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ECONOMIC DEVELOPMENT OF ASEAN COUNTRIES
AND THEIR PROSPECTS FOR NIC STATUS

By

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ABSTRACT

This paper attempts, first, to make an overview of the economic development of Indonesia, Malaysia, the Philippines, and Thailand in the postwar period (especially since the 1960's) from both macro and industry levels and, then, to investigate their prospects of attaining the status of NICs (Newly Industrializing Countries) in the near future. The latter topic is discussed in the light of the concepts of NICs employed by OECD and E. Balassa around 1980. Tables 6 and 7 provide the corresponding data which are comparable across countries over time.

Economic Development of ASEAN Countries and Their Prospects towards NICs

by

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1. Introduction

The purpose of this paper is to make an overview of the economic development of Indonesia, Malaysia, the Philippines, and Thailand in the postwar period (especially since the 1960's) from both macro and industry levels, and to investigate their prospects of attaining the status of NICs (Newly Industrializing Countries) in the near future. These four countries are members of ASEAN (Association of South-East Asian Nations), which was founded in 1967, and so will be called "ASEAN4" throughout this paper.¹ The term "NICs" is used here rather than the term "NIEs (Newly Industrializing Economies)" to maintain consistency with OECD [1979, 1988], but "NICs" should be replaced by "NIEs" when Taiwan and Hong Kong are referred to.

The author has in mind the theory of dualistic development as a methodology in analyzing the economic development of ASEAN4.² In other words, the economic development in each of the ASEAN4 countries is understood as the process in which the center of gravity in growth shifts from primary sectors (agriculture, in particular) to non-primary ones (manufacturing or industrial sector, in particular). Here, the industrial sector is considered as the leading sector for development.³ Its growth leads the

growth of the whole economy but must be supported by the corresponding expansion in exports. This is because the industrial development requires imports of industrial raw materials and capital goods and, in general, exports make the importation possible.

The exportation, which supports growth and development of the industrial sector as well as of the whole economy, may be made either by the industrial sector itself (i.e., exports of manufactured goods) or by the primary sector (i.e., exports of primary commodities). The Asian NICs (Korea, Taiwan, Hong Kong, and Singapore), which are poor in natural resources, all pursued for the outward-looking, export-oriented industrialization from the beginning, and realized rapid development due to a favorable expansionary circle of exports and investment, which may be schematized as follows: exports of manufactured goods --> imports of intermediate and capital goods --> investment --> productivity increase --> (import substitution) --> exports.⁴ On the other hand, ASEAN4 countries are rich in natural resources and their industrialization depends more or less on the exports of primary commodities. Prices of primary commodities including oil began to decline steadily from the beginning of the 1980's. One of the crucial problems which the four countries in ASEAN are now facing in their process of industrialization is, therefore, how to reduce and lessen the degree of dependence on primary exports, on the one hand, and how to realize the expansionary circle of manufacturing exports and investment, on the other.⁵

Economic development of ASEAN4 since the 1960's may be characterized generally as follows from the point of view of industrialization: "import substitution" for the 1960's, "import substitution and export orientation" for the 1970's, and "structural adjustments" for the 1980's. This characterization of each decade describes just the average path of development or industrialization of the four countries so that each of the four, of course, may deviate more or less from the average path. For example, the phase of import substitution in the Philippines began as early as in the 1950's. The phase of import substitution and/or export orientation in Indonesia came a decade later than above. Furthermore, structural adjustments are quite different in contents between the four countries.

The author has in mind the following key words as the most important characteristic of each individual economy in analyzing its development overtime through decades: "oil" for Indonesia, "New Economic Policy (NEP)" for Malaysia, "crony capitalism" for the Philippines, and "stability-orientation" for Thailand. "Oil" means Indonesia's heavy dependence on petroleum in the past and recent efforts to overcome it. "NEP" means Malaysia's pursuit for equity by bumiputra policy probably at the cost of efficiency in the short-run. "Crony capitalism" in the Philippines symbolizes the collapse of market mechanism through rent-seeking activities during the Marcos period. "Stability-orientation" summarizes the balanced economic management and moderate but steady growth in Thailand.

In section 2, we will review very briefly the economic levels, growth performance, structural changes, and commodity problems for the ASEAN4 countries based on Tables 1, 2, 3, 4 and 5 as well as on Figures 1 and 2. In section 3, we will discuss in some detail the prospects of ASEAN4 to become NICs based mainly on tables 6 and 7.

2. An Overview of the Development of ASEAN4 Countries

Table 1 summarizes such basic indicators as population, area, GDP, and so on for ASEAN4 countries, Japan, and the United States in a comparable way. From the upper part of Table 1, we can see that total economic size of ASEAN4 in terms of GDP is only 8% of Japan and 4% of USA, while average income of ASEAN4 in terms of per capita GDP is only 3% of Japan or USA. This low level of ASEAN4 as compared with Japan or the United States is partly due to the exchange rate used in international comparison. The middle part of Table 1 shows the rates of deviation between exchange rates and purchasing power parities for ASEAN4, which indicate a huge undervaluation of the exchange rate vis-a-vis the purchasing power parity (i.e., from 68% for Indonesia to 52% for Malaysia). When the comparison is made based on the purchasing power parity, total GDP of ASEAN4 increases significantly (almost 3 times) as shown in the lower part of Table 1, exceeding total GDP of Asian NICs by 60% (but 5% less based on the exchange rate conversion).⁶ Average per capita GDP of ASEAN4, however, is only 12% of USA, indicating still a large income gap in spite of

the upward revaluation of income by three times based on the purchasing power parity.⁷

Table 2 summarizes average growth rates of GDP and its components for each decade in a comparable way between ASEAN4 and some selected countries or groups of countries. We can derive three major facts for the growth performance of ASEAN4 from the table. First, the 1970's was the period of high growth while the 1980's (at least until the middle of the decade) the period of stagnation or of low growth for ASEAN4. This is more or less true for other countries. Second, all the countries in ASEAN4 in the 1970's did much better than any of other countries or groups in growth performance. This rapid growth was led by the industrial sector, especially the manufacturing industry. Third, the performance of the four countries diverged in the 1980's. The Philippines was dropped from the group due mainly to political turmoils and debt crisis. The remaining three all suffered from recession experienced by industrialized countries in the early 80's as well as from stagnation in primary commodity prices almost throughout the decade, but still maintained relatively better performance compared with most of other countries and groups.⁸

ASEAN4 (except Indonesia) changed their industrialization strategy from 'import substitution' to 'export promotion' (plus import substitution) around 1970.⁹ This change took momentum through the promulgation of such promotion or regulation acts as investment incentives act, export incentives act, export processing zone act and so on, in the period from 1967 to 1972 in the

case of Malaysia, the Philippines and Thailand. Indonesia also introduced similar acts from 1967 to 1970 but mainly for the purpose of import substitution. In Indonesia, export promotion began to be stressed only after the sharp decline in oil price of March 1983.

