AN ANALYSIS OF ECONOMIC INTERDEPENDENCE AMONG ASIAN COUNTRIES

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FOREWORD

The growing interdependence among Asian countries particularly through trade and investment has no doubt contributed tremendously to economic growth and better living standards in the individual country. However, it is also one of the factors that has constrained the independent conduct of economic policies in the individual country. The recent financial crisis brought about an important point of how the contagion effect can severely affect the other economies in the region.

This paper aims to analyse the Asian economic interdependence on the basis of intra-regional trade and investment flows. It also attempts to present some empirical evidences on the effects of growing regional economic interdependence on economic growth. While various trade intensity measures are used to analyse the intra-regional trade, the intra-regional investment and effects of the increasing integration on the region's economy have been largely descriptive due to the limited availability of data.

reflect those of the SEACEN Centre or its constituent member central banks and monetary authorities.

Dr. Subarjo Joyosumarto *Kuala Lumpur*
Executive Director *March 2001*
The SEACEN Centre

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EXECUTIVE SUMMARY

The study aims to: (i) briefly review the external trade and foreign direct investment performance of selected Asian economies including the SEACEN members; (ii) measure the degree of interdependence among the Asian economies in relation to trade and foreign direct investment; and (iii) assess the effects of trade and foreign direct investment on economic growth and explore some of the features that make a country more prone to external shocks.

Based on the various measures of trading intensity and gravity coefficient, the study suggests that intra-regional trade among the Asian countries as a whole began to intensify after the mid-1980s, partly as a result of the significant increase in foreign direct investment flows within the region, mainly originating from Japan. For the ASEAN and SEACEN sub-groups, however, such an intensification became more pronounced 10 years later, indicating the positive effect of the ASEAN Free Trade Area (AFTA) and the expansion of intra-SEACEN trade of Korea and Taiwan. The study suggests that such a growing interdependence in trade may not be entirely due to the strong growth of most Asian economies during this period. The steady rise in intra-regional trade as a percent of GDP from 11.6 percent in 1985 to 18.8 percent in 1997 clearly indicates the strong preference for trading within the region. Foreign direct investment (FDI) also provides another linkage for closer interdependence among the Asian economies. The significant rise in FDI within the region reflects partly the aim to remain competitive of the home countries in terms of exchange rate and wage.

The empirical evidences of the study seem to support the expansionary impact of trade and FDI on economic growth. There is a strong correlation between each pair of the three variables, namely GDP, trade and FDI. The causality test results also suggest similar conclusions. Although the causality test results were found to be different for different countries, in most cases it appears that changes in trade and FDI preceded changes in GDP. Similarly, the increase in FDI seems to precede the increase in trade, with the exception of a few countries.

Notwithstanding the tremendous benefits that the regional integration through rapid expansion of intra-regional trade and investment has

contributed to the prosperity of the individual country, it has also increased dependency among the region. In a liberalised context, expansion of intra-regional trade and investment has been accompanied by financial integration as well, causing economic problems to spread from one country to another. As demonstrated by the Asian crisis in 1997, even economies with strong economic fundamentals and good track record of economic management may not be spared from the contagion effect. Thus, while individual country should implement policies that suit domestic conditions, regional cooperation and co-ordination in matters of common interest are crucially needed.

Chapter 1

INTRODUCTION

1.1 Introduction

Economic interdependence among the Asian countries has long been in existence, particularly among the neighbouring countries with close cultural and political relations. Intra-regional trade among the East Asian countries was substantial before the Second World War, before being substantially reduced during the 1950s and the 1960s, mainly because of political conflicts and an inward looking policies in many of the countries.

From the 1970s, intra-regional trade began to flourish again, partly as a result of a shift from import substitution policy to export-led growth strategy. The economic success of Japan was emulated by the newly industrialised economies of Hong Kong, Korea, Singapore and Taiwan, and later by the emerging economies of Indonesia, Malaysia, the Philippines and Thailand. In the 1980s, China also joined in this trend of trade and payment liberalisation and reaped the similar benefits of high growth.

Parallel to policy shift, rapid progress in technology and the globalisation process contributed to high rates of growth in international trade and investment, resulting in unprecedented prosperity in many countries. Up until the Asian financial in mid-1997, many Asian economies were the major beneficiaries of these developments. Almost all of the East Asian countries achieved a phenomenal GDP growth for over a decade. The South Asian economies, which started to embrace the open trade policy later, also recorded relatively higher growth in recent years. It is clear that the growth of these countries was interrelated with one another through steady expansion of trade and investment. Intra-regional trade and investments surged as direct investments from more advanced but high-cost countries such as Japan and the NIEs flowed to less advance but lower-cost economies in the region. In addition, the various initiatives to promote regional economic cooperation such as the ASEAN Free Trade Area (AFTA), the South Asian Preferential Trading Arrangement (SAPTA) as well as the Asia Pacific Economic Cooperation (APEC) have also contributed to increase intra-regional trade thereby deepening economic integration within the groupings.

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While contributing to economic prosperity, the growing economic integration leads to greater interdependence, which not only renders countries more susceptible to spill-over effects from their neighbours but also constrains the independent conduct of economic policy of the individual countries, especially in the context of liberalised financial markets. As witnessed in the recent Asian currency and financial crisis, small and open economies were powerless to insulate itself from the contagion effect. The high degree of intra-regional trade and investment linkages brought adverse effect even to countries with good track records of economic management such as Singapore and Taiwan.

1.2 Objectives of the Study

The main objectives of this in-house study are:

(i) to briefly review the external trade and foreign investment performance of selected Asian economies including the SEACEN members;

(ii) to measure the degree of interdependence among Asian countries particularly in relation to the trade and investment; and

(iii) to assess the effects of trade and foreign direct investment on economic growth, and to explore some of the features of foreign trade that make a country more prone to external shock.

1.3 Organisation of the Study

The study is broadly divided into six chapters. The first chapter is a brief introduction. The second chapter provides the trade and investment performance of the Asian countries. This chapter also contains major policy changes made by some of the countries in Asia in regard to trade and foreign investment liberalisation. The third chapter presents the analytical approach including methodology, sample period and sources of data. Asian interdependence in trade and foreign direct investment is measured and analysed in chapter four. Chapter five deals with the impact of trade and foreign direct investment on economic growth of Asian countries over the period. Lastly, in chapter six, conclusions and policy implications are presented.

Chapter 2

AN OVERVIEW OF TRADE AND FOREIGN DIRECT INVESTMENT OF THE ASIAN COUNTRIES

2.1   Trade Performance

Asian countries, particularly in East Asia, adopted outward-oriented policy during the 1970s also and achieved remarkable progress. The earlier phases of development were characterised by boost in exports on the one hand and import protection on the other. While some economies, for example Singapore and Hong Kong were practising virtually free trade; others such as Malaysia had moderate levels of protection. Yet several others including Japan, Korea, and Taiwan were providing substantial protection to their infant industries through trade barriers and financial incentives. This approach to some degree was supported by development theories of the time. It even had the explicit or implicit support of multilateral organisations, including the GATT.

While the East Asian economies were in the process of liberalising international trade, the trend had not been consistent across countries or over time. The effective rate of protection had increased in the 1970s in several of the countries. In some cases the effective rate of protection had more than doubled between 1971 and 1980, with consumer goods and transport equipment accounting for much of the increase. The effective rate of protection in Korea in 1978, for instance, was higher than in 1968, with considerable variation in the rates, the highest being found for transport, consumer durable, machinery, and heavy intermediate goods. There were also high and variable rates of protection in the Philippines. Indonesia provided more protection for the large investment financed by the oil boom in the 1970s. Although protection in Malaysia was moderate, there were exceptions in the case of transport equipment, machinery, fabricated products and industrial chemicals. Singapore and Hong Kong had low levels of protection.[1]

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1.   For further details, see *East Asia Trade and Investment*, World Bank, 1994.

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Notwithstanding the high economic cost of protection, most of the countries were reluctant to lift it because of several reasons including the political consideration. But in the 1980s, fiscal and balance of payments difficulties of protected economies deteriorated. Although East Asia did far better in avoiding the fiscal and the balance of payments problems than did other regions, this region too was realising the inefficiencies of the protectionistic policies. And with the maturing of the region's industries, the region was politically ready to liberalise trade in the 1980s (World Bank, 1994).

On the one hand, protected economies were in need of correcting their macroeconomic imbalance while on the other hand, development economists were arguing for trade and investment liberalisation. At the same time, multilateral institutions, particularly the International Monetary Fund and the World Bank, came forward to support structural adjustment programs, which included financial sector reforms, trade reforms, etc., through funding and policy advice. These internal and external developments forced countries to move toward economic liberalisation, including trade and investment liberalisation since 1980s, with or without the support from multilateral institutions.

In this way, liberalisation and market opening have become global phenomenon, especially after the mid-1980s. Almost all the countries in the world have made substantial progress in lowering the tariffs and quantitative restrictions, though there still exist caveats detrimental for free trade such as agricultural protection, quotas, countervailing duties, etc.

In an effort to liberalise trade and investment in line with global trends, Asian countries have substantially lowered their import tariffs and quantitative restrictions over the years, apart from relaxing their foreign exchange regulations. The major trade reforms initiated by some of the Asian countries are given below:

China's move toward liberalisation has remained steady and bold. Though its tariffs are still on the higher side in comparison to several other countries in the region, it should be contrasted with the earlier years. Since the start of the reform program in 1978, the economy of China has become substantially open. Its trade to GDP ratio kept on increasing

over the years largely due to steady liberalisation of foreign trade. In 1979, China's foreign trade was carried out entirely through central plan implemented through trade corporations using an administratively determined exchange rate. All the foreign exchange earnings had to be surrendered to the central bank. In the subsequent years, particularly during 1984-85, 1988, 1991 and 1994, China made substantial reforms. In the first phase, i.e., in 1984-85, there was tangible reduction in the role of trade plan, especially for imports. In 1984, local governments were allowed to retain some portion of foreign exchange earned in their region. This provision was extended to exporting enterprises in 1985. In 1988, mandatory export planning was sharply reduced and eliminated entirely in 1991. Retention quotas were also increased in 1988, and those who were eligible for retention were allowed to sell such amount at Foreign Exchange Adjustment Center at market-determined rate (swap rate). In 1994, mandatory plan for imports was eliminated. The licensing requirements and quotas were reduced. The exchange rate was unified at the prevailing swap rate, and retention quota system was abolished (Valerie Cerra, et al., 1999).

Along the way, China also made progress in reducing import tariffs and its weighted and unweighted tariff rates remained at 43 percent and 32 percent, respectively, in 1992 (World Bank, 1994). In line with the promise made at Osaka APEC, China began to cut import duties on 4366 commodities from 1996, so that the nation's average tariff level would reduce to 23 percent in 1996. China is committed to further lowering its import duties to 15 percent, which would be commensurate with the general tariff levels of developing countries (Ming, et al., 1999).

Being a late starter (only from the beginning of 1990s), pace of trade and investment reforms of India is remarkable. One of the early emphases of India's adjustment strategy of mid-1991 was on industrial deregulation and trade liberalisation. First of all, it initiated a drastic reduction in licensing requirement for investment and imports. Subsequently, its focus turned to tax reform, financial sector reforms and further trade liberalisation. The level and dispersion of tariffs have been reduced sharply with substantial easing in quantitative restrictions. The reforms were preceded by substantial devaluation of the Indian rupee. India initiated notable reduction in its import tariff. The maximum tariffs were reduced from a staggering 400 percent in 1991/92 to 110 percent in 1992/93 and

further to 50 percent in 1995/96. The average import weighted tariffs were reduced from 87 percent in 1991/92 to 27 percent in 1994/95. Along the way, India also initiated reforms in its exchange rate policy. There have been liberalisations of exchange controls at least on current account transactions. India is moving fast toward economic liberalisation and market opening. Its commitment toward this end is apparent from the recent approval from the Lower House of parliament of a bill to open its insurance markets to foreign investors, ending a six-year political battle and four decades of state monopoly.

The average tariffs in Indonesia were at about 35 percent in 1984, with a range between 0 and 225 percent, coupled with quantitative restrictions covering a fifth of all imports. Tariff ceiling was reduced to 60 percent from 225 percent with tariffs for most products ranging from 5 to 35 percent in 1985. By the early 1990s, the average tariff rate had reduced to about 20 percent and quantitative restrictions also reduced to about 10 percent of total imports.

Korea has reduced its tariffs aggressively over the years. In 1982 the average unweighted tariff in Korea was 32 percent, which was lowered to about 10 percent in 1992 and further to about 8 percent in 1994. The coverage of quantitative restrictions has been reduced to less than 5 percent by 1992.

Average nominal tariffs in the Philippines reduced from more than 40 percent in 1980 to about 24 percent in 1992. In the corresponding period, the dispersion narrowed from 0 to 100 percent to 0 to 50 percent, with a few exceptions. In addition, the Philippines also removed many consumer goods from banned import list. Major tariff reforms have been initiated since 1986, when a new government came into power. the Philippines initiated more reform in 1993 with a goal of achieving uniform tariff of five percent by 2004 (Alburo, 1999).

Thailand's trade policies have gradually become less protective over the last two decades. Effort to further liberalise is more noticeable since late 1980s as the budget surplus since 1988 has given government greater flexibility in resuming import liberalisation through substantial tariff reform.

Other countries in the region such as Nepal, and Sri Lanka, initiated reforms during the period. There has been substantial reduction in import tariffs as well as quantitative restrictions. They have also almost eliminated exchange restrictions on current account transactions. More recently, Mongolia and to some extent Myanmar are moving toward this direction.

The results of the trade liberalisation have been impressive. The performance of the Asian countries was impressive. During the decade after 1985, the average annual growth of Asian developing countries' trade was higher than the growth in world trade in US dollar term (Table 2.1).

Table 2.1

Average Trade Growth During 1986-95
(Percent per annum)

	Exports	Imports	Total Trade
Asian-15[1]	13.7	14.5	14.1
Asian Developing Countries[2]	16.7	16.7	16.7
Japan	9.7	10.3	9.8
World	11.0	10.7	10.9

1 All the Asian countries included in the sample (see Chapter 3).
2 In-sample countries except Japan.
Note: Throughout the text, Asian developing countries would mean all the countries included in the sample except Japan. In other words, the newly industrialised economies such as Hong Kong, Korea, Singapore and Taiwan are also included under Asian developing countries.

Sources: *International Financial Statistics (IFS)* CD ROM, December 1999, and *SEACEN Financial Statistics (SFS)*, various issues.

Table 2.2 summarises the development of Asian trade over the period 1981-1997. During the early 1980s, the growth of trade was not that encouraging because of worldwide recession. Certainly Asian trade performance was much higher than world trade, yet it was not that satisfactory. After the mid-1980s trade growth picked up momentum—both exports and imports recorded a sharp and steady rise for a decade. The effect of trade liberalisation can be seen from the higher growth of imports witnessed by most of the East Asian economies including NIEs. In the earlier years till mid-1980s the growth of exports used to be considerably higher than imports and it was more pronounced in the case of Japan.

Table 2.2

Growth Rates of Export and Imports
(Percent)

	1981-85 (Average)		1986-90 (Average)		1991-95 (Average)		1996		1997	
	X	M	X	M	X	M	X	M	X	M
Asian-15[1]	6.1	2.0	14.2	15.4	13.3	13.6	0.6	5.1	5.6	0.4
Asian Developing Countries[2]	5.7	4.6	17.4	17.0	15.8	16.2	4.3	5.5	6.9	1.6
Japan	6.7	-1.4	10.3	12.9	9.0	7.7	-6.7	4.2	2.4	-3.1
World	-0.8	-0.5	13.3	13.1	8.7	8.3	4.3	4.7	4.5	4.4

[1,2] Same as Table 2.1.
X = Exports
M = Imports

Sources: IFS CD ROM, December 1999, and SFS, various issues.

Japan's overall trade performance remained weak during the last decade. Its trade growth was not only lower in comparison to other Asian developing countries but also in comparison to world. Nonetheless, unlike the earlier trend, when exports used to grow much faster than imports,

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Japan's imports recorded higher growth. In some years, for instance during the later part of the 1980s and in the recent years from 1994 to 1996, Japan's import growth far exceeded exports. Export performance deteriorated to register an unprecedented negative growth of about 7 percent in 1996. Though 1997 witnessed some increase in exports, which was partly attributed to a lower base of 1996, Japan's total trade growth did not improve as imports also recorded a decline. It should be noted that Japan, which succeeded in enhancing its exports in the early 1980s' world recession, has been lagging behind other Asian countries recently.

However, Asian trade performance has sharply decelerated after 1995 with growth rate of both exports and imports decelerating significantly in 1996 (Figure 2.1). Almost all countries' trade suffered. Deceleration in exports was more pronounced than in imports. Of the 15 Asian countries included in the sample, export growth of 14 countries decelerated, except for Nepal. The higher export growth in Nepal was, in part, attributable to a faster rise in exports to India because of the renewal of the trade and transit treaty plus additional relaxation in labour and material requirement as well as the granting of preferential access of manufactured goods exporting to India. Besides, higher export growth was also observed in carpets and readymade garment exports, which contributed to the bulk of the exports to countries other than India.[2]

Overall trade growth of major Asian economies, which used to be above the world trade growth over the past few years, was significantly lower in 1996. As stated, both exports and imports of all major economies decelerated. In most cases, deceleration in exports was more pronounced. While Japan recorded a negative growth in exports, China, Korea, Mongolia, Myanmar, the Philippines, and Thailand also recorded a sharp deceleration in export growth in that year. Though there has been some improvements in export performance in 1997, it appears to be mainly the result of sharp depreciation of Asian currencies in the wake of currency and financial crisis. The import growth was minimal.

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2. See *Economic Report 1996/1997*, Nepal Rastra Bank, for more details.

Figure 2.1
Change in Exports and Imports of Asian Countries
(Percent)

Fig 2.1(a): All Countries[1]

Fig 2.1(b): Asian Developing Countries[2]

Fig 2.1(c): Japan

Fig 2.1(d): China

Fig 2.1(e): Hong Kong

Fig 2.1(f): India

Fig 2.1(g): Indonesia

Fig 2.1(h): Korea

Fig 2.1(i): Malaysia

Fig 2.1(j): Mongolia[*]

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Fig 2.1(k): Myanmar

Fig 2.1(l): Nepal

Fig 2.1(m): Philippines

Fig 2.1(n): Singapore

Fig 2.1(o): Sri Lanka

Fig 2.1(p): Taiwan

Fig 2.1(q): Thailand
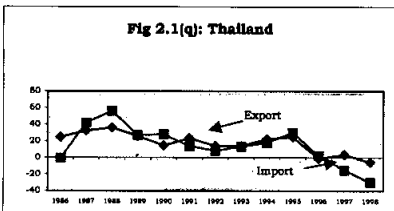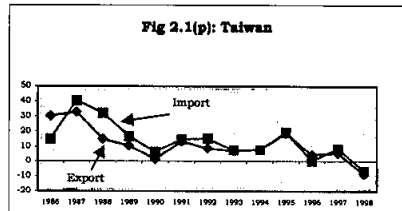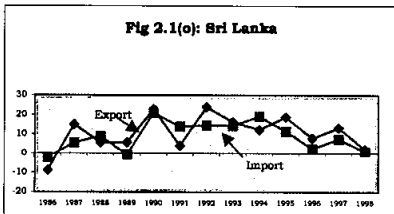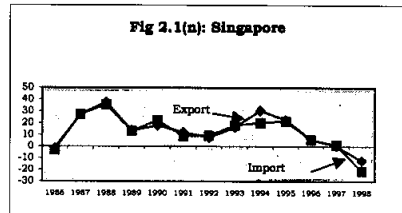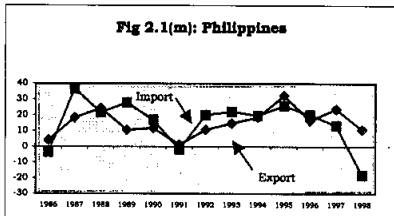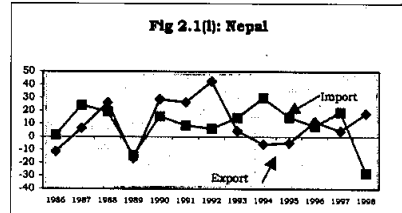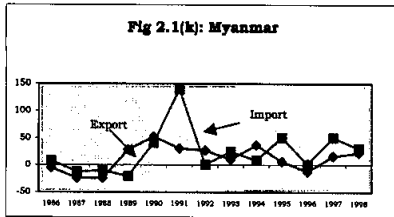
Note: [1]   All Asian-15 included in the sample.

       [2]   All the in-sample countries except Japan.

       *   Data for Mongolia are not available for 1998.

Sources: Export and Import data (International Transaction) are taken from *IFS* CD Rom, December 1999.
          Data for Taiwan are provided by The Central Bank of China, Taipei.

