



Chapter 2

Economic Diversity

*The Squirrel told the Mountain,
 “If I cannot carry forests on my back,
 Neither can you crack a nut.”*
 Ralph Waldo Emerson, *FABLE*

Objectives

- ✓ Identify the differences in per capita income.
- ✓ Point out the differences in growth rates.
- ✓ Describe the composition of GDP.
- ✓ Describe the composition of labour force.
- ✓ Show the differences in investment rates.
- ✓ Highlight the differences in the degree of trade orientation.
- ✓ Provide explanations for the economic diversity.

Introduction

The diversity in Southeast Asia is reflected by the ten separate independent nations. The legacies from different colonial pasts, different languages used, different religious orientations and different ethnicities in demographic composition constitute the human landscape of Southeast Asia. However, the ten Southeast Asian countries are in close geographical proximity to each other, and are all contiguously sandwiched between the Indian Ocean in the West and the Pacific Ocean in the East, with the

South-China Sea sharing a common border with all of them, except Laos and Myanmar. This chapter deals with some economic aspects of the diversity among the ten Southeast Asian nations.

Economic development refers to sustained increases in per capita production of a country, normally measured by trend rates of growth in per capita Gross National Income (GNI). It is also likely to involve shifts in the composition of domestic demand and production, and changes in the composition of labour force and of foreign trade and finance. Since people all over the world share common patterns in wants, tastes and consumer demand, a universal pattern of development for countries over time can be expected. A country's development pattern is also affected by its resource endowment, market size, trade and economic policies, human resource development and the external economic environment. In addition, a country's history, its political and social objectives and the particular policies it has followed, can also influence its development pattern.

When universal forces interact with country-specific factors such as natural endowment or government policies, one expects to find different historical development patterns. This leads to a state of economic diversity among countries. There are many indicators one can use to illustrate the economic differences. However, we are going to highlight the more crucial ones, some of which have far-reaching implications for economic development.

Economic Diversity

There are approximately 563 million people in Southeast Asia in 2007. Together, the ten nations, namely Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam, form the Association of Southeast Asian Nations (ASEAN). Unlike economic groupings such as the European Union, the different countries within ASEAN have different levels of economic development. Southeast Asia is dotted with internet-savvy professionals, competent managers, and surgeons and engineers who can manage sophisticated instruments and machinery. But, at the same time, in almost every country in Southeast Asia, it also has a large number of shifting cultivators and subsistence farmers. Such occupational disparity is not found in Europe and is a concern Southeast Asian leaders cannot ignore. It is the duty and responsibility of the better-endowed

Table 2.1
Size of GNI, 2007

	GNI, Atlas Method ^a (Current US\$ Bn)	% of World's GNI, Atlas Method	GNI, PPP (Current Int'l \$ Bn)	% of World's GNI, PPP
Lao PDR	3.4	0.01	11.4	0.02
Cambodia	7.9	0.01	24.5	0.04
Brunei ^b	10.3	0.02	19.1	0.03
Vietnam	67.2	0.13	216.9	0.33
Philippines	142.6	0.27	327.8	0.50
Singapore	149.0	0.28	222.7	0.34
Malaysia	173.7	0.33	360.2	0.55
Thailand	217.3	0.41	503.1	0.77
Indonesia	373.1	0.71	807.9	1.24
Southeast Asia ^c	1,144.6	2.18	2,493.4	3.83
China	3,120.9	5.93	7,083.5	10.87
Japan	4,813.3	9.15	4,420.6	6.79
World	52,621.4	100.00	65,144.4	100.00

Source: World Bank, WDI Online, 11 Nov. 2008, <http://publications.worldbank.org/WDI/>.

- a: The Atlas Method is the World Bank's official estimate of the size of economies. The GNI data are in current U.S. dollars, converted from countries' respective national currencies using the Atlas method, which uses a three-year average of exchange rates to smooth effects of transitory exchange rate.
- b: Data for Brunei refer to year 2006.
- c: Not including Myanmar as data for Myanmar are not available.

individuals to help the lesser-endowed, not only within a nation, but also across the nations in Southeast Asia. Table 2.1 compares the size of Southeast Asian economies with other countries.

Using Lim C.Y.'s (1996) S Curve Hypothesis, we can classify the ASEAN economies into three groups. The first group consists of countries with low levels of income and low growth rates. They are called the turtle economies. The second group, which is characterised by middle income levels and high growth rates, is called the horse economies. The third group, called the elephant economies, has characteristics of high income levels but low growth rates. Using per capita GDP and per capita GDP growth

rates as yardsticks (see Tables 13.1 and 13.2), the Philippines is considered a turtle economy. Singapore and Brunei can be categorised as the elephant economies; Singapore being an incipient elephant economy. The other seven economies — Indonesia, Malaysia, Thailand, Vietnam, Cambodia, Laos and Myanmar — are horse economies or in the transition of becoming horse economies. In Western Europe, however, all the economies are elephant economies.

According to the S Curve Hypothesis, turtle economies are caught in a low-level equilibrium trap. They have low income to begin with. This leads to low savings and low investment, which in turn results in lower growth. Diagram 2.1 illustrates the vicious cycle of the low-level equilibrium trap.

