of manufacturing greatly exceeded market growth, reflecting both import substitution and the growing exports of manufactured products. In Malaysia manufacturing also grew considerably faster than the market, indicating import substitution, but in Thailand manufacturing grew only slightly faster than the domestic market.


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>..</td>
<td>8.2</td>
<td>..</td>
</tr>
<tr>
<td>Indonesia</td>
<td>..</td>
<td>1.2</td>
<td>..</td>
</tr>
<tr>
<td>Malaysia (West)</td>
<td>..</td>
<td>5.1</td>
<td>..</td>
</tr>
<tr>
<td>Philippines</td>
<td>9.2</td>
<td>6.9</td>
<td>8.0</td>
</tr>
<tr>
<td>Singapore</td>
<td>..</td>
<td>11.7</td>
<td>..</td>
</tr>
<tr>
<td>Thailand</td>
<td>3.9</td>
<td>12.8</td>
<td>8.6</td>
</tr>
<tr>
<td>Vietnam</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
</tbody>
</table>

Source: Appendix II
II. REVIEW OF THE PRINCIPAL POLICIES AFFECTING INDUSTRIAL DEVELOPMENT

16. Most Southeast Asian countries have national economic plans, but plans and planning have played a small role in industrial development. Planning has largely been concerned with public expenditures, but with the exception of Cambodia in the 1960s, the bulk of manufacturing investment has been in the private sector. Planning has therefore mainly affected industrial development indirectly, through infrastructure investment, but even here the influence has been slight because little attention has been paid to plan implementation and performance. Singapore was the exception in 1964 and 1965 with a careful annual review of its first Development Plan, but it decided to abandon formal overall planning in the course of evolving a second five year plan. Thus although the various Southeast Asian countries have planning ministries or agencies, these have little practical influence on industrial development. Industrial policy, and its administration is the business of various ministries and agencies implementing fiscal and monetary measures, of Ministries of Industry and special instrumentalities such as Boards of Investment which frequently overlap with various Ministries, of Ministries of Labor and Justice, and of regional government institutions. Only in Singapore are policy making and administration efficiently co-ordinated at Cabinet level; generally industrial policy decisions are diffused, and rarely do the various agencies responsible for their administration pull together in one direction.

Protectionist Policies

17. Protectionist policies have been the principal, and most powerful incentives to industrialization in Southeast Asia. Although the origins of industrial development in Southeast Asia lie in primary product processing,
the emphasis since World War II has been on import substitution, and it is
towards this aim that industrialization policies were directed in the 1950s
and 1960s. Only when Singapore became separated from Malaysia in 1965, losing
its access to the Malaysia market, did a departure from inward looking
industrialization occur. Making a virtue of necessity, Singapore turned its
attention outwards and concentrated on manufactures for export. More recently
other Southeast Asian countries have begun to turn back towards primary product
processing as a means of diversifying their exports, but the basic orientation,
and principal source of growth, has been import substitution behind protective
barriers.

18. Import licencing, intended to assure local producers of the entire
domestic market by eliminating all import competition, was the principal tool of
industrialization in the Philippines until 1962. Local entrepreneurs were given
confidence by complete freedom from foreign competition, and foreign firms,
mainly from the United States, were forced to go into production in the Philippines
to protect existing market against other foreign producers prepared to start
manufacturing in the Philippines and against potential local entrants. This led
to a rapid growth of investment and output in manufacturing industry as easy
import substitution opportunities were taken up, mainly in food processing,
textiles, electrical appliances and automobile assembly. Indonesia also had
import licencing in the 1950s, but the discouragement of both local and foreign
private investors, and attempts to protect cottage industries at the expense of
large scale manufacturing, meant that protection had little effect on manufacturing
growth. Cambodia and Vietnam still use import licencing, albeit, on a more
limited scale, to give complete protection to manufacturers once they begin to
supply the local market.
19. Import licencing and quantitative restrictions are the most far reaching instruments of protectionist policy, but they lead to the most abuses, both in their administration, and in permitting inefficient manufacturing enterprises to be established. The Philippines and Indonesia abandoned import licencing in favor of the customs tariff as the principal instrument of import substitution policy in 1962 and 1966 respectively. Thailand and Malaysia, and Singapore to the limited extent that it has used protection, also use tariffs as the principal tool of protective policy, and tariffs are therefore now the most important protectionist policy instruments in Southeast Asia. 1/

20. The structure of tariffs is complex, and it is not always logically designed to best encourage import substitution because revenue demands also influence tariff levels. The range of tariffs is considerable both between countries such as Malaysia and Singapore where they are lowest, and those like the Philippines, Indonesia and Vietnam where they are highest, and between products in the same countries (Appendix IV). 2/ Although tariffs tend to be higher on finished goods than on raw material inputs, this is not always the case, and differences are not always great enough to encourage local production. The incidence of tariffs ranges from three percent of the c.i.f. value of imports in Singapore to 38 percent in Vietnam, and there are also considerable differences in the proportion of tariff collections to total revenue, although here the

1/ Some import licencing powers and quantitative restrictions, however, remain in all these countries and are used from time to time to give local manufacturers additional, or alternative protection to the tariff.

2/ The discussion of protection in this study is entirely in terms of nominal protection because estimates of effective and net effective protection are only available for Malaysia and the Philippines for 1965. J.H. Power, 'The Structure of Protection in Western Malaysia', and 'The Structure of Protection in the Philippines', in B. Balassa and Associates, The Structure of Protection in Developing Countries, in progress. These studies are now somewhat out of date. Since the value added in local production is generally low, effective protection rates are in general considerably higher than nominal tariffs imply.
figures are less reliable because of differences in definition and coverage.

Table 8. Tariff collections as a percentage of value of imports and of total government revenue, 1967-1969

<table>
<thead>
<tr>
<th>Country</th>
<th>Tariff collections as a percentage of the c.i.f. value of imports</th>
<th>Tariff collections as a percentage of total government revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>38 /a</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>16 /b /c</td>
<td></td>
</tr>
<tr>
<td>Laos</td>
<td>..</td>
<td>29 /c /d</td>
</tr>
<tr>
<td>Malaysia</td>
<td>20 /a</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>14 /b</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>3 /a</td>
<td>16</td>
</tr>
<tr>
<td>Thailand</td>
<td>25 /a</td>
<td>38 /a</td>
</tr>
<tr>
<td>Vietnam</td>
<td>38 /e</td>
<td>13 /d /e</td>
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/a 1966-1968
/b Excludes smuggled imports in the value of imports and hence overestimates the incidence of collections. This also has some, though less bearing on the figures for Laos, Malaysia and Vietnam.
/d It is extremely difficult to calculate a meaningful revenue figure for Vietnam and Laos because of United States military and civilian aid.
/e Figures cover 1965-1967, before the imposition of austerity tax.

21. The administration of customs collections is in many countries as important a part of the protective system as quotas and duties. In some Southeast Asian countries, customs officials are grossly underpaid, and "tea money" is considered a normal and indeed a "necessary" part of their income.
Such "taxation" is as unsavory as its incidence is erratic, and it is a serious impediment to the development of manufacturing.

22. The extent to which tariffs provide protection to domestic producers of course depends on a number of other policies. In the 1950s various Southeast Asian countries had complex, in some cases multiple, exchange rate systems, but in the 1960s exchange rate systems were simplified and unified. Some countries have maintained overvalued exchange rates, partly for economic reasons, but mainly for national prestige. Overvalued exchange rates of course offset protection, and they therefore generally have to be accompanied by stringent licencing, very high tariffs or import taxes and surcharges additional to tariffs. 1/ The perequitation and austerity tariff surcharges and special taxes currently operating in Vietnam are examples of this method of offsetting overvalued exchange rates. Export taxes of various types affect exchange rates, and hence the level of protection.

23. Smuggling of goods - both of exports to evade export taxes and particularly of imports to avoid tariffs - takes place on a sufficiently large scale in Southeast Asia to affect the protection system. Most smuggling is "technical" rather than actual; goods are not shipped to the islands of the archipelago and up the river mouths at dead of night, but rather, handled through the principal ports on false invoices. Indonesia has the highest proportion of local imports and exports smuggled. The smuggling of some imports such as textiles is so considerable that tariffs have become irrelevant, and it

1/ The existence of tariff, quotas, licencing and other trade restrictions on the other hand, of course, affects the exchange rate by limiting imports and hence establishing a balance of payments at a point different to that which would be established in a free trade economy.
is the smuggler's trading margin which is the relevant import cost above c.i.f. prices. 1/ Smuggling is also considerable in the Philippines, mainly in textiles, a variety of goods is smuggled into Vietnam, there is some false invoicing of goods into Thailand, and some textiles are smuggled into Malaysia. Where smuggling takes place on a large enough scale, it thus acts as an efficient, albeit inadvertent instrument of price control. Several of the Southeast Asian countries have introduced some direct price control measures to ensure that local producers, particularly monopolists, will not take advantage of high level protection to exploit consumers. These have not been very effective, partly because they have not been well conceived, and partly because they are poorly administered. Moreover, high prices are usually not simply the result of managerial inefficiency or profiteering which price control measures could restrain, but due to deep seated structural problems which price controls can not eradicate.

24. Governments seeking to stimulate investment in manufacturing have generally granted industries designated as "essential" or even "desirable" exemptions from tariffs on capital goods to offset the deterrent effects of tariffs designed initially for revenue purposes and never revised to take new industrialization aims into account. Exemptions from import duties have frequently also been applied to raw material inputs on the grounds that it was exchange saving and employment creating to transfer the value added content of manufactured goods from countries which export to the Southeast Asian countries. Although these exemptions have been intended mainly for "essential" or "desirable"

1/ This is generally of the order of 15 to 25 percent.
industries, few industries have failed to qualify as "essential" or "desirable" when all the Southeast Asian countries were seeking to stimulate investment in industry, frequently in competition with each other. The remission of tariffs on raw material inputs has frequently been necessitated by the high tariffs on such products which negate the protection on final goods.

25. The most serious bias of protectionist policies has been against the export of manufactured goods. Several Southeast Asian countries have attempted to reduce this bias by drawbacks of tariffs on industrial inputs, but such drawbacks are often difficult to obtain in practice. In any case drawbacks can not offset the high costs of locally produced inputs and the superior profitability of domestic markets due to high levels of protection. A subsidy is required to do this, and Singapore and Malaysia have therefore introduced export subsidy schemes. These are also intended to offset the disadvantages of "infancy", and to enable exporters to practice marginal pricing without a large domestic market base.

Taxation

26. Most Southeast Asian countries have complex and unproductive corporate tax systems which include a variety of both direct and indirect taxes. Indirect taxes consist of various production and sales taxes which vary considerably in range and incidence but are in general quite high in comparison with developed countries because they are much easier to collect than direct income taxes. The lack of coordination of such taxes with import duties is frequently a cause of difficulty for domestic manufacturers, offsetting the protection which tariffs seek to give; where local production taxes are higher than tariffs, effective
protection becomes negative. This tends to occur where production taxes are cumulative, and this is generally the case. It is then argued by manufacturers that tariffs have to be high to enable local producers to compete with imports, and that exports are impossible. Most Southeast Asian countries in addition have excise taxes, mainly on tobacco, beverages and petroleum.

27. Direct taxes tend to be more complex than the indirect, in Indonesia, Laos, Cambodia and Vietnam, embracing the heritage of a variety of legal and stamp payments from colonial times when these formed an important source of revenue and a deterrent to local business formation, as well as more usual income taxes. In Laos and Indonesia corporation income tax schedules are also high, ranging up to 50 and 60 percent respectively. In Singapore and Malaysia at 40 and $l/45$ percent, they are slightly below the level of most developed countries. In Thailand, the Philippines and Vietnam corporate income tax schedules are low, ranging from 15 percent to 25 percent in Thailand, to 22 percent to 30 percent in the Philippines. Cambodia mainly relies on indirect taxes. Complexity, the lack of standard accounting practices and professional chartered or certified public accountants, and low salaries and low professional standing of tax officials make evasion common in many of the countries. However, the situation is changing and tax collections are increasing.