In spite of higher growth in imports after the mid-1980s, Asia as a whole had trade surplus, thanks to large surplus of Japan and to some extent Taiwan. However, if excluding Japan, the combined trade balance of Asian developing economies, which was in surplus in the early 1980s, turned into deficits during the second half of the 1980s, albeit marginally. Later on, after the beginning of the 1990s, trade deficit started to increase significantly (Figure 2.2).

The effect of trade liberalisation can also be seen from the steadily increasing trade to GDP ratio for most of the Asian developing countries since 1985, mainly due to higher imports. Although the increase for the combined trade to GDP ratio of all the Asian countries included in the sample has not been that substantial, it should be contrasted with the rapid growth of GDP in these countries during the period. Moreover, the exports to GDP ratio for some of the countries, for example Malaysia, Thailand, and China have been increasing considerably as well. Although imports as a share of GDP has been traditionally higher than the similar export ratio in India, the gap has been narrowing since the reforms in 1991 as its export growth picked up because of the devaluation of Indian rupees as well as the reforms in export controls for most of the items. However, with the increasing momentum of economic activity, imports rose again in the later part of 1990s. But this did not result in high trade deficit as much as before 1990s, thanks to higher rise in exports. For Japan, a decline in trade as a share of GDP reflects mainly a sharp reduction in imports. As seen in Table 2.3, the ratios of exports to GDP have been consistently higher than those of imports, indicating its continuous trade surplus throughout the period.

Figure 2.2
Exports and Imports of Asian Countries
(In Million US Dollar)

Fig 2.2(a): All Countries[1]

Fig 2.2(b): Asian Developing Countries[2]

Fig 2.2(c): Japan

Fig 2.2(d): China

Fig 2.2(e): Hong Kong

Fig 2.2(f): India

Fig 2.2(g): Indonesia

Fig 2.2(h): Korea

Fig 2.2(i): Malaysia

Fig 2.2(j): Mongolia*

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Figure 2.2: Exports and Imports of Asian Countries *(cont'd)*

Fig 2.2(k): Myanmar

Fig 2.2(l): Nepal

Fig 2.2(m): Philippines

Fig 2.2(n): Singapore

Fig 2.2(o): Sri Lanka

Fig 2.2(p): Taiwan
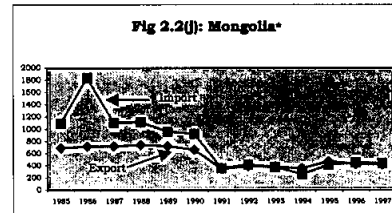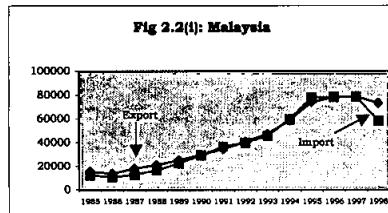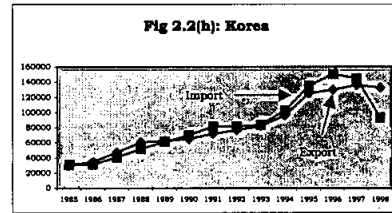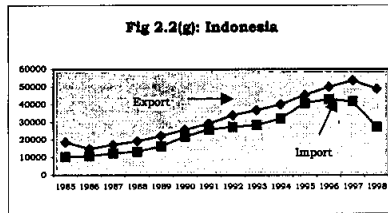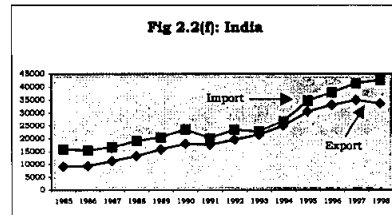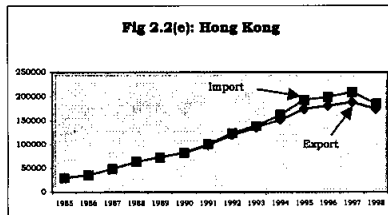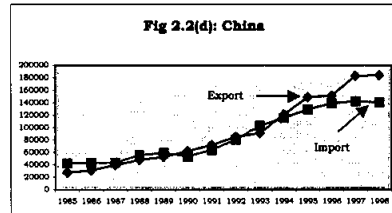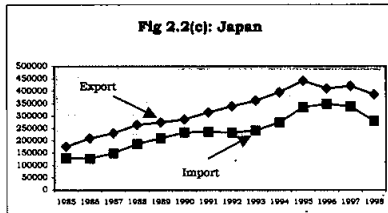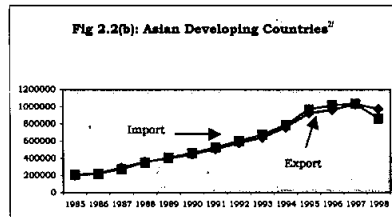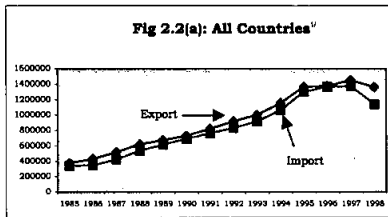
Fig 2.2(q): Thailand
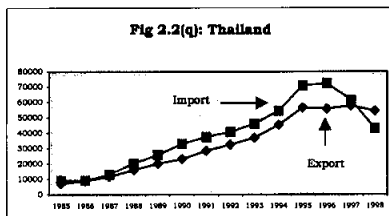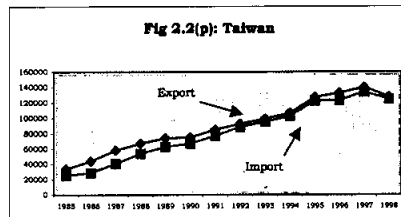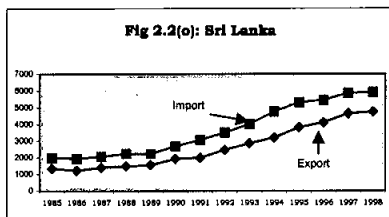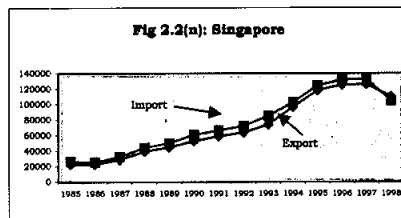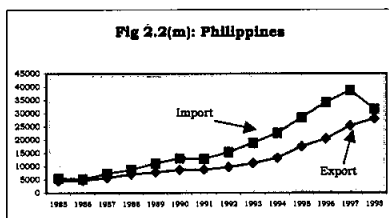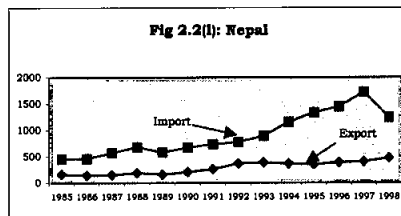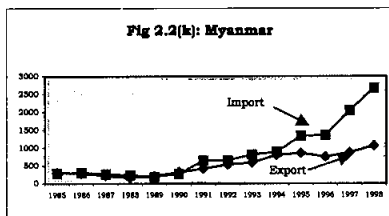
Note: [1, 2] Same as in Figure 2.1.
         * Data for Mongolia are not available for 1998.

Sources: Export and import data (International Transaction) are taken from *IFS* CD Rom, December 1999.
           Data for Taiwan are provided by The Central Bank of China, Taipei.

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Table 2.3
Trade to GDP Ratio
(Percentage)

	Exports to GDP Ratio						Imports to GDP Ratio					
	1980	1985	1990	1995	1996	1997	1980	1985	1990	1995	1996	1997
SEACEN Countries	**36.5**	**33.9**	**35.6**	**37.0**	**35.5**	**38.9**	**36.9**	**29.8**	**35.6**	**37.3**	**36.0**	**38.0**
Indonesia	30.1	20.9	23.4	23.5	22.1	26.1	17.4	14.3	23.4	20.2	19.5	21.4
Korea	27.5	28.2	25.2	25.5	25.0	29.1	34.9	28.3	25.2	26.4	27.9	29.8
Malaysia	53.0	48.8	67.2	82.0	77.7	79.5	43.2	37.3	67.2	82.2	73.8	75.5
Mongolia	N/A	N/A	N/A	47.1	39.6	N/A	N/A	N/A	N/A	44.5	41.0	N/A
Myanmar	7.3	4.7	0.9	0.8	0.5	0.5	13.5	7.8	0.9	1.3	1.0	1.3
Nepal	5.2	6.3	6.2	8.3	8.9	8.5	16.9	17.4	6.2	31.0	34.0	35.5
Philippines	17.8	15.1	18.5	23.5	24.8	30.7	23.8	16.6	18.5	35.6	38.5	44.2
Singapore	165.7	131.1	148.9	141.8	137.7	130.7	191.0	139.6	148.9	140.7	135.3	129.5
Sri Lanka	26.4	22.0	23.1	29.1	29.5	30.7	45.8	30.8	23.1	36.7	35.2	34.9
Taiwan	47.9	49.6	41.9	42.8	42.5	47.7	46.7	31.5	41.9	37.7	36.0	42.1
Thailand	19.9	18.1	26.7	32.9	29.4	38.0	25.8	21.6	26.7	37.7	34.5	37.0
Other Countries												
Japan	12.0	13.1	9.5	8.3	8.7	9.7	11.8	8.9	9.5	5.8	6.9	7.3
China	6.1	8.4	13.4	18.0	18.1	19.9	7.3	12.8	13.4	15.5	15.8	14.9
Hong Kong	69.4	86.6	109.9	124.9	117.2	109.8	78.8	85.2	109.9	138.5	128.8	121.9
India	4.8	4.5	6.0	8.3	8.5	8.2	8.1	7.1	6.0	10.1	11.0	10.6
Total of Above	15.0	16.3	15.7	16.7	17.7	19.5	15.6	13.9	15.7	15.2	16.8	17.8

Note: N/A = Not available.
Nominal GDP of the respective countries published in *International Financial Statistics* and *SEACEN Financial Statistics* have been converted into U.S. dollar using the period average exchange rates.
Sources:Author's calculation utilising various sources of data including those supplied by member central banks of the SEACEN countries.

2.2 Trends in Foreign Direct Investment (FDI)

Efforts to attract FDI were initiated even before the 1970s in the Asian countries, particularly the NIEs and some of the ASEAN members. Initially, much of the FDI were from the US and Europe. From the 1970s onwards, Japanese investment began to increase noticeably (Petri, 1994).

In Petri's analysis, the post-war FDI flows into the East Asian countries can be characterised in four waves, when each of the subsequent wave was substantially larger than the one before. The FDI inflows in the first wave, which occurred between the 1960s to early 1970s, were motivated by protected local markets and by the first revaluation of Japanese yen in the early 1970s. This wave attracted FDI on joint-ventures in textile and household electrical equipment. The second wave occurred in the 1970s and its concentration was largely on import substitution projects in basic industries as well as consumer electronics and semiconductors. The third wave, which began in the mid-1980s, and was much larger than the first two, involved the transfer of many labour-intensive operations to ASEAN countries from Japan and the NIEs in the wake of the appreciation of the yen and some NIEs currencies. The 1990s witnessed a fourth wave involving massive foreign investment boom in China[3].

Notwithstanding a large flow of FDI to some of the Asian economies, external borrowing remained the principal source of foreign financing for many of the Asian countries, till the beginning of 1980s. This is partly due to the easy access to foreign loans as a large amount of petro-dollar was recycled during the 1970s. Consequently, external debt in many Asian countries reached an alarming proportion and caused a corresponding rise in debt service obligations by the early 1980s. By this time, while the need for foreign financing was increasing even to service the debt, the supply of foreign funds was drying up. Countries were also faced with poor export revenue resulting from a decline in commodity prices, the principal export items of developing economies.

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3. For detail, see Peter, Petri (1994), pp. 8-9.

This development led many countries to look for alternative sources of foreign financing. Many developing countries that were previously closed in respect to trade and foreign investment began to initiate reforms to liberalise trade and investment policies. At the same time, multinational companies were also looking for profitable venues to expand their investment.

The pull and push factors combined to result in a quantum jump in the FDI flows in the 1990s. The global inflows of FDI exceeded $400 billion mark in 1997, compared with the average annual flows of less than $100 billion during 1983-1988. The major recipient of FDI is the developing countries, which accounted for close to two-fifths (US$149 billion) of the global FDI inflows in 1997, twice the level they received in 1993 and tenfold the level in 1985 (UNCTAD, 1998). The remarkable rise in the volume and steady increase in the share to the developing countries in the past one-decade or so are largely attributed to growing attraction of foreign investors into Asian developing countries.

As shown in Table 2.4, the total FDI inflows (net of repatriation) as a proportion of total global inflows to the 10 Asian economies increased from around 8 percent ($7.7 billion) during 1983-88 to peak at about 22 percent ($54.2 billion) in 1994. Though the ratio declined somewhat thereafter, the absolute amount kept on increasing. The proportion of FDI to these 10 Asian economies in relation to all developing countries also increased steadily from an average of 39 percent during 1983-88 to 51 percent in 1989 and further to 60 percent in 1995, mainly due to a quantum jump in the inflows to China. Thereafter the shares have been declining, which, to some extent, is attributed to the growing competition from Latin America and Caribbean countries (UNCTAD, 1998).

As shown in Table 2.5, the in-sample Asian countries witnessed more than 12-fold rise in FDI between 1986 and 1997, representing a compound annual growth of about 26 percent. There has also been a substantial increase in the annual inflows to the individual country over the period, with a dramatic (more than 24-fold) rise in China.

Table 2.4

Global FDI Inflows and the Shares of Selected Asian Countries

(In percent, unless otherwise stated)

	1983 -88	1989	1990	1991	1992	1993	1994	1995	1996	1997*
Shares of Develop'g Countries	21.58	14.27	16.41	25.81	29.01	33.34	39.33	31.86	38.46	37.19
Of which Selected Asian Countries:	8.42	7.31	9.23	12.86	15.10	21.12	22.31	19.13	21.90	19.91
China	*1.99*	*1.69*	*1.65*	*2.76*	*6.34*	*12.64*	*13.90*	*10.82*	*12.08*	*11.31*
Hong Kong	*1.47*	*0.54*	*0.82*	*0.34*	*1.17*	*0.77*	*0.82*	*0.63*	*0.74*	*0.65*
India	*N/A*	*0.13*	*0.12*	*0.09*	*0.13*	*0.26*	*0.40*	*0.59*	*0.71*	*0.82*
Indonesia	*0.37*	*0.34*	*0.52*	*0.94*	*1.01*	*0.92*	*0.87*	*1.31*	*1.83*	*1.34*
Korea	*0.42*	*0.38*	*0.34*	*0.70*	*0.41*	*0.26*	*0.33*	*0.54*	*0.69*	*0.58*
Malaysia	*0.80*	*0.83*	*1.10*	*2.52*	*2.95*	*2.30*	*1.79*	*1.25*	*1.38*	*0.94*
Philippines	*0.27*	*0.28*	*0.25*	*0.35*	*0.13*	*0.57*	*0.65*	*0.44*	*0.45*	*0.31*
Singapore	*2.13*	*1.44*	*2.64*	*3.09*	*1.25*	*2.15*	*3.44*	*2.48*	*2.80*	*2.50*
Taiwan	*0.49*	*0.80*	*0.63*	*0.80*	*0.51*	*0.42*	*0.57*	*0.47*	*0.55*	*0.56*
Thailand	*0.48*	*0.88*	*1.16*	*1.27*	*1.20*	*0.83*	*0.54*	*0.60*	*0.67*	*0.90*
Total Global FDI Inflows (US$ bn)	91.6	200.6	211.4	158.4	175.8	217.6	243.0	331.2	337.6	400.5

* Estimates only.
Note: N/A = Not available. Developing countries do not include Central and Eastern Europe.
Source:UNCTAD, *World Investment Report*, 1995 and 1998.

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Table 2.5

Stock and Flows of FDI to Asian Developing Countries
(in Millions of U.S. Dollar)

	Stock			Annual Inflows During the Years									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Indonesia	24971	258	385	576	682	1093	1482	1777	2004	2109	4348	6194	5350
Korea	1806	435	602	871	758	715	1116	727	588	809	1776	2325	2341
Malaysia	8510	489	423	719	1668	2332	3998	5183	5006	4342	4132	4672	3754
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	11	2	8	7	10	5	7
Myanmar	6	N/A	N/A	N/A	8	161	56	171	149	91	115	100	80
Nepal	2	N/A	N/A	N/A	1	6	2	1	4	6	5	19	20
Philippines	1302	127	307	936	563	530	544	228	1238	1591	1459	1520	1253
Singapore	13016	1710	2836	3655	2887	5575	4888	2204	4686	8368	8210	9440	10000
Sri Lanka	517	30	60	46	20	43	48	123	195	166	56	120	140
Taiwan	2930	346	718	959	1604	1330	1271	879	917	1375	1559	1864	2248
Thailand	1999	263	352	1105	1775	2444	2014	2114	1804	1322	2002	2268	33600
China	3444	1875	2314	3194	3393	3487	4366	11156	27515	33787	35849	40800	45300
Hong Kong	3520	989	3339	2627	1076	1728	538	2051	1667	2000	2100	2500	2600
India	1075	N/A	N/A	N/A	252	236	155	233	574	973	1964	2382	3264
Total Amount[1] (in US$ mn)	63098	6522	11336	14688	14687	19681	20489	26849	46355	56946	63585	74209	79957

[1] Total of the available countries.
Note: N/A: Not available.

Sources: *World Investment Report*, UNCTAD, 1995 and 1998, *Balance of Payments Yearbook*, IMF, various issues, and *World Development Finance*, World Bank 1998. Figures up to 1989 are also taken from Petri (1994).

Regarding the composition, the NIEs were the major beneficiary during 1986-88, attracting almost three-fifths (US$ 6.3 billion) of the FDI inflows to Asian developing countries. This position was maintained in 1989-91, although the share declined remarkably in favour of ASEAN, especially Malaysia and Thailand. After 1992, the share composition has changed dramatically in favour of China. In the recent years, China has been the second largest recipient of FDI in the world (after the U.S.) and the single largest among developing countries (UNCTAD, 1998). More recently, FDI inflows to India and other countries are also picking up (Table 2.6). Figure 2.3 presents the FDI flows to GDP ratio of the in-sample Asian countries.

Table 2.6

Distribution of FDI Inflows into Asian Countries
(In percent unless otherwise stated)

	1986-88[1]	1989-91[1]	1992-94[1]	1995	1996	1997
NIEs	**58.24**	**42.90**	**20.27**	**21.46**	**21.73**	**21.50**
Hong Kong	20.84	6.24	4.92	3.30	3.37	3.25
Korea	5.97	4.75	1.80	2.79	3.13	2.93
Singapore	25.37	23.95	11.00	12.91	12.72	12.51
Taiwan	6.06	7.96	2.56	2.45	2.51	2.81
ASEAN5	**17.70**	**34.94**	**24.63**	**18.96**	**19.88**	**17.56**
Indonesia	3.76	5.81	4.88	6.84	8.35	6.69
Malaysia	5.37	12.24	12.58	6.50	6.30	4.70
Myanmar	0.00	0.38	0.37	0.18	0.13	0.10
Philippines	3.68	3.06	2.10	2.29	2.05	1.57
Thailand	4.89	11.44	4.70	3.15	3.06	4.50
China	**23.64**	**20.71**	**53.42**	**56.38**	**54.98**	**56.66**
SAARC3	**0.43**	**1.44**	**1.67**	**3.18**	**3.40**	**4.28**
India	0.00	1.22	1.27	3.09	3.21	4.08
Nepal	0.00	0.02	0.01	0.01	0.03	0.03
Sri Lanka	0.43	0.20	0.39	0.09	0.13	0.18
Mongolia	**0.00**	**0.02**	**0.01**	**0.02**	**0.01**	**0.01**
Total Inflows (US$ mn)	10848	18258	43383	63585	74209	79957

[1] Annual average.
Source:Calculated on the basis of Table 2.5.