Turtle economies can break away from this poverty trap by raising domestic savings rate and thereafter investment rate. In the absence of

Diagram 2.1

The Low-level Equilibrium Trap

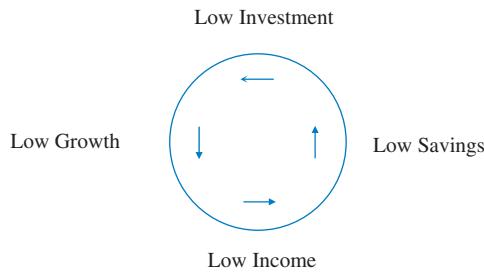
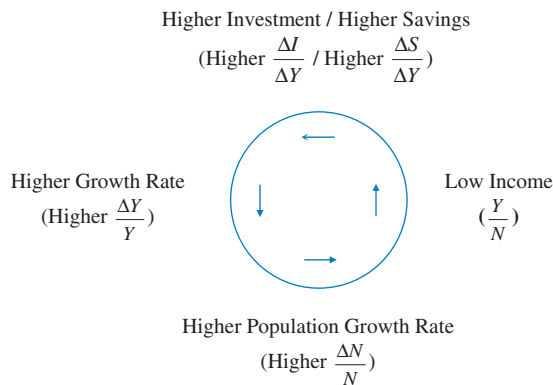


Diagram 2.2

The Neo-Malthusian Trap



an increase in domestic savings rate, investment rate could still be raised via foreign investment, foreign aid, and/or foreign borrowings. Higher investment rate would result in a higher income growth rate. However, if consequent on a higher income growth rate, population growth rate also increase, then, there may not be any improvement in the per capita income. Diagram 2.2 illustrates the vicious cycle of the Neo-Malthusian Trap.

Conversely, horse economies have the following characteristics.

1. Control explosive rate of population growth.
2. High savings function.
3. Export oriented industrialisation.
4. Conducive investment climate.
5. High investment in physical capital.
6. High investment in human capital.
7. Priority on economic achievements.
8. Emphasis on market forces as an engine of growth.
9. Good public and corporate governance.

Like the turtle economies, the elephant economies also suffer from low growth rates. However, the reasons for low growth rates are different in the elephant economies. The economic success over long periods of time has dampened these elephant economies' desire for greater economic success. This reduces the marginal utility of money and increases the propensity of leisure, thus leading to lower savings and lower investment, and ultimately lower growth rates. The ageing of the population also contributes to this phenomenon. However, none of the nascent ASEAN elephant economies are typical elephant economies, like Japan, Denmark, New Zealand or Great Britain. However, in Southeast Asia, one sees the existence of three different types of economies, turtles, horses and elephants, unlike Western Europe, where one has only elephants and Africa, where nearly all are turtles. Nevertheless, the turtles in Southeast Asia show positive signs of emerging as horses and some of the horses also show positive signs of taking a pause in development rates. Chapter 13 contains a more thorough discussion of Southeast Asian countries in relation to the S Curve analysis as well as against the other two facets of the Trinity Growth Theory, namely, the EGOIN Theory and the Triple C Theory.

Differences in Per Capita Income

The differences in per capita income reflect, to a large extent, the differences in standards of living. They also reflect differences in the productive capacity of the countries. Table 2.2 shows the divergence in per capita income levels among the countries in Southeast Asia. In 2007, for example, the level of per capita GNI for Singapore (US\$32,470) was close to 60 times higher than that for Cambodia (US\$540). Even if 20% to 30% discount were to be given to an urban economy like Singapore, the difference in economic diversity would still be vast. According to the World Bank classification, Malaysia belongs to the upper-middle-income category, while Thailand, the Philippines and Indonesia are in the lower-middle-income category. Singapore and Brunei are the only two high-income countries within Southeast Asia.

Even if all the ten economies were to be integrated into a single economy, there will still be vast differences in per capita income because of

Table 2.2
GNI Per Capita, Atlas Method and PPP-Adjusted, 2007

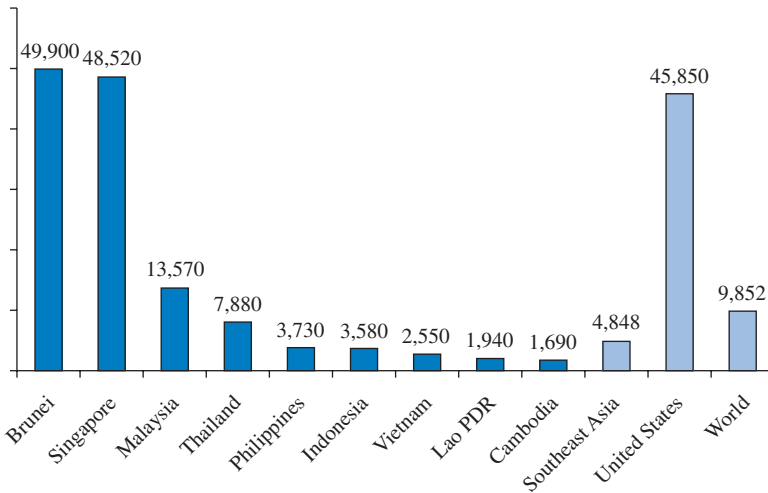
Income Level	Countries	GNI Per Capita, Atlas Method (Current US\$)	GNI Per Capita, PPP (Current Int'l \$)
High	Singapore	32,470	48,520
	Brunei ^a	26,930	49,900
Upper-middle	Malaysia	6,540	13,570
Lower-middle	Thailand	3,400	7,880
	Indonesia	1,650	3,580
	Philippines	1,620	3,730
Low	Vietnam	790	2,550
	Lao PDR	580	1,940
	Cambodia	540	1,690
Southeast Asia (Weighted Avg.) ^b		2,225	4,848
United States		46,040	45,850
World		7,958	9,852

Source: World Bank, WDI Online, 11 Nov. 2008, <http://publications.worldbank.org/WDI/>.

a: Data for Brunei refer to year 2007.

b: Data for SEA do not include Myanmar as data for Myanmar are not available.

Diagram 2.3
2007 Per Capita GNI, PPP (Current International \$)



Source: Table 2.2.

Note: Data for Brunei refer to year 2006.

differences in factor endowment. Malaysia is one economy, but the capital Kuala Lumpur is much more developed than Kangar, the state capital of Perlis, one of the Malaysian states, or Kuching, the state capital of Sarawak. Similarly, in China, Shanghai and Beijing are much more developed economically than Guizhou and Shanxi. In Australia, Sydney is much better developed than Alice Springs and Albany, and yet they all belong to the same country. The reduction of differences within the country and across countries must include, *inter alia*, the removal of man-made obstacles to the flow of factors from the wealthier regions to the under-developed regions. However, within the same country, active measures can also be taken purposely to develop the less developed regions, but the forces of economic growth in favour of the more developed regions must be recognised. To spread poverty is easier done than to spread wealth or development.