28. All the Southeast Asian governments have granted income tax concessions for periods varying from one to ten years to stimulate investment in "essential" and "desirable" industries. The value of these concessions is not proven. It is doubtful whether they attract sound investment which would not otherwise take place, and this is particularly true of foreign investment. Tax concessions are most attractive to enterprises with low fixed investments which expect to

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1/ $40$ percent corporate tax and $5$ percent development tax.
make a quick profit, and least attractive to enterprises with large scale, long
term investments which do not expect to make profits for the first few years.
They are probably more attractive to local entrepreneurs in whose mental
attitudes taxes still loom as exceptional payments rather than as normal
business expenses. These businessmen, however, are likely to pay few taxes.
To foreign investors at whom tax concessions are particularly aimed they do not
make a great deal of difference, although, of course, they are happy to receive
them when they can. If taxes are lower than in investing countries, and unless
investing countries have "tax sparing" arrangements with the Southeast Asian
countries, the transfer of revenue is not from the Southeast Asian country to
the entrepreneur, but to the revenue of his country, and this is generally a
developed country. Moreover, even if the local firm does not re-invest the tax
saved, but if it spent it on consumption, provided it is not exported, it
contributes to national income. If a foreign firm remits profits or dividends,
it is lost to the country. However, since foreign and local investors should
be given the same treatment vis a vis taxes to preserve an atmosphere favorable
to foreign investment in manufacturing, such losses are unavoidable if foreign
investors are not to be discouraged. Where tax concessions mean substantial
losses of revenue to the governments of Southeast Asian countries, they also
mean the foregoing of the opportunity cost of that revenue: if the taxes
foregone were spent on infrastructure facilities they would frequently prove
a better incentive to further investment. Finally, in competing with each
other for investment, particularly for foreign investment, Southeast Asian
countries appear to have made unnecessarily large taxation concessions.
Monetary Policy and Credit

29. The monetary framework within which industrial entrepreneurs invest, both in terms of domestic conditions and with regard to the relationship with the rest of the world, strongly influence their expectations of future production conditions, and it is therefore a fundamental factor in investment. Monetary management in Southeast Asia has included the extremely cautious policies ensuring internal monetary stability and stable exchange rates, which have characterized Thailand, Malaysia and Singapore, the somewhat less successful management of the Philippines which twice culminated in the need for devaluation, current steep inflation in Vietnam, and runaway inflation in Indonesia in the early 1960s.

30. A modest and steady increase in price levels which the countries which have successfully followed stable monetary policies have experienced have tended to give manufacturers the comfort of buying their raw material inputs more cheaply than they could sell them without the uncertainty which steep inflation brings. It is true that in Indonesia, inflation encouraged the purchase of manufactured goods as consumers sought to avoid holding cash, but conditions for manufacturing generally became so difficult that this sector, like most of the other business sectors, almost came to a halt. In the absence of any monetary correction, either in the form of revaluing fixed assets or working capital, manufacturing capital became eroded and ultimately vanished completely. Although imports of raw materials and spare parts became very cheap with grossly overvalued exchange rates, they ceased to become available as it became impossible to export, and balance of payments crisis forced severe import restrictions. Credit dried up completely in the face of negative interest rates caused by a combination of legal interest ceilings and failure to compensate for the fall in the value of money.
Although investment funds have been most chronically short in countries which have been least able to maintain monetary stability, they have been short throughout Southeast Asia, reflecting relatively small savings, both private and institutional, undeveloped capital markets, and the relatively greater and more long term risks involved in manufacturing than in commercial and real estate investment with the exception of Singapore and Malaysia. All credit has been scarce, but medium and long term capital has been scarcest of all.

The scarcity of commercial credit is underlined and, in part caused by, the scarcity of entrepreneurial risk capital. The very absence of an industrial sector and of well developed capital markets\(^1\) makes it difficult to raise sufficient equity capital, and gearing ratios are therefore usually high. Firms are frequently not well enough financed to have equity capital available for working capital, expecting to borrow all their working capital. At times equity capital is stretched out even for fixed assets, particularly for additions to plant, by frequently rolled over short term loans.

Governments have tended to restrict interest rates by law to prevent "usury" and "exploitation", but in effect this has meant that bank credit has been rationed by factors other than the interest rate. "Tea money" for bank managers and nepotism are common in several Southeast Asian countries. However, since the supply of official credit has been in any case limited, except in Singapore, Malaysia and the Philippines, the real market for short term and sometimes for medium credit usually operates outside the banking system altogether, with interest rates ranging from two percent per month in Thailand to ten percent per month in Indonesia.

\(^1\) Singapore and Malaysia are, however, well on the way in capital market development. In the Philippines a strong beginning has been made, but in the other countries it has yet to come.
34. There are few sources of long term credit. Most Southeast Asian
governments have made some attempt to create development banks to supply medium
and long term credit for manufacturing industry, and these banks have received
loans at favorable rates from international organizations and from banks in some
developed countries. Their interest rates generally run from nine percent to 12
percent and loan terms are from five to ten years. Development banks have taken
the shape of both public and private corporations, and in some cases their
ownership has been mixed. On the whole their operations have been successful,
but they have been unable to meet the demand for medium and long term lending,
particularly in local currency terms, and have therefore had to ration their loans
as best as they could. In recent years their funds have been supplemented by
purely commercial investment banks in some Southeast Asian countries, but invest-
ment banking is not yet well enough developed to supply a significant proportion
of long term credit requirements. Manufacturers have also been able to borrow
for fixed assets by using suppliers' credit. Although this usually, though not
always, means higher prices for capital equipment, and although it may also
sometimes restrict the choice of equipment, the loans are available and charges
are generally lower than domestic bank interest charges, and manufacturers have
therefore had wide recourse to this form of finance. The economy, however, is
faced with problems of high short term foreign liabilities.

The Infrastructure and Industrial Estates

35. The quality of public services such as water, power and telephones, of
transport facilities and ports, and their prices, vary greatly throughout
Southeast Asia. At one end of the scale Singapore has an infrastructure equal
in price and quality to that of many developed countries while at the other end
in landlocked Laos public services scarcely exist.

36. The Southeast Asian countries have made considerable efforts to improve their infrastructure facilities in the last twenty years, and most have some achievements to show. In relation to industrial needs, the most successful aspects of infrastructure creation have been the industrial estates of Singapore, Malaysia and Vietnam, and, currently one small estate in Thailand. The first of these, modelled on English industrial estates, were relatively small estates in the town of Singapore itself, but Singapore has also built the most impressive of all Southeast Asian industrial estates at Jurong some 15 miles from the city proper. Recently its flatted factories, situated in the midst of housing estates where ample labor is available, have made a substantial contribution to the establishment of exporting industries.

37. Industrial estates have been used to overcome two fundamental deficiencies in the industrial framework of developing countries - the lack of land at reasonable prices with clear possession of lease or ownership title, and the provision of water, power, communication facilities and access roads for industry. In Singapore and Malaysia they have also reduced the investors' capital requirements by making reasonably priced, well designed factory buildings available for lease or sale on easy terms. Singapore has also used its estates, particularly Jurong, to foster productivity, and to improve labor relations. It is not surprising, therefore, that industrial estates have been rapidly filled, absorbing a high proportion of new industries and that they appear to have been a substantial incentive to industrial investment wherever they have been vigorously pursued.
In practice, the tax incentives granted to investors have turned out to be complex to administer, principally because they have involved the determination of "essentiality" or "desirability" of industries. The various government agencies responsible for implementing investment incentives have attempted to evolve suitable criteria to designate "essential" and "desirable" industries. In most Southeast Asian countries these have been primarily the saving of foreign exchange, with foreign exchange earning coming into prominence in more recent years, as the full balance of payments implications of import substitution behind high tariffs have become felt. Employment creation has been the second criterion in most countries, although in fact governments have been able to exert little pressure towards the choice of more labor intensive techniques. Fearing both monopoly and "excessive" competition, most countries have tended to restrict incentives to a small group of entrants in each industry. Singapore is the only government which, since 1966, has oriented its incentive system towards the promotion of exporting industries. Employment was also an important consideration in Singapore from 1966 to 1968, but currently, with full employment within reach, the emphasis has moved to high wage employment rather than employment as such.

The problems of selecting industries, and the desire to stimulate investment in industry, have led most Southeast Asian countries to create special agencies for this purpose. The Economic Development Board of Singapore was the first, the most efficient and most successful of these. The Center for Industrial Development has played a similar role on a more limited scale within the severe constraints of Vietnam's war situation. Thailand and, more recently, the Philippines have established Boards of Investment to review applications for
investment incentives, and in Indonesia this rôle is played by the Technical Assistance Team. In Malaysia the Federal Industry Development Authority was established to stimulate industrial investment.

The processing of applications for incentives is the prime responsibility of these institutions but most are intended to promote new investment as well. They fulfill these functions with various degrees of success. Singapore's Economic Development Board initially concentrated on assisting new entrepreneurs, particularly foreign investors, to make their minds up as quickly as possible to invest in Singapore, and then to follow this up by coming into production as soon as possible. The investors' paths were smoothed by assistance in contacting other government departments, and the Singapore Economic Development Board managed Singapore's industrial estates and supplied some credit either as loans or as equity investment. (Recently the industrial estate management and development banking functions were spun off into separate organizations). This meant that investors were not faced with long and tedious negotiations with a number of government organizations, and this undoubtedly played an important role in Singapore's rapid industrialization. The Economic Development Board also undertakes research, both to follow up the effects of incentive assisted investment, and to identify new areas most suitable for industrial investment. Other activities include labor training, industrial relations, assistance to small enterprises particularly with technical problems, the establishments of industrial standards, and export promotion activities. The Centre for Industrial Development in Vietnam also has some long term credit resources and runs the industrial estate at Bien Hoa outside Saigon, but it has not been able to devote the same attention to the search for new industries and the evaluation of
performance of those established with its assistance. Contact with other
government departments is more difficult than in Singapore, and the assistance
offered to investors to that degree less smooth. The Philippines Board of
Investment is becoming involved in the promotion of new investment and the Thai
Board of Investment has increased its pace of activity in recent years, but these
two organizations, and the Indonesian Technical Assistance Team to an even
greater extent, are largely concerned with the evaluation of projects seeking
investment incentives.

In most Southeast Asian countries Ministries of Industry also have
some influence on the granting of incentives, and they control the entry of
industries which do not desire, or do not qualify for, incentives. Here, policies,
often merely implicit in investment promotion decisions, are generally more
explicit. Paternal attitudes prevail. There is a tendency to protect existing
entrepreneurs usually at the cost of efficiency and productivity, and usually at
the expense of new entrants. Elaborate inspection machinery is generally used
to little purpose, but the necessity to obtain the formal approval of such
Ministries for investment decisions frequently leads to considerable delays
and extra costs in investment implementation.

Foreign Investment

Investment incentives - and barriers - apply to foreign investors as
well as to local ones, and most Southeast Asian countries have in addition
guaranteed the foreign investors' right to repatriate their capital and remit
profits and dividends. But the degree to which foreign investment is in fact
welcomed varies greatly among the Southeast Asian countries. Singapore has had
the most open attitude towards foreign investors, and it has supported it
vigorously by assisting foreign investors to come into production and negotiating double taxation agreements. Until recently Thailand was the next most welcoming country, but political opposition to Japanese investment has developed. Malaysia also has a very open attitude. Foreign investors are expected to have only 49 percent participation to qualify for investment privileges, but this has not been strictly administered. The Philippines has had an open attitude to United States investors, but other foreign investors are limited to 40 percent of investment. In Vietnam, the lack of security has prevented the utilization of liberal incentives. After a period of nationalization and confiscation of foreign investment between 1958 and 1965, Indonesia began to encourage foreign investment in 1966, but the application of incentives to foreign investment has been rather restrictive. In Cambodia the hostile attitude towards private enterprise meant that few foreign investors took advantage of the incentives available, and in Laos the lack of business opportunities and security has meant little foreign investment.

**Manpower Policy**

**13.** Several aspects of manpower policy - labor training, working conditions and wage standards, and industrial relations, impinge on industrial development, but here, with the exception of Singapore, Southeast Asian governments have little achievement to date.

**14.** Singapore, Malaysia, the Philippines and Indonesia established basic working conditions in industry in their first years of independence, and while understandably these showed a strong reaction against conditions which had exploited labor in colonial times, they were not always well adapted to the needs of societies beginning to industrialize. These countries sought to bridge the
gap between subsistence agricultural societies and welfare states in one step, disregarding the low productivity of labor, and, with the exception of Singapore and Malaysia, failed in the attempt. In Singapore, a revision of labor regulations changed labor conditions in 1966 without substantially reducing standards, and Singapore is in fact almost the only developing country in the world industrializing successfully while it maintains high standards of working conditions, an eight hour day and relatively high wages. In Indonesia and the Philippines, working conditions and minimum wage provisions out of keeping with labor productivity have led to dual standards: government and large private enterprises have observed legal minima, while small and medium scale private enterprises have ignored them. Vietnam and Thailand on the other hand have not attempted to establish minimum standards for working conditions, hours of work and wages, and this has meant long working hours, and low wages.