Figure 2.3

FDI flows to GDP Ratio of Asian Developing Countries
(As percent of GDP)

Fig. 2.3(a): China

Fig. 2.3(b): Hong Kong

Fig 2.3 (c): India

Fig. 2.3(d): Indonesia

Fig. 2.3(e): Korea

Fig. 2.3(f): Malaysia

Fig. 2.3(g): Mongolia

Fig. 2.3(h): Myanmar

Fig. 2.3(i): Nepal

Fig. 2.3(j): Philippines

Fig 2.3(k): Singapore

Fig. 2.3(l): Sri Lanka

Figure 2.3(m): Taiwan

Fig 2.3(n): Thailand
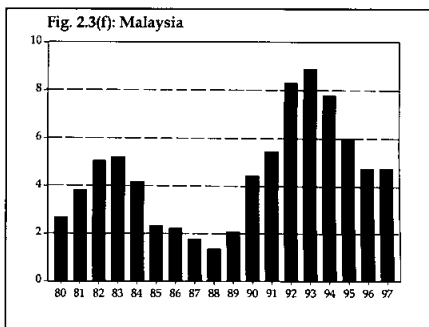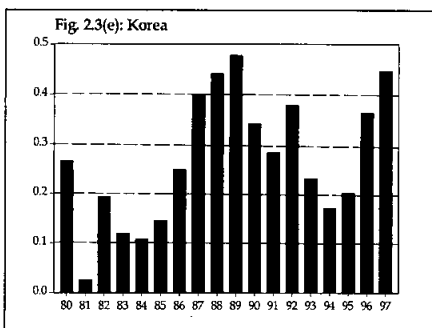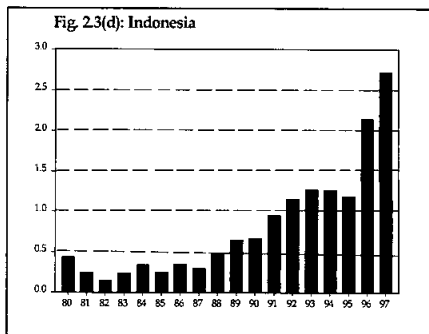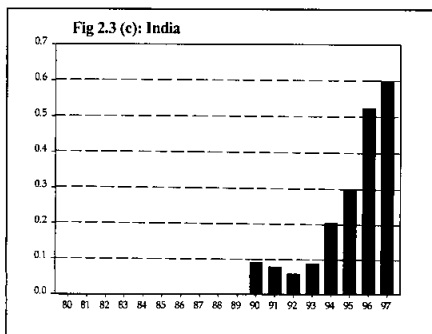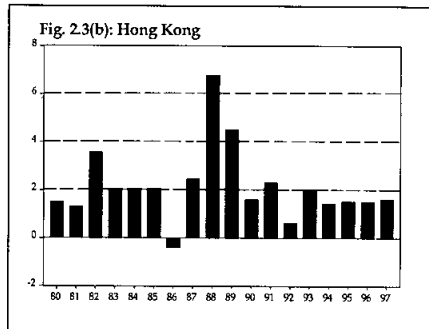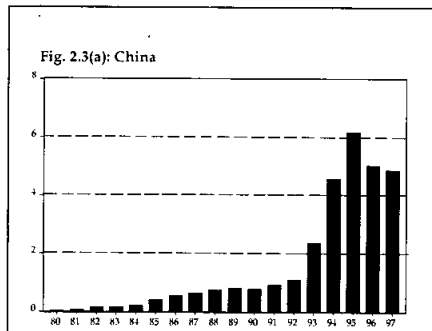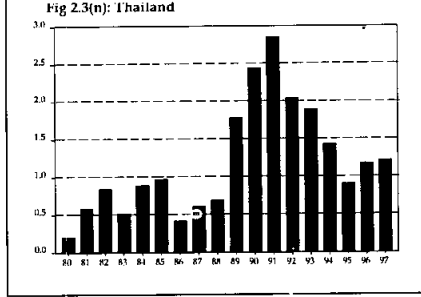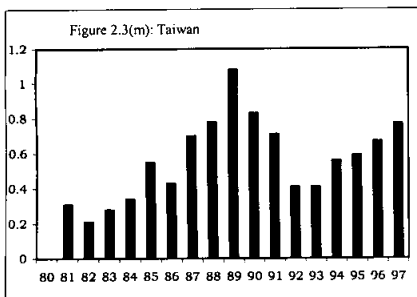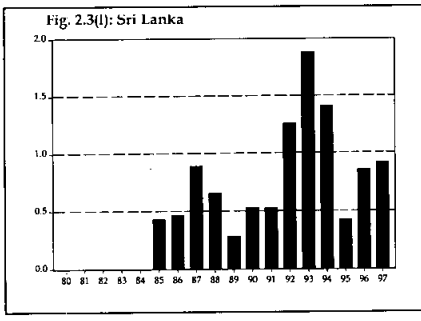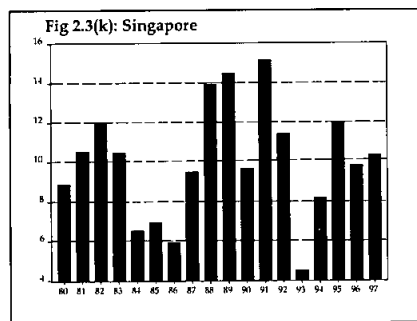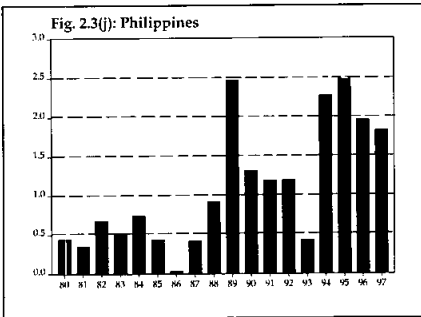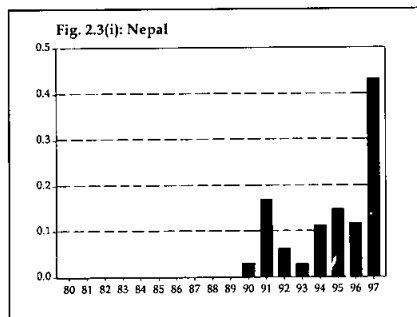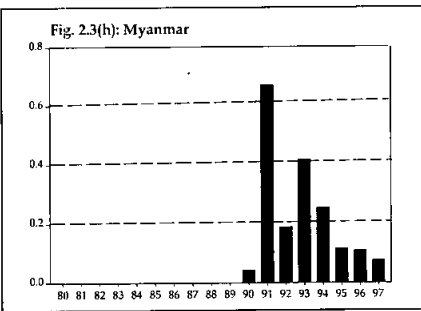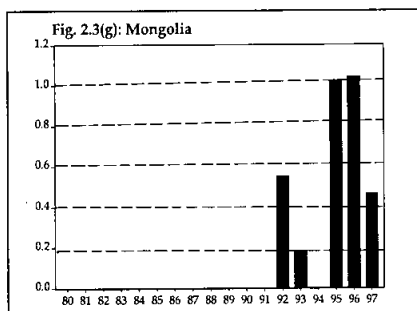
Source: *World Investment Report*, UNCTAD 1995 and 1998.
Data for Taiwan are provided by The Central Bank of China, Taipei.

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Chapter 3

ANALYTICAL APPROACH, SAMPLE PERIOD AND SOURCES OF DATA

3.1 Study Approach

A comprehensive analysis of economic interdependence would require a full coverage of economic transactions in goods and services such as trade, investment, finance, tourism, transport and even labour migration. However, due to lack of required data and information, the study focused on trade and investment, the two fundamental elements of economic interdependence. Between these two, greater concentration was on trade because of availability of data for bilateral trade flows.

Following Petri (1993), this study employed the trade intensity analysis technique to measure the extent of trade linkages among the Asian countries. There are also other methods, especially the gravity model which is gaining popularity in the recent years. If one wishes to see separately the effect of preferential treatment and other factors such as geographical proximity, cultural familiarity, etc., then the gravity model would be more suitable. But as the objective of this study is to assess the interdependence in aggregate and not to measure the effect of each factor separately, we found the trade intensity analysis technique suitable not only because of its simplicity but also its ability in capturing the bilateral/multilateral trade linkages explicitly. In addition, this technique seems applicable to measure other types of bilateral transactions as well, including foreign direct investment. However, due to the paucity of FDI data for many of the in-sample countries, the analysis concerning intra-regional FDI was largely confined to descriptive analysis. The analysis on the impact of trade and foreign investment on economic growth was also made on the basis of simple correlation and Granger causality tests.

3.2 Measures of Trade Interdependence

Following Petri (1993), the three commonly used ratios of interdependency are: absolute measure of trading intensity; relative measure of trading intensity; and double relative measure of trading intensity. Details of these measures are given below:

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(i) ***Absolute measure of trading intensity*** is the ratio of bilateral/multilateral trade in proportion to world trade. Symbolically, it can be written as:

$$AM_t == \frac{T_{ij}}{T_w} \qquad \cdots\cdots \quad \cdots\cdots \quad \cdots\cdots \quad (1)$$

Where,

AM_t	=	Absolute measure of trade intensity.
T_{ij}	=	Two-way trade of country i with country j (i.e., exports of country i to country j plus imports of country i from country j), where both j and i are countries in the same region. Here, since we are measuring intra-regional trade linkage, this T_{ij} refers to a sum total of individual countries' trade within the region.
T_w	=	Total world trade (exports plus imports).

(i) ***Relative measure of trading intensity***: Relative measure is a familiar bilateral/ multilateral trade share. It shows the extent of the region's internal trade in comparison to its total trade. This is derived by dividing the absolute ratio by the share of the country's/region's total trade in proportion to world trade:

$$AM_t = \frac{AM_t}{T_i / T_i} = \frac{T_{ij}/T_w}{T_i / T_w} = T_{ij} \Big/ T_i \qquad \cdots\cdots \quad \cdots\cdots \quad \cdots\cdots \quad (2)$$

Where,

RM_t	=	Relative measure of trade intensity.
T_i	=	Total trade of a country (both within and outside the group or region). In this case, total trade of the countries is included in the sample.

(iii) ***Double relative measure of trading intensity***, which is also called gravity coefficient in past literature (see for example Linnemann, 1966;

and Leontief and Strout, 1963)[4], estimates the regional trade prefer-
ence of its own products to those made elsewhere. This measure
reveals the bilateral/intra-regional trade concentration ratios. If trade
within the region is proportionate to the distribution of total trade,
the ratio should be close to one whereas if it is more concentrated
within the region, the ratio should be more than one and vice-versa.
Double relative measure of trading intensity is derived by dividing
the absolute measure with the world trade share of exporting and
importing countries. Alternatively, the double relative measure is
computed by deflating the relative measure of trading intensity of the
first country with the worldwide trade share of the second country.
Symbolically:

$$DRMt = \frac{AMt}{\left(\frac{T_i}{T_w}\right)\left(\frac{T_j}{T_w}\right)} = \frac{T_{ij}T_w}{T_iT_j} = \frac{T_{ij}/T_i}{T_j/T_w}$$

$$= \frac{RMt}{T_j/T_w} = \frac{RMt}{T_i/T_w} \qquad \ldots \ldots \quad \ldots \ldots \quad \ldots \ldots \quad (3)$$

Where,

T_j =   Total trade of the importing countries, i.e., total trade
of the region. In this case, it can also be replaced by
T_i when computing the trade intensity among the group
of countries.

DRM_t =   Double relative measure of trade intensity or gravity
coefficients.

The usefulness of each of these measures depends on the question
one wants to address. In this connection, Peter Petri (1993) wrote:

*"Each of these measures of trading intensity is appropriate for
answering a particular type of question. For example, if one is in-
terested in the relative stakes or influence of different group of coun-
tries in global trade negotiations, it may make sense to compare their*

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4.   Monetary Authority of Singapore, *Occasional Paper No. 7.*

trade volumes to world levels by using an absolute intensity index. Alternatively, if one wants to know to what extent a country will respond to the interests of a particular partner (or group of partners), then the intensity of the bilateral (intra-bloc) trading relationship is best judged using relative measure (in effect, the share of the partner[s] in the country's trade). Finally, if one wants to assess the extent of trade biases toward particular partner (or group of partners) relative to the neutral of assignment of trade across all partners, then double relative indexes, or gravity coefficients, provide an appropriate answer." (pp. 23-24)

While the absolute measure of trading intensity may be useful in comparing the scale of bilateral/intra-regional trading relationship to worldwide averages, it would be inadequate to measure trade relation between two small countries as the magnitude of such trade in proportion to world trade may be quite insignificant. On the other hand, the relative measure of trading intensity, in spite being biased toward large country or group of countries, is a useful indicator to observe bilateral/multilateral trade shares in the country/region's total trade. Meanwhile, the double relative measure provides bilateral/intra-regional trade concentration by effectively removing the large country bias.[5]

Despite the growing application of gravity model in the recent years, even the advocates of the model, for example Frankel (1997), have supported the usefulness of relative measure (his intra-regional trade shares) and double relative measure (trade concentration ratios). He gave the following observations regarding these measures:

Relative measure:
"Levels of intra-regional trade are indeed useful for some purposes. Let us say we are interested not in the effects of preferential tariffs and other policy determinants on bilateral trade patterns but rather in the effects of bilateral trade. Such effects would be of interest, for example, to business people, macroeconomists, and political scientist. Then it would be perfectly appropriate to look at the intra-regional trade shares." (p. 25)

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5. For details, see Monetary Authority of Singapore, *Occasional Paper No. 7*, p. 3.

Double relative measure:

"......it is legitimate to inspect the concentration ratios and infer that trade is indeed becoming more regionalized over time in some parts of the world," (p. 31)

Closely related to the double relative measure or gravity coefficient, there is another measure called the "intensity coefficient" by some economists (Anderson and Norheim 1993a, and 1993b; Drysdale and Garnaut 1982, 1993; Drysdale 1988). This measure, when applied to a single pair of countries, is the same as the gravity coefficient. Understandably, we cannot replace the T_j by the T_i as in Equation (3) above. But when assessing the intra-regional trade linkages within a group of three or more countries, there is an issue as to how to aggregate trade among the pairs. Their intensity coefficient is an improvement as it makes an adjustment in the denominator of the double relative measure. This adjustment is important, as the numerator does not count the first country's trade with itself and it is reasonable to make numerator and denominator comparable.[6] Symbolically the intensity coefficient is defined as follows.

$$IT_{ij} = \frac{AMt}{\left(\frac{T_i}{T_w}\right)\left(\frac{T_j}{T_w}\right)} = \frac{T_{ij}T_w}{T_iT_j} = \frac{T_{ij}/T_i}{T_j/T_w} = \frac{T_{ij}/T_i}{T_j/(T_w-T_i)} \quad \text{......} \quad \text{......} \quad \text{......} \quad (4)$$

Where,

IT = The intensity coefficient of a country i with its trading partner(s) j.

In this way, the intensity coefficient is an improvement over the double relative measure or the gravity coefficient as it excludes trade of the first country from the world trade. While assessing trade intensity of a group of countries with a country having small trade, the adjustment would not alter the result significantly but the result would be considerably different in case of large trading partner, Japan for instance.

Because of this, the trade linkages of Asian countries with a particular partner within the group has to be assessed using intensity coefficient,

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6. See Jeffrey A. Frankel (1997), pp. 27-28, for more details.

though the assessment of trade linkages among the Asian countries as a group has been made on the basis of double relative measures[7].

Having established a broad economic interdependence among the Asian countries as a whole as well as with an individual country, the study then assessed the degree of dependency between each pair of the countries. For this, a separate analysis of export and import trade linkages was made.

Equations (1) to (3) can be easily modified to measure export and import trade linkages. The relative measures of bilateral export and import intensity can be computed by substituting the total trade (T) in Equations (1) and (2) by either exports (X) or imports (M). No further adjustment is required, as the purpose of determining this ratio is simply to look at the development of trade shares over the period. In case of double relative measure or intensity coefficient, however, some modifications have to be made, as the main purpose of this index is to see the importing partner(s) preference to the products of an exporting country. Thus the export and import trade intensity of a country are defined as follows:

Export Intensity:

$$IX_{ij} = \frac{X_{ij}/X_w}{(X_i/X_w)(M_j/X_w)} = \frac{X_{ij}/X_i}{M_j/X_w}$$

Where,

IX_{ij}	=	Export intensity coefficient of a country i with country(s) j.
X_{ij}	=	Exports of country i to its trading partner(s) j .
X_i	=	Total exports of country i.
X_w	=	Total world exports.
M_j	=	Total imports of country/countries j.

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7.   The analysis of trade interdependence among the countries as a whole is mainly based on double relative measure of trading intensity considering that although a country's trade with itself does not appear in international trade statistics, international trade among the countries of the group does.

In effect the double relative measure of export intensity of country i is derived by deflating its worldwide export share (i.e., the relative measure) with country j's share of imports in world exports. This modification is important because even when a marked increase in country i's exports to country j is observed in a particular year, one cannot infer that country j's preference to country i's products has increased. Instead, the rise in country i's exports to country j may be due to a sharp rise in country j overall imports. In other words, country i's share of exports to country j may have shown an increase even if the share of country j's import from country i is constant or even lower.

Since country i and country j cannot export to or import from itself, the double relative measure of export trade intensity has to be corrected further by substituting total world exports (X_w) with total world imports net of total imports of country i $(M_w - M_j)^8$. The corrected measure of export intensity is defined as:

$$IX_{ij}C = \frac{X_{ij}/X_i}{M_j/(M_w - M_i)} \qquad \text{......} \quad \text{......} \quad \text{......} \quad (5)$$

Where,

$IX_{ij}C$	=	Corrected export intensity coefficient of country i with country j.
M_w	=	Total world imports.
Mi	=	Total imports of country i.

Import Intensity:

With the same reasoning, the import trade intensity of a country can be defined as:

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8. See Monetary Authority of Singapore (1998), op. cit., p. 28.

$$IM_{ij}C = \frac{M_{ij}/M_i}{X_j/(X_w - X_i)} \qquad \ldots\ldots \quad \ldots\ldots \quad \ldots\ldots \quad (6)$$

Where,

$IM_{ij}C$	=	Corrected import intensity of country i with country j.
M_{ij}	=	Country i's imports from country j.
M_i	=	Total imports of country i.
X_j	=	Total exports of country/countries j.

3.3 Sample and Data

Measurement of trade intensity is based on the annual data covering the period 1985-1997. Though many of the Asian countries included in the sample have been adopting outward-oriented economic policy since the 1970s or even the 1960s, there was still a general tendency of import restrictions in some countries. Moreover, some countries were virtually closed till the early 1980s. Even the relatively more open economies were also practising trade restrictions in one way or the other. It is generally from the mid-1980s that the trend has changed considerably. Thus, 1985 was chosen as the starting year to observe interdependence after liberalisation. For the correlation and Granger causality test, however, the sample period is extended from 1980 to 1997 to enable more meaningful results. Although this extended sample size is still considered small for Granger causality test, data limitation, particularly FDI, prevented us from going beyond this period. Similarly, while the study can only provide data up to 1997 due to unavailability of direction of trade statistics and foreign direct investment data for each country, attempts were made to incorporate qualitative data for 1998 in the analysis, when possible.

The study relied on secondary data published in the various publications of SEACEN member countries as well as international institutions such as International Monetary Fund, World Bank, Asian Development Bank, UNCTAD, etc. Some data and information were obtained directly from member central banks and monetary authorities.

Chapter 4

ASSESSMENT OF
ASIAN ECONOMIC INTERDEPENDENCE

4.1 Brief History of Economic Interdependence in the Asian Region[9]

During the first half of the twentieth century, the Asian economic interdependence as shown by intra-regional trade among the East Asian nations was already significant, with the trade centres being Hong Kong, Manila, Shanghai, and Singapore. Apart from handling trade between the colonies and the European powers, these ports also helped coordinate a vast network of commerce stretching from India to Japan. The inter-linkages of trade and investment deepened significantly between the period of First and Second World Wars, increasingly driven by Japanese economic and military power. By 1932, Japan replaced the Netherlands as Indonesia's largest trading partner. Its trade with Malaysia also increased at the expense of the United Kingdom. Concurrently, there were also evidences of substantial flows of intra-regional investment from Japan mainly in transport and communication sectors. The Japanese investments in China came to match that of Great Britain. With the Second World War approaching in the late 1930s, efforts were intensified to integrate the regional economies and plans were made to form an exclusive East Asian economic bloc with an eventual idea of Greater East Asian Co prosperity Sphere.[10]

However, not much of the regional economic integration efforts could materialise as the War left East Asia in disarray. It not only made the sea transport unsafe but also rendered the pre-war institutions ineffective because of political developments such as the civil war (in China), the insurrections (in Indonesia, Malaysia, and some countries in Indochina), etc. These developments led to a fall in the intra-regional trading activity as well as a disruption in the trade pattern established in the pre-war years. Trading between Japan and Taiwan as well as Taiwan and Korea were sharply curtailed. Instead, these economies began to trade more with the

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9. Largely based on Peter Petri's (1993) analysis of East Asian interdependence on the basis of the data of the ten of East Asian economies, namely: China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.