Per capita income converted to US dollars using exchange rates tends to understate the relative income positions of the less developed countries in the world vis-à-vis the relatively more developed countries. This is because the bulk of the goods and services in these countries are not internationally traded and thus they have no direct impact on the balance of payments and the exchange rate (Lim C.Y., 1991). Table 2.2 illustrates the difference

in per capita GNI when (3-year average) exchange rates and Purchasing Power Parity (PPP) are used.

In 2007, Malaysia's per capita GNI was 14% of the USA's per capita GNI when the official exchange rate was used. However, it was 30% of the USA's per capita GNI when the PPP was used. Among Southeast Asian countries, per capita GNI differs depending on whether the official exchange rate or the PPP is used. These differences between the official exchange rate and the PPP-adjusted per capita GNI are most obvious in Vietnam, Laos and Cambodia. Laos' per capita GNI was 9% of the Malaysia's per capita GNI when official exchange rates were used. It rose to 14% of Malaysia's per capita GNI when the figure was converted using PPP. Thus, one should bear in mind the limitations of the official exchange rates for deriving comparable per capita income estimates.

Differences in Growth Rates

Per capita income deals with levels of development. The rates of growth deal with the rates of change in such levels. Post-war economic growth rates (that is, average GDP growth rates) differed among the various countries in Southeast Asia, as illustrated in Table 2.3. The Philippines and Myanmar registered annual growth rates of over 6% in GDP in the 1950s (not shown in table), while the others lagged behind. Singapore, Thailand and Malaysia

Table 2.3
Average Annual Growth Rates of GDP (%), 1961–2007

	1961–1970	1971–1980	1981–1990	1991–2000	2001–2007	1961–2007
Indonesia	4.2	7.9	6.4	4.4	5.1	5.6
Malaysia	6.5	7.9	6.0	7.2	4.8	6.6
Myanmar ^a	3.2	4.7	1.4	6.8	9.0	4.6
Philippines	4.9	5.9	1.8	3.1	5.0	4.1
Singapore	9.9	8.8	7.5	7.6	5.3	8.0
Thailand	8.2	6.9	7.9	4.6	5.1	6.6

Source: Computed using data from World Bank, WDI Online, 6 Dec. 2008, <http://publications.worldbank.org/WDI/>.

a: Data for Myanmar are up to year 2005.

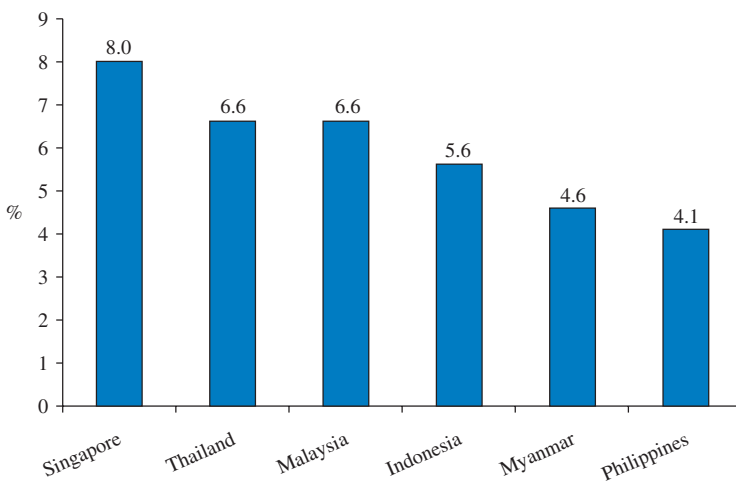
took over the leadership position in the 1960s. In the 1970s, Indonesia joined in with relatively high growth rates. Singapore, Malaysia, and Indonesia each registered an average annual GDP growth of over 7% in the 1970s. In the 1980s, these nations were still growing very rapidly.

Over the last 47 years, as can be seen from the last column of Table 2.3, Singapore has topped the list with an average growth rate of 8.0% per annum, followed by Thailand 6.6%, Malaysia 6.6% and Indonesia 5.6%. This is depicted graphically in Diagram 2.4.

In Simon Kuznets' seminal studies of the national incomes of the developed countries, developed countries displayed growth rates of only 2% to 3% when they were developing. After examining the dramatic economic growth, improved human welfare, and more equitable income distribution in Indonesia, Malaysia, Singapore, and Thailand from 1965 to 1990, the World Bank (1993) described these countries the "East Asian Miracle". Sound government policies promote rapid capital accumulation by making banks more reliable and encouraging high levels of domestic savings. They also increased the skilled labour force by providing universal primary schooling and better primary and secondary education. The World Bank concluded that macroeconomic stability and human and

Diagram 2.4

Differences in Average Annual Growth Rates, 1961–2007



Source: Table 2.3.

Note: Data for Myanmar are for 1961–2005.

physical capital development are the foundations for their dramatic and sustainable expansion.

The last two decades were a period of very volatile economic environment for the world as a whole. For the Southeast Asian countries, the benefits and costs of expanding world trade and investment flows as well as financial and economic shocks were felt though in varying degrees. As such, the economic growth of the countries in the last decade of this century has been very uneven. Table 2.4 highlights the major economic events that affected Southeast Asia since 1990.