45. Industrial relations have been a problem from time to time in Indonesia, Singapore, Malaysia, the Philippines, and Vietnam, and Governments have intervened in times of crisis. However, only in Singapore and Malaysia have the governments attempted to stabilize industrial relations, in both cases by introducing compulsory arbitration and conciliation systems. The Singapore government has also paid a great deal of attention to securing the trade unions' co-operation for its economic aims, and it has taken political action against the militant union wing. The result has been a reduction of industrial disputes. In the Philippines, Indonesia and Vietnam in contrast, there has been a tendency towards worsening industrial relations in recent years. Thailand has recently introduced collective bargaining legislation, but trade unions are still illegal.

46. Labor training has received some attention throughout the region, but much remains to be done because the main emphasis of education policy in the
past has been to establish universal primary education. Since the education systems the Southeast Asian countries inherited from colonial times were oriented mainly towards the training of minor government servants, they lacked technical arms at all levels. The training of engineers and scientists at the tertiary level was the first step towards more technical education in most Southeast Asian countries, and only in recent years has attention been devoted to technical high schools, technical training for technicians below University graduate levels, and part time and short term courses for skilled workers. Singapore is the most advanced country in all these respects.

Markets

17. The policies discussed thus far affect the supply conditions for industry, but policies affecting demand are no less important to industrial development. Limited domestic markets have been the most serious constraint on industrial development in every Southeast Asian country except Singapore, and this is true even in Indonesia where the potential national market is very great indeed. To some extent, the low levels of income which cause the market constraint, are the inevitable concomitant of underdevelopment, but government policies have also been responsible for low consumption levels. The neglect of agriculture in the past, together with taxation and grain control policies designed to ensure low grain prices for public servants, the army and other urban dwellers have, except in Cambodia, contributed to low rural incomes. Until the impact of the "green revolution", there was little demand for industrial inputs into agriculture, and little emphasis on improving the quality of agricultural inputs into industry.
Imlications of Industrial Growth

48. Except for Singapore, the principal characteristics of industry are similar throughout Southeast Asia. This is of course partly a reflection of the regional characteristics determining the rhythms of agricultural life which occupy the majority of the population, but they also follow from inward looking industrialization policies.

Industries and Markets

49. The processing of agricultural and forest products, though still the largest area of industrial activity, is probably the least productive. There are exceptions in processing for export, and mineral operations for export are also generally more efficient than other primary processing industries, but although these are the oldest large scale industries in the region, they require investment and improved technology and management to become reasonably productive. Many of the problems of agricultural and forest product processing are due to low productivity in agriculture and the lack of forest conservation. Single cropping and low productivity per acre together with poor transport and the absence of storage facilities, mean that small rice, corn and sugar mills are scattered throughout the countryside. Small hullers process about 25 percent of the rice crop, with low recovery rates from 50 percent to 60 percent of paddy, except in Indonesia where some 80 percent is still handpounded. Even in the medium sized mills which process the bulk of the marketed rice, poor sorting, milling and drying practices mean recovery rates of 60 percent to 66 percent and a high percentage of brokens. Few mills are large enough to utilize by-products or to allow rice
bran collection for rice bran oil. Except at the peak of the harvest, mills operate at low capacity, and they lack a margin for re-equipment. Although there are some efficient sugar mills in the Philippines, the bulk of sugar milling in Southeast Asia is also inefficient with low cane yields per acre, low sugar content in cane and poor transport to the mill, as well as poor milling practice again leading to low productivity. Although Southeast Asia is a large copra, palm oil and oil seed exporter, Philippines, Singapore and Malaysia are the only countries with efficient oil expressing industries which can satisfy the domestic market and export. Sawmilling is based on cutting commercial timbers out of natural hardwood forest. The area covered by a mill is thus large and it has to move every few years so that costs are high. Small mills and frequent moves usually mean that by-products are wasted. The lack of an effective re-forestation policy has already led to a shortage of timber for industries such as plywood in Thailand; in the Philippines forests are being turned into a wasteland of tough grasses and here too further logging without large scale re-forestation will destroy the timber resources and affect the watershed areas.

Competitive pressure on the other hand has made some export oriented primary processing industries very efficient. Tapioca starch and feed corn processing in Thailand, and dessicated coconut and coconut oil production in the Philippines, are examples. Export oriented mineral processing is limited but generally highly productive. There are efficient pineapple plantations for canneries oriented towards export, but most canneries lack regular supplies of fruit, vegetables and fish. Singapore, paradoxically, because of its large consumer markets for these products is the largest exporter of mixed canned products. Meat canning lies in the future because of the lack
of beef cattle and other animal raising even in ecologically suitable areas such as northeast Thailand, northern Cambodia and some of the southern Philippine islands.

51. The possibilities of the "green revolution" give rise to hopes that some of the obstacles to productivity which lie in agricultural backwardness can now be overcome. If there is supporting investment in transport and storage, and providing that government policies become concerned with the improvement of efficiency of primary processing industries, this could mean an increase in the supply of food, timber and mineral products, a reduction in their prices to domestic consumers, and increased exports.

52. Non-durable consumer goods are among the most competitive industries in Southeast Asia. Markets for food products such as noodles and soft drinks, for knitted goods and for garments are large enough to make it possible for a number of firms to compete and yet for each to have adequate economies of scale for economic production. Markets are growing with population and, in most Southeast Asian countries, with rising standards of living.

53. Even among non-durable consumer goods, however, there are not many such industries. Food industries such as reconstituted milk and wheat flour production which have generally been established with foreign investment participation are well equipped and managed and do not have raw material supply problems, but their productivity is low where scale of production is inadequate. This is usually the result of policies which, having established high tariffs, seek to ensure competition by granting investment incentives to several producers. Costs are then high, but behind the high tariffs, so are profits. The inability to have both large scale production and internal competition also lies behind the problems of industries such as textiles.
But here, although tariffs range from 30 to 100 percent above world traded textile prices, profits are limited by smuggling. In spinning and finishing particularly, but to an increasing extent also in weaving, the modern textile industry requires considerable investment, and it is more economic if it is integrated than if it is based on separate spinning, weaving and finishing units. If there are to be several, large scale units in each country to ensure competition, they have to be export oriented. Although Indonesia is an exception with a very large textile market of some 700 to 800 million metres even at present low levels of consumption, it has rather special, and the most acute, problems of Southeast Asian textile industries. An extremely inefficient government owned sector prevents the rationalization of the industry. The industry is also burdened by policies, inherited from the 1930s, of attempting to preserve handloom, and semi-mechanized weaving. The modern sector of the industry has hence enjoyed a level of protection equivalent to that needed by the out-of-date small scale plants, and in this shelter uneconomic units thrived. A vigorous investment program in large scale, modern textile mills, in the areas where the labor supply is now concentrated would lead to competition with smuggled goods which at present represent at least a third of the total market, and could result in a substantial drop in prices to Indonesian consumers. The consumption of textiles in most parts of Southeast Asia is pitifully low, ranging from some six to seven square meters per person in Indonesia to about 13 square meters in Thailand and the Philippines. Substantial improvements in the competitiveness of the textile industry if expressed in lower prices could lead to higher consumption levels even without rises in income.
Although markets for durable consumer goods such as electronic products, electrical appliances and motor cars are limited to small wealthy and middle class groups living largely in the capital cities, they have received the attention which primary processing and many of the simple non-durable consumer goods have lacked. With the exception of transistor radios and televisions the demand for these products is too restricted to enable one firm assembling imported components, to produce efficiently; yet several Southeast Asian governments seeking to ensure consumer sovereignty for the westernized elite have encouraged a number of assemblers to begin local production and in most cases they wish to pursue backward integration into component manufacture. In spite of the small scale of car ownership the number of makes is diversified, so that it is not even economic to make spare parts, as a first step towards component manufacture. The costs of non-durable consumer goods range from 25 to 30 percent to 150 percent and more above c.i.f. import prices, and while tariffs at the bottom of this range may be justified where "infant" industries have genuine growth potential, many of the tariffs are high, they are supported by other protective measures, and manufacturers receive other incentives in addition. It is a corollary of the present structure of incentives that simple household goods such as hand sewing machines, stoves and bicycles are neglected.

In intermediate products there are some highly productive plants where labor intensive techniques are still competitive as in brick or tile production, or where the market is large enough to give one or two firms adequate economies of scale, as in cement. The main development in intermediate products has been in building materials, but there has also been some growth of industrial raw materials. Hollow glassware has thrived in the wake
of beer and soft drinks, and other packaging industries have been boosted. Sheet glass on the other hand has scale problems because local markets are insufficient. The production of industrial chemicals such as caustic soda and industrial acids is generally high cost because markets are not only small for the product itself, but also for the by-products which lower costs in more developed economies. Some plants such as pulp and paper mills produce their own chemicals to ensure the continuity of supply and to avoid the high incidence of production taxes, and this further reduces the possibility of economies of scale by fragmenting markets. Pulp and paper production is in turn small scale and has high costs, partly because local raw material resources are very poor, partly because the demand for most types of paper is too small for economic production. Southeast Asia lacks softwoods for pulp, the technology of manufacturing pulp from mixed tropical hardwoods is still being developed, and alternate raw materials such as bamboo, straw and bagasse have only been found sufficient for very small scale mills. Further developments depend on planned forestation with fast growing softwoods or eucalypts and commercial development of hardwood, kenaf and abaca as a pulp base. Large scale production has been confined to kraft paper in which the producing countries now have a considerable surplus to utilize economies of scale, and hence require high tariffs.1/ With the exception of Laos each Southeast Asian country now has oil refining capacities, but most of these are small by the standards of new refineries in developed countries, frequently because of over entry by the international companies which dominate refining. Because of the very large scale production required to achieve competitive

1/ See Appendix IV
costs, economic petrochemical industries lie in the future for most Southeast Asian countries; the markets for the individual products which make up an economic petrochemical product mix are small. Nitrogenous fertilizers are an exception. At present only Indonesia has adequately scaled nitrogenous fertilizer production, and there are several small, uneconomic plants in the region. However with the new demand for inputs for new agricultural practices, markets are growing rapidly and an economic base for one nitrogenous fertilizer plant, that is of a capacity of at least 200,000 tons of ammonia, now exists, or will soon exist in most of the countries. It is, of course, particularly important that fertilizers and other chemical inputs for agriculture should be produced economically and that prices are correspondingly low.

56. Capital goods industries have not created many production problems,1 because they scarcely exist. Small scale iron re-rollers operate efficiently in some countries, but the few complex products produced locally are generally made at higher cost than imports. The development of large scale integrated iron and steel works has been fraught with difficulties; Thai and Philippine markets are now approaching levels where large scale production could be economic provided integrated plants are well situated, buy their raw materials where they are cheapest, have good management and export some of their products, but these are difficult conditions to meet. Such plants, moreover, would tend to bear heavily on the re-rollers who have received government incentives in the past, and would thus require some re-adjustment of policy.

1/ Note that the conventional industrial classification includes non-durable consumer goods in the capital goods categories; this exaggerates the role of capital goods. (Appendix I).
Electrical products such as bulbs and switches have problems of scale. Truck assembly is similar to car assembly, although, as it is more labor intensive, the outlook is more optimistic; this is even more true for body building on various types of buses. The most promising area of capital good production is in supplies to agriculture. At present tractors are assembled, on the lines of motor cars, at very high cost. The demand for tractors is growing, but this is partly at least because small mechanical cultivators are not readily or cheaply available. The production of more efficient and cheaper hand tools, simple engines and pumps (and piping), and motorized bicycles has been almost completely neglected. Small, simple pickup trucks to deliver products to markets, and fertilizers and other inputs to the villages, have economic promise. There is currently also some small spare part manufacture and repair activity for rice mills, sugar mills, and other primary processing units, but such production is not always of adequate quality and requires development.

The Size of Plants, Capacity Utilization and Economies of Scale

The principal cause of low productivity and high costs is thus the relatively small scale of production characteristic of most Southeast Asian industries. Small scale production is the result of a number of factors, but poor raw material supplies and transport leading to the geographical dispersion of primary processing plants, small markets, particularly for non-durable consumer goods which have received the most encouragement, and
markets fragmented by over entry permitted and even encouraged by high tariffs, are the principal reasons. 1/

58. Many of the plants which have inadequately scaled production are also prone to low capacity production. In primary product processing the lack of, and in some cases the sporadic as well as seasonal supply of raw materials, is the principal reason. This means that industries such as oil extraction are at a disadvantage compared with those in developed countries which import their raw materials from a variety of sources thus ensuring year round operations. In economies in which a large number of new firms and extensions have been coming into production capacity is underutilized, at least initially, because the lumpiness of investment makes it profitable to build ahead, taking into account future market expansion for new and growing products. The fragmentation of production is another cause of relatively low capacity utilization. In competition among a small number of producers some degree of oligopolistic practice is inevitable, and behind the shelter

1/ The following table gives some indication of the scale of production although most of the figures are out of date and tend to underestimate the role of the larger plants.