10. See *East Asia's Trade and Investment*, the World Bank, 1994, pp. 21-22.

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U.S., at that time the leading military power in the Pacific and the only country whose economy was not affected by the Second World War (Petri, 1993). Consequently, the intra-trade of the East Asian countries as a share of world trade (absolute measure of trading intensity) declined to as low as 2.2 percent in 1955, as compared to 10 percent in 1938 (Table 4.1). Similarly, intra-trade as a share of the region's total trade (relative measure of trading intensity) also reduced by less than half to 31.3 percent from 67.1 percent in the comparable period. Despite the fall in intra-trade in terms of the absolute and relative measures, the same high level of gravity coefficients of 4.5 in 1955 as compared with 1938, suggests that the plunge in East Asian intra-trade was mainly a consequence of the fall in its total trade resulting from poor economic performance rather than diminished preference for regional products.[11]

Table 4.1
Measures of Regional Interdependence
(Exports plus Imports)

Region	1938	1955	1969	1979	1985	1990	1992
Intra-Regional Trade as a share of World Trade (Absolute Measure)							
North America	0.030	0.067	0.069	0.042	0.064	0.053	NA
Western Europe	0.182	0.196	0.287	0.293	0.271	0.338	NA
East Asia	0.100	0.022	0.029	0.042	0.064	0.079	NA
Pacific Rim	0.180	0.135	0.169	0.156	0.248	0.248	NA
Intra-Regional Trade as a Share of Regional Trade (Relative Measure)							
North America	0.227	0.334	0.379	0.287	0.330	0.313	0.314
Western Europe	0.461	0.491	0.647	0.664	0.654	0.712	0.711
East Asia	0.671	0.313	0.293	0.332	0.363	0.407	0.453
Pacific Rim	0.583	0.450	0.566	0.545	0.643	0.649	0.667
Gravity Coefficients of Intra-Regional Trade (Double Relative Measure)							
North America	1.73	1.65	2.09	1.95	1.71	1.84	1.86
Western Europe	1.16	1.23	1.46	1.51	1.58	1.50	1.55
East Asia	4.48	4.45	2.97	2.64	2.05	2.09	2.13
Pacific Rim	1.89	1.49	1.90	1.91	1.67	1.71	1.69

The regions refer to: North America: Canada and the United States;
East Asia: China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Taiwan, and Thailand; and
Pacific Rim: North America, East Asia and Australia and New Zealand.

Source: Peter Petri (1993 and 1994).

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11. Ibid., pp. 22-29.

As shown in Table 4.1, the post-war East Asian intra-trade in absolute terms, though increasing over the years since 1955, has not recovered to the level achieved in 1938. Comparing with other regions, the East Asian intra-trade by this measure of trading intensity has been considerably lower than those of the Pacific Rim and Western Europe but slightly higher than North America in 1990. The East Asian interdependence, in relative terms, fell sharply as the Japanese empire was dismantled after the Second World War, and continued to decline till the 1970s. Despite the rapid increase in the volume of intra-trade of these economies, the relative importance of regional trade could not match with the even more rapid growth of extra-regional trade as the region's trading system became more diversified, with trans-pacific trade growing especially fast (Petri, 1994). Unlike the absolute measure, which started to increase after 1955, the relative measure of trading intensity in East Asia kept on decreasing till the 1970s. Subsequently, however, the relative importance of regional trade began to increase, showing U-shaped pattern in the post war intra-trade.

The post war East Asian interdependence measured by double relative measure of trading intensity, i.e., the gravity coefficient, portrays a different picture. It shows that regional trade bias of East Asian countries that was maintained after the Second World War started to decline since 1955 till the mid-1980s, even when the region enjoyed spectacular economic growth. During the period, the gravity coefficient decreased by half to slightly above 2 in 1985 from as high as 4.5 in the period immediately after the Second World War. A similar pattern of decline is observed in most of the individual East Asian economies with the exceptions of China and the Philippines. China's intra-regional trade bias shows a more rapid decline while that of the Philippines' shows an unusual increase. The differences in the trade pattern can be attributed to major political changes in these countries (Petri, 1993).

The spectacular growth of the East Asian economies over the period is well known. If the intra-regional trade had expanded in proportion with the growth of East Asian markets, the gravity coefficient should have stayed constant. But it had not been so. The coefficient kept on decreasing steadily for three decades until the mid-1980s, suggesting a decline in intra-regional bias. Can it be inferred that the East Asian markets are the least integrated of all the regions? This may not be the case as the

gravity coefficients of East Asian trade are significantly higher than Western Europe, North America as well as the Pacific Rim throughout the study period. In addition, the coefficient, even at its trough, was still more than 2. This means East Asian markets' preference to intra-regional products was more than twice the preference to the outside products. The post war fall in gravity coefficient, therefore, should be considered as a natural and favourable outcome of aggressive outward-oriented (both intra-regional as well as extra-regional) policy of East Asian countries and not as an indication of a diminished regional integration.

Among the several factors explaining the decline in intra-regional bias, the most important are:

(i)   liberalisation of global economy, spurred by several rounds of trade negotiations;

(ii) rapid progress in global transport and communication networks;

(iii) general success of the trade-led growth strategy adopted by the region with greater focus on trade diversification,

(iv) growing economic maturity leading to greater acceptance of the region's products world-wide;

(v)   emulation of development path or similarity of East Asian industriali-sation strategies (flying geese pattern), firstly from Japan to Asian NIEs and then to ASEAN economies, forcing them to look beyond the region for suitable markets for their almost homogenous prod-ucts; and

(vi) supportive attitude of the U.S. to help the East Asian economies to recover from the Second World War by providing economic aid and hospitable markets for their exports.

4.2 Interdependence after 1985

Based on the gravity coefficient, the sharp and continuous decline in East Asian regional interdependence for nearly half a century, reverted, albeit marginally, after 1985. As shown in Table 4.1, the coefficients have been stabilized since then. In the subsequent analysis, we have added five more countries (India, Mongolia, Myanmar, Nepal, and Sri Lanka) to the ten East Asian economies included in Peter Petri (1993) study of East Asian interdependence. Thus, our study group will comprise 15 Asian countries and will be referred to as the "Asian-15" in our subse-

quent analyses. Even with the inclusion of these countries, the gravity coefficients show similar trend and pattern with marginal differences in the number.[12] For example, the gravity coefficient of East Asian Economies as calculated by Peter Petri (1993) for 1985 and 1990 are 2.05 and 2.09 respectively while the comparable coefficients for Asian-15 in our study are 1.92 and 2.05. Certainly, part of the variations is attributable to the less than proportionate intra-Asian trade of the included countries, especially India, which will be clear from subsequent discussions. Yet, given low level of trade of these countries (the five countries' trade together accounting for just around three-fourths of 1 percent of world trade), the revisions in the trade data of the East Asian Countries could have also played some role for the changes in the coefficient.[13]

Before going into intra-Asian trade linkages, it would be relevant to have an idea about the position of Asian countries in the world trading arena, which forms the basis to assess the intra-regional trade linkages. As shown in Table 4.2, there has been substantial increase in the Asian trade share in world trade, rapidly in the first half of the 1990s. This has been achieved mainly on account of higher than proportionate growth in most of the fast growing economies. During the period, 8 of the 15 economies included in the sample (China, Hong Kong, Korea, Malaysia, the Philippines, Singapore, Taiwan and Thailand) enhanced their shares significantly. For example, the trade of these economies that was 9.3 percent of world trade in 1985 increased to 16.5 percent in 1996, and was maintained at this level even in 1997, when the region was severely affected by the Asian financial crisis. Because of the sharp and steady rise in their trade, the total foreign trade of the sample economies increased to 25.8 percent of world trade in 1995 from 19.2 percent in 1985 before declining slightly thereafter. It should be noted that Asia could enhance the trade shares in spite of less than proportionate growth in Japan's trade, the dominant economy of the region. As shown by Table 4.2, trade performance of many of the fast growing Asian economies plunged in

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12. Although we have reported the trading intensity of Asian-15 only after 1985, we had also computed the gravity coefficient of these countries for 1980 and found the figure significantly higher than that for 1985, confirming that intra-Asian trade follows the similar trend as in the case of intra-East Asian trade.

13. While there are revisions in the subsequent issues of the *Direction of Trade Statistics* of IMF also, the revisions in the case of data supplied by the member central banks/ monetary authorities are even striking. Therefore it is natural to have some changes in the results.

1998 mainly as a result of the unprecedented economic sufferings by these economies in peacetime history due to Asian currency and financial crisis. Consequently, their shares fell significantly with the shrinking volume of world trade.

Table 4.2
Asian Countries' Trade as a Share of World Trade
(In percent unless otherwise stated)

	1985	1990	1995	1996	1997	1998
Japan	8.31	7.60	7.62	7.12	6.81	N/A
China	1.89	1.70	2.75	2.72	2.92	N/A
Hong Kong	1.62	2.39	3.58	3.55	3.56	N/A
India	0.66	0.61	0.64	0.64	0.65	N/A
Indonesia	0.78	0.69	0.84	0.87	0.85	0.70
Korea	1.66	1.96	2.55	2.62	2.52	2.07
Malaysia	0.75	0.85	1.48	1.47	1.42	1.21
Mongolia	N/A	N/A	0.01	0.01	0.01	N/A
Myanmar	0.02	0.02	0.03	0.04	0.04	0.04
Nepal	0.01	0.01	0.01	0.01	0.01	N/A
Philippines	0.27	0.31	0.45	0.51	0.58	0.56
Singapore	1.33	1.65	2.37	2.40	2.31	1.96
Sri Lanka	0.08	0.07	0.08	0.09	0.09	0.10
Taiwan	.1.37	1.77	2.11	2.04	2.12	1.98
Thailand	0.44	0.82	1.25	1.20	1.09	0.89
ASEAN-6	3.59	4.34	6.42	6.49	6.29	5.36
SEACEN	6.71	8.15	11.17	11.25	11.02	9.50
Asian-15	19.19	20.45	25.76	25.28	24.95	N/A
Total World Trade (US $ bn.)	**3703**	**6879**	**10224**	**10681**	**11154**	**10896**

Note: N/A = Not available.
The groups in the table refer: ASEAN-6: Indonesia, Malaysia, Myanmar, Philippines, Singapore, and Thailand; SEACEN: ASEAN-6 plus Korea, Mongolia, Nepal, Sri Lanka, and Taiwan; and Asian-15: SEACEN plus Japan, China, Hong Kong, and India.

Source: Calculated on the basis of data published in *Direction of Trade Statistics*, IMF, various issues and the data supplied by national sources. The total trade for 1998 has been taken from *IFS.*

4.2.1 Asian Interdependence by Different Measures of Trading Intensity

While the analysis of the Asian interdependence is based on all three measures of interdependence, the main focus is given to the relative and the double relative measures. Besides the Asian-15 as a whole, the intra-trade of the SEACEN and the ASEAN-6 are also presented in order to give an idea about development of intra-regional trade of these two sub-groups. It should be noted at the outset that the SEACEN sub-group was set up by 11 central banks to collaborate on issues relating to central banking functions and not explicitly for regional trade cooperation. Nevertheless, given the long-term association among group members, it will be interesting to observe whether such close association has spilled over to the area of trade.

Initially, even the Association of South East Asian Nations (ASEAN) was not very much concerned with regional economic co-operation. Rather, it was set up with an objective of bolstering regional stability in 1967. Over time, the ASEAN leaders began to focus on regional economic co-operation, resulting in the signing of ASEAN Preferential Trading Arrangement (PTA) in 1977 and subsequently, several initiatives to set up various joint development projects. Though the number of items covered under the ASEAN PTA kept on increasing in the following years from just 71 commodities at the beginning, only about 3 percent of goods were eligible for regional preference till the end of the 1980s, owing to non-inclusion of important products under PTA.[14]

With the establishment of the ASEAN Free Trade Area (AFTA) in January 1992, the ASEAN countries decided to cover nearly all sectors of intra-ASEAN goods trade. Of the AFTA members, the original ASEAN six (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand), are under the commitment to achieve free trade amongst themselves by 2003, where free trade is interpreted as a maximum protection of 5 percent on manufactured goods, with less precise commitments on agriculture products.[15]

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14. See Jeffrey A. Frankel, et al. (1997), *ASEAN in Regional Perspective*, p. 312.

15. Ross Garnaut (1998), *ASEAN and Regionalization and Globalization of World Trade*.

(i)   Absolute Measure of Trading Intensity

The absolute measure of trade intensity, which shows the scale of intra-regional trade in global perspective, increased remarkably during the last decade till 1995. By this measure, the Asian trade-integration has exceeded the pre-war level after 1992. Over the period, the pace of growth of intra-trade was higher than Asian trade worldwide. For example, between 1985 and 1995, Asian trade as a share of global trade had gone up by 1.34 times (25.76/19.19), whereas the comparable rise in intra-trade was 1.80 times (12.77/7.08).[16] Though the share appears to be on a declining trend thereafter, it seems to follow the pattern of the region's trade worldwide. By this measure, the intra-SEACEN trade has shown higher increase in comparison to ASEAN-6 throughout the period (Table 4.3 and Figure 4.1).

Table 4.3
Measures of Trade Interdependence
(Two-way Trade)

	1985	1990	1995	1996	1997
Absolute Measures (%)					
ASEAN-6	0.68	0.75	1.29	1.37	1.31
SEACEN	1.11	1.47	2.45	2.56	2.51
Asian-15	7.08	8.51	12.77	12.54	12.27
Relative Measures (%)					
ASEAN-6	19.12	17.38	20.20	21.10	20.84
SEACEN	16.57	18.07	21.98	22.69	22.7
Asian-15	36.90	41.78	49.66	49.65	49.24
Double Relative Measures					
ASEAN-6	5.34	4.00	3.16	3.25	3.31
SEACEN	2.47	2.22	1.97	2.01	2.06
Asian-15	1.92	2.04	1.93	1.96	1.97

Source: Author's calculation.

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16. Intra-regional trade should, however, be interpreted cautiously, since the data are partly distorted by entrepot trade with Hong Kong and Singapore. Unavailability of data on a comparable basis prevents a correction for such transactions.

Figure 4.1
Absolute measure of Trading Intensity
(in percent)
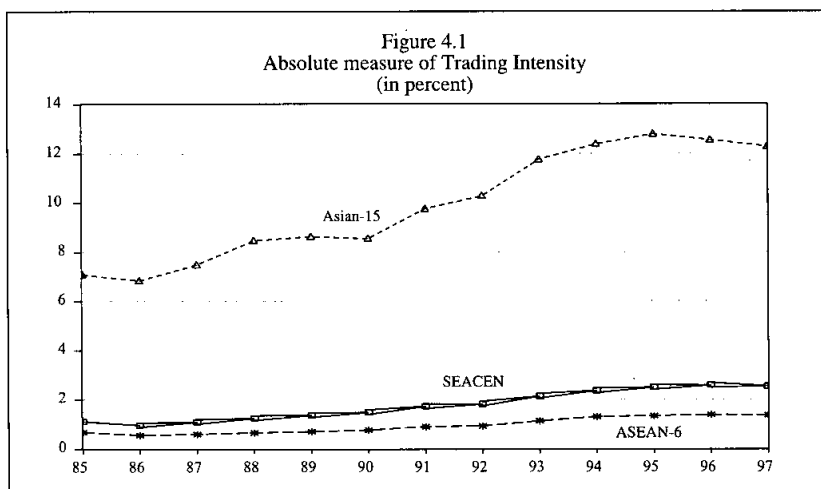
(ii) *Relative Measure of Trading Intensity*

The Asian interdependence can be seen even more clearly from the rising intra-regional trade shares. As mentioned above, the intra-regional trade shares started to increase since the 1970s after a sharp decline in the post-war era. The increase, however, was moderate during the initial period of the upturn. It is mainly from the mid-1980s that the relative importance of intra-regional markets began to outweigh the extra-regional markets. For example, the intra-regional trade of Asian-15 countries as a share of their worldwide trade increased by 12.8 percentage points to 49.7 percent in 1995 from 36.9 percent in 1985 — an average annual increase of about 1.3 percentage point.

Table 4.4 summarises the intra-trade performance of the region. Both intra-regional exports and imports shares have increased over the year. Figure 4.2 depicts relative measures of trade and intensity of the ASEAN-6, SEACEN and Asian-15 countries.

Table 4.4
Intra and Extra-Regional Trade Shares of Asian-15 Countries
(In percent unless otherwise stated)

	1985	1990	1995	1996	1997
Intra-Regional					
Exports	34.67	40.16	48.69	49.34	48.42
Imports	39.38	43.50	50.69	49.96	50.11
Total	36.90	41.78	49.66	49.65	49.24
The United States					
Exports	31.97	26.02	22.33	21.80	22.13
Imports	17.03	17.86	16.47	16.60	16.49
Total	24.90	22.06	19.47	19.21	19.39
European Union					
Exports	11.51	17.70	14.89	14.63	14.84
Imports	10.76	15.39	14.38	14.53	13.91
Total	11.15	16.58	14.64	14.58	14.39
Rest of the World					
Exports	21.86	16.12	14.09	14.23	14.62
Imports	32.83	23.25	18.46	18.92	19.50
Total	27.05	19.58	16.22	16.56	16.99
Total Trade Amount (US$ billion)					
Exports	374	725	1350	1357	1431
Imports	336	683	1284	1344	1352
Total	710	1407	2634	2700	2783

[1] Relative Measure of Trading Intensity.
Components may not add up due to rounding.

Source: Author's calculation on the basis of direction of trade statistics data.

From the individual countries' perspective, most of the countries' intra-trade shares have increased over the period and the significant increases can be seen in the trade shares of China, Hong Kong, Korea, Singapore, Taiwan and Thailand. Even the trade shares of Japan and

India have increased due mainly to higher rise in their export shares. Despite the rise in the trade shares in the recent years, India's trade with Asia remained less than one-forth of its total trade, showing lesser degree of interdependence with other Asian markets (see appendices).

Figure 4.2
Relative Measure of Trade Intensity
(in percent)
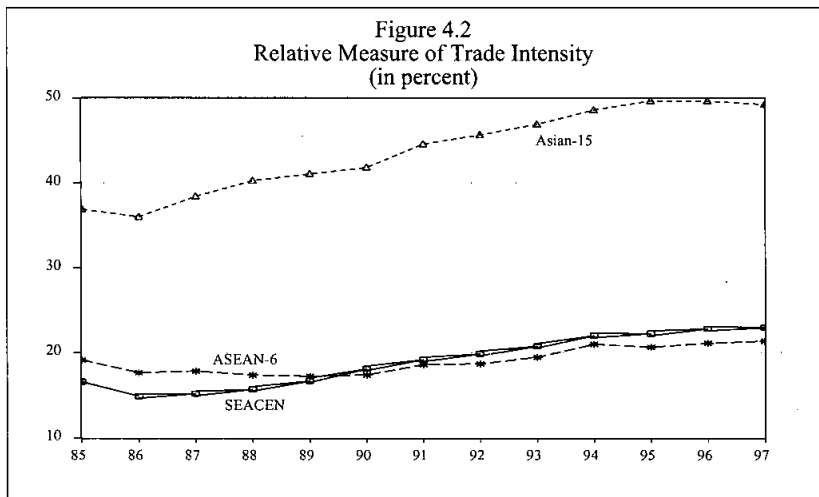
Seen from another angle, i.e., from the rest of the in-sample countries' trade shares with the individual countries within the region, a similar increasing trend is observed in most cases (Table 4.5). In the case of Japan, which is the major trading partner of the region, however, the trend is reversed. The Asian countries' trade share with Japan has declined remarkably over the period due to a fall in both export and import shares, more rapidly in export shares.[17] Apart from Japan, the Asian countries' trade shares with Indonesia and India also recorded some decreases.

Thus, the rise in the intra-regional trade shares over the period could be attributed to rapid increase in Asian countries' trade shares with China, Hong Kong, Korea, Taiwan and Thailand. Some increases have also witnessed with Malaysia and the Philippines as well as other countries such as Mongolia and Myanmar.

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17. Over the period, the growth of Japan's trade lagged behind not only with the growth of rest of Asian countries' trade but also with overall world trade. Because of this, though Japan's trade share with rest of the Asian countries has been increasing, the latter's trade shares with Japan has been decreasing. In other words, the importance of Asian market for Japan has been opposite for rest of the Asian countries.

Table 4.5

Asian Countries' Trade Shares with Selected Countries[1]
(Percent)

	1985	1990	1995	1996	1997
Japan	20.62	17.79	17.41	16.45	15.14
China	6.26	6.46	9.95	10.44	10.93
Hong Kong	4.14	6.30	6.04	5.73	6.33
India	0.83	0.69	0.75	0.80	0.80
Indonesia	2.65	2.21	2.06	2.15	2.25
Korea	2.63	3.79	4.66	4.75	4.52
Malaysia	2.79	2.73	3.96	4.09	4.02
Philippines	0.75	0.72	0.97	1.15	1.30
Singapore	3.28	3.87	4.88	4.84	4.68
Taiwan	2.41	4.12	4.82	4.65	4.64
Thailand	1.08	2.07	2.68	2.69	2.39

[1] Two-way trade of rest of the in-sample Asian countries with the individual countries listed.

Note: Asian trade with other countries in the sample has not been shown because of their lower shares.

Source:Author's calculation utilising direction of trade statistics data.

(iii)   *Double Relative Measure of Trading Intensity*

Degree of Asian interdependence in the period after the mid-1980s can also be seen from this measure of trading intensity. The sharp and steady decline witnessed in the gravity coefficients of intra-Asian trade in

the post-Second World War period reversed from the mid-1980s.[18] The high coefficients, though small with some marginal fluctuations, followed an increasing trend throughout the period. This shows that the pace of expansion in intra-regional trade has been in proportion, or even higher, with the growth of the Asian markets.