As mentioned in the earlier section, rapid economic growth accompanied by population explosion may not result in higher standards of living for the populace. Table 2.5 summarises the GDP per capita levels in 1960 and 2007. All member countries of the ASEAN-5 have made significant advancement in GDP per capita over the last 47 years. Of note is Thailand

Table 2.4
Major Economic Events Affecting Southeast Asia

Year	Event
1990	Burst of the Japanese economic bubble
Aug. 1990–Mar. 1991	Gulf War
1990–1992	Economic slowdown in the developed countries
Jul. 1992	European Exchange Rate mechanism crisis
Dec. 1994	Mexican Peso crisis
Feb. 1995	Japanese Yen appreciation and US dollar depreciation
Jul. 1997–Jun. 1999	Asian Financial Crisis
11 Sep. 2001	Terrorists' attack in New York city led to the tumble of the World Trade Centre
Jan. 2002	Financial Fraud: Collapse of Enron
Jul. 2002	Financial Fraud: Collapse of WorldCom
12 Oct. 2002	Bali Bomb Blast
Feb. 2003–Apr. 2003	War on Iraq
Mar. 2003–May. 2003	Outbreak of Severe Acute Respiratory Syndrome (SARS)
26 Dec. 2004	Asian Tsunami
2007–2008	Subprime mortgage crisis in the US led to worldwide financial and economic crisis

Table 2.5
GDP Per Capita (Constant 2000 US\$), 1960 and 2007

Country	1960	2007	Compound Annual Growth Rate (%)
Indonesia	196	1034	3.6
Thailand	317	2713	4.7
Philippines	612	1216	1.5
Malaysia	784	4715	3.9
Singapore	2251	28,964	5.6

Source: World Bank, WDI Online, 6 Dec. 2008,
<http://publications.worldbank.org/WDI/>.

in 1960 which had only half the level of per capita GDP as the Philippines. However, with the rapid economic growth over the years, Thailand by 2007 was well ahead of the Philippines. The advance Singapore has made appears even more striking. Singapore has registered a compound annual growth rate of 5.6% over the last 47 years.

The Indo-Chinese countries and Myanmar compared to Thailand and Malaysia can be said to be some four decades behind in overall economic development. Myanmar and the Indo-Chinese states may not be lacking in the potential for rapid growth; however political stability and growth-oriented economic and social policies over long periods are required to raise the per capita income to significant levels. In the recent years, Indonesia, Malaysia, Thailand and the Philippines have encountered problems of political stability of varying degrees. These problems, if persisted, would have serious detrimental effects on their growth rates.

Composition of GDP

Table 2.6 shows the changes in the composition of GDP across Southeast Asia from 1970 onwards. Agriculture's share of the GDP has been declining for the past thirty over years in all countries except Myanmar. Conversely, industry's share of the GDP has been increasing in most of the countries. In other words, Southeast Asia has been going through a rapid industrialisation process in the last four decades. During this process, the agricultural sector has shrunk proportionately.

Table 2.6

Sectoral Value-Added as Percentage of GDP (%), 1970, 1990 and 2007

Country	Agriculture			Industry			Service		
	1970	1990	2007	1970	1990	2007	1970	1990	2007
Brunei ^a	n.a.	1	1	n.a.	62	73	n.a.	37	26
Cambodia ^a	n.a.	n.a.	30	n.a.	n.a.	26	n.a.	n.a.	44
Indonesia	45	19	14	19	39	47	36	41	39
Lao PDR ^a	n.a.	61	42	n.a.	15	32	n.a.	24	26
Malaysia	29	15	9	27	42	51	43	43	41
Myanmar ^b	38	57	57	14	11	10	48	32	33
Philippines	30	22	14	32	34	31	39	44	55
Singapore	2	0	0	36	35	31	61	65	69
Thailand	26	12	11	25	37	44	49	50	45
Vietnam ^a	n.a.	39	20	n.a.	23	42	n.a.	39	38

Source: World Bank, WDI Online, 6 Dec. 2008, <http://publications.worldbank.org/WDI/>. Asian Development Bank, *Asian Development Outlook 1996 and 1997* (for Singapore's 1970 figures).

a: Data for the third period refer to year 2006.

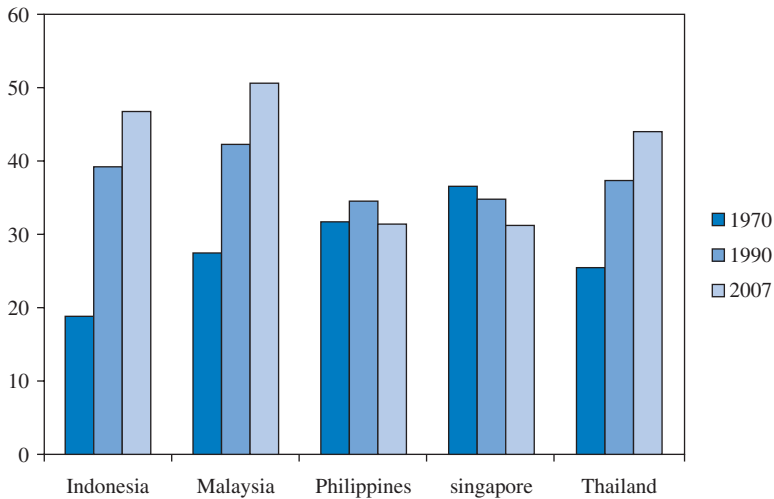
b: Data for the third period refer to year 2000.

Until 1970, excluding the city-state of Singapore and the oil-rich state of Brunei, agriculture made up at least a quarter of the GDP in the Southeast Asian countries. However, the trend reversed itself in the 1980s. The share of agriculture in the ASEAN-6 declined to less than a quarter. In Myanmar, the share of agriculture in GDP rose from about 38% in 1970 to 57% in 2000, largely because of the relatively sluggish growth of the non-agricultural sectors resulting from socialist economic policies. Such an autarkic policy has generally tended to prevent the inflow of capital and technology, the factors that have helped the growth of some of the other countries, notably Malaysia, Singapore, Thailand and Indonesia. In the case of Indonesia, agriculture's share in the GDP declined from 45% in 1970 to 14% in 2007. The rather heavy decline of the late 1970s and early 1980s in Indonesia was mostly due to the increase in importance of petroleum that significantly boosted the GDP share of mining and construction.