<table>
<thead>
<tr>
<th></th>
<th>10-49 workers</th>
<th>50-99 workers</th>
<th>100 workers &amp; over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia, 1963</td>
<td>86.0</td>
<td>7.8</td>
<td>6.2</td>
</tr>
<tr>
<td>Malaysia, West, 1963</td>
<td>82.3</td>
<td>10.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Philippines, 1961</td>
<td>78.1</td>
<td>10.1</td>
<td>11.8</td>
</tr>
<tr>
<td>Singapore, 1967</td>
<td>68.7 /a</td>
<td>21.7 /b</td>
<td>9.6</td>
</tr>
<tr>
<td>Thailand, 1963</td>
<td>84.0</td>
<td>9.3</td>
<td>6.7</td>
</tr>
</tbody>
</table>

/a 10-39 workers.
/b 10-99 workers.

Source: As for work force figures in Appendix I.
of tariffs the oligopolists generally overestimate their potential market shares. Overcapacity is sometimes due to inefficient management. A badly planned, unbalanced plant develops bottlenecks, the lack of preventive maintenance causes breakdowns, and sporadic attention to marketing lead to sales problems. It takes first class managers to run equipment at rated capacity, two of three shifts a day, six or seven days a week. Finally, inappropriate labor legislation in Indonesia and the Philippines limits shift work, reducing the economic operation of plant.

59. Economies of scale are clearly greatest in capital intensive industries, but economies of scale are also important in labor intensive products. The manufacture of garments is an example. High quality makers have to use sophisticated equipment to ensure a high quality of finish, and to compete in unit costs with small, back-yard manufacturers. These are nevertheless dependent on high labor productivity, and this is in turn dependent on large volumes of standardized throughput. Thus, for example it has been found that garment producers in Singapore were less productive than associated companies in Hong Kong principally because the former initially undertook the parent company's odd lots while the latter concentrated on volume production.

Ownership, Capital Structure and Management

60. The family firm still predominates in Southeast Asia, so that most firms are relatively small and traditional in their outlook on capital structure, management and labor. In the typical family firm the proportion of equity to total capital is low. The bulk of capital, sometimes up to 80 percent, is raised by loans from a variety of sources within and outside the banking system, and through suppliers' credit. Large, well connected firms can obtain loans from government and commercial banks, but many small
manufacturers have to resort to turning over short term loans for fixed investment. Working capital difficulties are even greater so that small firms have to obtain finance outside the banking system. Family firms are reluctant to relinquish personal control and the financial fringe benefits of sole ownership, and public corporation formation is therefore slow. Family groups, closely knit by kinship ties, sometimes overcome problems of scale, but in general the consolidation and rationalization of industries is impeded by the family structure of firms.

61. Family ownership affects the quality of management. Most family firms are managed by older family members who are not familiar with modern production engineering, accounting and marketing practices, and such firms tend to be weak in all these aspects of management. But younger firm members - sons, nephews and sons-in-law - who have been educated in these techniques, frequently abroad, are becoming more influential, so that the situation is improving. Some family firms in any case, in spite of the lack of formally acquired management skills, are among the most efficiently run, rapidly growing firms and they would be competitive anywhere in the world.

62. Government ownership of industry is most important in Cambodia where during the 1960s the government restrained the growth of private enterprise to create a strong public sector. The 17 government and mixed enterprises dominate manufacturing, and the interests of the private sector are subordinated to them. Thailand's publicly owned sector grew considerably in the 1940s and early 1950s, but from the late 1950s there has been no increase in government participation in industry and there are now some 30 government manufacturing enterprises. Indonesia's public sector was expanded during the 1950s and early 1960s by the creation of new firms and
by nationalizing foreign owned firms. Most of the latter were returned to private owners after 1966, but public enterprises still account for some 15 to 20 percent of total manufacturing employment. In the Philippines and Vietnam a handful of public enterprises is left from a post-war trend towards national ownership, and Singapore has some public investment in predominantly privately owned enterprises and a government owned iron and steel rolling plant. In performance government enterprises range from extremely efficient, expanding corporations such as Singapore's National Iron and Steel Mills to inefficient, marginal firms which operate at low capacity and high cost; the latter are unfortunately more typical than the former. The policy framework is of course an important factor in performance. Where protection is as high as it is in Cambodia, government enterprises do not have any more reasons to be competitive than private enterprises. In general they have less because they are not under the same pressure to make profits and can usually rely on government subsidy. In addition they enjoy preferential treatment in government purchasing and access to credit. Most of the Thai and Indonesian publicly owned enterprises enjoy similar benefits, and they too are the marginal firms which require particularly high protection.

Throughout Southeast Asia there is a dearth of entrepreneurs, and a high proportion of the existing ones are of ethnic Chinese origin. Chinese migrants have been settling in the region for at least two thousand years, but only in Singapore which is predominantly Chinese, and in Thailand, are Chinese entrepreneurs treated equitably. Vietnamese minorities in Cambodia and Laos, and tribal groups throughout the region are not always given the same economic opportunities as other citizens, but it is the discrimination against the ethnic Chinese which is the most pressing problem. Malaysia and
Indonesia are prepared to slow down the pace of development in their fear of Chinese economic domination. In the Philippines the restriction on business activity by foreign investors is directed at Chinese who have not acquired Philippine citizenship, and Vietnam, Cambodia, and Laos also fear Chinese domination of industrial growth. Only in Thailand has the last decade seen an attempt at a civilised solution of this age old problem, for at the cost of cultural as well as political assimilation ethnic Chinese who have opted for Thai citizenship have been given much more equal opportunities in economic life, and particularly in industrial development. "Ali-Baba" 1/ companies still exist, but they are not as prevalent as in the past, or as in other parts of Southeast Asia. It is not surprising that in the face of political threat and economic discrimination Chinese business communities have come close together, particularly in financing investment, but most of the exploitative activities of which they are accused are due to economic conditions and policies rather than ethnic characteristics. Solutions do not lie in further discrimination but in political, cultural and economic integration of Chinese, and other minorities into the Southeast Asian communities.

Investment and Capital Productivity

64. Singapore, Malaysia and the Philippines estimate investment in manufacturing, but even these estimates are far from reliable. For the other Southeast Asian countries they are either not available or can not

1/ A firm in which a Chinese entrepreneur has a sleeping partner, frequently a military officer or government official, "on his back".
be analyzed in relation to their contribution to value added in production or to the employment of labor. Poor banking reporting, and the importance of non-bank lending to small industries also makes it impossible to analyze industrial financing. Much finance comes from accumulated profits, frequently in the form of costing out investment in buildings and machinery as current costs to avoid taxation, or sometimes, simply because accounting techniques are poor. There is evidence of high profits, with ranges from 33 to 40 percent being regarded as reasonable, but there are also many marginal firms which barely survive. In general the highest profits are to be made in highly protected industries catering for a westernized market rather than in the less protected mass consumption goods, in primary processing, or, of course, in exports. Thus in several countries there has been a shift of production out of rubber sandals for sale in the countryside to rubber mattresses for the luxury domestic market and tourist hotel business. The assembly of air conditioners is more extensive than that of water pumps. The assembly of tractors is more profitable than the manufacture of agricultural hand tools.

**Labor, Labor Productivity and the Choice of Techniques**

65. With two exceptions Southeast Asian countries have had an ample supply of unskilled labor. Vietnam has increasingly drawn off young men into the army in recent years, and in Singapore the last year has seen the transformation of a high level of unemployment into a labor shortage by a vigorous, export oriented industrial policy. But in all the other countries, the flow of labor to the cities, (albeit often barely literate, unused to factory discipline, and without mechanical skills), has not only filled the demand for unskilled
factory labor, but also continually replenished a reservoir of unemployed.

Within this framework, however, there has been a general shortage of skilled workers. The Southeast Asian education systems have not been oriented towards providing a basis for mechanical skills, and only Singapore is now effectively changing a basically literary educational orientation inherited from colonial days. Higher training for technicians is particularly scarce. Most training takes place on the job with firms with foreign investment playing a particularly important role. The prevalence of "stealing" such workers then spreads the new skills throughout manufacturing. The ample supply of labor is not, however, altogether reflected in low wages or labor cost. Table 9 shows relative wages in Southeast Asia, and, for comparison, in some Far East countries. Although wage data are not very reliable because of variation in coverage, the figures indicate the range of wages in Southeast Asia.

Table 9. Wages in Southeast Asia and the Far East

<table>
<thead>
<tr>
<th>Country</th>
<th>Average earnings per day $</th>
<th>Minimum daily wage for unskilled men $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia, 1970</td>
<td>1.08</td>
<td>1.08</td>
</tr>
<tr>
<td>Indonesia, 1970</td>
<td>0.37-0.40</td>
<td></td>
</tr>
<tr>
<td>Laos, 1970</td>
<td>0.61-0.76</td>
<td></td>
</tr>
<tr>
<td>Malaysia, West, 1969</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td>Philippines, 1968</td>
<td>2.07</td>
<td>1-1.30</td>
</tr>
<tr>
<td>Singapore, 1968</td>
<td>2.51</td>
<td>1.30</td>
</tr>
<tr>
<td>Thailand, 1968</td>
<td>1.32</td>
<td>0.50</td>
</tr>
<tr>
<td>Vietnam,</td>
<td></td>
<td>0.83-1.11</td>
</tr>
<tr>
<td>China, Republic of (Taiwan), 1967</td>
<td>1.17</td>
<td></td>
</tr>
<tr>
<td>Japan, 1968</td>
<td>6.51</td>
<td></td>
</tr>
<tr>
<td>Korea, 1968</td>
<td>1.36</td>
<td></td>
</tr>
</tbody>
</table>

Thus Singapore and the Philippines are both high wage countries, but whereas this reflects relatively high skills and hence high productivity as well as relatively high earnings in Singapore, in the Philippines it is largely the result of high wage rates and fringe benefits. Malaysian rates are only a little below Singapore's, but the other countries of Southeast Asia have low wage rates which are competitive with the low wage countries of the Far East.

66. The shortage of skilled labor is as relevant as the ample supply of low priced unskilled labor to the choice of manufacturing techniques, but neither have been of overriding importance, because for both local and foreign investors, the nature of the product and the equipment available has tended to determine the choice of manufacturing process. Raw material utilization is another important aspect of this choice since modern processes are usually very economical in raw materials. The substitution of capital for labor in most industries leads to such a lowering of costs that labor intensive processes are uneconomic even at Indonesian or Thai wage rates, and competing producers in the Republic of China or Korea, moreover, generally have not only the advantage of similar low wage rates, but modern equipment as well. All these considerations, apply for example, in the textile industry. Most of the opportunities for substituting labor for capital occur in the preparation of raw materials and in end processes such as packaging, and although there are some needlessly capital intensive plants in operation, most Southeast Asian firms have taken advantage of such opportunities, and frequently use labor even when it may be more economic to use machinery. With hungry men at the factory gate most manufacturers do not have to be exhorted to use labor intensive methods. One of the causes of low labor
productivity, particularly in government enterprises but also in paternal family firms, is the excessive employment of labor in an effort to alleviate unemployment. The case of the soft hearted Filipine employer who could not stop himself from hiring needy workers from his home town until his situation became so critical that he had to bring in a foreign firm of efficiency experts to dismiss them, is not unique.

Small Scale Industries

67. Small scale industries - those employing less than ten workers or little or no power - are of course labor intensive and differ quite sharply in other respects from the modern manufacturing sector. Dutch and French colonial attempts to revive cottage and handicraft industries in the 1930s were not successful, and these industries never recovered from the nineteenth century impact of free trade. The small scale industry sector employs a small proportion of workers in manufacturing, and, with low labor productivity, contributes little to total value of manufacturing output.

68. Since the 1950s most Southeast Asian governments have again attempted to stimulate handicraft production, and there has been some success in production for exports. Specialized cotton weaving, silk weaving, batik printing, ramie and other fiber materials and products, celadon ware and wooden products have found international markets, and these could be expanded with more attention to raw material supplies, to workmanship, to the standardization of products, and to marketing. In some local markets such as for domestic utensils and building materials, handicraft industries can also hold their own for some time, only gradually giving way to machine made products as these become cheaper. However, in most products, and particularly in textiles for everyday use, handcrafts are not competitive, and protecting
them against the products of modern factories is extremely costly, leading to inefficiency, high costs, and inability to export.