There was a general increase (Table 4.6) in the gravity coefficient of Asian trade in the late 1980s, both within the region as well as outside the region. The rise in intra-trade bias was largely associated with the fast growth of trade with China. Afterwards, the coefficients for most of the countries decreased except for Japan whose coefficients continued to increase, albeit at a slower pace, till 1996. In view of the trade performance of Japan over the years, the rise in its intra-Asian trade bias is not attributed to increasing trade performance but the slower growth of its trade. It should be noted that the gravity coefficients of Asian trade to the countries outside the region, such as the U.S., has declined steadily in the 1990s. The recent trend in intra-Asian trade bias within the individual countries in the region as well as outside the region will become clear after the assessment of trade intensity index in the subsequent discussions.

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18. Jeffry A. Frankel (1997) has, however, found the coefficient declining, albeit very slowly after 1985. This may be due to the different source of data as his findings are based on the Statistics Canada, World Trade database; and UN COMTRADE database.

Table 4.6
Intensity of Asian Trade Linkages with Different Countries and Regions
(Gravity coefficient measure)

	1985	1990	1995	1996	1997
Asian-15					
Japan	1.41	1.47	1.61	1.66	1.62
China	2.99	3.49	3.23	3.43	3.31
Hong Kong	2.34	2.33	1.45	1.39	1.53
India	1.20	1.10	1.14	1.22	1.21
Indonesia	3.26	3.09	2.37	2.39	2.55
Korea	1.45	1.75	1.65	1.62	1.61
Malaysia	3.58	3.08	2.52	2.62	2.68
Mongolia	NA	1.56	1.68	1.80	1.90
Myanmar	5.57	5.58	3.81	3.63	3.76
Nepal	3.22	2.16	2.06	1.99	2.03
Philippines	2.71	2.31	2.14	2.19	2.21
Singapore	2.30	2.15	1.87	1.83	1.84
Sri Lanka	1.84	1.90	1.55	1.46	1.45
Taiwan	1.63	2.12	2.10	2.09	2.00
Thailand	2.38	2.42	2.05	2.13	2.10
Intra-Asian	1.92	2.04	1.93	1.96	1.97
Others					
United States	1.60	1.67	1.47	1.42	1.36
European Union	0.32	0.38	0.38	0.39	0.39
Rest of the World	0.88	0.88	0.72	0.70	0.70

Note: While calculating the gravity coefficient within the sample countries, the rest of the countries in the group (14 countries) have been treated as the first country and the individual countries as the second. For countries outside the sample, on the other hand, all the 15 countries are treated as the first country and the trading partner(s) as the second.

Source: Author's calculation utilising direction of trade statistics data.

Before analysing the interdependence on the basis of intensity indices, we looked at the gravity coefficients of intra-trade of ASEAN-6 and SEACEN countries. As shown in Table 4.3 and Figure 4.3, the breaking point in the gravity coefficient of ASEAN-6 appeared long time after the trend witnessed in case of Asian countries as a whole. Trend of the gravity coefficient of the SEACEN countries, although increased between 1988 to 1990, declined during the first half of 1990s, albeit at a slower pace. We know the rapid growth of SEACEN in general and the ASEAN in particular in the past decade or so till 1996. The interesting thing is that the rapid growth was accompanied by the decline in the gravity coefficients of both groups, more rapidly in case of ASEAN-6 countries.

Figure 4.3
Double Relative measure of Trading Intensity
(gravity coefficient)
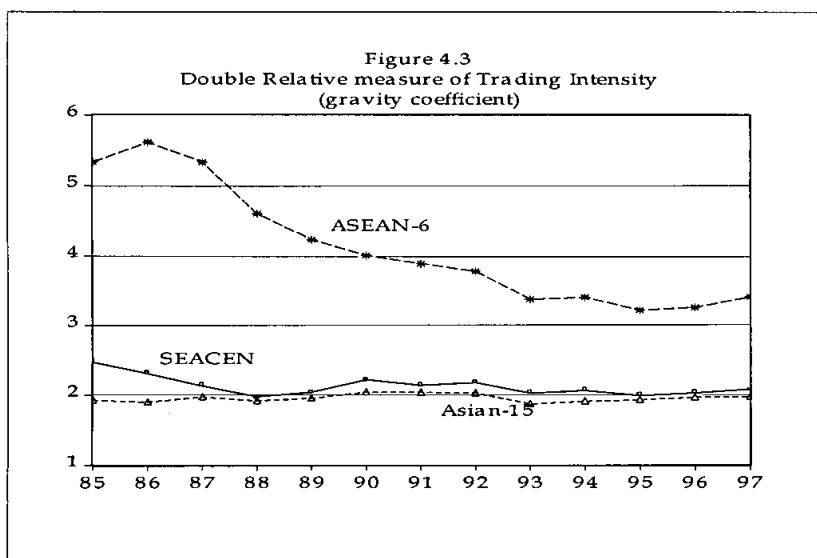
Understandably, the decline in the SEACEN intra-trade bias can, to some extent, be attributed to a substantial decline in ASEAN intra-trade bias, as almost all ASEAN members are part of the SEACEN group. But the decline in the ASEAN-6 countries seems somewhat unusual in view of the preferential trading arrangements since 1977, on top of rapid growth. In this connection, it can be inferred that a preferential trading arrangement has not played an important role in encouraging trade among the group. Before the establishment of ASEAN Free Trade Area (AFTA) in 1992, the earlier preferential arrangements were not deep enough to have significant effects on the patterns of trade in these countries. In this respect, AFTA seems more serious than the earlier preferential trading arrangements, as it called for a phase-wise reduction on tariffs and non-tariff barriers amongst the members beginning from 1993. Besides, AFTA also covers all sectors of intra-ASEAN merchandise trade, even though it has less precise commitment on agriculture products. Despite the declaration by the ASEAN-6 members (Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand) to achieve free trade amongst themselves by 2003, reductions in protection have been applied to all trading partners, and not just AFTA members alone. In fact, the ASEAN trade practice has developed in a very different way from other major trading blocs as the trade liberalisations of the ASEAN countries have not been confined to liberalisations amongst themselves but to the non-members as well. Unlike the European Union and the North American Free Trade Agreement, which significantly impact trade patterns through their discriminatory reduction in barriers in favour of trade amongst members, the ASEAN bloc did not have such practices.[19]

Despite the lesser effects of the preferential measures on intra-regional trade, the establishment of ASEAN has been important to trade expansion -- both within the ASEAN region and outside the region. As seen from Table 4.7, the real intra-regional exports of ASEAN countries (at 1995 prices) increased much faster (27 times) than the EC-12 (around 5 times) and North America (8 times) during the period 1965-1995. Only the East Asian bloc has a faster intra-trade growth (above 37 times). Considering the decade of 1985 to 1995 alone, the growth in intra-ASEAN trade has been the highest in comparison to all the other blocs included in the study.

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19. Ross Garnaut, op. cit., p. 219.

Thus, the decline in the gravity coefficients of ASEAN countries during the period of 1985-1995 has not been due to a fall in intra-regional trade. Indeed, the rise in intra-regional exports at constant 1995 prices amongst the ASEAN countries over the period has been much higher than their exports to the rest of the world.

Table 4.7

Exports within the Group and to the Rest of the World of Different Trade Blocks (US $ billion, Constant 1995 price)

	Intra-Regional Exports					Exports to Rest of the World					Total Exports				
	1965	1975	1985	1995	1996	1965	1975	1985	1995	1996	1965	1975	1985	1995	1996
EC-12	196	437	692	1023	951	188	406	584	774	788	384	843	1276	1797	1739
East Asia	16	69	166	584	591	43	140	320	625	622	59	209	486	1209	1213
ASEAN-7	2.8	4.5	14.3	75.6	NA	9.1	23.8	62.7	244.9	N/A	11.9	28.3	77.0	320.5	N/A
N. America	51	103	177	394	407	105	195	227	461	455	156	298	404	855	862
World											988	2058	3075	4923	5003

Note: N/A = Not available.
1. East Asia includes Japan, Korea, China, Taiwan, Hong Kong, Thailand, the Philippines, Indonesia, Singapore and Vietnam.
2. ASEAN-7 refers to Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam.
3. North America includes USA, Canada and Mexico.

Source: Extracted from Ross Garnaut (1998), Tables 3 and 4.

Moreover, the gravity coefficients of both the ASEAN-6 and the SEACEN countries, particularly for the ASEAN-6, have been consistently higher than the Asian-15 countries (Figure 4.3). The intra-regional trade in proportion to the distribution of global trade is more than 3 in the case of ASEAN-6 and roughly about 2 in the case of SEACEN. So the decline in gravity coefficients should not be construed as a lesser preference in intra-regional products. In the context of globalisation and rapid growth of the economy, over concentration of trade with a particular trading partner(s) may not be desirable as such limited market may not be adequate to absorb the additional products. The downward trend in gravity coefficients, therefore, is more likely the outcome of an increase in extra-regional trade, not the outcome of a fall in regional interdependence per se. For the region that already has high gravity coefficient (for example, above 3 as in the case of ASEAN-6), the important point is that the coefficients do not continue to decline but at least stabilise.

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However, even with rising intra-regional trade of the ASEAN countries and the stabilised gravity coefficient, it has been evident that the intra-ASEAN trade did not increase in line with the rise in its market. This implies that while keeping the basic tenet of trade expansion to both inside and outside the group, ASEAN members should put more effort to further enhance intra-regional trade. This is also important in building up a clout to effectively deal with other regional blocs, which have been emerging strongly in the recent years.

As mentioned earlier in Chapter 3, the double relative measure of trading intensity does not take into account some of the important attributes that may considerably affect the ratio, as can be seen from Table 4.8.

Table 4.8
Intensity of Asian Trade Linkages with Different Countries and Regions
(Intensity index)

	1985	1990	1995	1996	1997
Asian-15					
Japan	2.21	2.04	1.87	1.89	1.82
China	2.75	3.09	2.79	2.98	2.92
Hong Kong	2.11	2.16	1.31	1.26	1.40
India	1.01	0.91	0.88	0.94	0.94
Indonesia	2.77	2.57	1.84	1.87	2.00
Korea	1.31	1.58	1.41	1.40	1.39
Malaysia	3.04	2.58	2.03	2.12	2.17
Mongolia	N/A	1.24	1.25	1.35	1.43
Myanmar	4.51	4.44	2.83	2.72	2.83
Nepal	2.61	1.72	1.53	1.49	1.53
Philippines	2.23	1.87	1.63	1.68	1.71
Singapore	2.03	1.90	1.57	1.56	1.57
Sri Lanka	1.49	1.52	1.16	1.09	1.09
Taiwan	1.44	1.89	1.75	1.75	1.69
Thailand	1.98	2.03	1.62	1.70	1.67
Others					
United States	1.30	1.33	1.09	1.06	1.02
European Union	0.26	0.30	0.28	0.29	0.30
Rest of the World	0.71	0.70	0.53	0.53	0.53

Note: N/A = Not available.
　　　 While calculating the intensity coefficient within the sample countries, the rest of the countries in the group (14 countries) have been treated as the first country and the individual countries as the second. For countries outside the sample, on the other hand, all the 15 countries are treated as the first country and the trading partner(s) as the second.

Source: Author's calculation utilising the direction of trade statistics data.

While the intensity index (Table 4.8) appears different from the gravity coefficient (Table 4.6) in terms of magnitude, the trend is almost similar for all the countries, except for Japan.[20] Asian trade intensity with some of the countries such as China, Korea, and Taiwan, has increased from the second half of 1980s. Similar trend can be observed for other countries in the initial two years. Even the intensity with Japan stabilised at a higher level of 2.15 in 1986 and 1987. Setback in the trade intensity was observed during the fist half of 1990s, particularly from 1990 to 1993, as there had been a general decline in the intensity indices for most of the Asian countries. However, in the subsequent years before the onset of the Asian crisis of 1997, Asian trade intensity with most of the trade partners within the region increased.

Whatever the trend of Asian trade intensity with individual trading partners, there has not been sharp fluctuations in both the intensity indices as well as the gravity coefficients in the past one decade or so. More importantly, the coefficients of both measures are more than one for all the countries, except India whose intensity index is a bit lower than one. This means that Indian trade within the region remains less than proportionate. In more recent years, however, both the gravity and the intensity coefficients have increased, which is largely a result of higher rise in the Asian countries' import intensity with India.

Turning back to the double relative measure or gravity coefficient for intra-Asian trade as a whole, we find the intensification of Asian interdependence over the study period. As mentioned earlier, the coefficient remained higher than 1.90 recorded in 1986 throughout the period, except in 1993 when it was slightly lower at 1.87 (Figure 4.3). The intensity of Asian trade link, which had declined for a long period of time, has been either on the rise or stayed constant in the recent years after the mid-1980s. The intensification of regional trade occurred on top of the already rapid trade growth could be attributable to the expansion of Asian markets (Petri, 1994).

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20. The fall in intensity coefficient to Japan is expected as Japan's trade recorded slower growth in comparison to the rest of the Asian countries'. It should be recalled that we deduct the fist country(s) total trade from world trade while calculating the intensity coefficient and when the trade of the first countries gets bigger, the multiplier gets smaller thus contributing to the decline in the coefficient value.

Apart from general reforms in trade and investment, the exchange rate developments could also be an important factor in intensifying Asian interdependence, at least in the initial period. As we can see the breaking point in the gravity coefficient normally appears at the end of the period when the U.S. dollar was appreciating as the Asian trade was shifted to the U.S. Even the Japanese companies, which were losing competitiveness against the other Asian economies, could maintain their exports. But the exchange rate adjustments in the mid-1985 following the Plaza Agreement that called for some orderly appreciation of the main currencies against the U.S. dollar, resulted in an appreciation of the Japanese yen. Initially, the appreciation of the yen was not followed by similar movements in other Asian currencies, resulting in exports from other Asian countries became more price competitive in both the U.S. and the Japanese markets.

The yen's appreciation affected the Asian interdependence in a complex way. For a while, Japan's imports from the other Asian countries surged and many countries began to run substantial trade surpluses. At the same time, the rise in exports also led to accelerating imports of the other Asian countries. This development not only halted the long-run decline in the Asian gravity coefficient but also raised the coefficient, implying the intensification of Asian interdependence (Petri, 1993).

The later part of the 1980s, however, saw a slight decline in gravity coefficient in the Asian region, which could partly be explained by a slowdown of Japanese imports from the other Asian countries due to the appreciation of other Asian currencies. However, the high growth of the region fuelled the rise in the coefficient again until 1992. In 1993, the coefficient reverted to decline to reach the lowest point since the mid-1980s, partly in response to a substantial slowdown in the global economy in the early 1990s that brought the world trade down to a negative growth in 1993.

4.2.2   Intra-Regional FDI Inflows

As mentioned earlier, intra-Asian investment, especially among the East Asian countries, have been in existence since the pre-war period, mainly due to Japanese investment. Immediately after the Second World War, such investment had suffered more than trade. It began to surge

Figure 4.4
MOVEMENTS OF NOMINAL EXCHANGE RATES
(US Dollar per Domestic Currency; 1985=100)
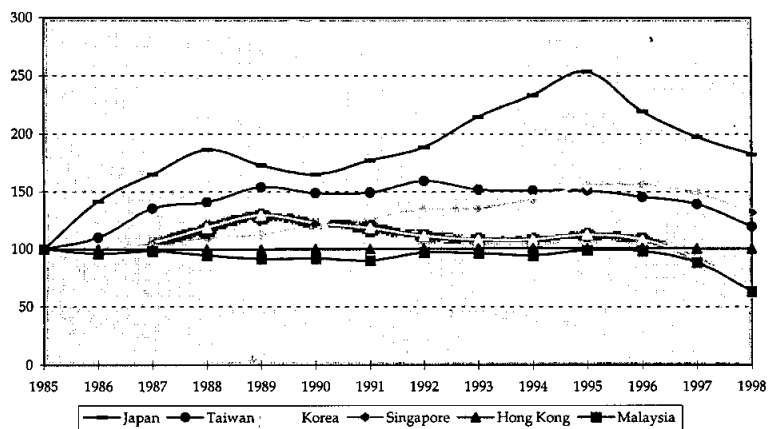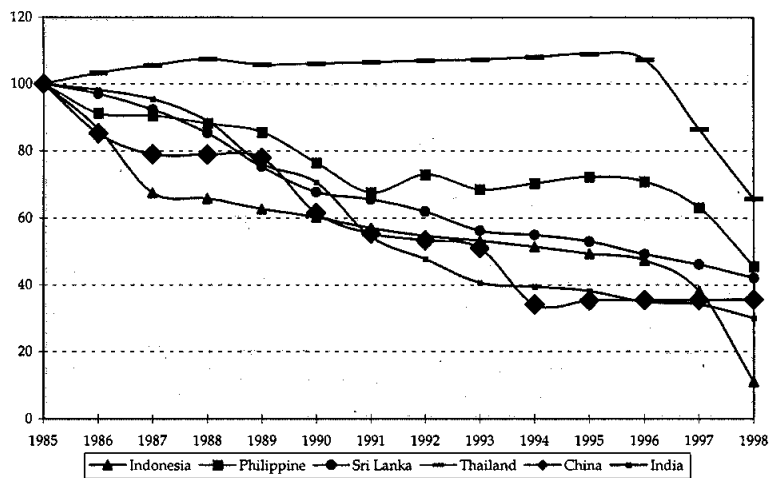
Note: Since the exchange rates are expressed in the US dollar per domestic currency, a downward movement of the index indicates
         depreciation of the domestic currency against the US dollar, and upward movement indicates appreciation.
Source: *International Financial Statistics (IFS)*, various issues.

only after the Japanese economy prospered and the Japanese yen appreciated significantly in the second half of the 1970s. Nevertheless, flows of foreign direct investment (FDI) amongst the region were not that substantial until the mid-1980s.

As discussed in Chapter 2, the period after 1985 witnessed unprecedented rise in global FDI flows. FDI flows to Asia were much higher than to other continents in the world. Although Asia has been successful in attracting increasing amount of FDI from outside the region as well, inflows from within the continent remained much higher, mainly due to the appreciation of Japanese yen after the Plaza accord in 1985 and the subsequent strengthening of the Korean and Taiwanese currencies (Figure 4.4).

In the initial period, right after the appreciation of the Japanese yen after the Plaza accord, Asian NIEs were the most attractive destination for Japanese investors. But in the late 1980s, when NIEs' currencies also appreciated, the ASEAN economies, particularly Malaysia and Thailand emerged as the main destination for FDI not only for Japanese investors but also for other NIEs' investors. Inflows to China had also increased remarkably.

During the period 1986 to 1992, about 70 percent of the FDI inflows to the low- and middle-income Asian countries listed in Table 4.9 were from the Asian sources, about 50 percent of which were from the NIEs. Meanwhile, the share of FDI from the U.S. and Europe together accounted for only about 20 percent, which was less than that from Hong Kong (World Bank, 1994).

As seen in Table 4.9, FDI from the Asian countries was even more important for China. Of the total FDI inflows of US$ 29.8 billion into China during 1986-92, as high as 81.9 percent (US$ 24.4 billion) was from the Asian countries, much of it from Hong Kong, Singapore and Taiwan.[21]

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21. As in case of trade data, the FDI data should also be interpreted with caution, since the intra-regional investment may include investment undertaken by regional affiliates of multinational corporations.

Table 4.9

FDI Inflows to Selected Low-and Middle-Income Asian Countries, 1986-92

Host Source	China US$ mn.	China Per- cent	Indonesia US$ mn.	Indonesia Per- cent	Malaysia US$ mn.	Malaysia Per- cent	Philippines US$ mn.	Philippines Per- cent	Thailand US$ mn.	Thailand Per- cent	Total US$ mn.	Total Per- cent
ASEAN	238	0.8	33	0.5	750	5.4	18	0.5	46	0.5	1085	1.7
Japan	3042	10.2	1102	17.6	3065	22.2	855	26.4	3586	35.6	11650	18.4
NIEs	21123	70.9	1573	25.2	4123	29.8	580	17.9	3565	35.4	30964	49.0
United States	2390	8.0	428	6.8	1499	10.8	1193	36.9	1373	13.6	6884	10.9
Europe	1316	4.4	1009	16.1	2711	19.6	378	11.7	1108	11.0	6522	10.3
ROW	1676	5.6	2105	33.7	1674	12.1	211	6.5	393	3.9	6058	9.6
Total	29785	100	6250	100	13822	100	3235	100	10071	100	63163	100

Note: 1. ROW = Rest of the World.
2. The percentage share may not add up to 100 due to rounding.

Source: *East Asia's Trade and Investment*, World Bank, 1994, p. 45.