The Philippines was an early starter in manufacturing growth, but lost its lead in the subsequent decades. The manufacturing share in GDP was more

Diagram 2.5

Industry's Share of GDP, 1970, 1990 and 2007



Source: Table 2.6.

than 28% in 1960 (not shown in Diagram 2.5), the highest in Southeast Asia. Even Singapore in 1960 had only an 18% share in manufacturing. Indonesia, Malaysia and Thailand underwent rapid industrialization in the last 4 decades, with the industry sector becoming the most important pillar of their economies (see Diagram 2.5). On the other hand, Singapore's and the Philippines' economies are dominated by the service industry.

Labour Force Composition

Fisher (1935, 1939) introduced the classification of economic activities into primary, secondary, and tertiary activities. He observed that countries could be categorised in terms of the proportions of their total labour force engaged in these sectors. Fisher's insights were subsequently supported by the wide-ranging and imaginative research of a pioneer social statistician, Colin Clark. Clark (1940) calculated the sectoral labour inputs and values of output. The Fisher-Clark hypothesis specified a sequence in labour force use. At relatively low levels of economic development, the proportion of labour force employed in the primary (agriculture, forestry and fishing) sector would be quite high. This high proportion would diminish as development proceeds, and would be replaced by rising proportions first

in unsophisticated and then in modern industry. This is because of the relatively high-income elasticity of demand for industrial output. As incomes continue to rise, income elasticity of demand for services of many types will gradually predominate. Labour force allocation in services will rise, as a proportion of the total, owing to improvements in productivity in industry unmatched by similar advances in the service sector. The lowest-income countries, therefore, would be characterised by the highest concentration of workers in agriculture and other primary activities; middle-income countries would feature high proportions in industry; while the highest proportions in services would be found in the high-income countries.

Some economists even propound the theory that economic development in developing countries means the transformation of the economy with 80% of the total population in the primary sector and 20% in the industrial and modern service sector to 20% in the primary sector and 80% in the secondary and tertiary sector (Singer, 1952). However, the productivity in each sector is also of paramount importance.

We can see from Table 2.7 that the labour share in agriculture has declined in almost all of the Southeast Asian countries, with the greatest fall seen in Malaysia, Thailand and Indonesia. Industry's labour share has increased,

Table 2.7
Percentage of Labour Force in Various Sectors (%), 1965 and 2005

Country	Agriculture		Industry		Services	
	1965	2005	1965	2005	1965	2005
Cambodia ^a	80.0	70.2	4.0	10.5	16.0	19.1
Vietnam ^b	79.0	57.9	6.0	17.4	15.0	24.7
Thailand	82.0	42.6	5.0	20.2	13.0	37.1
Indonesia	71.0	44.0	9.0	18.0	20.0	38.0
Philippines	57.0	37.0	16.0	14.9	27.0	48.1
Malaysia ^b	60.0	14.8	13.0	30.1	27.0	55.1
Singapore	6.0	0.0	26.0	29.5	68.0	69.6

Source: World Bank, *World Development Report*, various issues. World Bank, WDI Online, 6 Dec. 2008, <http://publications.worldbank.org/WDI/>.

a: Data for the second period are for year 2000.

b: Data for the second period are for year 2004.

although it has continued to remain small with the share being less than 20% in at least four of the Southeast Asian countries. Services labour share has increased in most Southeast Asian countries. From Table 2.7, the transitional economies of Laos, Cambodia, Myanmar, and Vietnam, and, to a lesser extent Thailand, can all be said to be predominantly agricultural economies, while Singapore and Malaysia are more industrialised than their neighbouring countries.

One of the key features of labour absorption needs emphasis. In Cambodia and Vietnam, the percentage of labour force in agriculture even in the 2000s remains above 50%. This is very high indeed. Malaysia provides a counter example where labour absorption in the agricultural sector is declining, falling to 15% in 2004 with the possibility of further decline. Thus, in spite of about four decades of exposure to industrialisation of one type or the other, agricultural activities continue to provide the means of livelihood for the majority of the Southeast Asians. Closely related to the dependence on agriculture is the degree of urbanisation. Malaysia and the Philippines have relatively high proportions (over 60% in 2006) of urban dwellers in the total population, as against the smaller proportions in other countries. The city-state of Singapore, of course, has a 100% urban population and more than two-thirds of the labour force in the service sector. The service sector activities in Singapore, however, are increasingly of the higher-value added activities, such as banking and finance, international transportation and communication and international trade in the more expensive products and services.

Talent Pyramid

As mentioned earlier, there exists a visible diversity of human resources in Southeast Asia in the forms of occupational and income disparity, both within countries and across countries in Southeast Asia. The diversity of human resources in Southeast Asia partly embodies the differences in the educational levels of the people.

Table 2.8 shows that while the net primary enrolment ratios of the ASEAN nations are generally high, the net secondary enrolment ratios and the gross tertiary enrolment ratios fall significantly behind those of Australia, Japan and the United States. If primary, secondary and tertiary

Table 2.8
Enrolment Ratios, 2006

Country	Net Primary Enrolment Rate (%)	Net Secondary Enrolment Rate (%)	Gross Tertiary Enrolment Ratio (%)
Cambodia	90	31	5
Myanmar	100	46	n.a.
Lao PDR	84	35	9
Indonesia	96	59	17
Philippines	91	60	28
Thailand	94	71	46
Vietnam ^a	88	69	32
Malaysia ^a	100	69	29
Brunei	94	90	15
Singapore	97	95	56
Australia	96	87	73
United States	92	88	82
Japan	100	99	57

Source: UNESCO Institute for Statistics, <http://www.uis.unesco.org>. United Nations, *Human Development Report 2007/2008*, <http://hdrstats.undp.org/indicators/>. Data on Singapore are from Singapore's Ministry of Education.

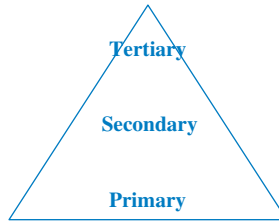
a: Data are for 2005.