As shown in Table 3, the manufacturing industry increased its share in GDP steadily from 1970 to 1986 (or 1987) in each of the ASEAN4 countries due to its rapid growth especially in the 1970's. The share of manufactured goods (SITC 5-9) in exports also increased steadily and rapidly in all of the four countries (though mostly in the 1980's in the case of Indonesia). The Philippines' achievement seems to be a little misleading because of the unusually high share of SITC 9, most of which consists of production by consignment with a limited amount of net foreign exchange earnings.¹⁰ The employment structure seems to be a problem in that the share of manufacturing in total employment is still very low compared with the share in total production (GDP), indicating low absorptive capacity of the sector in most cases.

Table 3 indicates also that ASEAN4 still depends heavily on the exports of primary commodities (SITC 0 to 4 including processed food¹¹) though the Philippines may probably be regarded as an exception. Furthermore, the share of exports in GDP on the expenditure side is remarkably high in Malaysia and fairly high in Thailand, so that prices of primary commodities are expected to have had significant effects on economic growth in the ASEAN4 countries except for the Philippines. This can be confirmed by

Fig.1 and Table 4, which shows fairly strong correlations between GDP growth and changes in primary commodity prices. Malaysia's correlation is steady and strong as is expected. Though correlation coefficients mean bilateral relations but not causal ones, we may be able to interpret the results in a causal way from price changes to economic growth. Primary commodity prices are, in general, an external exogenous factor to each of the ASEAN4 countries.

Primary commodity prices are strongly correlated with world income or world demand, which is also an important external exogenous factor to ASEAN4. Taking changes in these two exogenous factors as external shocks on the balance of payments, Table 5 evaluates quantitatively the amount of shocks by decomposing it into four policy responses or adjustments, through which the shocks are absorbed, for the four countries of ASEAN4 as well as for some of the NICs and Japan. Note that real (i.e., relative) prices of primary commodities are replaced by terms of trade (i.e., export prices/import prices). Note also that the analysis here covers from 1973/74 to 1982/83 which includes only the period of oil price hikes, resulting in a period of external bonanza for Indonesia and Malaysia but in a period of negative external shocks for the Philippines and Thailand. As to the policy responses to external shocks, Thailand's response is in rather striking contrast to that of the Philippines. In Thailand, world market penetration and import substitution played significant roles in absorbing shocks, and the dependence on exter-

nal borrowing was limited to one half to two-thirds of total shocks. On the other hand, the Philippine dependence on external borrowing is 80 to 100%. The Thai behavior looks somewhat like the behavior of Korea or Taiwan, where the adjustments by world market penetration and import substitution are quite significant and large.¹²

3. Prospects of ASEAN4 towards NICs

3.1. Definition of NICs (Newly Industrializing Countries)

Is it possible for ASEAN4 (i.e., Indonesia, Malaysia, the Philippines, and Thailand) to become NICs in the near future? Or are they already members of the NICs? In order to answer this question, we must discuss first what NICs really mean or what is the definition of NICs. The term "NICs" appeared first in OECD [1979], in which ten middle-income developing countries were taken as samples for NICs, i.e., Korea, Taiwan, Hong Kong, Singapore, Brazil, Mexico, Greece, Yugoslavia, Spain, and Portugal. Analyzing their rapid industrialization in the 1960's and 70's as well as their impacts on OECD countries,¹³ the report points out four characteristics which are common to these ten countries. (1) They are pursuing for the outward-looking growth policy (which means to promote growth by exports). (2) They are increasing the shares in world industrial production and exports. (3) Domestically, they are increasing the shares of manufacturing industry in total production, total exports and total employment.

(4) They are rapidly reducing the gaps in per capita income (real GDP) vis-a-vis the industrialized countries. These are the dividing lines drawn by OECD between NICs and the other LDCs. The lines, of course, are not regarded as constant. Some may go out from the group, while others may enter into the group as new members.

Another definition is given by Balassa [1981], where he analyzed quantitatively (as in Table 5) how the NICs coped with the first oil shock and the world recession during the period 1974-1978. In the analysis, he selected as NICs the countries (1) with per capita income higher than 1100 US dollars in 1978, and (2) with the share of manufacturing industry in GDP higher than 20% in 1977. Though his terminology is not NICs but NIDCs (Newly-Industrializing Developing Countries) and his selection of countries is different a little from that of OECD [1979], his definition above seems worthwhile to be considered here.

3.2. Current Situation of ASEAN4

Key indicators for ASEAN4 corresponding to the definitions of NICs by OECD and Balassa above are summarized in Tables 6 and 7, where consistent comparisons are possible between four countries of ASEAN and most of the NICs countries in the 1979 OECD report. Let us first investigate three kinds of data on per capita GDP in Table 8. The upper part of the table shows nominal per capita GDP in US dollars converted by foreign exchange rates of each year. Malaysia, in particular, should be noted in that

its per capita GDP already exceeded US\$ 1100 at the time of 1978. As mentioned in section 2, the exchange rate conversion is misleading in the case of international comparison since it does not reflect purchasing power parity correctly. The exchange rate is not useful for overtime comparison, either, since it changes frequently. In fact, the exchange rate is devalued in most of the countries that experienced zero or minus growth in nominal per capita GDP in the first half of the 1980's.

The middle part of Table 6 shows nominal per capita GDP in I\$ (international dollars) converted by purchasing power parities of each year. "I\$" is the unit to be used in the multi-country comparison of purchasing power parities. Its conversion rate with US\$ is one (1.0). It depreciates overtime in case of world inflation. The 1987 data for ASEAN4 are estimated approximately for reference purposes. Correct international comparison is possible at least for each year based on the data in the middle part of Table 6. In 1978, for example, relatively low income countries among NICs were Korea (whose per capita income is 22 when US is taken as 100), Taiwan (23) and Brazil (26). Again, Malaysia (23) attained a comparable level with those countries. Thailand (14), the Philippines (13), and Indonesia (8) were far from Korea and Taiwan. In 1987, Thailand (14) and Indonesia (9) maintain its position vis-a-vis the United States almost unchanged, but the Philippines (10) decreased its relative position significantly (due to the financial crisis and its aftermath from 1983 to 1985) and became closer to Indonesia.