The composition of sources of FDI to the SEACEN countries, however, has shown some changes since 1992. The share of FDI from Asia to selected SEACEN countries, for which data are available, declined during 1993-96 as compared to 1989-92, before increasing again in the case of Malaysia, the Philippines and Thailand in 1997 (Table 4.10).[22]   During the late 1980s, flows of Japanese investment to the NIEs were substantial after the appreciation of yen in the mid-1980s, Japanese companies also found the 3-SEACEN NIEs (Korea, Singapore and Taiwan) and other SEACEN countries such as Malaysia and Thailand more attractive to invest in.   But when the 3-SEACEN NIEs' currencies also appreciated in the late 1980s, they also faced competitive pressure similar to that of Japan. This development, besides reducing the relative attractiveness of Japanese investment into these economies, motivated them to join Japan as major investors in other Asian countries.

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22. The inference is on the basis of declines in intra-regional FDI as a share of total FDI inflows to three of the four NIEs, namely Korea, Singapore, and Taiwan, which are the members of SEACEN.   Shares of intra-regional inflows of FDI in these 3 NIEs declined further in 1997.

Table 4.10
Sources of FDI Inflows to Selected SEACEN Countries
(Percentage shares, unless otherwise stated)

Host Countries	Sources							
	Japan	NIEs	ASEAN the Asian In-Sample Countries	Rest of from Asia	Total States	United the World	Rest of Annual Flows (US$ mn)	Average
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Indonesia								
1989-92	16.8	25.9	0.5	0.1	43.4	5.3	51.3	1259
1993-96	13.0	28.6	3.7	0.5	45.8	4.7	49.6	3664
1997	16.0	21.8	6.8	0.1	44.7	3.0	52.2	5350
Korea								
1989-92	32.3	2.0	0.0	0.1	34.4	28.8	36.7	829
1993-96	23.3	3.3	9.6	0.3	36.5	26.6	36.9	1375
1997	7.6	2.1	14.1	0.1	23.9	12.7	63.4	2341
Malaysia								
1989-92	28.2	44.3	0.8	0.2	73.5	9.2	17.3	4591
1993-96	16.1	40.7	1.6	0.6	59.0	15.8	25.2	4538
1997	18.9	42.6	2.7	1.4	65.7	19.3	15.0	3754
Philippines								
1989-92	36.5	18.8	0.1	0.0	55.4	24.0	20.6	466
1993-96	26.8	19.3	1.3	0.0	47.4	11.9	45.7	1452
1997	31.4	15.7	1.1	0.0	48.2	11.1	40.8	1253
Singapore								
1989-92	28.5	1.0	5.0	0.3	34.8	18.7	46.5	3889
1993-96	16.5	5.4	5.5	1.1	28.5	20.5	51.1	7676
1997	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10000
Taiwan								
1989-92	30.7	16.5	4.4	0.0	51.7	22.6	25.7	1271
1993-96	22.2	18.3	4.0	0.0	44.5	26.0	29.5	1429
1997	19.9	16.3	6.6	0.0	42.9	11.5	45.6	2248
Thailand								
1989-92	27.5	49.0	0.3	0.2	77.1	8.8	14.1	2087
1993-96	17.5	29.3	0.7	0.3	47.7	14.0	38.3	1849
1997	27.9	35.0	0.6	0.1	63.6	18.1	18.4	3360
Total Average Annual Flows (col. 8)								
1989-92	28.6	22.5	1.6	0.1	52.9	16.8	30.3	14391
1993-96	19.4	20.7	3.8	0.4	44.2	17.1	39.5	21982
1997 1								28306

1   The share for 1997 is not reported because of unavailability of Singapore FDI by source.

Note: N/A = Not available.   NIEs: Hong Kong, Korea, Singapore and Taiwan.
Since the actual FDI inflows of respective countries are not comparable with the FDI figures reported in the World Investment Report, due to reasons such as different definition and reporting basis, data provided by the respective countries are used only to calculate the ratios to determine the general trend.

Sources: Member central banks/monetary authority; and *World Investment Report*, UNCTAD, 1995 and 1998.

Notwithstanding the decline in Japanese investment to the 3-SEACEN NIEs, the overall FDI flows to these countries continue to grow, thanks to the inflows from outside the Asian region, particularly from the U.S. and Europe. It should be noted that FDI from the rest of the world, which includes Europe, has been increasing steadily, partly a result of European Trans National Corporation (TNCs) which had largely neglected Asia until recently began to take active interest in the region (UNCTAD, 1998).

The second round of yen's appreciation in late 1980s also led to another surge in Japanese investment abroad. However, the major recipients in this round were the non-NIE ASEAN and China. This reflects the growing attractiveness of these countries due to more competitive wage, large domestic markets and fiscal incentives. Like the NIEs in 1986-87, the non-NIE ASEAN countries such as Malaysia, the Philippines, and Thailand used the opportunity to speed up industrialisation and raise exports. Apart from investing in electronics industry, a large proportion of Japanese investment went to high value-added products and processes, made possible by improved productivity and development of supporting industries in the host countries.

During 1993-1996, investment originating from the ASEAN countries such as Malaysia and Thailand slowed down as the FDI share of Japan declined, in line with the shrinking Japanese investment abroad during 1991-1993.[23] However, this period saw a strong surge in FDI from Hong Kong, which registered sharp and steady outflows throughout the period, especially after 1991 and continued till 1996 (Figure 4.5).

The sharp and steady increase in FDI from the NIEs, however, did not substantially benefit Malaysia and Thailand. The major recipient of such surge was China. While Malaysia and Thailand were successful in attracting large amount of FDI till 1992, the flows receded during 1993-

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23. See *World Investment Report*, UNCTAD, 1995, p. 15, for the trend in Japanese investment in the recent years. The outflows from Japan during 1989 and 1990 remained at US\$ 44 billion and \$48 billion, respectively. But since then it began to decrease and annual investment in 1991, 1992 and 1993 remained respectively at \$31 billion, \$17 billion and \$14 billion. Though the trend has reversed since 1994 due again to the appreciation of yen, the level of investment has not been as high as observed during 1989-91 as Japanese companies don't have the similar strength to make huge new investments overseas because of prolonged recession at home.

96.[24] Subsequently, Thailand seems successful in recovering the lost ground as its total FDI inflows started to increase from 1995 and reached an all time high at US$ 3.36 billion in 1997 (Chapter 2). On the other hand, FDI flows to Indonesia and to some extent the Philippines recorded increase during this period.

Figure 4.5
FDIOUTFLOW OF JAPAN AND NIES
(In millions of US Dollars)
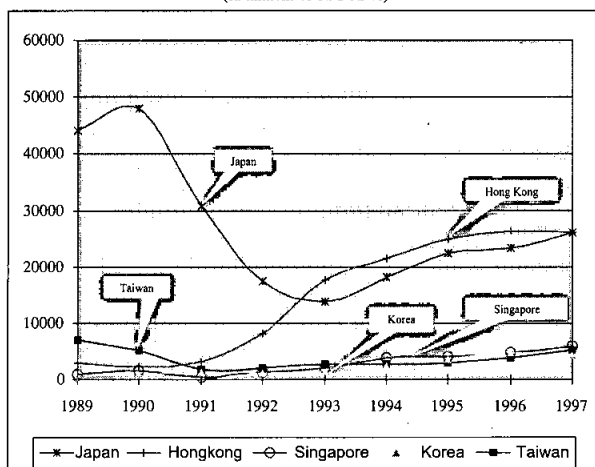
The period after 1992 saw a sharp and steady increase in FDI into China. Out of the average annual inflows into the Asian developing countries during 1989-91, China's share accounted for about 21 percent (US$ 3.8 billion). The share jumped to more than 53 percent (US$ 23.2 billion) during 1992-94 and further to 56.4 percent (US$ 35.8 billion) in 1995. Despite the more recent deceleration in FDI, China still absorbed over half of new FDI that flows into the Asian developing countries during

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24. As Table 4.10 shows, FDI into Malaysia has declined even in absolute amount while in case of Thailand the growth has substantially decelerated. The fall in share from the Asian source, even in a situation of perceptible shrinkage in overall FDI inflows into these countries clearly indicates the magnitude of reduction in FDI inflows from Asia.

1995-97 (see Table 2.6 in Chapter 2).[25] The unavailability of data on investor country breakdowns inhibits the identification of sources of FDI inflows into China. However, according to the recent estimates in the World Investment Report, investment from Hong Kong, Taiwan, Singapore, Japan, Korea, Thailand and Malaysia have been substantial, accounting for 80 percent of China's inward FDI stock. Thus, it can be said that China's FDI is predominantly intra-regional.[26]

The FDI boom in China has been fuelled by many factors such as the country's large and continued growing domestic market, the export-oriented strategy and successful penetration of world markets, the liberalisation of FDI, the spill-over effects of industrial upgrading in neighbouring economies — the so-called "flying-geese pattern" (UNCTAD, 1998).

Overseas Chinese dominates FDI in China. For example in 1993, out of US$ 27.5 billion of FDI, investment from Hong Kong and Macau alone accounted for US$ 17.2 billion (about 63 percent of total inflows). This was followed by Taiwan, which invested US$ 3.1 billion (11.3 percent of the total). Apart from increasing investment from Hong Kong and Taiwanese companies, investment by the overseas Chinese that used to flow into the ASEAN economies till the late 1980s, have sharply increased in China (Nomura Research Institute Ltd., 1994).

Since the early 1990s, China has also been a favourite destination for Japanese investors, as shown by a marked upsurge in the Japanese investment in China. Individually, FDI flows into China have consistently been the highest among the Asian countries (Table 4.11). The shift in investment to China was a cause for concern for some Asian countries. In order to enhance their attractiveness to foreign investors, these countries took further steps to deregulate industries and redress domestic structural problems. For instance, Indonesia relaxed its regulations governing the establishment of wholly foreign-owned enterprises, and access of these

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25. Since our sample consists of 15 Asian countries including Japan and FDI inflows to Japan is negligible in comparison to the size of economy, FDI into Asia has been analysed on the basis of inflows into rest of the 14 Asian developing countries, which include newly industrialised economies (NIEs) of Korea, Hong Kong, Singapore and Taiwan.

26. See *World Investment Report*, UNCTAD, 1998.

enterprises to domestic markets since 1993; Malaysia reduced corporate tax rates; Korea, which used to be quite cautious towards FDI, also implemented liberalisation measures in November 1993 to promote FDI that brings in latest technology from abroad (ibid.).

Table 4.11
FDI Outflows from Japan by Country
(In percent of total outflows unless otherwise stated)

	1993	1994	1995	1996	1997
China	4.7	6.2	8.8	5.2	3.7
Hong Kong	3.4	2.8	2.2	3.1	1.3
Korea	0.7	1.0	0.9	0.9	0.8
Indonesia	2.3	4.3	3.1	5.0	4.7
Malaysia	2.2	1.8	1.1	1.2	1.5
Philippines	0.6	1.6	1.4	1.2	1.0
Singapore	1.8	2.6	2.3	2.3	3.4
Taiwan	0.8	0.7	0.9	1.1	0.8
Thailand	1.6	1.8	2.4	2.9	3.5
Total to Asian Countries	18.4	23.6	24.2	24.2	22.6
Total Outflows (In billion US$)	36.03	41.05	50.69	48.02	53.97

Source:*Japanese External Trade Organization (JETRO)*, various issues.

The recent trend of Japanese investment to China, however, has moderated somewhat. The proportion of FDI to China, as a percentage of total FDI flows from Japan, declined from 8.8 percent in 1995 to 3.7 percent in 1997. Conversely, similar inflows have increased in Indonesia and Thailand. A few main reasons accounted for a decline in Japanese FDI into China. These were problems concerning policies on foreign capital (such as the problem of value added tax on exports and the scraping of tax exemption for imported input for plant and investment) and the shift of foreign capital from new investment

to the operation and maintenance of existing affiliates. The decline is also partly due to steps taken by the other Asian countries to increase their attractiveness for foreign investment.

Apart from China and most of the ASEAN member countries discussed above, other countries, for instance India and Vietnam, are emerging as important destination of FDI inflows. For example, inflows to India, which used to be negligible, have started to increase remarkably since the beginning of the 1990s. In 1996, FDI inflows into India had even exceeded that of Thailand. A bulk of inflows into India in particular and the South Asian region in general (about three-quarters of which go to India) were from the European Union and the U.S. However, inflows from the other Asian countries have been picking up noticeably. Of the total inward FDI into this region during 1993-96, FDI flows from Asia accounted for 24 percent, 17 percent of which were from developing Asia and 7 percent were from Japan (UNCTAD, 1998). The inflows from Asia, though still relatively small, should be contrasted to the negligible amount in the previous years.

Thus, the declining FDI inflows in 1993-1996 from Asia to the Asian countries that traditionally were major recipients should not be interpreted as a signal of lowering Asian interdependence. This is because the fall in Asian FDI into some of the economies, for instance Malaysia and Thailand, were compensated by the higher FDI flows into other countries, notably China. Another reason was the shrinking FDI from major source such as Japan. Although FDI should not be considered as a zero-sum game, in which one economy's gains would be at the expense of its neighbours, intense competition from host governments may have some bearings on the FDI inflows into the individual country.

4.2.3   Other Evidences of Interdependence

Some are of the opinion that the rise in intra-regional trade among the Asian countries is largely the result of faster economic growth rather than increase in regional preference. While this may be a valid argument, the growing importance of intra-Asian trade can be seen from the higher growth of intra-regional trade in comparison to its growth outside the region (Figure 4.6).

Figure 4.6
Changes in Asian Trade
(percent)
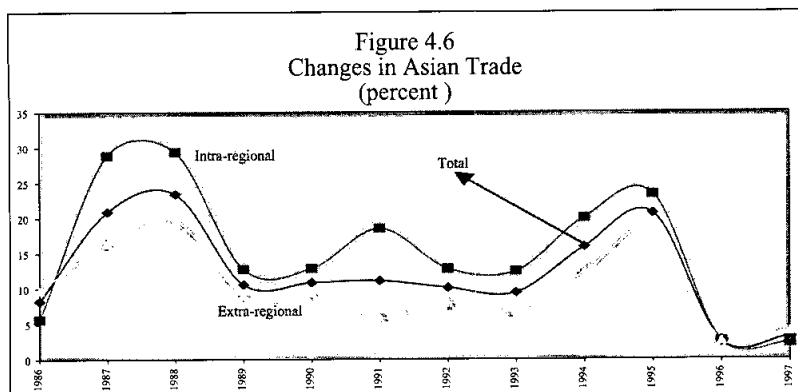
Growing interdependence can be observed from a steady rise in intra-trade as a share of GDP as well, implying that the rise in intra-trade of Asian countries is not simply the result of rapid growth of the economy. As discussed in Chapter 2, Asia's trade dependency (as measured by trade to GDP ratio) has increased remarkably over the past decade. Between 1985 and 1997, the region's trade dependency has increased by 6.9 percentage points—an equivalent of an annual increase of about 0.6 percentage point. From Table 4.12, it is clear that increase in trade dependency has been solely reflected in the intra-regional trade, not in extra-regional trade. As a matter of fact, the region's extra-regional trade as percent of GDP has been sliding remarkably until 1995. Even though the ratio reverted its trend after 1995, this appears to be an outcome of a deceleration in GDP, rather than a marked upsurge in extra-regional trade.

Table 4. 12
Intra-Regional and Extra-Regional Trade as Percent of GDP

	Intra-Regional	Extra-Regional	Total
1985	11.6	19.8	31.3
1990	13.0	18.2	31.2
1995	16.7	16.9	33.5
1996	17.6	17.8	35.5
1997	18.8	19.4	38.2

Note:The GDP at current prices reported in domestic currency of the respective countries have been converted into US dollar by using period average exchange rates.

Source:Author's calculations by utilising direction of trade statistics data.

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Chapter 5

EFFECTS OF TRADE AND FDI ON ECONOMIC GROWTH

5.1 Review of Recent Literature on Impact of Trade and FDI on Growth

The rapid growth achieved by developing countries adopting out-ward-looking policies has stimulated a large number of empirical and theoretical literature on the impact of trade and foreign investment on growth.

It has been established empirically that trade and growth were posi-tively correlated during the 1970s and 1980s, though this may not be the case in the earlier decades. Estimating the impact of trade on growth from 1870 to 1990, Vamvakidis has found that free trade and growth were positively correlated in the 1970s and 1980s. There was no such corre-lation for the earlier decades of the study period, except for a negative correlation in the 1930s. However, many empirical literatures (including Sachs and Warner, 1995) have concluded the positive correlation between free trade and growth.[27]

This has shifted the focus of the new trade theory toward free trade, unlike the earlier literature, which used to advocate the protection of infant industry for economic growth. The new literature focuses on the channel through which free trade leads to faster growth. The argument behind this approach is that trade increases innovation through economies of scale, technological spillovers, and elimination of replication of research and development in different countries.

Protagonists of free trade argue that international trade, besides pro-viding access to a country with large markets, also provides advanced technology, and hence a larger stock of knowledge, leading to more in-novations and faster growth. This implies that a country would benefit from free trade with large economies that possess advanced stock of know-ledge. Empirical evidences have supported these arguments. For exam-ple, Coe and Helpman (1997) have shown that a country's factor produc-

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27. See Vamvakidis, Athanasios (1998), for more details.

tivity does not only depend on its own research and development (R&D) capital stock but also on the R&D capital stock of its trading partners. Similarly, Coe, Helpman, and Hoffmaister (1997) have inferred that developing country with limited R&D stock can boost its productivity by trading with a more developed country that has a large stock of knowledge from its cumulative R&D activities.[28]

An economy that is open to free trade is more likely to register faster growth than a country that is less open. This proposition is generally corroborated by the economic performance of the Asian developing economies over the last few decades.

Even though there are not as many theoretical literature and empirical evidence regarding the relationship between FDI and growth, the importance of foreign capital at least in the initial period of development can be seen from the Harrod Domar growth models, which have clearly shown a positive and strong relation between real GDP growth and foreign capital. It is argued that expansion of exports and capital inflows are essential in order to achieve faster growth. Although many economists have found negative effects of foreign aid on growth, yet there are some, for example Papanek, who found a significant positive link even between foreign aid and growth.[29]

The effects of foreign capital, especially FDI, on economic growth, however, could be quite different from those of foreign aid. Unlike foreign aid, which may be channelled to any sectors of the economy for political or other non-economic reasons, private foreign investment would be generally directed toward more productive and economically viable sectors. Besides, FDI is operated mainly through multinational companies (MNCs), which have more experience and expertise with regard to efficient utilisation of resources.[30]

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28. Ibid., pp. 252-253.

29. For further details, see Aggarwal, Mangat Ram (1993), pp. 20-21.

30. Even foreign aid would contribute to economic growth, if it were utilised properly in the priority and productive areas of the recipient country. There are several countries, which have benefited immensely from the foreign aid.

The internationalisation of a firm's production through FDI is based on the organisation theory advocated by Coase (1937) and Williamson (1975). Within the framework of this theory, Dunning (1988) has postulated that the MNCs may choose to produce abroad to reduce transaction costs. Another reason could be to gain ownership advantage of firm-specific intangible assets such as technology, and know-how in activities such as production management, marketing, management, and registered trademark, etc. By internalising transactions, these assets could be better protected from imitation. Besides, markets and alliances are imperfect ways to transfer newer and more advanced technologies.[31]

More importantly, the MNCs' decision to invest abroad is also motivated by locational advantages. The choice of location depends on several factors, which mainly include:

(a) macroeconomic and political stability,
(b) availability of infrastructure,
(c) availability and cost of inputs,
(d) market size, and
(e) rules and regulations regarding trade and FDI.

Although economic theory linking trade and investment is at the early stage of development, new literature is evolving. Attempts to link trade and investment are made on the basis of Vernon's product life cycle behaviour of innovating firms in the industrialised countries. The model postulates that after achieving dominance in home market, a firm starts exporting its product and, when cost rise and imitators appear, it starts investing abroad in locations that have lower comparative cost. Krugman has shown that the innovator could retain its trade advantage by carrying constant innovation. Akamatsu and Kojima have described the "catching-up product cycle thesis". According to this thesis, a follower country first imports a product of superior quality and when the domestic demand for the product increases, it starts to attempt to produce domestically. The learning phase is often supported by trade protection. As the cost would be sufficiently reduced and quality also improved, the domestic product would have access in foreign markets. FDI plays an important role of assisting in the learning process. Akamatsu had earlier adapted this frame-

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31. For more details, see Dobson, Wendy (1997), p. 9.

work to his "flying geese" model of diversification and industrial upgrade. Thus, FDI helps to accelerate economic development of a follower country as the leading country invests in industries that it has cost disadvantages relative to the follower country.[32]

Alternatively, Helpman and Krugman have inferred that increasing returns to scale promote concentration of firm's activities, and choices of location of FDI are determined by factor price differential. The model implies that FDI would generate complementary intra-firm trade (Dobson, 1997).

A growing stock of literature and empirical evidence suggest that the MNCs could play a larger role in international trade than in production or other economic activities. This stems from the assertion that the MNCs tend to possess more intangible knowledge-based assets, which make them more efficient to produce internationally marketable products than the non-MNCs. It is also hypothesised that since marketing-related assets in the MNCs are concentrated in international markets, the MNCs would tend to be better able to exploit trading opportunities internationally than the non-MNCs. These two factors suggest that the MNCs tend to be more dependent on trade (both exports and imports) than the non-MNCs (Ramstetter, 1997).