Note: The Net Primary/Secondary Enrolment rate is the number of children of official primary/secondary school age who are enrolled in primary/secondary education as a percentage of the total children of the official primary/secondary school age population. The Gross Enrolment Ratio, on the other hand, is calculated by expressing the number of students enrolled in primary/secondary levels of education, regardless of age, as a percentage of the population of official school age for the levels. Data on Net Tertiary Enrolment Rate is not available.

education enrolment ratios of a country are represented by a talent pyramid, the talent pyramid of many of the Southeast Asia countries would be similar to that depicted in Diagram 2.6, where the top of pyramid is narrow. A country with a high degree of human resource development would have a much broader top as depicted in Diagram 2.7. A highly developed country with highly developed human resources, for example the United States, will have a talent pyramid that looks more like a rectangle. Among the ten ASEAN nations, Singapore's talent pyramid is most similar to those of the developed countries.

Diagram 2.6

Talent Pyramid of a Country with Low Human Resource Development

**Diagram 2.7**

Talent Pyramid of a Country with High Human Resource Development

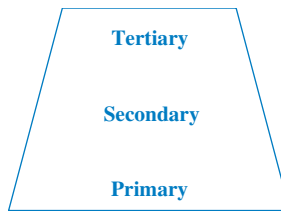


Table 2.9 shows that the combined primary, secondary and tertiary gross enrolment ratio in Australia is as high as 113% and points to the fact that the enrolment of students at certain levels of education could include those from much older age groups. Among the Southeast Asian countries, Singapore and the Philippines have the highest combined gross enrolment ratio of 87% and 81% respectively, while Myanmar and Cambodia have the lowest ratio of 50% and 60% respectively.

Most of the Southeast Asian countries have invested significantly in education over the past few decades after attaining Independence and have greatly built up their level of capital stock. The stock of human capital in each country in Southeast Asia and in Southeast Asia as a whole is still very thin at the top of the talent pyramid. The education index, calculated based on the combined primary, secondary and tertiary gross enrolment ratio as well as the adult literacy rate, constitutes a summary measure of the skills and orientation of the people. An education index of 0.66 in Laos in comparison to an index value of 0.95 in Japan reflects a wide gap in the productivity of these two countries' work force which inevitably points to the diverse GNI levels in both countries (see Table 2.1).

Table 2.9

Human Development Index, Adult Literacy Rate, Combined Gross Enrolment Ratio, and Education Index

Country	Human Development Index 2005	Education Index 2005	Adult Literacy Rate (% Aged 15 and Older) 2005	Combined Gross Enrolment Ratio for Primary, Secondary and Tertiary Education (%) 1995–2005
Myanmar	0.58	0.76	89.9	50
Cambodia	0.60	0.69	73.6	60
Lao PDR	0.60	0.66	68.7	62
Indonesia	0.73	0.83	90.4	68
Vietnam	0.73	0.82	90.3	64
Philippines	0.77	0.89	92.6	81
Thailand	0.78	0.86	92.6	71
Malaysia	0.81	0.84	88.7	74
Brunei	0.89	0.88	92.7	78
Singapore	0.92	0.91	92.5	87
United States	0.95	0.97	99.0 ^a	93
Japan	0.95	0.95	99.0 ^a	86
Australia	0.96	0.99	99.0 ^a	113

Source: United Nations, Human Development Report 2007/2008.

a: For purposes of calculating the HDI, a value of 99.0% was applied.

Another measurement of human capital development is the Human Development Index (HDI). The HDI measures the average achievements in a country in three basic dimensions of human development: a long and healthy life, knowledge, and a decent standard of living. Human developments vary widely among the ten ASEAN nations. Singapore, Brunei and Malaysia are ranked as countries with high human development while the other six countries are ranked as countries with medium human development. Connected with the problem of small talent pool is the problem of low literacy rate in Southeast Asia. The adult literacy rates in Southeast Asia range from 68.7% in Laos to 92.6% in Thailand and the Philippines. These rates are much lower than the 99% literacy rate achieved in countries such as Japan, the US and Australia.

Small talent pool and high adult illiteracy rates are pressing concerns since it is the talents at the top of the pyramid that are most needed in the new economies of the 21st century. In addition, it is critical to have a well-educated population in order for a country to progress together as a whole. Thus, broadening the top of the talent pyramid, especially in the fields of technology and sciences, and eliminating illiteracy are two major challenges facing the Southeast Asian Governments. It should also be emphasised that education and training should focus on areas of economic endeavour where the Southeast Asian countries have a comparative advantage, instead of areas where they lack this advantage, for example, the building of jet planes. In addition, university curriculum has to be tied closely with industry requirements to avoid the costly and socially undesirable problems of graduate unemployment.

Investment

Southeast Asia is rich in natural and human resources. Land and labour could be brought into higher productive use through investment. As can be seen from Table 2.10, Indonesia, Malaysia, the Philippines, Thailand and Singapore significantly improved their investment rates (defined as gross capital formation as a percentage of GDP) from around 10% to 16% in 1960 to around 24% to 41% in 1990. However, since the occurrence of the Asian Financial Crisis in the late 1990s, investment rates in these countries slowed down considerably from their peak in the 1980s and early 1990s. On the other hand, the emerging economies such as Vietnam, Cambodia and Laos continued to experience a growth investment rate, albeit from a lower base.