The lower part of Table 6 shows real per capita GDP in international dollars (I\$) at constant 1980 prices. Based on the data, consistent comparisons are possible both internationally and overtime. In other words, the absolute level of income of some country in some year can be compared directly with those of other countries in other years. For example, Korean per capita GDP in 1978 was I\$ 2411 (at constant 1980 prices). Thai per capita GDP in 1987, on the other hand, reached the level of I\$ 2012 (at constant 1980 prices), which was more than 80% of the Korean level in 1978 mentioned above. In the case of Malaysia, its per capita GDP in 1987 (I\$ 3507) was almost equal to that of Taiwan in 1985 (I\$ 3581) and even higher than those of Korea and Brazil in 1985 (I\$ 3056 and I\$ 3282, respectively). As far as income level is concerned, therefore, Thailand is standing just in front of the entrance of NICs, while Malaysia is standing shoulder to shoulder with some of the NICs. Indonesia and the Philippines in 1987 attained almost the same level as Korea and Taiwan in 1970 or about a half of the level of two countries in 1978. It takes 14 years (i.e., from 1987 to 2001) for Indonesia and the Philippines to attain the level of Korea and Taiwan in 1978, even if their per capita income will grow at a rate as high as 5% steadily.

Let us next compare the structure of production, employment and exports between ASEAN4 in recent years and NICs around 1978 (See Table 7). The dividing line between NICs and other LDCs is whether or not the share of manufacturing sector in total GDP

exceeds 20% (according to Balassa's definition). Table 7 shows that all of the ASEAN4 except Indonesia passed through this line in 1986 (See Table 3 for Malaysia where the share in real terms was 22% in 1987). As to the share of industrial sectors including mining, construction, and public utilities, all of the ASEAN4 attained at least the level of Greece in 1986. As to the share of manufacturing goods in total exports, all of the ASEAN4 except Indonesia were in the level of Mexico and Brazil in 1986 or close to the level of Singapore and Taiwan in 1977. The problem here is the employment structure. The share of industrial employment is far smaller in ASEAN4 than in NICs. Though the employment data in Table 7 are only for 1981, the employment structure of ASEAN4 may be said to remain almost unchanged between 1981 and 1986 (or 1987), judging from the data of Table 3. The only exception is Malaysia, whose share increased up to 22% in 1987 but still as low as the level of Mexico in 1978. Industrialization in ASEAN4 clearly lags behind NICs in the aspect of employment structure. This is especially true for the labor absorption by manufacturing industry.

So far for a quantitative investigation of the current situation of ASEAN4 in terms of the definition of NICs given by ORCD [1979] and Balassa [1981]. There still remain three points to be discussed in relation with the definition of NICs. The first point is the share of manufacturing industry in both world production and exports. It is difficult or misleading to compare productions internationally due to frequent changes in exchange

rates, but the comparison of exports is easier because data for exports in US dollars are directly available. A rough calculation based on World Bank's World Development Report confirms that each of ASEAN4 countries increased its share in world manufacturing exports rapidly from 1978 to 1986 (though the level is still very small).¹⁴ The second point is whether or not the ASEAN4 countries are adopting the outward-looking policy for growth. The answer is yes. All of the ASEAN4 countries changed their industrialization strategy from "import substitution" to "export promotion" around 1970 (or early 1980's in the case of Indonesia) as mentioned in section 2. Such outward-looking policy continued also during the period of structural adjustment in the 1980's. The third point is the rapid reduction of income gaps vis-a-vis the industrialized countries, on which we can see from Table 2 only for Malaysia and Thailand that per capita GDP growth in the first half of the 1980's (1980-86) was a little higher than that of the industrial economies (2.1% for Malaysia and 2.8% for Thailand versus 1.8% for industrial economy). Growth rates in recent years (1987-88) of the two countries, however, are remarkably accelerated as will be discussed later.

The conclusion which can be derived from the discussions so far is as follows. As far as the static quantitative criteria are concerned, it is small wonder that Malaysia is classified as a NIC. When industrialization in employment structure progresses further, it will be more reasonable to classify Malaysia as a NIC, but a problem seems to remain uncertain as to whether or not

Malaysia will reduce its income gap rapidly vis-a-vis the industrial economies. Thailand is now standing just in front of the entrance to the group of NICs. However, industrialization in employment structure lags seriously behind other aspects of industrialization. How to promote labor absorption in the manufacturing industry is the most crucial problem for Thailand towards a NIC. Whether Indonesia and the Philippines are NICs or not seems to be the topic to be discussed at least 10 years later. Indonesia is in the on-going process of structural adjustment towards a less oil-dependent economy, while the Philippines is also adjusting its economic structure towards recovery and sustained growth away from the economy which caused the debt crisis and its aftermath.¹⁶

3.3. Outlook of Malaysian Economy¹⁸

A favorable factor for Malaysian industrialization or economic growth in recent years is the fact that direct investment from foreign countries, especially from Japan, has been increasing rapidly since 1986.¹⁷ Approved amounts of foreign direct investment increased by 61% in 1986, by 43% in 1987, and by 200% (3 times) in the first half of 1988 compared with the first half of 1987. Total amount approved was about 280 million US dollars in 1987. Malaysian economy is recovering steadily from the negative growth in 1985, realizing 5.2% growth in real GDP in 1987 and 7.4% in 1988. Major factors for this recovery are, first, the expansion of manufacturing exports and, then, the rapid increase

in foreign capital inflows. An important characteristic of foreign direct investment in Malaysia is its fairly big impacts on employment creation. For example, the increase in employment from 1981 to 1988 was about 680 thousand in total, of which 260 thousand or 40% is said to be created by foreign investment. Regulations on investment are now being alleviated progressively in Malaysia, so that foreign capital inflows will continue at a rapid pace at least for several years. Industrialization in employment, therefore, will accelerate further in the Malaysian economy with total employment of only 6 million, intensifying the process towards the status of a NIC.

There are two unfavorable factors on the development of Malaysian economy. One is the weak point inherent in the economy dependent on foreign capital. Another is the future of "New Economic Policy (NEP)." Malaysian industrialization is dependent on exports of manufactured goods such as textiles and electronics which are produced mainly by joint ventures centering around free trade zones and bonded areas. Local manufacturing firms in Malaysia are not so matured even compared with those in Thailand, since Malaysia has neither a big population size nor a long history of industrialization. Production activities of joint venture firms generally take the following path: from imports of raw materials to labor intensive assembly, and then to exports of manufactured goods. Therefore, they do not have strong linkages with local industries or firms, and the value added in Malaysia consists mainly of wages only. It is the key task for

Malaysia to attain the status of NIC in the true sense of the words that the economy will strengthen the domestic basis of manufacturing industry, raising the domestic part of value added in the export industry.