69. Southeast Asian countries have very small repair and manufacturing workshops. Some of these produce spare parts for modern factories and although these are not as durable as imported equivalents they are generally very much cheaper. But there are very few workshops able to supply larger manufacturers on the lines of sub-contractors in Hong Kong, the Republic of China, Korea or Japan. The difficulties of sub-contracting are exaggerated by the locational problems of Southeast Asian industrial cities. Most of the workshops are in the old business centers of the towns while the new factories which might use sub-contractors are on the outskirts beyond the bicycling or hand cart delivery distance which gave the small enterprises in other countries their start. Where the large modern firms try to rely on sub-contracting, moreover, they often find the supplies irregular in delivery as well as quality, and tend to build up their own supplies within the factory. With so small a base, it is clear that a very considerable government effort in financial, accounting, marketing and technical advice would be necessary for ever a small improvement in this sector, and it is not surprising that there has been little achievement so far. Perhaps the greatest assistance which can be given is to enable small workshops to move to areas in close proximity to medium and large scale industry.

Competitive Structure

70. Southeast Asian countries with reasonably well developed manufacturing industries have a complex competitive structure ranging from very strong competition to pure monopsony and monopoly on a regional or national
scale. Competition is keenest in older consumer oriented industries such as simple food manufacturing, but it is also present in some newer consumer industries in which entry has not been restricted such as garment manufacture. Within Southeast Asia's small markets and given the orientation of the new industries toward middle and upper urban middle classes, imperfect competition is, however, more typical. The most prevalent form of competition is a duopoly or an oligopoly group of larger firms which are the price leaders, fringed by a number of very small firms which are able to undersell the larger firms frequently because of inferior products, lower wages or poorer working conditions. The larger firms' prices are usually pitched at a tariff level which, as a result of pressure from the industry in turn tends toward the cost structure of the least efficient of the large producers. In these circumstances the more efficient firms are able to earn considerable intra-marginal profits. While the oligopolistic structure is to some extent the consequence of competing international oligopolies such as, for example, processed milk, electrical consumer good, motor vehicle, and petroleum refinery companies attempting to gain a toehold in Southeast Asia market, it is more the result of a conjunction of protective policies with a desire to foster internal competition. However, without economies of scale, high unit costs of production are inevitable and since tariff is the determinant of price, competition is very largely confined for a struggle of market shares through advertising and marketing. Southeast Asia also has many monopsonies at the local level. These occur mainly in primary product processing and arise from low agricultural production and high transport costs which limit the collection area for local products. In this case the farmer suffers because there is only one purchaser, but products are sold
competitively on national or international markets. National monopolies also exist. These are sometimes associated with government ownership, but sometimes they are due to policy decisions which wish to ensure the exploitation of economies of scale. The manufacture of sheet glass in Thailand, with concomitant price control and exports, is one example of this policy. The limitation of motorcycle manufacture to one producer in Singapore to ensure economic backward integration and production of associated engines is another. Singapore is not interested in developing a motor car production industry in the foreseeable future. Since prices are determined by the tariff level, it is by no means clear that monopoly has higher social costs than the more prevalent oligopolistic structures. On the contrary, there is less tendency to wasteful expenditures in advertising and marketing and greater opportunities for government pressure on prices, and the eventual lowering of tariffs.

The Role of Foreign Investment

71. The costs and benefits of foreign investment in manufacturing cannot be weighed with precision since both costs and benefits are sometimes incalculable. The social costs and benefits caused by foreign investors are somewhat different from those due to local investment, and of course, foreign investment has special political implications.

72. Foreign investment has contributed about one third of the total investment in new industrial formation in Singapore, Malaysia and Thailand and about a fifth in the Philippines since the 1950s. In Indonesia, it is now becoming important, but in the other countries the contribution has been small. Although the contribution of resources, and particularly of foreign exchange resources, has been welcome, it has been outweighed by the
value of the injections of technology, management, labor training, and corporate business practices. In most cases, foreign investment contributed such production factors at lower cost than that at which governments or private entrepreneurs could have purchased them, and frequently these production factors were only available through direct foreign investment. In Singapore and Malaysia foreign investment also made a substantial contribution to the creation of a stock and capital market. Large international company stock floatations gave local private and institutional investors the confidence necessary to buy industrial stocks and notes.

Although some foreign firms have restricted their associated or subsidiary company's ability to export, foreign firms and those with foreign investment participation are playing a more important role in the development of new exports than local firms. On the debit side there have, of course, been some costs. Foreign firms tend to pay better wages and salaries than local ones, but this attracts the best workers, technicians and managers away from local firms. Revenue lost as a result of tax concessions granted to local producers has, with some exceptions, remained in Southeast Asia, while foreign investors have remitted profits after reinvestment needs were satisfied. This, however, is a question of appropriateness of tax concessions rather than of the desirability of foreign investment. Firms with foreign investment tend to grow faster than local firms because of their access to technology, management and capital, the advantage of having internationally recognized brand names and knowledge of foreign markets. Such advantages are available to joint enterprises, but purely local investors need particular encouragement to ensure that they will be able to take up opportunities in manufacturing and other areas as they appear along with
future inflows of foreign investment, thereby maintaining a strong national share in manufacturing activity. The extent to which the benefits of foreign investment are gained and costs minimized thus depends on the appropriateness of the industrialization policy mix. It is true that the purpose of foreign, as of local entrepreneurs, is to make profits, but with well-designed policies the economic benefits of foreign investment in manufacturing exceed the costs; the flow of foreign investment in manufacturing among developed countries which greatly exceeds foreign investment in developing countries is convincing evidence in support of this conclusion.

Southeast Asian countries are in a fortunate position with regard to the nationality of foreign investment, with a mix of foreign investment which includes Japan, the United States, the United Kingdom, several European countries including, of course, particularly France in Vietnam, Cambodia and Laos, and a number of smaller countries which are, however, particularly important in developing international markets. These include Taiwan (Republic of China) and Hong Kong. The Philippines is an exception because preferential treatment for American investors has limited investment, largely to United States' firms. The movement of direct foreign investment within the region has moreover also begun, not in the glamor consumer durable industries, but in the mass consumption and export-oriented industries which show far greater promise of productivity and profits.

Competitiveness and Balance of Payments Implications

Although the aim of industrialization in Southeast Asia was largely import replacement, imports of manufactured products have grown almost as fast as domestic output in most of the countries, and total import requirements
for manufacturing, which include raw materials such as cotton, have kept pace with manufacturing output. While foreign investment and suppliers' credit initially assist the balance of payments situation, eventually a capital servicing problem is created. Profit remittances are still negligible in balance of payments terms, but in Thailand and the Philippines the short term foreign obligations due to suppliers' credit have become substantial. Industrialization has thus tended to build up the Southeast Asian countries' import requirements. This would not be a problem if industry was competitive so that it was able to export manufactured products, and if it did not burden other actual or potential exporting industries or draw resources away from them to areas of production protected by high protective tariffs. Singapore has been able to export, and together with Japan and Hong Kong demonstrates that a very successful export oriented manufacturing structure can be build on mostly imported raw materials. However, in the other Southeast Asian countries most industries are not competitive, and cannot export, hinder the export of traditional and other primary products, and investment and other resources are drawn into the protected industry sector. This, and not industrialization as such, is the cause of balance of payments problems, and the remedy therefore lies in the policies towards industrialization, and particularly towards exports of manufactured goods.

75. The entry into exports of manufactured products, so much needed for balance of payments reasons as well as to enable economies of scale to be utilized in even relatively labor-intensive industries, is extremely difficult. For small local producers particularly, but for most entrepreneurs, export markets are less attractive than local markets because they are more competitive, tend to fluctuate more, and less predictably than local
markets, and because sales, transport and other communication problems are much greater than in domestic markets. Most developed countries are restrictive towards imports, particularly to imports of processed primary products and labor-intensive products such as textiles, and many developing countries are now being encouraged to compete in these limited markets. Substantial increases in the export of manufactured products are therefore not easy to achieve and require not only the offsetting of high costs created by protection but positive encouragement and in some cases practical assistance by governments. All these have been provided in Singapore. Exporters can obtain drawbacks on imported inputs without bureaucratic delays, and they receive substantial income tax concessions for developing new markets. The government has established a sales organization to assist local manufacturers to export, and it has successfully attracted foreign manufacturers to Singapore to assemble electronic products for parent firms in the United States. 1/ Such opportunities are now increasing with Japan's rising wage levels, and several Southeast Asian countries with good connections with Japanese firms could explore electronic and other component assembly for exports. European manufacturers are looking for bases for a variety of products including shoes and other leather goods, and the possibilities for working for European garment markets are not yet exhausted. Agricultural processing, particularly in new areas such as food canning, has many opportunities, and so do forest product industries where timber resources are adequate. However, these are highly competitive industries.

1/ Although Vietnam was a welcome market for Singapore's exports at a time when Singapore was turning to exports, the principal product exported has been petroleum, and the total exports have not been an important factor in Singapore's export growth being about 20 percent of manufactured products exports at their peak.
requiring a high degree of productivity for successful international competition. In some Southeast Asian countries the further processing of minerals provides new export possibilities if it can be undertaken on a large enough scale and efficiently enough to compete on international markets. All these opportunities, however, can only be exploited, if export industries are not burdened by high protection and administrative problems.

76. The possibilities of regional trade and regional co-operation in manufacturing investment have long been pressed in Southeast Asia, but with negligible results. The Southeast Asian economies are highly competitive, and with the exception of mineral endowment there is little room for specialization on the basis of differences in natural resources. The manufacturing sectors are too young and too highly protected to have developed comparative advantages which would encourage the growth of regional trade. The multi-national development of industrial projects does not appear to be very promising in spite of the obvious advantages of economies of scale. The external economies created by the forward and backward linkages of such projects can not be calculated with any degree of certainty, ownership and management would pose serious problems if there was to be public participation, and the various countries' reluctance to become involved in such projects seems well justified. 1/ Existing trade routes are still mainly oriented to trade outside the region, and this will take time to overcome.

1/ The somewhat bizarre proposals which have been suggested, such as a multi-national steelworks with iron and steel facilities in Singapore and rolling plant in Bangkol, has done little to foster such development.
Possibilities for regional trade, as countries develop some industrial specializations and comparative advantages are very great, but they are dependent on changes in protectionist policies, and it is to this that attention will have to turn if extensive trade, with attendant investment specialization, particularly by foreign investors, is to take place in the foreseeable future.
IV. INDUSTRIALIZATION, EMPLOYMENT AND URBAN GROWTH

78. Disappointment of the hopes that industrialization would lead to high employment has been the most important reason for the Southeast Asian countries' disenchantment with industrial growth. This failure, however, is not due to industrialization as such but to the Southeast Asian countries' concentration on import replacement for the westernized urban markets, and to the failure to promote labor intensive exports on a substantial scale. Singapore is an exception. Its export oriented industrialization policies have transformed unemployment levels of at least ten percent in 1966 and 1967 into low unemployment, confined largely to high school leavers whose educational qualifications are too high for unskilled or semi-skilled factory labor but who are not qualified for skilled manufacturing labor. The manufacturing workforce grew by an average of 12.7 percent per annum from 1963 to 1967, and by 23 percent from 1967 to 1968 when the impact of export promotion policies really began to be felt. Singapore is admittedly a special case. Its entrepot trade, relatively high standards of living and the concentration of the population in one urban area together with an extremely vigorous urban development program, enabled employment opportunities created by investment in manufacturing and other sectors to be fully exploited. However, many of the policies which Singapore followed apply in other countries and the extent to which other Southeast Asian countries are able to increase manufacturing employment in future depends on the industrial strategies they follow.

79. The social costs and benefits of industrialization are intimately bound up with the problems of urbanization. Industrial development has taken
place mainly in the capital cities for a number of reasons. Manufacturing industries are most economically situated when they are close both to their sources of raw materials and to their markets, although the latter is more important. In most Southeast Asian countries capital cities serve as the principal collecting points for most local raw material supplies and their ports provide access to imported raw materials. Since Southeast Asian industrialization has been highly dependent on imported raw materials this has generally meant that capital city location has provided raw material sources and market location simultaneously. Government regulations, policies and incentives have been extremely important in the development of manufacturing, and this gives manufacturers the quickest access to government departments. Managers, technicians and owners, particularly foreign staff, prefer to live in urban communities which provide the facilities associated with modern life, and in most Southeast Asian countries such facilities are only available in capital cities, so that it is therefore extremely difficult to attract managerial and technical staff to outlying areas. The capital cities, independently of industrialization have been the principal pools of labor in Southeast Asia. It is a fact of life, not only in Southeast Asia, that the most energetic and enterprising people, and particularly young people, want to move from the countryside and its provincial centers to the metropolis. The growth of industrialization has added to the attraction of the city with the promise of new and interesting as well as relatively highly paid jobs. Once a small nucleus of industry is created external economies which arise out of the agglomeration of industry make it much more economic for new industries to locate in existing industrial centers than elsewhere. Various
industrial and commercial services such as metal plating, foundries, advertising, import and export agencies and banks especially accustomed to industrial lending rather than merely commercial lending, are attracted to the area. Manufacturers benefit from the movement of workers, technical and managerial staff, from firm to firm. In countries where inventories of raw materials and spare parts have to be high to ensure continuous production in case of import difficulties, it is convenient for similar firms to be able to help each other out at short notice. Specialized textile weaving manufacturers, for example borrow fixtures from each other. In Singapore, they point out that Hong Kong, with much larger groups of specialized textile manufacturers, is more fortunate in this respect. Thus although the high cost of land and difficulties in obtaining it even at high cost pushes manufacturers to the outskirts of large cities, and although industrial agglomeration leads to the crowding of transport and port facilities, the private cost of such crowding to the manufacturer is lower than the benefit he gains from being part of the agglomeration. In terms of social cost, however, unplanned industrial development in the capital cities is uneconomic. The problems of urban growth in Bangkok, Manila and Djakarta have clearly reached the point where urban planning, or alternative solutions to urban growth, are necessary if industry is not to be burdened with excessively high costs and if cities are to be fit for human habitation.