Openness and Trade Orientation

While investment in productive capacity augments the total supply in an economy, the demand side is equally important, if output is to be sold and incomes to factors are to accumulate. Several Southeast Asian countries have significant historical links with world markets and global demand for Southeast Asian products may well have been an important factor in the development of these countries. Policies towards export orientation

Table 2.10
Gross Capital Formation (% of GDP), 1960–2007

	1960	1970	1980	1990	2000	2007 ^a
Brunei	n.a.	n.a.	n.a.	18.7	13.1	10.4
Cambodia	20.2	12.5	n.a.	8.2	17.5	21.5
Indonesia	9.2	15.8	24.1	30.7	22.2	24.9
Lao PDR	n.a.	n.a.	n.a.	n.a.	20.9	32.5
Malaysia	13.8	20.2	27.4	32.4	27.3	23.1
Myanmar	12.0	14.2	21.5	13.4	12.4	n.a.
Philippines	16.0	21.3	29.1	24.2	21.2	15.0
Singapore	9.7	38.7	46.4	37.1	33.3	22.6
Thailand	15.4	25.6	29.1	41.4	22.8	29.9
Vietnam	n.a.	n.a.	n.a.	12.6	29.6	35.3

Source: World Bank, WDI Online, 6 Dec. 2008, <http://publications.worldbank.org/WDI/>.

a: Data for Brunei, Cambodia, Laos and Vietnam refer to year 2006.

enhance economic progress more than policies that promote import substitution. The pivotal role of the Government in the process of economic development is discussed in the EGOIN theory addressed in Chapter 13: Trinity Development Model and Southeast Asian Development. The theory encompasses a comprehensive set of ideas used to explain a country's economic growth and development.

The degree of export orientation has increased significantly in many Southeast Asian countries as indicated in Table 2.11. In the last two decades, the rapid increase in export orientation was particularly impressive in the newly emerging economies such as Cambodia, Vietnam, and to a smaller extent, Laos. Among the Southeast Asian countries, Singapore and Malaysia are most open to trade, while Myanmar can be described as a closed economy. In fact, Myanmar's relatively high export orientation (around 20% of GDP) in the 1950s greatly contributed to its relatively high economic growth rate of that period. In the decades that followed, Myanmar's trade orientation declined as the country adopted closed economy policies which adversely affected its economic development (Kohama, 1982).

Exports of primary commodities comprised some 70% to 80% of total exports of Indonesia in the 1980s. Indonesia's main primary export commodity then was crude petroleum. In Malaysia, in the 1980s, two-thirds of

Table 2.11
Export as a Percentage of GDP, 1960–2007

	1960	1970	1980	1990	2000	2007 ^a
Brunei	n.a.	n.a.	93.4	61.8	67.4	71.2
Cambodia	13.9	5.8	n.a.	6.1	49.8	68.8
Indonesia	15.0	13.5	34.2	25.3	41.0	29.4
Lao PDR	n.a.	n.a.	n.a.	11.3	30.1	36.0
Malaysia	50.6	41.4	56.7	74.5	124.4	112.0
Myanmar	19.7	5.2	9.1	2.6	n.a.	..
Philippines	10.6	21.6	23.6	27.5	55.4	39.4
Singapore ^b	n.a.	132.9	208.8	182.9	195.6	230.9
Thailand	15.7	15.0	24.1	34.1	66.8	68.1
Vietnam	n.a.	n.a.	n.a.	36.0	55.0	75.7

Source: World Bank, WDI Online, 6 Dec. 2008, <http://publications.worldbank.org/WDI/>.

a: Data for Brunei, Cambodia, Laos and Vietnam refer to year 2006.

b: Singapore's figures for years 1970, 1980, 1990 and 2000 are from *UNdata*, United Nation Statistical Division, <http://data.un.org/>.

total exports were primary products, mainly rubber, palm oil, timber and iron ore. The primary export proportions in the Philippines and Thailand were around 50% to 60% in the 1980s. The Philippines' principal primary exports were sugar, coconut oil and copper, whereas the key primary export commodity from Thailand was rice. Singapore dealt with both primary and manufacturing exports. Historically, the entrepot activity for primary products has been most significant for Singapore, but manufacturing exports have become increasingly more important since the 1970s.

In 2006, the value of primary commodity exports as a percentage of total merchandise exports was 55.3% for Indonesia and 24.8% for Malaysia. Malaysia remains to this day the world's major oil palm exporter. She is also a net exporter of petroleum and natural gas. But exports of machines, transport equipment and miscellaneous manufactured goods have been growing rapidly in several Southeast Asian nations since the early 1990s. Other than rice and rubber, Thailand has been a major exporter of basic manufactures since 1980, but from 1985 onwards there has been a tremendous acceleration in the exports of machines, transport equipment and miscellaneous manufactured goods.

Explanation of Economic Diversity

Earlier, various aspects of economic diversity were identified among the Southeast Asian countries. Among them were the differences in per capita income levels and rates, differences in the sectoral composition of GDP and the extent of structural change, differences in the changes of labour force composition, differences in trade composition and orientation, differences in population size, differences in geographical size, and differences in languages used. In this section, the focus will be on the effects of natural resource endowments, country size and trade policies on the pattern of development.

The division between a large country and a small one may be somewhat arbitrary. Myanmar, Indonesia, the Philippines, Thailand and Vietnam, each have a population size exceeding 48 million people, and may be regarded in Southeast Asia as relatively large countries. The most important effect of large country size in Southeast Asia seems to have been the adoption of inward-looking development policies. In countries where primary exports and production are important — Brunei, Indonesia, Malaysia, and to some extent, Thailand — the pattern of development is affected by natural resource endowments.

One of the effects of largeness in size is the early industrialisation of an economy (Chenery and Syrquin, 1975). In particular, the most pronounced scale effects are concentrated in certain industries: basic metals, printing, rubber products, chemicals, textiles and non-metallic minerals (Chenery and Taylor, 1968). Accordingly, one expects that in large countries these industries will account for a larger share in GNI compared to small countries during the early stage of industrialisation. The textiles industry, for instance, grew rapidly in the early stage of industrialisation in the relatively larger countries of Indonesia, the Philippines and Thailand. In comparison, non-metallic products and rubber products have been important in the early industrialisation of Malaysia. In this country, the scale effect per se has been relatively small, since the population size was only around 26 million people in 2006. Resource effects, however, are important in these industries, and hence have affected the pattern of industrialisation in Malaysia. It is well known that Malaysia has been a very important producer and exporter of palm oil since the late 1980s.