Industrialization in Malaysia was promoted mainly under the government initiative in favor of the bumiputera Malaysians. This is so called "New Economic Policy (NEP)." Discussions on post-NEP have been actively made since 1987. The present NEP, which was started in 1971 with the year 1990 as target, aimed at (1) eradicating poverty, (2) attaining 30% of capital for bumiputera, 40% for other Malaysians, and 30% for foreigners, and (3) reallocating employment in proportion to the ethnic composition. In other words, the equity between ethnic groups has been pursued for under government interventions probably at the cost of losing some efficiency at least in the short-run. Post-NEP is said to continue the bumiputera policy, promoting growth and industrialization mainly through foreign direct investment. How to make both equity and efficiency compatible and how to domesticate industrialization seem to be the most important targets in the long run.¹⁸

3.4. Outlook of Thai Economy¹⁹

Problem (or originality in a sense) of Thai industrialization lies in the fact that the employment share of manufacturing industry did not accompany the production share of that industry. In other words, the manufacturing industry which produces more

than 20% of GDP employs less than 10% of total labor, while the agricultural sector which employs almost 70% of total labor produces only less than 20% of GDP. This implies very low level of productivity or income in the agricultural sector relative to other sectors. Or this may be interpreted as the degree of sacrifice which the agricultural sector offered for the sake of other sectors by maintaining a vast amount of underemployed labor in the rural area. In Thailand, the problem of income distribution has been one of the most important issue to be resolved since the third five-year economic plan (1972-76), and the government actively implemented various policy measures such as promotion of rural industries, regional dispersion of industrial location, assistance to small scale industries and so on in order to reduce income gaps between rural and urban areas and also between regions. The main purpose of these policy measures may be said to promote the absorption of surplus or low-income labors in agriculture by the non-agricultural sectors, especially by the manufacturing industry.

This problem is related with a new proposal made in the sixth economic plan (1987-91): NAIC (Newly Agro-Industrializing Country). It means an export-oriented country centering around agriculture, fishery and livestock, and their processing (i.e., agro-industry). Thailand succeeded in diversifying agricultural products for exports, and is now a major food-exporting country. NAIC is the strategy along this line but seeks more value added by further industrialization in exports. This strategy seems to

be suitable for the Thai economy which maintains still a huge rural population, reflecting the Thai character of balanced economic management aiming at slow but steady progress. The strategy towards NAIC, however, is regarded as transitional and partial, since agro-industries have only weak linkages with other industries and their impacts on technology accumulation are relatively small. The government of Thailand aims at becoming a NIC in the long run, and the machinery industry is also emphasized as a strategic one in the sixth economic plan.

The Thai economy has been growing steadily since the trough in 1986. Its growth rate in GDP was 7.1% in 1987 and 10.5% in 1988. This rapid expansion of the Thai economy was led mainly by exports and the export expansion is caused by rapid increases in foreign direct investment as in the case of Malaysian economy (or more than that). Applied amounts of foreign investment in Thailand increased by 67% in 1986, by 360% (i.e., 4.6 times) in 1987, and by 200% (i.e., 3 times) in the first half of 1988 relative to the first half of 1987. Total amount of applied foreign investment (incorporating also local capital) was 6.5 billion US dollars in 1987. Among foreign investors, Japan was dominant in value, but Taiwan attained the highest growth in terms of number. In the case of Japanese investment, its destination covered a wide range of industries such as electric appliances, electronics, transportation equipments, metal products, textiles, agricultural and fishery products, and so on. Furthermore, 3/4 of its applied applications were export-oriented ones with export

ratios ranging from 80% to 100%. In the case of Taiwanese investment, it concentrated on labor intensive, export-oriented, light-industry products such as sports goods, shoes, bags, etc., in which Taiwan has lost its international competitiveness. It must be noted that those foreign direct investments are now shifting their locations from Bangkok to remote prefectures in accordance with the changing investment incentives, by which the Thai government attempts to avoid excessive concentration in Bangkok area and to realize balanced development between regions.²⁰

Manufacturing industry surpassed agricultural sector in terms of production in 1984 and in terms of exports in 1985. As to the structure of employment, agricultural labor maintained its share constantly around the level of 70% until 1984, but the share began to decrease from 1985 and is a little over 60% now. Foreign investment boom in recent years will surely accelerate this declining tendency. The Thai economy seems to be dashing towards the entrance of NICs with dynamism, having passed through the so to speak "turning point" in the theory of dualistic development.²¹

FOOTNOTES

1. The two remaining member countries of ASEAN, i.e., Singapore and Brunei, are not allowed for here, because the former already belongs to the group of NICs and the latter, which joined ASEAN in 1984, is a very small country with the population of only 230 thousand (but with the income more than 15,000 US dollars due to oil).
2. See Lewis [1954], Jorgenson [1981], Fei and Ranis [1964], etc. for the theory of dualistic development. See Yasuba [1980, Ch.5] and Watanabe [1986] for the dualistic analyses of Japanese and Asian development, respectively.
3. Riddle [1986], for example, emphasizes service-led growth, but the possibility that the service sector becomes a dynamic engine for development seems to be small since most of its products are non-tradables and its technological dynamism is not so strong as in the industrial sector. See Yoshihara [1985, Ch.5] for the importance of technology and trade in economic development.
4. See Watanabe [1989, Ch.4] for the details of this mechanism.
5. Ichimura [1988] classifies Asian economic development into five types: (1) resource-poor NICs, (2) resource-rich ASEAN4, (3) agricultural South Asia, (4) gigantic China and India, and (5) socialist countries, proposing different development strategies for different types of economies. The analysis of this paper is similar to the strategy proposed for the resource-rich ASEAN4.
6. Data for Asian NICs are obtained also from the PC diskettes of Summers and Heston [1988].
7. The income disparity between countries of this class may not be surprising if we consider the domestic income disparity between poor and rich households. Average income of the top quintile is, approximately, four times of that of the bottom quintile in Japan, eight times in the United States, more than ten times in Thailand and the Philippines (See Limkul and Ikemoto [1986] and Habito [1988]).
8. Countries with average annual growth rate of GDP exceeding 5% for 1980-86 are only eight in number such as China (10.5%), Pakistan (6.7%), Korea (6.2%), Hong Kong (6.0%), Singapore (5.3%), etc.
9. See, for example, Yamazawa and Hirata [1987] for the details.
10. Such production process is limited also in the linkages with other domestic industries and the extent of technology transfer. Malaysia faces more or less the same problem.

11. Note that exports of tin or copper ores and concentrates are classified as SITC 28 but those of their products as SITC 68. Most of SITC 68 in ASKAN4 may be regarded as primary commodity exports.

12. Such adjustments are large enough to reduce external debts or to increase external assets. The decomposition analysis for the 1980's seems to be quite interesting and important especially for Indonesia and Malaysia, which faced severe external shocks caused by drastic declines in oil and other primary commodity prices.

13. The OECD report of 1978 analyzes the development of NICs from the point of view of the challenge and menace to OECD countries in production and employment. The report, however, reaches a conclusion that OECD gained more than lost due to positive effects of interdependence. On the other hand, an interesting point in the recent report (OECD [1988]) is the analysis based on the theories of dynamic comparative advantage and product cycle that the challenge of NICs is caused partly by OECD itself through direct foreign investment.