81. Decentralization with the implication that industry should be distributed throughout a country, province by province, while widely supported for political reasons, is not a viable economic proposition. Provincial centers lack all those facilities which make location in capital cities attractive to industry and to individuals. Such facilities can not be provided in provincial
centers for many years to come. Proposals to offset the disadvantages of country location by incentives such as tax or freight concessions are generally unsuccessful. If firms take advantage of freight concessions they burden transport systems with high costs, for which there are rarely any economic returns. Decentralization of this type has not only been unsuccessful in Southeast Asia, but in the rest of the world as well.

82. An alternative to both decentralization and urban sprawl which would minimize the social costs of industrialization and bring private costs and benefits closer together to social costs and benefits, lies in vigorous urban development not only in the capital cities, but where appropriate, in a limited number of urban development poles based on provincial centers or ports which are already developing rapidly. In Thailand a second industrial center on a deep water port on the east coast of the Gulf of Thailand is urgently needed and there is room for several poles in Indonesia and the Philippines. This does not mean that provincial centers need be neglected. An improvement in the efficiency of agricultural processing presupposes some increase in the scale of individual units and their concentration around provincial centers so that, albeit on a small scale, they could take advantage of the external economies of scale which the presence of half a dozen efficient managing concerns would create. Small scale, labor intensive industries might find opportunities for local production in competition with large scale manufacturing units at the center. In due course some of these provincial centers would grow sufficiently to qualify as development poles.
The principal contribution which planning for industry can make to urban development is the creation of industrial estates of various types ranging from flatted factories and other types of mini-estates in population centers to cater for small scale and labor intensive industries whether for domestic markets or for exports, to mixed estates of small, medium and large scale industries, with both local and foreign participation. The value of an industrial estate lies in overcoming land bottlenecks and at the same time in making the provision of adequate infrastructure services more economic than if industrialization is spread throughout an urban area. It is important that industrial estates are planned for the needs of Southeast Asian industries rather than on lines suitable for European and United States industrial development. To be successful industrial estates have to be well situated with regard to ports and transport, and they should be able to take advantage of existing public utilities as far as possible. This means some hard decisions to make suitable land available, rather than delays and unworthy attempts to sell unsuitable land to industrial estate authorities. Estates should also be close to where workers live to avoid transportation problems, and the provision for small scale industry on the estate itself or its outskirts in the shape of the two-storied dwelling workshops typical of small scale industry establishments in Southeast Asia. Industrial estates can form the nucleus of demonstration metal centers, standards laboratories and industrial training for skilled workers which are important to the growth of local manufacturing enterprise. They can be used to establish and improve industrial relations. Where the reform of administration is difficult and therefore a long term prospect, industrial estates can be turned into free zone areas to avoid lengthy custom procedures.
The success of industrial estate type development also depends on the degree to which estates are integrated with the urban community. The problems of urban development have largely been shelved in Southeast Asia in the past 20 years, and with the exception of Singapore and Pnom Penh the cities have simply sprawled as they would, with chronic shortages of housing not only for the squatters who dwell on their outskirts, but also for the middle classes. Housing can play a vital role in creating employment, providing a market for industrial products, particularly for small scale industries, but again only if the problem of the availability of suitable land can be overcome. Except in Singapore housing needs are at present so great that deluxe solutions are not in order. But once land is made available at reasonable prices, middle class housing can be constructed on a large scale. In some cases the existing mortgage facilities of government insurance schemes are available, and new savings institutions can be created and directed towards this end. A start has been made on these lines in several cities, but land is the bottleneck. Housing workers presents much greater problems. It is clearly impossible to emulate Singapore's success in this direction as none of the other Southeast Asian countries have the government resources which include not only the building of low cost high rise apartments but also the very extensive social work which turns slum dwellers and squatters into apartment dwellers. However, most of the squatters in Southeast Asian cities clearly demonstrate their willingness and ability to build their own dwellings, in spite of the insecurity of tenure and the lack of sanitary services, to the most casual passerby. The mere provision of well situated small plots of serviced land for sale on easy terms to such families would be sufficient to begin the housing of thousands of people who now live in unhealthy and demoralizing squalor, decently.
85. The existing cities of Southeast Asia have some urban infrastructure facilities and frequently considerable potential for more. For example, several of the capital cities have railway lines running strategically through their center. These could be used as a trunk passenger railway system together with buses and jeepneys, providing that sensible urban transport policies, including some judgment about the use of private motor cars were adopted. This is an area where international, technical and financial assistance would be particularly useful, but it is also an area where planning and the use of local resources would have large returns.
V. PROSPECTS FOR THE 1970s

86. In most Southeast Asian countries industrialization is now at a crossroads. The further pursuit of import substituting, inward oriented industrialization strategies will lead to more high costs and balance of payments difficulties. In the Philippines industrial growth had already slowed down in the 1960s, and in Malaysia and Thailand, where achievements in import replacement are also substantial, industrial growth is in danger of slowing down in the 1970s because the relatively easy import substitution possibilities have been exhausted. An alternative, outward looking industrialization strategy, already adopted with such remarkable success in Singapore, entails a difficult and painful adjustment of policies. In the short run it may not create as many investment opportunities or as much employment as import replacement. But whereas further import replacement without reference to costs will lead to increasing difficulties and halting development during the 1970s, an outward looking strategy promises the possibility of competitive costs, exports of industrial products, and continuing, self-sustaining industrial growth with far greater long-term impact on employment than an import substitution policy.

87. A forward looking industrial strategy can not be built around specific industry targets. It is the very essence of such a strategy that it seeks rather to create a vigorous, competitive industrial sector appropriately structured to each of the Southeast Asian countries. It is true that past neglect and fiscal discrimination point to industries which at present need particular encouragement, notably primary processing, mass consumption and export oriented industries. Improved productivity is needed in agricultural processing both for local consumption and for exports, and there are opportunities in mineral processing,
particularly for exports. Increasing productivity and efficiency in mass consumption goods could reduce costs in these industries, and hence lead to larger markets, greater capacity utilization and increasing profitability. Labor intensive industries with assured markets such as electronic and other component assembly now present excellent export opportunities. By the mid-1970s, however, new opportunities may lie elsewhere, and this will certainly be so by the end of the decade. The aim of the strategy outlined here is to ensure that whatever opportunities arise - whether for large or small scale industries, whether in domestic or international markets - energetic entrepreneurs will be able to exploit them economically and profitably both for the individual enterprise and the economy.

88. The application of such an industrial strategy is difficult because it requires the coordinated use of a battery of economic policies centered around appropriate monetary and fiscal policies. It implies, moreover, not only legislative change, but also administrative reform. This is not to ignore the role which a well organized investment promotion agency can play in blockbusting through existing legislative and administrative obstacles but valuable and important though such tactics may be, they can not make up for the absence of policies appropriate to the encouragement of a competitive manufacturing sector, or for the lack of administrative efficiency. Soundly based long run development leading to self-sustaining growth requires an attack on basic policy and administrative shortcomings, that is, on the essential problem of underdevelopment itself. The time for such changes is now opportune. The years of independence have seen a considerable maturing of government administration, and well trained young men have been gaining experience in policy formulation.
and administration. A re-assessment and restructuring of policies and administrative practices is not impossible.

Protection

89. Policies determining the level of protection are the key to changes in industrialization strategy. For most Southeast Asian countries this means lowering tariffs, but revenue requirements and pressure from existing manufacturers make a reduction in tariffs extremely difficult. In most countries the first step towards a new policy therefore means not so much tariff reduction, as holding the line against further tariff increases, particularly against tariff increases for highly capital intensive industries such as petro-chemicals for which excess costs of domestic production are high and prospects of competitiveness lie in the distant future. The next steps lie in the introduction of a logical tariff structure. At its simplest this should be a low uniform ad valorem tariff of not more than 20 to 25 percent, designed jointly to meet revenue needs and provide moderate protection for domestic industries. Such a tariff is the best defense against smuggling in countries such as Indonesia, and for this reason, and because low tariffs contribute more to revenue than high ones, would also meet revenue needs. For countries whose customs administration is reasonably efficient, a more complex tariff structure, ranging from very low tariffs of five to ten percent on capital equipment and raw materials to obviate the need for exemptions, to moderate levels of 15 to 30 percent for industries which can be expected to overcome the difficulties of "infancy", is a suitable tool of industrial policy, and yet still provides adequate customs collections. Singapore with its very small population has wisely decided that for most products tariffs of even this magnitude are too high, but for the other Southeast Asian
countries this level of protection has offsetting advantages in employment and balance of payments. A logically ordered tariff of this order of magnitude of course generally provides much higher levels of effective protection. The arrangement of restructured tariffs in broad bands by industry groups rather than by individual industrial products, would also remove the temptation to reintroduce made-to-measure tariffs for particularly high cost products in the future as pressure from manufacturers builds up. Temporary tariffs, with definite notice of termination, on the other hand, can be used to assist industries with great promise. If manufacturers were given notice of the restructuring of tariffs they would be able to improve their efficiency and increase their levels of productivity, if necessary by merging units of uneconomic size.

90. Where necessary tariff reform has to be accompanied by changes in other policies which affect protection. Government may wish to keep anti-dumping instruments in reserve, but other instruments which raise the tariff, such as specific rates which come into operation merely when import prices fall, should be eschewed. Import controls such as licencing, quotas and prohibited imports lists to limit imports should be dispensed with: they provide unlimited protection. Because overvalued exchange rates make high tariffs and quantitative controls inevitable, a sensible tariff policy of course requires that exchange rates reflect the long term balance of payments situation. Southeast Asian experience suggests that when domestic prices are rising more rapidly than world market prices, timely small scale devaluations of the exchange rate are less damaging to the economy and to the national pride than the catharsis of a major devaluation.
Finally, given realistic exchange rates and moderate protection, the Southeast Asian governments should ensure that bias against exporting industries is eliminated. This not only necessitates simple and efficient drawback provisions for imported raw materials used in exports, but also subsidies to exports to offset the raised costs of local inputs which even moderate protection may entail. Such subsidies will also enable relatively small exporting units to use marginal pricing for exports. Singapore's export promotion scheme which gives entrepreneurs tax remissions on profit on exports is a simple, well directed and efficient form of subsidy.

Taxation

91. Where production taxes are significant, their restructuring is a necessary corollary to tariff reform, because along with sales and other taxes not levied on imported products, they affect the level of protection given by tariffs as well as the size of the market. In the long run all production taxes should be levied on value-added to prevent their cumulative effects, in particular the encouragement to uneconomic vertical integration. Excise taxes should bear the brunt of revenue needs because they are levied on goods with an inelastic demand. There appears to be wider scope for luxury taxes both for revenue requirements and as instruments of social policy in conjunction with urban and other desiderata, to restrict the consumption of goods which lead to high social costs. Taxes on motor cars for example could be imposed for a rational division between private and public transport, with a concomitant emphasis on trucks and buses in motor vehicle manufacturing policies.

92. In Indonesia, Vietnam, Cambodia and Laos the complex of legal duties and taxes which yield little income could apparently be abolished without a
significant loss of revenues. These countries also need substantial improvements in the standards of company accounting, and in the practices of tax collection. Where mediaeval methods of tax extortion by officials who count on a share of their tax collection as part of their income still exist, the reform of taxation administration is more important than changes in the corporate tax structure. However, where tax levels are substantially below those of developed countries, there is a strong case for increasing company taxes, if only to prevent transfers of revenue from foreign investment to developed countries. The experience of company taxation in developed countries suggests that company tax levels of 40 to 45 percent are the best compromise between meeting revenue requirements and avoiding the dangers of disincentives to investment in manufacturing. Double taxation agreements are of course an essential corollary to sensible income tax systems. Company taxes can also be used to encourage the formation of corporations by small family owned enterprises. 1/

Even moderate nominal tariffs provide substantial investment incentives if they are well structured, so that exemptions from income taxes need not be high, and should merely be used to indicate a government's support of investment in manufacturing. To minimize bureaucratic delays, and because it is usually difficult to distinguish industries which will be particularly rich in backward and forward linkages at economic cost, or to define "essentiality" in any meaningful operational way, tax exemptions should be granted broadly to investors whose financial prospects are sound and whose economic costs are not excessive.