As mentioned earlier, the Asian countries have a long history of openness both in trade and FDI, and even countries that used to have a close-door policy also started opening. A steady rise in the number of countries with opening trade and investment regimes leads to competitive pressure for countries to further liberalise their regimes. Though this has been the global trend, especially after mid-1980s, the East Asian developing countries continue to occupy the top spots in the degree of openness.

Trade expansion, particularly increases in manufacturing exports by foreign firms, is perceived to be a key cause of the economic boom in Asia for over a decade till 1997. Rapid and steady increases in trade and investment in the Asian region generally support this hypothesis. At the

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32. Ibid., pp. 9-10.

same time, however, for some Asian countries, upsurge in FDI has occurred only after the expansion in domestic economic activities. For example, FDI inflows into Thailand began to increase rapidly in 1988, only after the Thai Economy took off in 1987 (Ramstetter, 1997).

5.2 Statistical Evidences

Constrained by a small sample size, the study did not attempt to run a regression to measure the impact of FDI and trade on economic activities. Instead, we used simple correlation and Granger causality test. While small sample problem could also be applied to the Granger causality test as well, we believe that the results would give some indication regarding the FDI-trade nexus and its impact on economic activities as proxied by GDP growth rate.

Correlation:

The degree of correlation between each pair of the underlying variables, namely GDP growth, trade and FDI, is summarised in Table 5.1 below.

Notwithstanding the lower correlation coefficients between GDP and FDI in comparison to trade and GDP, noticeably in some cases, each pair of the underlying variables is highly correlated. Relatively poor correlation of both GDP and trade with FDI is seen in case of Hong Kong. This is expected because on the one hand inward FDI into Hong Kong is not that significant in most of the period in comparison to its GDP and trade, and on the other hand, its growth has generally lagged behind the growth of GDP and trade. Besides, net FDI inflows into Hong Kong were even negative in 1986.

Granger Causality Tests:

Despite strong correlation between each pair of the variables, there is an issue of how to determine causal relationship, as high correlation alone does not indicate causality. In other words, we need to know whether the change in one variable is a cause of change in another or whether both of them are endogenously determined. For example, is rapid GDP growth of Asian countries is a cause of faster growth in their trade or

vice-versa. Likewise, is the faster increase in Asian trade has been due to rise in FDI by MNCs resulting in an increase in manufacturing exports by foreign firms as commonly believed, or whether the increase in FDI itself is caused by GDP growth or trade expansion.

Table 5.1

Correlation Matrix
(1980–1997)

	GDP	Trade	FDI		GDP	Trade	FDI
Total [1]				**Malaysia**	1	0.995	0.821
GDP	1	0.998	0.985	GDP		1	0.824
Trade		1	0.983	Trade			1
FDI			1	FDI			
China				**Philippines**			
GDP	1	0.969	0.959	GDP	1	0.985	0.870
Trade		1	0.967	Trade		1	0.833
FDI			1	FDI			1
Hong Kong				**Singapore**			
GDP	1	0.997	0.600	GDP	1	0.997	0.943
Trade		1	0.599	Trade		1	0.953
FDI			1	FDI			1
Indonesia				**Taiwan**			
GDP	1	0.987	0.963	GDP	1	0.994	0.906
Trade		1	0.950	Trade		1	0.924
FDI			1	FDI			1
Korea				**Thailand**			
GDP	1	0.992	0.900	GDP	1	0.995	0.809
Trade		1	0.944	Trade		1	0.838
FDI			1	FDI			1

[1]   Refers to total of nine countries included in this Table, for which each set of data from 1980 are available.

Note: Nominal GDP in national currency units are converted into US dollar using period average exchange rate given in *IFS* and *SFS* in the case of Taiwan.

Sources: Author's calculation based on data from *International Financial Statistics (IFS)* and the *SEACEN Financial Statistics (SFS)*.

As mentioned earlier, it would be difficult to draw precise conclusions from our Granger causality tests due to the small sample and arbitrariness in the choice of lag lengths. Nevertheless, we believe the following results would be helpful to provide some indications of the direction of the relationships.[33]

The results of the causality test of nine Asian countries, including the total for the group, are summarised in Table 5.2. The results are based on the first difference instead of in level form, as our interest is to see the effects of change in one variable to the change in another. In addition, it should be noted that unlike the common practice of considering only exports, this study has attempted to assess the causality on the basis of total trade considering that the rise in FDI by MNCs would not only contribute to increase in exports but also in imports.

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33. The sample is limited to 18 observations (1980 to 1997) because of unavailability of FDI inflows to China, which accounts for more than half of total flows to Asian countries, for earlier years. Regarding the lag length which is one important aspect of causality test, we have chosen from 1 to 4, not only because of small observations but also because of the intention of seeing instantaneous effect. Moreover, since the tests are conducted on the first difference of the annual data, the lag length is enough to capture the effect. Table 5.2 confirms this as most of the results are within 2 lag lengths.

Table 5.2

Granger Causality Test Results
(1980-1997)

	GDP and Trade			GDP and FDI			FDI and Trade		
	No. of Lags	Y XM	XM Y	No. of Lags	Y FDI	FDI Y	No. of Lags	FDI XM	XM FDI
Total1	1	No	Yes*	2	No	Yes**	2	Yes*	No
China	1	No	Yes*	2	No	Yes***	1	Yes*	No
Hong Kong	2	Yes*	Yes***	-	No	No	-	No	No
Indonesia	1	No	Yes**	3	No	Yes***	4	Yes**	No
Korea	2	No	Yes*	1	No	Yes*	1	Yes***	Yes**
Malaysia	1	No	Yes*	3	No	Yes**	2	Yes***	Yes**
Philippines	-	No	No	1	No	Yes**	2	No	Yes*
Singapore	-	No	No	-	No	No	2	No	Yes**
Taiwan	1	Yes**	No	3	Yes***	No	-	No	No
Thailand	1	No	Yes*	-	No	No	1	Yes***	No

1   Refers to total of nine countries included in this Table, for which each set of data are available.
Note: A®B: Causality from A to B, i.e., change in A causes change in B.
       Where, Y = Gross Domestic Product
              XM = Exports plus Imports
              FDI = Foreign Direct Investment
     * Significance at 1-percent level.
     ** Significance at 5-percent level.
     *** Significance at 10-percent level.

Source: Author's calculation based on the same data sources as in Table 5.1.

Despite the mixed results for the individual countries, it is found that for the group as a whole, FDI is one of the determinants that causes a change in GDP at 5-percent level of significance. However, the opposite is not true for the group as well as the individual countries, except for Taiwan, in which change in GDP has preceded a change in FDI, albeit at a 10-percent significant level. Similarly, although in four countries' — Korea, Malaysia, the Philippines, and Singapore, trade leads to change in FDI, with a feedback relationship in the case of Korea and Malaysia, the direction of causality ran from FDI to trade, albeit at different lag lengths, in the majority of countries. It is also found that, for the group as a

whole, there is a strong (at 1-percent level of significance) effect of FDI on trade. This suggests that changes in FDI is one of the factors explaining the rapid growth of Asian trade over the years, generally supporting the common perception that expansion in trading activities by the foreign firms has had strong effect on faster growth in trade.[34]

As expected, faster growth in trade (exports plus imports) has instantaneous effect (1 lag) for the robust growth of Asian GDP at 1-percent level of significance and this result holds true for most of the countries except the Philippines, Singapore and Taiwan.[35]

Thus, even with a likelihood for a feedback relationship (bi-directional causality), or the causality running in the opposite direction depending upon lag lengths, the above results provide some clues to determine the instantaneous effects of changes in trade and FDI on the economy.

Of the low- and middle-income Asian countries, the economic performance of China, Malaysia and Thailand were the most impressive of all for over a decade till the onset of the Asian financial crisis 1997. In all cases, the instantaneous effect of FDI and trade was consistent with expectation. The impact of trade and investment nexus would be clearer from the following discussions.

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34. Bearing in mind the common practice, we also tested the causality between FDI and exports; FDI and GDP; and exports and GDP. We found the results almost similar, which is quite likely as both exports and imports of Asian countries recorded sharp growth over the years. In fact growth of imports even exceeded exports, especially after the mid-1980s. Even under these circumstances, the Asian GDP could still grow rapidly. This suggests that growth could be obtained even if there is higher growth in imports because of a rise in overall economic activities.

35. Although the non-existence of causal relationship between trade and GDP in case of the Philippines can, to some extent, be attributed to its lower level of trade dependency ratio as well as erratic statistical pattern of trade and GDP, the result seems surprising in case of Singapore and Taiwan, especially Singapore. While small number of observations can be a principal reason, faster expansion of other activities such as services in comparison to manufacturing sector could also be one of the candidates for explaining this phenomenon. For example, a bulk of the GDP (nearly two-thirds) of Singapore and Taiwan is from services sector and the share is increasing thanks to its higher growth in comparison to manufacturing.

5.3 FDI-Trade Nexus

Even if some of the Asian countries were playing host to FDI for several years, its impact on economic activities were not that noticeable in a majority of them till the 1980s. This was because the volume of FDI was not that substantial, and FDI was seen as a way of circumventing trade barriers during the era of import substitution policies, in which FDI was seen as welfare reducing. However, a marked shift in policies occurred since 1980s when almost all the countries started to adopt export promotion strategy. The uninterrupted high growth of several Asian developing economies for over a decade till 1997 is a testimony of a positive impact of trade and investment on growth. The low- and middle-income Asian countries, which have been successful in attracting higher FDI, recorded rapid growth in merchandise exports, which in turn has proven to be a major source of overall growth.

The role of FDI in the development of low- and middle-income Asian economies can be seen from Table 5.3. In general, one can observe greater progress of countries receiving higher amount of FDI, than those that received lower inflows.

Although many Asian countries have adopted trade and FDI liberalisation, and recently even those from South Asia are moving in the same direction, the success record have been uneven among these countries, depending upon the degree and timing of trade and investment liberalisation. Some countries, for example China, Malaysia and Thailand have been at the forefront of achieving greater growth in comparison to others. This helps them to substantially improve the living standard of their people in the last decade.

The following cases of China and Malaysia, the two largest recipients of FDI among the low- and middle-income category of the Asian countries, are good illustrations of the impact of FDI on the economy through trade creation.

(i) China

The rapid growth experienced by China is attributed to its success in attracting FDI and expansion in trade since the adoption of open door

Table 5.3
Selected Economic Indicators of Low- and Middle-Income Asian Countries

	Average Annual Real GDP Growth (Percent)	Average Ratio of GFC to GDP (Percent)	Merchandise Exports, End-year (Billions of US$)	Average Annual Growth Rate of Exports (Percent)	Average Annual FDI Inflows (Millions of US$)
China:					
1981-86	10.5	28.5	34.7	6.0	1049
1987-92	9.0	29.1	69.6	18.3	4652
1993-97	11.0	34.9	182.7	21.6	36650
India:					
1981-86	5.3	20.1	11.9	3.7	N/A
1987-92	5.5	22.3	20.0	12.0	2191
1993-97	6.6	22.5	35.4	12.2	1831
Indonesia:					
1981-86	5.0	28.1	17.2	-5.9	240
1987-92	6.9	34.2	33.8	15.3	999
1993-97	7.1	31.0	56.3	10.8	4001
Malaysia:					
1981-86	4.5	32.8	17.9	1.5	984
1987-92	8.3	30.2	39.8	19.6	2387
1993-97	8.7	41.3	77.9	14.7	4381
Mongolia:					
1981-86	7.3	N/A	0.8	11.2	N/A
1987-92	-1.4	N/A	0.4	-9.3	72
1993-97	2.1	N/A	N/A	4.9	7
Myanmar:					
1981-86	3.5	17.6	0.2	-3.1	N/A
1987-92	0.0	12.3	0.5	16.9	991
1993-97	6.8	12.8	0.9	11.6	59
Nepal:					
1981-86	4.9	17.9	0.2	9.7	N/A
1987-92	5.1	18.2	0.4	19.1	31
1993-97	4.7	21.6	0.4	2.0	11
Philippines:					
1981-86	-0.5	23.5	5.7	-2.6	160
1987-92	3.3	19.9	9.8	12.7	518
1993-97	4.5	23.5	25.2	20.9	1412
Sri Lanka:					
1981-86	5.1	26.7	1.4	23.3	283
1987-92	3.6	22.6	2.3	11.5	57
1993-97	5.6	25.1	4.6	15.1	135
Thailand:					
1981-86	5.5	27.5	11.6	5.9	279
1987-92	10.4	35.7	32.1	24.3	1634
1993-97	6.2	38.9	56.7	12.5	2185

[1] Four years' average (1989 to 1992).
[2] Two years' average (1991 and 1992).
[3] Two years' average (1985 and 1986).
Note: N/A = Not available.
  GFC = Gross Fixed Capital Formation.

Sources: *IFS* CD-ROM, December 1999; *World Investment Reports*, UNCTAD (1995 and 1998); and *Balance of Payment Yearbook*, IMF, various issues.

policy in 1979. China is the clearest case of FDI-assisted development. Although FDI began to flow into China immediately after the open door policy, the amount of FDI flows was originally not that significant in comparison to the size of its economy. Only since the mid-1980s, when China implemented domestic market reforms that FDI began to soar.

FDI in China is trade promoting because they are largely directed toward the industries in which China has a comparative advantage. Although the sectoral distribution of FDI is wide spread, including the highly technology-oriented industries, priorities have been given to the labour intensive, resource extracting and service-oriented industries.

The relationship between FDI and export growth of China could be roughly observed from Table 5.3. Its export performance has been increasingly dependent on investment by foreign firms. In 1993, exports by foreign firms accounted for 70 percent of China's total export growth.[36]

The impact of FDI in China can be assessed from the evolution of its two major industries, namely textile and clothing, and electronic industries.

Textile and Clothing Industry:

Up to 1986, there were only 150 projects in the textiles industries with a total pledged investment of US$ 630 million. By 1995, the number of projects had increased to nearly 12000 involving pledged foreign investment of US$ 17 billion, of which over US$ 8 billion was realised. Measured at 1990 prices, this industry grew at an annual average rate of 12.8 percent over the period 1985-1995, out of which the textile industry grew by 11 percent while the clothing industry grew by 21.6 percent. The textile and clothing industry generated high level of employment, peaking in 1991. The massive loss of 800,000 jobs compared to the 1991 peak mainly due to improved labour productivity, signifies the importance of this industry on employment.

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36. For further details, see Zhaoyong Z., et al. (1997): China, *A Rapidly Emerging Light-Manufacturing Base in Guangdong Province*, pp. 153-154.

While textiles and clothing have been exported since before the boom in FDI, major progress has been achieved after the boom as the FDI brought along new technology, advanced management and marketing skills, as well as access to international markets. Now China is the world's largest exporter of textiles and clothing products. In 1995, foreign invested firms accounted for 60 percent of China's total clothing exports and 29 percent of total textile exports.[37] Table.5.4 shows the exports and imports of textiles and clothing during the period 1990-1997.

Table 5.4
China: Exports and Imports of Textiles and Clothing

	1990	1994	1995	1996	1997
Exports (US\$ bn.)					
Textiles	7.22 (11.6)	11.82	13.92	12.11	13.82 (7.6)
Clothing	9.67 (15.6)	23.73	24.05	25.03	31.80 (17.4)
Imports (US\$ bn.)					
Textiles	5.29 (9.9)	9.35	10.91	11.98	12.27 (8.6)
Clothing	N/A	N/A	N/A	N/A	N/A

Figures in parenthesis are the percentage share in total merchandise exports or imports.
N/A = Not available.

Source:*International Trade Statistics*, World Trade Organization, Annual Report, 1998.

Electronics Industry:

Despite being a late starter in comparison to the textiles and clothing industry, the pace of growth of electronics industry is much faster. China's gross output of electronics products in 1990 constant prices registered more than four-folds increase between 1990 and 1996 from 69.8 billion yuan in 1990 to 298.2 billion yuan in 1996. Foreign investment has played a key role in this achievement. The accumulated contracted value of FDI

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37. See Lu Weigue (1998): *China Textiles and Clothing Industry* for detailed exposure regarding evolution of this industry and impact of FDI.

reached US$ 9.5 billion by 1996, of which US$ 7 billion had been utilised. By the same year there were altogether more than 10,000 foreign-funded enterprises across the industry, taking up 37 percent of the industry's total value of output. The mode of operation has also changed. Previously, this industry focused on processing according to the buyer's samples, with the processing materials and assembling parts being supplied by foreign clients. The current focus has been shifted to joint venture with transnational business, large-scale projects and high technology.

Because of the growing involvement of foreign investors, whose orientation has been toward exports, China has become a net exporter of electronics product. Table 5.5 shows the trend of China's total exports and imports of electronic product and the share of exports of this product accounted for by foreign invested enterprises.

Table 5.5

China: Exports and Imports of Electronic Product

Year	Exports (US$ million)	Imports (US$ million)	Share of Exports Accounted for by Foreign Invested Enterprises
1990	3790	5150	N/A
1991	4330	5820	N/A
1992	6870	7990	40.4 %
1993	7820	10890	54.6 %
1994	12360	13480	58.4 %
1995	16530	16160	57.4 %
1996	21490	17980	N/A

N/A = Not available

Source: Extracted from Ming, Bai and Li Yongjing (1998), The Chinese Electronics Industry.

(ii)   Malaysia

Malaysia's progress towards industrialisation through FDI is well known. In fact, the rapid industrialisation has resulted in labour short-ages, as reflected in the need to import close to 2 million foreign workers during the economic boom period (Sieh, 1997 and 1998). Foreign invest-ment plays a key role for Malaysia in this transformation.

Although Malaysia has been a host for FDI for close to four decades, inflows after the mid-1980s have greater significance for its economic transformation. In the pre-independence period, foreign investment was mainly targeted at the primary industry sector. Subsequently, a bulk of the FDI was directed towards the manufacturing sector, first into the import-substitution industries and later into the export industries. Currently, the focus has changed to higher technology activities (Sieh, 1998). In addi-tion, FDI inflows into Malaysia have been remarkable. In absolute term, total FDI flows to Malaysia were the second highest among the Asian low- and middle-income countries for about a decade till 1994. In rela-tion to GDP, FDI flows to Malaysia is the highest during this period. Since then, however, Malaysia has ranked third behind China and Indo-nesia in absolute term, and second behind China in terms of GDP. None-theless, in terms of per capita, FDI to Malaysia is still the highest of all the Asian countries except Singapore.[38] In terms of sources, Japan and the U.S. used to be the main investors in the 1970s. Recently, the NIEs, particularly Singapore and Taiwan, have been making important contri-bution. For example, Taiwan accounted for 36 percent of approved FDI in 1990, surpassing other countries including Japan. Likewise, in 1996, Singapore ranked first, accounting for about 28 percent of the approved FDI (ibid.).

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38. Viewed from the FDI inflows and its population, it can be said that Singapore per capita FDI is far higher in comparison to other countries in the region, perhaps of all the countries in the world. Indeed, Singapore has maintained this position for many years, even before the FDI boom in the mid-1980s. Singapore has been an attractive destination for FDI thanks to its more generous policies in comparison to other de-veloping countries (see *East Asia's Trade and Investment*, 1994, for more detail).

Electrical and electronics industry has now become the largest recipient of FDI in Malaysia, although substantial flows have also gone to other sectors such as petroleum and coal; basic metal products; chemicals and chemical products, etc. The share of FDI into electrical and electronic sector increased to 54.2 percent in 1996 from almost nothing in 1986, with nearly all the major MNCs in the electronic industry including Acer, Matsushita, Philips, Sanyo, Sony, and Toshiba making their presence in Malaysia. This industry also has greater significance for the Malaysian economy in terms of employment, production, exports and others. By 1994, this industry accounted for about 44 percent of total manufacturing output and 72 percent of the sector's exports earnings (Sieh, 1997). By 1997, exports of office machines and telecom equipment alone increased to US$ 36.02 billion (about 46 percent of country's merchandise exports) from US$ 8.21 billion (28 percent) in 1990. Similarly, imports also increased almost at the same pace (from US$ 5.74 billion to US$ 24.11 billion) in the comparable period, resulting in an increase in total merchandise imports to 30.5 percent from 19. 6 percent (WTO, 1998). This suggests the trade-creating role of FDI in Malaysia.

As Malaysia began to experience labour shortages after reaching nearly a full employment condition in the later part of the 1980s, the focus of FDI has shifted toward technology transfer rather than employment generation. Accordingly, the MNCs in Malaysia have been increasingly concentrating toward higher value-added activities through more capital-intensive process and higher level of automation, relocating labour-intensive activities to other labour abundant production site. This is evident from the increasing trend of the relocation of assembly activities by many electronics firms to China, Indonesia, and other low-wage countries.