14. The following approximate shares are obtained by combining the data of 1980 and 1988 issues of World Development Report:

	Total Exports		Manufacturing Exports	
	(1978)	(1988)	(1978)	(1988)
Indonesia	1.02%	0.78%	0.03%	0.24%
Malaysia	0.65	0.73	0.18	0.37
Philippines	0.30	0.25	0.12	0.21
Thailand	0.36	0.46	0.11	0.27

15. For the analysis of Indonesian economy, see Bulletin of Indonesian Economic Studies ("Survey of Recent Developments," each issue), Ichimura [1988], JETRO [1988], Yamazawa and Hirata [1987], etc. For the analysis of Philippine economy, see De Dios [1984], Montes and Koike [1988], Montes and Sakai [1989], Habito [1989], JETRO [1988], Yamazawa and Hirata [1987], and so on.

16. For the analysis of Malaysian economy, see Horii and Hagiwara [1988], Khor Kok Pen [1987], Kamal Salih [1988], Yamazawa and Hirata [1987], Igusa [1988], MITI [1988], JETRO [1988], etc.

17. Numerical data below are obtained mainly from JETRO [1989].

18. According to Balakrishnan [1989], ethnic problems or ethnic elements in NEP are exaggerated in connection with the political stability in Malaysia.

19. For the analysis of Thai economy, see W. Warin and Y. Ikemoto [1988], TDRI [1988], Harada [1988], Suehiro and Yasuda [1987], Yamazawa and Hirata [1987], MITI [1988], JETRO [1988], Bunyarake Ninsananda [1988], and so on.

20. Numerical data above are obtained mainly from JETRO [1989].

21. Warr and Bandid [1987] reviews eighty articles by the Thai authors on the Thai economy which were made public up to the year 1986. A consensus view among those Thai economists (until 1986) seems to have been "Thailand is definitely neither a NIC nor a near NIC."

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Table 1. Basic Indicators of ASEAN

	Indonesia	Malaysia	Philippines	Thailand	(Total)	Japan	USA
Area [1000 km ²]	1,919 (20)	330 (4)	300 (3)	514 (5)	3,063 (33)	372 (4)	9,363 (100)
Population (mid- 1987) [millions]	177.2 (71)	16.5 (7)	57.4 (24)	53.6 (22)	299.7 (123)	122.1 (50)	243.8 (100)
GDP(1987) [billion US\$]	73.9* (2)	31.0 (1)	34.6 (1)	47.7 (1)	187.2 (4)	2,365.8 (54)	4,435.8 (100)
Per capita GDP (1987) [US\$]	429* (2)	1877 (10)	603 (3)	890 (5)	626 (3)	19,541 (107)	18,301 (100)
Exchange rate (1985)	1125.0 [Rp/US\$]	2.480 [M\$/US\$]	18.700 [P/US\$]	27.159 [B/US\$]	-	236.54 [¥/US\$]	-
Purchasing power parity (1985)	361.08 [Rp/ I\$]	1.196 [M\$/ I\$]	5.549 [P/ I\$]	8.753 [B/ I\$]	-	236.36 [¥/ I\$]	1.0 [US\$/I\$]
Deviation rate (PPP/ER)	.3209	.4822	.3502	.3223	-	.9657	1.6
GDP (1985) [billion US\$]	84.0 (2)	31.3 (1)	32.8 (1)	36.3 (1)	185.4 (5)	1,325.2 (33)	3,970.5 (100)
GDP (1985) [billion I\$]	261.78 (7)	54.8 (2)	93.6 (2)	119.0 (3)	539.1 (14)	1,372.3 (35)	3,970.5 (100)
Per capita GDP (1985) [US\$]	509 (3)	1,853 (12)	509 (4)	745 (5)	649 (4)	10,793 (57)	16,057 (100)
Per capita GDP (1985) [I\$]	1,5858 (10)	4,050 (25)	1,710 (11)	2,310 (14)	1,877 (12)	11,176 (70)	16,057 (100)

Notes: I\$ means 'international dollar.' It is a theoretical measuring unit to be used in the multi-country comparisons of purchasing power parity (PPP) and its conversion rate with US\$ is one (1.0). PPP-related data are derived from the PC diskettes which correspond to Tables 1 and 2 in Summers and Heston [1988]. Numerical figures with \$ for Indonesia are estimated approximately by the author based on the PPP data for 1980 compiled by UK Commission of the European Communities (See UNCEC [1985]) as well as on the GDP deflators of Indonesia and USA. The 1987 GDP of Indonesia (with *) is also an estimation by the author based on the published data on growth rates.

Table 2. Growth Performance of ASEAN4 (Average Annual Rates of Growth, %)

	GDP			Agriculture			Industry			Manufacturing			Services			Population	
	1960	1970	1980	1960	1970	1980	1960	1970	1980	1960	1970	1980	1960	1970	1980	1965	1980
	-70	-80	-86	-70	-80	-86	-70	-80	-86	-70	-80	-86	-70	-80	-86	-80	-86
Indonesia	3.9	7.6	3.4	2.7	3.8	3.0	5.2	11.1	1.8	3.3	12.8	7.7	4.8	9.2	5.6	2.3	2.2
Malaysia	6.8	7.8	4.8	..	5.1	3.0	..	9.7	6.9	..	11.8	5.6	..	8.2	4.3	2.8	2.7
Philippines	5.1	6.3	-1.0	4.9	4.9	2.0	6.0	8.7	-3.6	6.7	7.2	-1.7	6.2	5.4	-0.6	2.9	2.9
Thailand	8.4	7.2	6.6	5.6	4.7	2.9	11.9	10.6	5.0	11.4	10.6	5.2	9.1	7.3	5.6	2.7	2.0
Japan	10.8	5.0	3.7	4.0	1.1	1.0	10.9	6.5	5.0	11.0	5.4	7.8	11.7	9.5	2.9	1.2	0.7
U.S.A.	4.3	3.0	3.1	6.3	1.2	3.0	4.9	1.2	3.2	8.3	2.9	4.0	4.2	3.2	3.0	1.0	1.0
Low-income e.	4.4	3.5	2.9	2.5	2.2	2.0	7.0	3.2	4.2	6.9	3.6	4.4	4.2	4.5	3.3	2.7	2.8
China & India	4.5	4.9	0.6	1.8	2.6	5.7	8.3	6.6	11.3	..	..	11.7	3.9	4.6	7.8	2.2	1.6
Mid-income e.	5.9	5.6	2.3	3.5	2.9	2.3	7.4	6.6	2.1	6.8	6.4	2.5	5.4	5.9	2.6	2.4	2.3
Industrial e.	5.2	3.2	2.5	1.4	1.4	2.5	6.9	3.1	2.5	5.9	3.2	..	4.8	3.6	2.6	0.8	0.6

Notes: Data source is World Development Report of World Bank, i.e., the 1982 issue for 1960-70 and 1970-80, and the 1988 issue for 1980-86. 'Industry' consists of mining, manufacturing, construction, and electricity, gas and water. 'Low-income economies' here do not include China and India.