As pointed out in development theories, capital formation is a requisite for economic growth. Capital formation is represented in the ‘I’ of the EGOIN theory, with specific reference to the economy’s accumulated economic infrastructure such as transportation and communication facilities, commercial and industrial buildings and plant, machinery and equipment. In its early years of development, Singapore invested extensively in infrastructure. As shown in Table 2.10, her gross capital formation as a percentage of GDP increased more than 4-fold from less than 10% in 1960 to 46% in 1980. Indonesia, Malaysia and Thailand have seen much increase in physical capital formation in the 1980s and 1990s. While some may start early, a country such as Vietnam, whose economic development is a couple of decades later than the other old ASEAN countries, has in recent years begun to build up her infrastructure with a gross capital formation reaching 36% of GDP in 2006. As noted in Chapter 13: Trinity Development Model and Southeast Asian Development, Vietnam is progressing rapidly towards a horse economy.

Of critical importance to a country like Singapore which is poor in natural resources, the stock of human capital serves as a significant determinant of economic progress. In addition to the quantity, the quality of human capital that provides the necessary skills will also eventually set the pace of economic development. Knowledge accumulation and the creation of ideas for invention and innovation are considerations which are not to be overlooked in the growth of an economy.

While an effective Government can mobilize physical and human capital to facilitate progress, rapid economic growth ultimately also hinges on a market-oriented economic system. Market-determined prices provide the right signals in allocating resources to their best uses. In turn these prices reward the most productive resources. In order to sustain continuous economic progress, it is also necessary to produce for the global market. An export-led economic strategy complements a free market economy and the policies of a competent Government.

The industrialisation process in the Philippines, Thailand, and Indonesia generally involved the adoption of largely protectionist measures to promote industries producing for the domestic market. In a large economy, there is scope for obtaining the benefits of scale economies and domestic competition. Furthermore, transport costs provide “natural protection” to industries that are set up within the country. Also, there are conditions

in large countries that favour the production of simple mass-consumption goods such as clothing, shoes, and household goods that can replace imports. Such commodities are labour-intensive (especially in unskilled labour), and these production and distribution does not involve sophisticated technology and networks of suppliers of parts, components, and accessories. With such an advantage, it can be argued that there is no need for high levels of protection during this phase of industrialisation. Despite these observations, the relatively large countries in Southeast Asia have adopted rather high levels of protection, and consequently, the import-substituting industries are not always competitive and seldom become export oriented.

Recent development literature suggests that countries, which have adopted outward-oriented strategies, have enjoyed higher growth rates (Belassa, 1980). The choice of export oriented industrialisation strategies also affects the pattern of structural change that occurs within the country. For instance, export oriented industrialising countries like Singapore tend to have a higher proportion of its labour force engaged in industry. This experience is common among other developed countries. A country's trade orientation can be driven by government policies.

Southeast Asia also provides examples of the close relationship between natural resource endowments and development patterns. Historically, in the early 19th century, tin dominated the economic life of Malaysia. Crude petroleum exports now dictate the economic upswings and downswings of Malaysia and Brunei, and until recently also of Indonesia. On the one hand, the availability of natural resources may benefit industrial development by providing domestic markets and investible funds for manufacturing industries as well as materials for further transformation. It may, on the other hand, have adverse effects on industrialisation due to the postponement of domestic policy change toward industrial development. High wages in natural resource industries tend to raise wages and hence production costs in the manufacturing industries and natural resource exports give rise to an unfavourable exchange rate for industrial activities. These are plausible factors that might delay the structural transformation of countries like Indonesia and Brunei. Sometimes, the strong exchange rate during the period of an oil-export boom is referred to as the Dutch disease.

Finally, the geographical location of a country — particularly, a favourable location — can affect its development pattern. This is clearly illustrated

in the case of Singapore, which, with a favourable geographical location at the hub of Southeast Asia began its development as a centre for entrepot trade. In the course of time, Singapore has shifted its pattern of trade and production, while capitalising on the external trade expertise gained over the decades. She is now, for example, exporting 75% of the oil-rigs in the world, other than having one of the world's busiest container ports.

Key Points

1. There are enormous differences in per capita income among Southeast Asian countries, with Singapore and Brunei showing the highest and Cambodia and Laos the lowest.
2. Over a period of almost 5 decades since 1960, Singapore followed closely by Thailand, Malaysia and Indonesia displayed phenomenal growth rates, earning the World Bank's accolade as "East Asian Miracle".
3. Agriculture's share of GDP has been declining in Southeast Asia, except Myanmar, over the past four decades as a result of the rapid industrialisation process. Notwithstanding this development, by labour input, Southeast Asia is still largely an agricultural economy, with Myanmar, Cambodia, Vietnam, Indonesia and Thailand having most of their working population still in the agriculture sector.
4. The Philippines spearheaded in the industrialisation process in Southeast Asia. The momentum, however, declined, and it was superseded by Singapore, Malaysia, Thailand and Indonesia.
5. Gross investment increased by leaps and bounds in the last four decades in all the market-driven, export oriented countries of the region, namely Singapore, Indonesia, Malaysia, the Philippines and Thailand.
6. Similarly, all the rapidly growing Southeast Asian countries became increasing export oriented during the four decades or so. This is because of the export oriented strategies adopted by them, with varying degrees of success as reflected in the diversity in income growth rates.
7. Growth rates and growth levels differ widely in Southeast Asia because the aptitude and attitude of the people, particularly the leaders, differ. Their macroeconomic policies and the policy options they have pursued also differ. Different policies and different priorities have given rise to different rates and different levels of development.

Suggested Discussion Topics

- 2.1 Why do growth levels differ in Southeast Asia? Do differences in natural resources endowment adequately explain these differences?
- 2.2 Why have average growth rate in Myanmar (4.6% p.a.) in the last 47 years been much lower than Malaysia (6.6% p.a.), Thailand (6.6% p.a.) and Singapore (8.0% p.a.)? Why has the World Bank term “economic miracle” not taken place in Myanmar but in Malaysia, Thailand and particularly in Singapore? Discuss.

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