1/ To make such incentives practical, tax administrations have to shut their eyes, perhaps for a limited period, to past trespasses. Where firms have costed investment as "current costs" the asset base of a family firm will be unrealistically low for transformation into a public company.
94. The pursuit of monetary stability is a pre-requisite to a sound investment climate, but while the maintenance of stable currencies is an advantage in international markets, absolute price stability should not be pursued at the cost of economic growth. Manufacturers, like other entrepreneurs, thrive on mild price increases of up to four or five percentage points a year. When, however, the rate of inflation rises above this level, business risks are increased, and when, as in Vietnam, inflation reaches 30 percent per annum, the entire structure of business is endangered. Measures then have to be taken to revalue capital in accordance with the decline in the value of the currency to prevent its erosion, and to ensure that positive interest rates maintain savings thereby preventing excessive consumption which will further feed inflation.

95. It is doubtful whether any short term measures can solve the critical shortage of credit which constrains the development of manufacturing in most Southeast Asian countries because it is rooted in an inequitable distribution of incomes and concomitantly low savings levels. However, in Cambodia and Indonesia a vigorous expansion of the banking system, including the fostering of private banking, offers some possibilities of improvement. Where interest rates are artificially restricted by governments, both saving and borrowing could be encouraged by a more realistic market to take the manufacturers out of the hands of the money lenders and bank managers, and into the banks proper. In most countries the development of savings institutions such as insurance companies together with the growth of adequate stock and capital markets could channel funds into manufacturing. The development of
these institutions is of course a long term prospect, but government stimuli to capital markets and non-banking financial institutions, and taxation measures favoring investment in stocks rather than in unimproved land would be useful.

Ownership

96. The promotion of local entrepreneurship to create vigorous national manufacturing classes is essential to the development of manufacturing throughout Southeast Asia and the whole complex of industrialization policies should be oriented towards this aim. Local entrepreneurs require more encouragement than foreign investors: they lack the financial resources, technical and managerial expertise; they frequently have to compete against established brand names; as entrepreneurs they are, understandably, more timid and less able to bear risk. This does not, however, mean, that the encouragement and patronage of all comers is desirable.

97. The legal framework which shapes the business atmosphere should not discriminate among investors if foreign firms are not to be discouraged, but local manufacturers can be given particular attention. The availability of credit is especially important to them, and their financial requirements should therefore be the prime concern of development banks and the international sources of finance from which these institutions mainly obtain their foreign currency funds. The provision of industrial land and factories, public utilities, technical services, standards information and inspection, and marketing assistance, particularly in the development of export markets, are other means by which governments may foster the development of strong local manufacturing entrepreneurship.

98. While the success of industrialization is intimately connected with the degree to which local manufacturing enterprise develops, this is not to gainsay
the role of foreign investors. Their contribution to financial, technical and managerial resources, and particularly in access to foreign markets, can frequently only be matched by local investors at very high cost, and sometimes not at all. But foreign investors, much more than the less experienced local investors who are more accustomed to local administrative inefficiencies, are less influenced by "handout" incentives such as tax concessions than by the total business environment, and government attention must focus on this to attract them. If the degree of change required in the legal and administrative structure is very great, and generally reasonable business conditions are hence too far off in the future, islands of efficiency can at least be created in industrial estates to enable manufacturers, both local and foreign, to escape the corrosive effects of bureaucratic malfunctioning and corruption.

99. In Indonesia and Cambodia, and to a lesser degree in Thailand and Vietnam, government ownership of industry is an obstacle to increasing efficiency and productivity. As the subsidy of government plants frequently prevents the rationalization of industries in which they are the least efficient producers, it is essential that steps should be taken to improve their performance. For the most part this requires re-organization as independently financed statutory corporations to minimize direct political interference and end the erosion of efficiency through the exercise of political patronage. They should sell in competition with other enterprises and normal taxation provisions should apply; if they are unable to survive under these conditions the alternatives of disposal or continuing government subsidy can be clearly seen. Some of the successful public manufacturing enterprises in Southeast Asia are organized on these lines, and this is the direction in which a strong public industrial sector, effectively competing with potential private monopolists,
lies.

100. The position of the ethnic Chinese is the thorniest problem in the development of manufacturing in Indonesia, Cambodia and Malaysia; together with discrimination against other minority entrepreneurial groups it is also a problem in Laos, Vietnam and the Philippines. It is not a problem beyond solution. It is true that Singapore's very successful attempt to create a multi-racial society is based on a Chinese majority, but Thailand is successfully absorbing its ethnic Chinese minority by assimilation. Discrimination against Chinese and other minorities mars the national record of several Southeast Asian countries since independence, and at times verges on barbarian mores. The concentration of entrepreneurial ability in minority groups is an unfortunate heritage of past discrimination; the social changes necessary to distribute it more evenly are taking place, but they take time. In the meantime to deny minorities the security which would enable them to invest in manufacturing lacks humanity and slows down industrial progress. Given an appropriate business framework, ethnic Chinese entrepreneurs, or for that matter foreign or other local investors, can not exploit the public by high prices or monopolistic practices. Such exploitation is not the result of ethnic characteristics, but is caused by the misapplication of policies such as protection. Entrepreneurs in the public eye tend to be model employers and competitors, less likely to endanger their situation by unfair practices than those outside the limelight. There are many examples of such ethnic Chinese entrepreneurship throughout Southeast Asia, and while others do engage in the sharp practices which the current business environment allows, and even encourages, so do the other entrepreneurs.
Labor

101. Although, with the exception of Singapore, and to a lesser extent the Philippines, wages are low throughout Southeast Asia, labor costs are not correspondingly low, and a reduction in the labor cost component of total cost, mainly by improving labor productivity, is possible in most countries. This requires a realistic attitude to fringe benefits, particularly for women, who are at present kept out of traditionally female employment opportunities in Indonesia and the Philippines by misconceived notions of welfare. In these two countries productivity could also be substantially improved by a reduction of other fringe benefits in favor of higher direct wages, while in Thailand and Vietnam, in contrast, better working conditions would assist better productivity. Singapore and Malaysia have led in industrial conditions and relations, and other countries of the region may also find that a strong trade union movement oriented towards industrial issues is an important countervailing force in manufacturing, leading to high productivity. A productivity oriented labor policy will result in rising real wages, which will contribute to the growth of markets for individual goods, but it will also entail a dynamic approach to the types of industry in which the Southeast Asian countries can specialize for exports. Rising labor cost engenders the substitution of capital for labor, increasing the premium on skill and training. The foundations of better and more appropriate primary, secondary and technical education have therefore to be laid now if such a labor strategy is to succeed. Up to a point, since productivity and real wages are growing in the rest of the world, Southeast Asia will retain some relative advantage in labor cost even if its real wages rise, but such an advantage is not, per se, a sound foundation
for continuing achievement in export oriented industries. Singapore has shown that entry into exports is possible at relatively high wages, and countries with adaptable and skilled workers will find international markets easier to enter than those which neglect their labor force.

**Industrial Location, Urban Growth and Employment**

102. Realistic policies towards industrial location and associated urban growth are among the most difficult for Southeast Asian governments to adopt because they run counter to deeply held political beliefs and against strong vested land ownership interests. It is difficult to acknowledge that people, and particularly young people prefer the metropolis and other large towns to the kampong and barrios of the countryside. It is equally difficult for provincial politicians to accept that the development of a limited number of industrial centers with populations upwards of a million is far more economic than the spread of industry throughout a country. Planned urban development which makes adequate provision for industrial estates and appropriate housing areas in most cases involves extremely difficult land appropriations. Powerful groups of urban landholders are required to recognize that they have to release their lands at moderate prices for multi-class, and often multi-racial urban development if they are not to be overtaken by political and social perils.

Providing these difficulties can be overcome, the economics of urban development, though not simple, become manageable with the creation of an adequate urban infrastructure, various types of industrial estates and housing developments. This is where the revenue at present foregone in excessive investment incentives could be spent, and in these areas international assistance, both technical and financial can play an important role. Appropriate investment in
urban development will not only provide a direct stimulus to industrial growth by solving the land bottleneck, bringing labor close to the factory, and increasing the market both for intermediate products and final consumer goods, but also make a contribution to that growth of small scale industry and employment which Southeast Asian countries are so eagerly seeking.

**Investment Incentives**

103. With the exception of Singapore and Vietnam, most Southeast Asian countries have tended to stress tax exemption incentives and neglect administrative assistance for new and existing manufactures. In the hands of paternal administrators incentive legislation ensured high levels of protection and encouraged the establishment of uneconomic oligopolistic groupings. With simplified incentive systems, there would be less scope for restrictive attitudes towards entry into industry, and together with lower tariffs and exports this could diminish the importance of oligopoly in the industrial structure. Investment agencies would have more resources to devote to assisting manufacturers to come into production. Research is required to follow up the performance of existing industry and to open new opportunities in both domestic and foreign markets. These activities envisage the creation of strong agencies outside the public services with economic salaries commensurate with the work of men negotiating with, and advising, local and international business executives. Such agencies can play an important role in all the Southeast Asian countries, but their role can be particularly important in countries where past industrialization has been slow and where administrative obstacles to industrial growth are considerable.
Industrialization and Economic Development

104. The success of industrialization does not, of course, depend only on policies directly affecting industrial development. The policies discussed thus far affect the conditions of supply for industry, but the conditions of demand - the market - are equally relevant. It is true that the export of manufactured goods is vital for healthy industrialization, but even with a substantial increase in the trade of manufactured goods, there are constraints to the expansion of exports not only on the supply side, but on the demand side as well. All the developing countries of the world are now being advised to turn to the exports of manufactured goods to solve their balance of payments, yet developed countries are reluctant to give developing countries access to their markets. Even if the developed countries behave rationally and open their markets increasingly to products in which they do not have a comparative advantage, and even if the growth of international trade is more substantial than it has been in the past, there is some danger that in goods such as textiles and canned tropical fruit in which many developing countries have an advantage, there will be gluts and overproduction. Attention to domestic markets is therefore crucial. With the exception of Singapore this means attention to agriculture, and success depends on the extent to which the "green revolution" leads to lower prices for agricultural products, higher rural incomes, or both. The "green revolution" of course also implies growing markets for industrial inputs such as fertilizers, insecticides, pesticides, fungicides, pumps, piping, and small cultivators, and at the same time promises an improved supply of agricultural products for industrial processing. Thus in contrast to past swings of policy emphasis between agriculture and industry, the pursuit of
rapid economic development should now encompass simultaneous attention to both with due and balanced concern for their infrastructure and service requirements. Success in industrialization also depends on social policies such as education, the modernization of the public service by adequate salaries, reductions in redundant officials and administrative reforms. Much closer co-ordination of policy at Cabinet level than most Southeast Asian countries practice is implied. This is undoubtedly a difficult task, but one that is more within the reach of the relatively sophisticated political and economic Southeast Asian ministries of today than it was a decade ago.