Table 3. Structural Changes of ASEAN4 (Overtime Changes in Shares, %)

	Indonesia			Malaysia			Philippines			Thailand		
	1970	1980	1988	1970	1980	1987	1970	1980	1987	1970	1980	1988
GDP (nominal)												
Agriculture	47	25	26	32	23	22	28	23	25	28	25	17
Industry	18	43	32	25	36	39	30	37	32	25	29	34
Mining	5	26	11	6	10	11	3	3	2	2	2	3
Manufacturing	9	12	14	12	20	22	23	24	25	16	20	23
Services	35	32	42	43	41	40	43	40	43	46	46	49
Employment												
Agriculture		56	55		53	37	32		54	51	48	
Mining		1	1		3	1	1		..	1	1	
Manufacturing		9	8		9	16	16		12	11	10	
Others		34	37		35	46	52		24	37	41	
(industry)		(13)	(13)		(..)	(19)	(22)		(..)	(16)	(15)	
												(10) (11)
Exports (f.o.b.)												
SITC 0-2.4	52	22	24	56	47	38	85	60	32	77	76	60
SITC 3	31	74	56	7	24	20	2	1	2	0	1	0
SITC 5-8	2	4	20	26	28	42	9	24	36	16	20	35
(SITC 7)	(0)	(1)	(1)	(2)	(11)	(26)	(0)	(2)	(10)	(0)	(6)	(11)
SITC 9	5	0	0	1	1	1	4	16	30	7	4	5
Imports (c.i.f.)												
SITC 0-2.4	14	17	14	29	16	15	16	12	13	10	10	13
SITC 3	1	16	10	12	15	7	11	28	19	9	31	13
SITC 5-8	73	67	75	58	68	77	89	49	47	77	55	71
(SITC 7)	(30)	(34)	(38)	(26)	(39)	(45)	(34)	(24)	(17)	(35)	(23)	(31)
SITC 9	11	0	0	1	1	1	3	11	22	4	3	2
Expenditures/GDP				(1973)								(1987)
Private consumption	81	61	64	55	51	47	70	67	73	68	64	64
Gov. consumption	9	10	12	16	17	16	8	8	8	12	12	13
Gross investment	14	21	26	24	32	24	21	31	15	26	27	23
Exports	13	31	21	42	58	83	19	20	23	17	25	31
Imports	-16	-22	-23	-36	-55	-50	-19	-26	-22	-22	-30	-30

Notes: Data source is Asian Development Bank, Key Indicators of Developing Member Countries of ADB (various issues). Data for industrial employment with brackets are obtained from World Bank's World Development Report and various statistical yearbooks of each country. Sectoral GDP for Malaysia in 1980 and 1987 is obtained by calculation based on real values at constant 1978 prices due to the lack of nominal data. Expenditure shares for three Philippines and Thailand do not add up to one due to statistical discrepancies.

Table 4. Correlation Coefficients between Growth Rates of GDP
and Rates of Changes in Primary Commodity Prices

	Real GDP vs. 'nominal' price index	Real GDP vs. 'real' price index	Weights for component prices to calculate aggregate price index	
Indonesia				
1965-87	0.400	0.388	(1) petroleum	.808
			(2) wood	.086
1965-70	0.282	0.540	(3) rubber	.058
1971-80	0.219	0.227	(4) coffee	.024
1981-87	0.258	0.294	(5) tin	.024
Malaysia				
1971-87	0.598	0.689	(1) rubber	.271
			(2) tin	.155
1971-80	0.441	0.573	(3) logs	.176
1981-87	0.554	0.656	(4) palm oil	.165
			(5) petroleum	.233
Philippines				
1961-87	0.174	0.069	(1) coconut oil	.221
			(2) copper	.209
1961-70	0.445	0.476	(3) logs	.136
1971-80	-0.058	-0.029	(4) sugar	.361
1981-87	-0.040	-0.205	(5) copra	.073
Thailand				
1961-87	0.282	0.345	(1) rice	.363
			(2) tapioca	-
1961-70	0.669	0.534	(3) rubber	.223
1971-80	0.121	0.156	(4) tin	.177
1981-87	0.848	0.852	(5) maize	.237

Notes: 'Nominal' price index for primary commodities in each country is the weighted average of price indexes (in IMF's International Financial Statistics) of five major export commodities selected as representative in each country. Weights for aggregation shown above are averages of export shares in 1975 and 1980. 'Real' price index is derived by deflating nominal index by manufacturing unit value index of World Bank (1982, Table 5). Data for GDP growth rates and export shares in each country are obtained from ADB's Key Indicators (various issues). Data for tapioca of Thailand are not available, so that its weight is set to be zero.

Table 5. External Shocks and Policy Responses

(X)

	Balance of Payments Effects			Policy Responses or Adjustments			
	Terms of trade effects	Export volume effects	Total external shocks	Increase in export market share	Import substi- tution	Reduction in imports through lower GDP growth	Added external finance
Indonesia							
(A) 1974-82	83.6	16.4	100.0 [-23.6]	2.3	-1.1	0.5	-101.7
(B) 1974-83	113.0	-13.0	100.0 [-13.2]	17.0	-20.0	4.0	-101.0
Malaysia							
(A) 1974-82	71.6	28.4	100.0 [-6.4]	39.9	-25.4	4.3	-118.8
Philippines							
(A) 1974-82	-75.1	-24.9	100.0 [-14.5]	17.5	2.3	-2.6	82.3
(B) 1974-83	-76.7	-23.3	100.0 [-18.6]	0.0	0.2	0.4	89.2
Thailand							
(A) 1974-82	-80.1	-9.8	100.0 [-15.2]	25.5	9.6	2.8	63.4
(B) 1974-83	-73.4	-26.6	100.0 [-12.0]	16.1	26.1	2.4	55.4
Singapore							
(A) 1974-82	-98.1	-1.9	100.0 [-45.3]	87.0	-41.0	17.5	57.2
Korea							
(A) 1974-82	-83.2	-16.8	100.0 [-13.3]	104.5	17.1	4.6	-26.2
(B) 1974-83	-74.0	-25.0	100.0 [-6.9]	89.0	105.0	-22.0	-92.0
(C) 1973-83	-89.0	-11.0	100.0 [-..]	80.0	27.0	12.0	-19.0
Taiwan							
(A) 1974-82	-43.8	-56.2	100.0 [-24.0]	132.9	16.3	13.5	-62.7
(B) 1974-83	-41.0	-59.0	100.0 [-6.5]	10.0	35.0	191.0	-76.0
Brazil							
(B) 1974-83	-82.0	-18.0	100.0 [-2.7]	15.0	67.0	-10.0	27.0
Mexico							
(B) 1974-83	-83.0	-37.0	100.0 [-1.3]	-28.0	-102.0	25.0	205.0
Japan							
(C) 1973-83	-87.0	-13.0	100.0 [-..]	38.0	41.9	83.0	-54.0

Notes: See Balassa (1981) for methodology of the decomposition formula. Results (A) are derived from Naya, Kim and Jansen (1984), while (B) from Torrigio (1986) and (C) from P. Kuznets (1985).

Table 6. Comparisons of Per Capita GDP: ASEAN4 versus NICs

Comparison by ER (exchange rate)	(US\$ in current prices)					(Growth rates, %)	
	1970	1975	1980	1985	1987	1970-80	1980-85
Indonesia	75	297	430	509	439	20.6	0.8
Malaysia	318	1185	1718	1853	1877	18.4	2.6
Philippines	207	570	732	593	503	13.9	-3.9
Thailand	180	529	729	745	590	14.9	0.7
Singapore	915	3213	4701	5529		17.8	12.7
Korea	266	1287	1831	1980		19.1	5.2
Taiwan	334	1528	2252	3027		19.4	8.1
Brazil	458	1790	2059	1733		16.3	-3.4
Mexico	722	1563	2685	2247		14.0	-3.5
Greece	1730	3352	4174	3357		14.6	-4.3
Spain	1090	3994	5679	4344		12.9	-5.2

Comparison by PPP (purchasing power)	(\$ in current prices)					(Growth rates, %)	
	1970	1975	1980	1985	1987	1970-80	1980-85
Indonesia	935	820	1095	1589	1719	13.3	7.1
(US=100)	(6)	(8)	(9)	(10)	(9)		
Malaysia	705	2184	3112	4050	4401	16.0	5.4
(US=100)	(15)	(23)	(27)	(25)	(24)		
Philippines	572	1228	1551	1710	1841	10.5	2.0
(US=100)	(12)	(19)	(14)	(11)	(10)		
Thailand	550	1322	1694	2310	2583	11.9	6.4
(US=100)	(11)	(14)	(13)	(16)	(14)		
Singapore	1557	4312	5817	11183		14.1	14.0
(US=100)	(32)	(45)	(51)	(70)			
Korea	606	2076	2369	3734		14.5	9.8
(US=100)	(13)	(22)	(21)	(23)			
Taiwan	770	2233	2921	4422		14.3	8.0
(US=100)	(16)	(23)	(26)	(28)			
Brazil	825	2544	3356	3979		14.3	3.5
(US=100)	(18)	(26)	(29)	(25)			
Mexico	1517	3034	4333	4739		11.1	1.8
(US=100)	(31)	(32)	(38)	(30)			
Greece	1425	3565	4337	5702		11.5	5.4
(US=100)	(31)	(37)	(38)	(36)			
Spain	2261	4777	6131	7879		16.5	5.1
(US=100)	(47)	(50)	(54)	(49)			

Comparison by PPP (purchasing power)	(\$ at constant 1980 prices)					(Growth rates, %)	
	1970	1975	1980	1985	1987	1970-80	1980-85
Indonesia	643	982	1096	1223	1254	5.5	2.2
Malaysia	1525	2717	3112	3415	3507	7.4	1.9
Philippines	1094	1458	1551	1361	1385	3.6	-2.6
Thailand	1663	1599	1694	1900	2012	4.8	2.3
Singapore	2859	4986	5817	9834		7.3	11.1
Korea	1183	2411	2369	3056		7.1	5.2
Taiwan	1514	2635	2921	3581		6.8	4.2
Brazil	1782	3030	3356	3282		6.5	-0.4
Mexico	3063	3822	4333	3985		3.5	-1.7
Greece	2952	4262	4383	4464		4.0	0.4
Spain	4378	5682	6131	6437		3.4	1.0

Notes: \$ (international dollar) is a theoretical concept to be used in the multi-country comparison of purchasing power parity (PPP). Its conversion rate with US\$ is one (1.0). PPP-related data are derived from Summers and Heston (1988). Data for Indonesia are extrapolated by using GDP deflators based on the 1980 PPP compiled by UNCEC (1986). Data for other ASEAN countries in 1987 are extrapolated similarly based on the 1985 PPPs.

Table 7. Comparison of Production and Export Structures:
ASEAN4 versus NICs

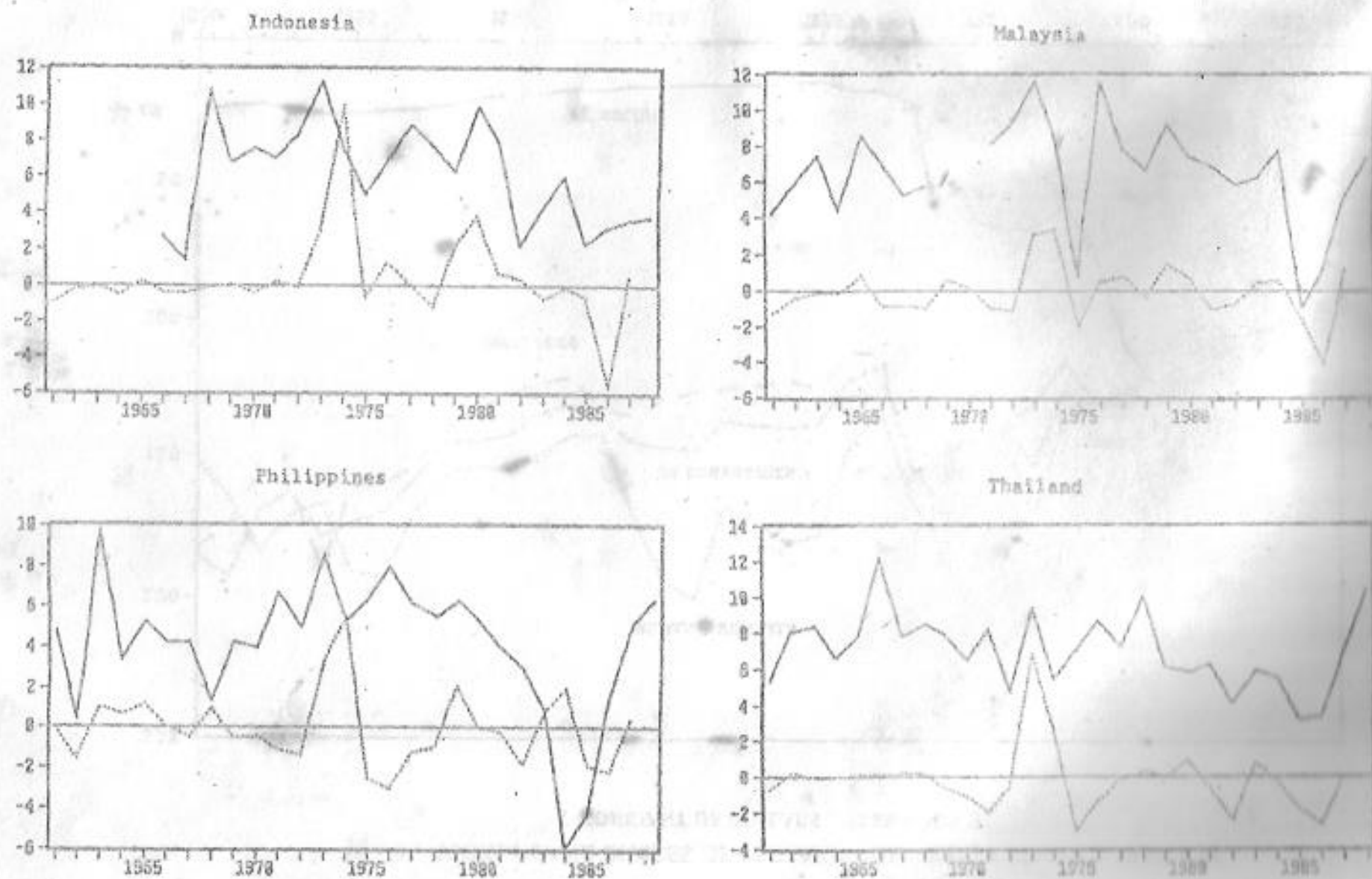
(%)