**Regional Co-operation**

105. The narrow and largely competitive structures of Southeast Asian industry suggests that regional trade and economic integration lie mostly in the future, although some steps can usefully be taken now to ensure success when regional communications are adequate, and when industries are more diversified and have developed national advantages. The process of restructuring tariffs by programming tariff reductions over a period of years could be used to indicate directions for future trade. Large scale investors could then plan in terms of regional rather than fragmented country markets. It appears that Southeast Asian countries are competing unnecessarily with each other in offering taxation incentives to foreign investors in manufacturing, and that the standardization of incentives could lead to a decrease in foregone revenues.
Postscript

106. Southeast Asia has long been a victim of circumstance; for centuries its fertile river valleys have been razed by invaders from the north, the west and the east. No sooner had its industrious peoples rebuilt their houses above the water-logged countryside and surrounded them by gardens than their lands were swept again by invaders, rent by internal warfare, flooded or parched by drought. Industrialization has become a symbol as well as a means of achieving political and economic security, of human dignity and of freedom from the periodic pestilence imposed by nature or by man. It would be fruitless to underestimate the difficulties. The countries of Southeast Asia are industrializing at a time when unlike the nineteenth century, their primary products are not in high demand. Developed countries have a competitive advantage in most industrial products, and other developing countries are competing intensely in the rest. The natural and national barriers to regional development are underlined by the divisive heritage of the colonial era. Young governments have to handle economic questions of great difficulty. Social structures entrenched from pre-colonial times have to be changed. But industrialization does remain a key component of the way ahead: granted the difficulties, the 1970s offer prospects, not it is true, of spectacular rises in industrial output, but for a change of direction in industrialization which will make a substantial contribution to self-sustaining economic development and a tolerable life for the common people.
## The Structure of Industry in Southeast Asia

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### Consumer Goods

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<tr>
<td>Subtotal</td>
<td>46,809</td>
<td>57,911</td>
<td>96,801</td>
<td>13,881</td>
<td>22,895</td>
<td>31,393</td>
</tr>
</tbody>
</table>

### Capital Goods

<table>
<thead>
<tr>
<th>Item</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Singapore</th>
<th>Thailand</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic metals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal products</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
</tr>
<tr>
<td>Machinery except</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
</tr>
<tr>
<td>Electrical machinery</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
</tr>
<tr>
<td>Transport equipment</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
</tr>
<tr>
<td>Subtotal</td>
<td>46,809</td>
<td>57,911</td>
<td>96,801</td>
<td>13,881</td>
<td>22,895</td>
<td>31,393</td>
</tr>
</tbody>
</table>

### Miscellaneous

<table>
<thead>
<tr>
<th>Item</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Singapore</th>
<th>Thailand</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtotal</td>
<td>10,178</td>
<td>10,178</td>
<td>10,178</td>
<td>10,178</td>
<td>10,178</td>
<td>10,178</td>
</tr>
</tbody>
</table>

**Note:** Figures in parenthesis are percentages of country totals.

**Cambodia**: Total value added in manufacturing in 1968 was 1,091.5 million riel. The only breakup available indicated that 45.9 percent of manufacturing value added was in food, while 53.8 percent was in other "manufacturing" industries.

**Indonesia**: Value added and work force: Institute for Research and Development, Bank Indonesia, 1968, data from "Keterlambatan." Growth rates are for enterprises with 10 or more workers. Work force in average annual employment.

**Laos**: In 1969 there were 1,115 manufacturing and repair establishments in Laos. 

**Malaysia**: Value added: unpublished figures, February 10, 1969 at factor cost.


### Appendix II


(US $ million in 1966 prices)

<table>
<thead>
<tr>
<th>Country</th>
<th>Population (thousand)</th>
<th>Gross Domestic Product (at factor cost)</th>
<th>Value Added</th>
<th>Value of Production</th>
<th>Manufacturing Sector</th>
<th>Exports</th>
<th>Imports</th>
<th>Domestic Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>4,050</td>
<td>5,470</td>
<td>7,280</td>
<td>435</td>
<td>64</td>
<td>129</td>
<td>280</td>
<td>0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>79,500</td>
<td>95,600</td>
<td>104,000</td>
<td>5,496</td>
<td>5,950</td>
<td>6,320</td>
<td>1,277</td>
<td>1,140</td>
</tr>
<tr>
<td>Malaysia, West</td>
<td>5,706</td>
<td>6,909</td>
<td>8,660</td>
<td>1,922</td>
<td>2,476</td>
<td>3,133</td>
<td>751</td>
<td>1,123</td>
</tr>
<tr>
<td>Philippines</td>
<td>21,000</td>
<td>27,400</td>
<td>35,900</td>
<td>2,879</td>
<td>3,839</td>
<td>5,278</td>
<td>272</td>
<td>622</td>
</tr>
<tr>
<td>Singapore</td>
<td>1,192</td>
<td>1,634</td>
<td>2,004</td>
<td>2,056</td>
<td>2,580</td>
<td>3,205</td>
<td>236</td>
<td>302</td>
</tr>
<tr>
<td>Thailand</td>
<td>19,600</td>
<td>25,520</td>
<td>35,900</td>
<td>1,645</td>
<td>2,580</td>
<td>3,205</td>
<td>236</td>
<td>302</td>
</tr>
<tr>
<td>Vietnam</td>
<td>9,766</td>
<td>14,100</td>
<td>16,500</td>
<td>1,645</td>
<td>2,580</td>
<td>3,205</td>
<td>236</td>
<td>302</td>
</tr>
</tbody>
</table>

---

**Notes:**

/a International Financial Statistics, International Monetary Fund; exchange rates have been applied to country data in constant 1966 prices, but they have been left in current dollars.

/b Net domestic product at factor prices.

/c 1964.

/d Includes smuggled trade.

/e At market prices.

/f 1966.

/g 1965.

**Source:**


Manufacturing Sector: Figures were taken from B. Balassa and H. Hughes, Statistical Indicators of Levels of Industrial Development, IBRD, Economics Department Working Paper No. 15, revised November 1969; 1968 figures are from unpublished country data with the exception of Singapore which was taken from the Yearbook of Statistics, Singapore, 1969.
## Employment in Manufacturing in Southeast Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Total work force</th>
<th>Work force occupied in manufacturing</th>
<th>Employment in manufacturing industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>1962</td>
<td>2,500,000</td>
<td>69,000</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>1963</td>
<td>37,084,000</td>
<td>1,940,000</td>
<td>961,000</td>
</tr>
<tr>
<td>Malaysia, West</td>
<td>1963</td>
<td>2,531,000</td>
<td>162,000</td>
<td>101,000</td>
</tr>
<tr>
<td>Philippines</td>
<td>1961</td>
<td>9,116,000</td>
<td>1,036,000</td>
<td>338,000</td>
</tr>
<tr>
<td>Singapore</td>
<td>1966</td>
<td>629,000</td>
<td>515,000</td>
<td>250,000</td>
</tr>
<tr>
<td>Thailand</td>
<td>1963</td>
<td>15,075,000</td>
<td>515,000</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>1966</td>
<td>5,133,000</td>
<td>120,000</td>
<td></td>
</tr>
</tbody>
</table>

### Notes and Sources:

Total work force and work force employed in manufacturing figures are based on population census data. The differences between "work force occupied in manufacturing" and "employment in manufacturing industry" arise from different methods of data collection. The former is based on answers to census occupation questionnaires by persons who regard themselves as occupied in industry, some of whom, however, may in reality be handicraft, service or repair workers, even on a part-time basis, whereas the latter is based on actual employment records of manufacturing firms.

- **Cambodia:** Unpublished data, Ministry of Planning.
- **Indonesia:** Work force data from 1961 population census, Central Bureau of Statistics adjusted by the 1961-63 population growth rate; employment in manufacturing from Pendapatan Nasional Indonesia Menurut Lapangan Usaha, Djakarta 1967 (mimeographed). Employment figures only cover establishments with 10 or more workers.
Appendix IV
Selected Tariffs in Southeast Asia

<table>
<thead>
<tr>
<th>Product</th>
<th>Cambodia (a)</th>
<th>Indonesia (b)</th>
<th>Laos (c)</th>
<th>Malaysia (d)</th>
<th>Philippines (e)</th>
<th>Singapore (f)</th>
<th>Thailand (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-durable consumer goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat flour</td>
<td>20%</td>
<td>8% to 10%</td>
<td>30%</td>
<td>0%</td>
<td>pesos 2.50/100 kg</td>
<td>0%</td>
<td>baht 3.00/kg or 30%</td>
</tr>
<tr>
<td>Cotton fabrics</td>
<td>120% to 170%</td>
<td>80% to 120%</td>
<td>10%</td>
<td>30%</td>
<td>50% to 100% or 125%</td>
<td>0%</td>
<td>baht 10.00/kg or 60%</td>
</tr>
<tr>
<td>Fabrics of synthetic fiber</td>
<td>70%</td>
<td>150%</td>
<td>30%</td>
<td>10% to 25%</td>
<td>pesos 3.90/kg or 150% to pesos 6.50/kg or 100%</td>
<td>0%</td>
<td>baht 10.00/kg or 60%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>5% to 15%</td>
<td>10% to 20%</td>
<td>15%</td>
<td>0% to 25%</td>
<td>0% to 25% or $0.50/lb.</td>
<td>0% to 30% or $0.50/lb.</td>
<td>0% to 50% or 20% to 75%</td>
</tr>
<tr>
<td>Durable consumer goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerators</td>
<td>30%</td>
<td>100%</td>
<td>50%</td>
<td>20%</td>
<td>baht 50.00/unit or $250/unit</td>
<td>30%</td>
<td>50% to 80% or 25% to 50%</td>
</tr>
<tr>
<td>Television sets</td>
<td>30%</td>
<td>100%</td>
<td>50%</td>
<td>30% to 100%</td>
<td>baht 50.00/unit or $250/unit</td>
<td>30%</td>
<td>0% to 80% or 25% to 50%</td>
</tr>
<tr>
<td>Automobiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CKD</td>
<td>15% to 15%</td>
<td>50% to 100%</td>
<td>50%</td>
<td>0% to 100%</td>
<td>pesos 11/100 kg</td>
<td>30%</td>
<td>50% to 80% or 25% to 50%</td>
</tr>
<tr>
<td>Assembled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cement, Portland</td>
<td>25%</td>
<td>25%</td>
<td>20%</td>
<td>50% to 120/ton</td>
<td>pesos 3.90/100 kg</td>
<td>0%</td>
<td>baht 50.00/ ton or 120/ton</td>
</tr>
<tr>
<td>Nitrogenous fertilizers</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>125%</td>
<td>pesos 3.90/1kg</td>
<td>0%</td>
<td>baht 0%</td>
</tr>
<tr>
<td>Phosphatic fertilizers</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>20%</td>
<td>pesos 3.90/1kg</td>
<td>0%</td>
<td>baht 0%</td>
</tr>
<tr>
<td>Polyvinylchloride</td>
<td>30%</td>
<td>5%</td>
<td>10% to 20%</td>
<td>25%</td>
<td>pesos 3.90/1kg</td>
<td>0% to 35%</td>
<td>25% to 60% or 25% to 60%</td>
</tr>
<tr>
<td>Kraft paper</td>
<td>30%</td>
<td>60%</td>
<td>10%</td>
<td>0%</td>
<td>pesos 2.50/kg or 100%</td>
<td>0%</td>
<td>baht 2.50/kg or 100%</td>
</tr>
<tr>
<td>Cotton yarn</td>
<td>20%</td>
<td>10% to 15%</td>
<td>11 kip/kg</td>
<td>0%</td>
<td>baht 6.00/kg or 150%</td>
<td>0%</td>
<td>baht 5.00/kg or 150%</td>
</tr>
<tr>
<td>Cotton grey cloth</td>
<td>10% to 10%</td>
<td>8% to 10%</td>
<td>76 kip/kg or 120/ton</td>
<td>10% to 15%</td>
<td>pesos 2.50/kg or 150%</td>
<td>0%</td>
<td>$0.25/kg</td>
</tr>
<tr>
<td>Capital goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel sections</td>
<td>20%</td>
<td>0%</td>
<td>10%</td>
<td>0% to 80/ton</td>
<td>pesos 9.00/1ton or 80/ton</td>
<td>0%</td>
<td>baht 0.50/kg or 100/ton</td>
</tr>
<tr>
<td>Tin plates</td>
<td>20%</td>
<td>0%</td>
<td>10%</td>
<td>0%</td>
<td>baht 0.75/kg or 100/ton</td>
<td>0%</td>
<td>2.50 to 170%</td>
</tr>
<tr>
<td>Steel wire</td>
<td>20%</td>
<td>0% to 10%</td>
<td>15%</td>
<td>0%</td>
<td>pesos 16/100 kg or 75%</td>
<td>0%</td>
<td>baht 0.70-1.50/kg or 25% to 100%</td>
</tr>
<tr>
<td>Tractors CKD</td>
<td>20%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0% to 10%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Assembled</td>
<td></td>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0% to 10%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note: In cases where both specific and ad valorem tariffs apply, the higher one applies.

(a) As of 1969; these tariffs represent the minimum level that applies to GATT members and countries in the Socialist bloc which have a special treaty with Cambodia.
(b) As of May 1969.
(c) As of June 1969.
(d) As of March 1967.
(e) As of December 1969.
(g) As of October 1969.
(h) As of April 1969.
(i) As of December 1969.
(j) As of March 1967.
(k) As of October 1969.
(l) As of November 1969.
(m) As of December 1969.
(n) As of May 1968.
(o) As of November 1969.
(p) As of December 1969.
(q) As of May 1968.
(r) As of November 1969.
(s) As of December 1969.
(t) As of May 1968.
(u) As of November 1969.
(v) As of December 1969.
(w) As of May 1968.
(x) As of November 1969.
(y) As of December 1969.
(z) As of May 1968.

Sources: Country tariff schedules.