	Shares of manufacturing in total production (GDP)		Shares of industry in total production (GDP)		Shares of industry in total employment	
	1978	1986	1978	1986	1978	1981
Indonesia	9	14	33	32	11	12
Malaysia	17	19*	32	35*	16	16
Philippines	25	25	35	32	16	17
Thailand	18	21	27	30	8	9
Singapore	26	27	35	38	38	39
Korea	24	30	36	42	37	29
Taiwan	38	..	48	..	37	..
Brazil	28	28	37	39	22	24
Mexico	28	26	37	39	25	26
Greece	19	18	31	29	28	28
Spain	30	27	38	37	43	40

	Shares of manufacturing goods in total exports		Shares of textiles and clothing		Shares of machinery and transport equipment	
	1977	1986	1977	1986	1977	1986
Indonesia	2	22	0	4	1	3
Malaysia	17	36	2	..	7	26
Philippines	25	61	5	7	2	6
Thailand	19	42	8	15	2	9
Singapore	44	68	5	5	24	38
Korea	85	91	32	25	17	33
Taiwan	49	..	23	..	3	..
Brazil	26	41	4	3	11	15
Mexico	29	30	4	2	6	18
Greece	50	51	18	29	5	3
Spain	71	73	6	4	26	31

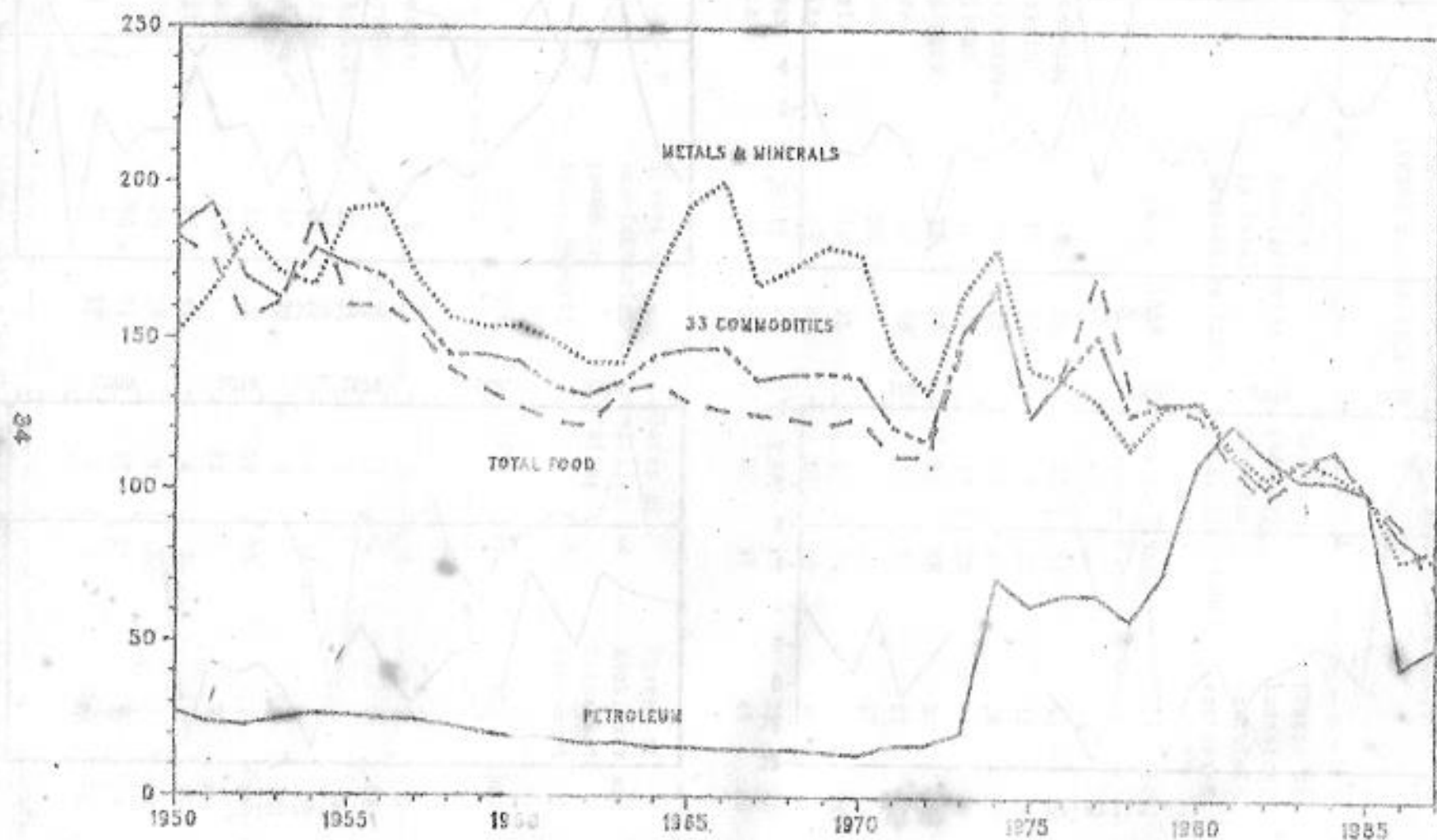
Notes: Numerical figure with * on Malaysian GDP is for 1984. Data for 1986 are derived from the 1988 issue of World Bank's World Development Report, while those for 1977 or 1978 from the 1980 issue, and those for 1981 on labor from the 1985 issue.

Fig. 1. Rates of Growth of GDP (2) versus Rates of Changes in Primary Commodity Prices (10%)



— Real GDP - - - Real price index of primary commodities

Fig. 2. WORLD BANK INDICES OF PRIMARY COMMODITY PRICES, 1950 - 87
(CONSTANT US DOLLARS, 1985 = 100)



SOURCE: WORLD BANK (1988).