5.4 Integration and External Shocks

The last decade observed a fast expansion of Asian economic relation both within and outside the region. Intra-regional linkages were even more remarkable as shown by a steady increase in intra-regional trade and FDI over the years. Close to half of Asian trade is currently concentrated within the region in comparison to slightly more than one-thirds in 1985. FDI-related linkage is also remarkable. As already been mentioned, the region is like a magnet drawing foreign investors, though a

few countries, notably China, have attracted a major share. More than two-thirds of FDI inflows are from the region itself.

The increased linkages are partly attributed to the adoption of open economic policy. Although the Asian liberalisation has been largely unilateral or through the multilateral negotiation such as the Uruguay Round negotiations, joint efforts for greater regional economic coopera-tion have also been underway, noticeably in the 1990s. The establish-ment of AFTA and the APEC are important steps in this direction. Under AFTA, the original six ASEAN members (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand) are committed to achieve free trade amongst themselves by reducing tariff to 0 to 5 percent by 2003. A number of Asian countries also participated in APEC trade liberalisation programme inspired by the Bogor declaration for achieving free and open trade in the APEC region by 2010 for industrialized economies and 2020 for developing economies. In a unique modality of liberalisation, the programme includes not only the reduction of tariffs and non-tariffs mea-sures, elimination of regulations on services and investment but also the harmonisation of rules and standards and other facilitation measures. At the Manila APEC Meeting in 1996, all 18 members announced their individual action plans (IAPs) and started to implement them since 1997 (Yamazawa, 1998). Even though some of the initiatives have yet to be materialised, the overall results appear to contribute to the steady expan-sion of trade and investment in the region. Similarly, great efforts have also been made among the South Asian nations to enhance intra-regional trade under the South Asian Preferential Trading Arrangement (SAPTA). All these regional initiatives resulted in a number of 'growth triangles' in the region through the combination of market-led actions and supportive government policies, among the examples are the Singapore-Johor-Riau (SIJORI) and Southern China, Hong Kong and Taiwan growth triangles. Economic links based on comparative advantage and specialisation have been growing stronger between and among the countries in the region, mainly among the NIEs.

Undoubtedly, the growing economic linkages provided immense benefits to the region's prosperity, which is apparent from the higher rate of economic growth with low or moderate inflation achieved by many of the Asian countries over the years (see Figure 5.1). At the same time, however, it has also increased dependency among these countries. In the

liberalised context, expansion of intra-regional trade and investment has normally been accompanied by rapid financial integration in terms of increased flow of foreign capital across countries in the region. In such a situation, economic developments in one country would not leave the other unaffected, though the extent of which would depend upon several factors. For example, as mentioned earlier, the yen appreciation contributed to the rapid growth of several Asian economies due to the relocation of Japanese investments. This led to marked increase in East Asian exports while as a home country, Japan also benefited through increasing trade of its firms. Such developments during the later part of the 1980s contributed to the strong recovery of ASEAN countries, which were then under recession. Beginning from 1992, however, the Japanese economy slided towards recession. As its imports began to decelerate on account of falling domestic demand, exports of the other Asian countries to Japan suffered a marked slowdown. The depreciation of yen against the U.S. dollar in 1995 further aggravated the Japan-Asia trade linkage. Although Japan's exports sharply deteriorated in 1996, the yen's depreciation led to a real appreciation of other Asian currencies that were predominantly pegged to the U.S. dollar, resulting in substantial erosion in their competitiveness, and gravely hurting their export sector.

The Asian crisis of 1997, which originated in Thailand as a result of speculative run on Thai baht had first transmitted to the neighbouring countries and subsequently to other countries in the region. This had abruptly halted the spectacular growth that has been experienced by some Asian countries for many years. Economies of Indonesia, Korea, Malaysia, the Philippines, and Thailand were severely affected. Liquidity crisis resulting from rapid outflows of foreign capital, deficiency in economic structure, particularly uncompetitive financial system, insufficient efforts for currency and financial cooperation, etc., are considered main causes of the crisis (Yamazawa, 1998). While these can be considered as important causes of the crisis, interdependence through closer trade and investment linkages could also be counted as one important factor. Considering the following two facts:

(i) During the mid-1990s, a series of external shocks such as the devaluation of Chinese RMB and Japanese yen and the sharp decline in semi-conductor prices adversely affected trade performance of a number of Asian countries as export revenues significantly declined

Figure 5.1

Growth and Inflation

Fig 5.2(a): Japan

Fig 5.2(b): China

Fig 5.1(c): Hong Kong

Fig 5.1(d): India

Fig 5.1(e):Indonesia

Fig 5.1(f):Korea

Fig 5.1(g): Malaysia

Fig 5.1(h): Myanmar

Fig 5.1(i): Nepal

Fig 5.1(j): Philippines

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Figure 5.1: Growth and Inflation *(cont'd)*

Fig 5.1(k): Singapore

Fig 5.1(l): Sri Lanka

Fig 5.1(m): Taiwan
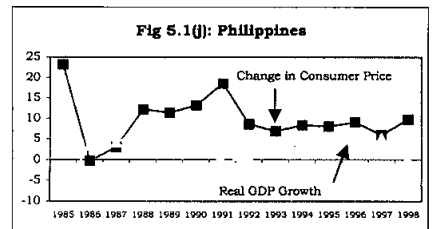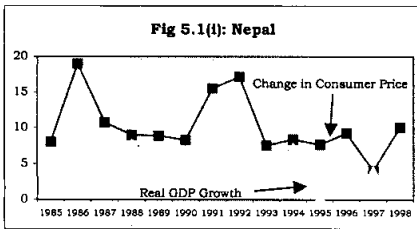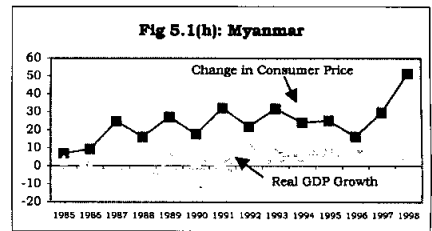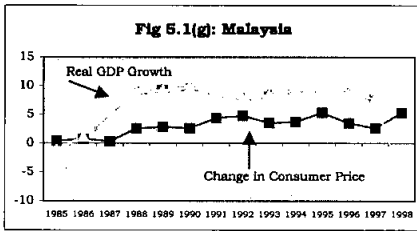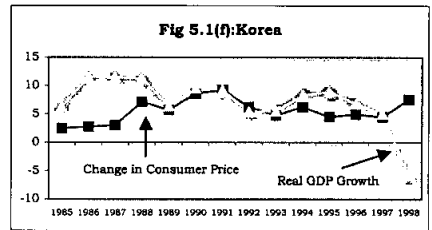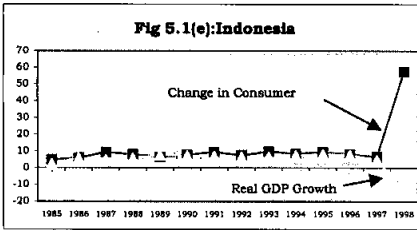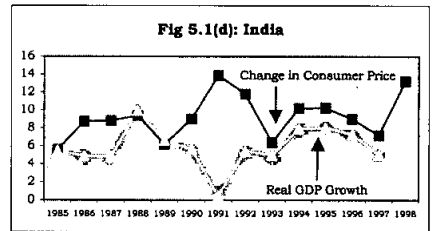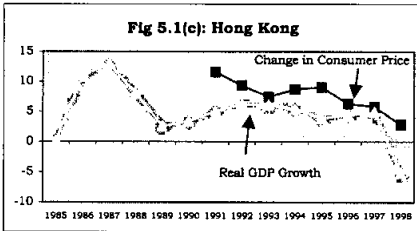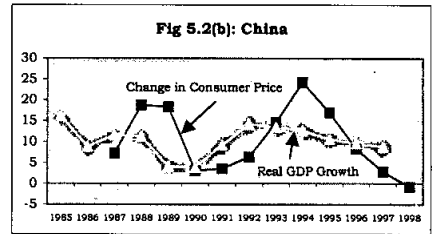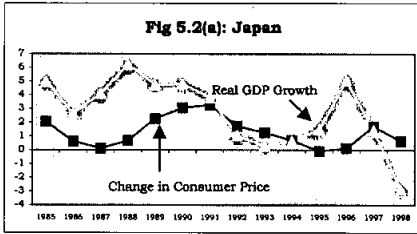
Fig 5.1(n): Thailand
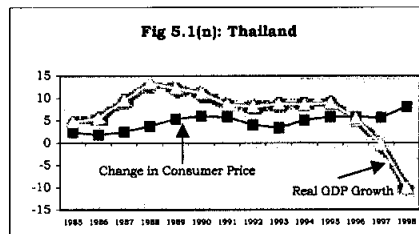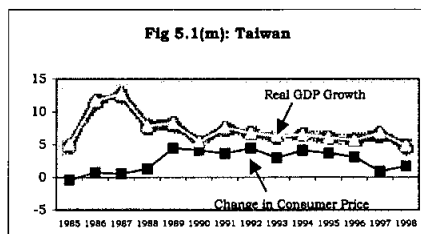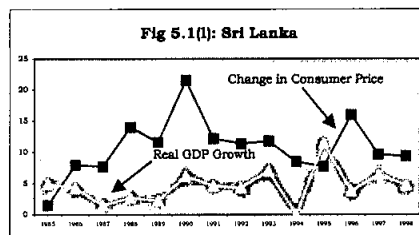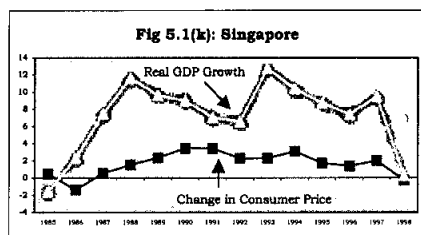
Note: Since data on GDP and CPI for Mongolia are, for the most part, not available, they are not shown in the graph.

Sources: *IFS* CD Rom December 1999.
          Data for Taiwan is taken from *Taiwan Statistical Data Book 1995* and *SEACEN Financial Statistics July 1999*.
          Data for Malaysia in 1998 is taken from *SEACEN Financial Statistics July 1999*.

in 1996 in comparison to 1995. This led to a slowdown of economic activity and declining asset prices in a number of Asian countries. One may argue against this conclusion as Asian exports generally recorded sharp increase in 1995 after the devaluation of the Chinese RMB and depreciation of the yen in 1994. But we believe that it may take time for the devaluation effect to be transmitted to the other Asian countries. One explanation is that parties involved in the trade transactions may not abruptly shift to other parties (countries) because of several reasons including familiarity with the current trade partners. Besides, some portion of trade might have already been contracted before the devaluation.

(ii) Even well managed economies of the region, for example Singapore was affected, albeit to a lesser extent.

The above-mentioned five most affected economies exported a large portion of their products to Japan and the United States and when the yen started to depreciate from the summer of 1995, their exports to both Japan and the United States declined significantly in 1996. The declining export performance in turn put pressure on the currencies ahead of the crisis.[39] Though these economies have been running current account deficits for years, it has been offset by the capital account surplus because of massive inflows of foreign capital, including short-term capital, while their structural deficiencies were concealed by the rapid growth of economy. The slack in exports in 1996 further deteriorated their current account balance (Figure 5.2), prompting the international investors to closely scrutinise the economies. As more and more vulnerabilities were revealed, capital flight took place in drove, igniting the financial melt down.

According to several studies, trade and investment linkages have little to do with the recent Asian financial crisis. This may be a reasonable assessment if one wishes to draw conclusion simply on the basis of trade

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39. Baig, Taimur, et al. (1998), however, drew caution to this argument. They argued that on the one hand, the real exchange rates of these countries, except Thailand, did not show any clear sign of over-valuation relative to their historical movements while on the other hand, there was a ·substantial time lag between the yen's depreciation and the onset of the crisis in Asia. But we believe no one can deny the said development as an important contributory factor at least for signalling an economy's deteriorating health.

shares. Exports share of Thailand to each of the other four crisis-affected countries is not to the extent of putting pressure on these countries' financial markets (see appendix). Nonetheless, export performances of these economies during 1995 and 1996 gives some signals regarding trade links related spillovers (Table 5.6).

Notwithstanding the sharp deceleration of exports from these five crisis-affected countries to other countries, there was also a noticeable decline in trade among themselves in 1996, which was the preceding year of crisis, as shown in Table 5.6. Each of the four countries exports growth to Thailand recorded a marked decline. Their combined export growth to Thailand reduced to US$ 650 million in 1996, compared with US$ 2 billion in 1995.

Intra-country exports of the group registered further deterioration in the subsequent years, dramatically in 1998 because of loss of consumers' confidence in the aftermath of the Asian crisis. The situation was compounded by an even more dramatic fall of their exports to Japan. Thus, on account of a severe decline in intra-Asian trade, total exports of these countries plummeted despite some increase in their exports to countries outside Asia, particularly the U.S.

Figure 5.2

Trade and Current Account Balance of Selected Asian Countries
(As Percent of GDP)
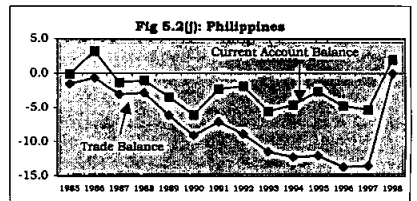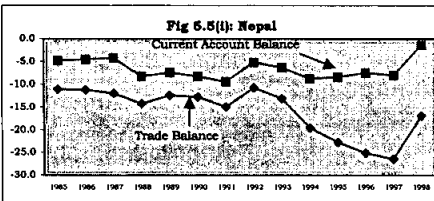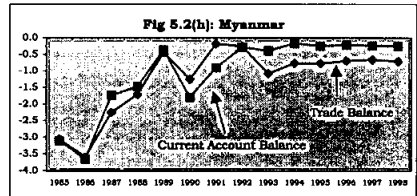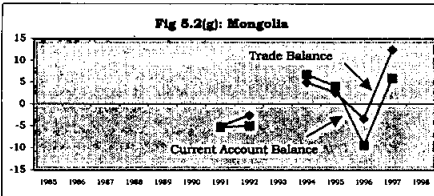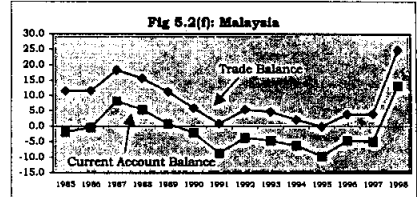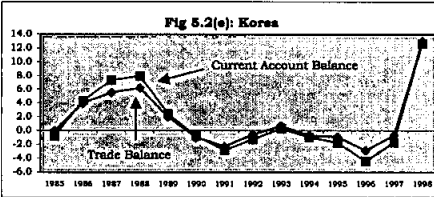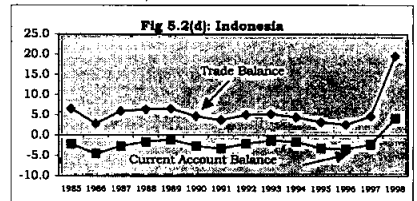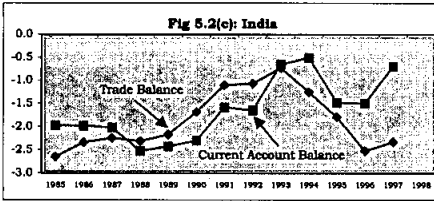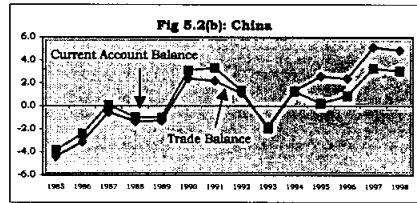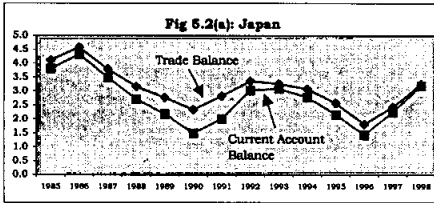
Fig 5.2(a): Japan

Fig 5.2(b): China

Fig 5.2(c): India

Fig 5.2(d): Indonesia

Fig 5.2(e): Korea

Fig 5.2(f): Malaysia

Fig 5.2(g): Mongolia

Fig 5.2(h): Myanmar

Fig 5.5(i): Nepal

Fig 5.2(j): Philippines

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Figure 5.2: Trade and Current Account Balance of Selected Asian Countries *(cont'd)*

Fig 5.2(k): Singapore

Fig 5.2(l): Sri Lanka

Fig 5.2(m): Taiwan

Fig 5.2(n): Thailand
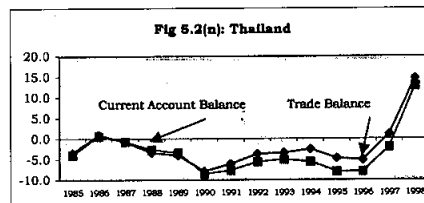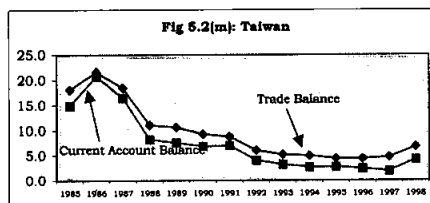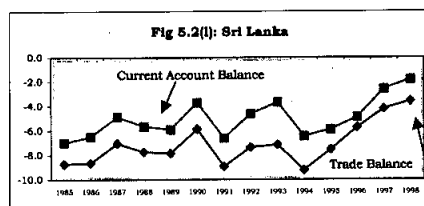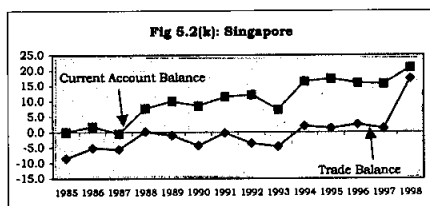
Note: Balance of payment data for Hong Kong are not available.
Sources: IFS CD Rom December 1999.
            Data for Malaysia in 1998 was taken from *SEACEN Financial Statistics July 1999*.
            Data for Taiwan are provided by The Central Bank of China, Taipei.

Table 5.6
Changes in Exports of the Asia-5 Countries
(In millions of US$)

From Country / To Country	Indonesia	Korea	Malaysia	Philippines	Thailand	Japan	US
Indonesia							
1995		324	248	225	302	1359	493
1996		364	123	98	120	597	473
1997		182	248	106	26	-400	354
1998		-893	1	-87	94	-3369	-117
Korea							
1995	418		1299	281	593	3526	3578
1996	240		1382	413	236	-1282	-2461
1997	343		23	695	-421	-996	-45
1998	-1757		-754	231	-793	-2533	1180
Malaysia							
1995	261	414		69	682	2277	2863
1996	245	326		124	313	1136	-1023
1997	13	122		374	-390	-715	379
1998	-229	-845		-20	-508	-2062	1220
Philippines							
1995	58	152	93		435	718	1017
1996	13	-73	372		-19	926	806
1997	72	103	-47		76	524	1849
1998	-103	35	502		-222	40	1283
Thailand							
1995	373	230	459	193		1770	569
1996	153	214	462	217		-106	-50
1997	290	12	505	76		-567	1301
1998	-274	-404	-749	35		-1383	804

Source: Authors calculation utilising the direction of trade statistics supplied by member central banks/monetary authorities.

The crisis also resulted in a fall in FDI flows to the Asian region. Although FDI to Korea and the ASEAN 5 (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) did not appear to be much affected from the currency crisis as FDI in 1997 rose in all cases except in Malaysia, there was across the board decline in FDI to these countries in 1998. This was because of a decline in investor confidence caused by the financial meltdown and slump in domestic production as well as the drop in Japanese investment due to prolonged economic recession in Japan (http://www.jetro.go.jp/it/e/pub/whitepaper/invest1999). The intra-country FDI flows among the crisis-affected countries suffered as well.

The impact of the Asian financial crisis of 1997-1998 on the overall economy of the region is well known. The crisis contributed to a general decline in Asian economic performance. Some of the countries having track record of fast growth had to experience a sharp fall in their GDP (Figure 5.1).

At present, the crisis-affected Asian countries have apparently recovered from the crisis. The boost in exports of electronics and other goods to countries outside the region, particularly the U.S. due to exchange rates depreciation, and various structural reforms should have significant impact for the recovery. However, viewed from the higher share of intra-regional exports accounting for around 50 percent as compared with 21 percent going to the U.S., the faster growth in intra-regional trade will tend to be more important for the recovery of these countries (The *Asian Wall Street Journal*, February 23, 2000). This suggests that while continuing with the existing policy of global integration, Asian nations would need to adopt policies that help to expand intra-regional trade and investment so as to sustain the current economic recovery momentum and return to faster growth as in the pre-crisis years.

Chapter 6

CONCLUSIONS AND POLICY IMPLICATIONS

Degree of trade linkages within the Asian region was high until the end of the Second World War, after which the region started to trade more with countries outside the region, particularly the U.S. Although intra-regional trade shares started to increase from the beginning of the 1970s, the regional trade bias, measured by gravity coefficient, continued to decrease steadily until the mid-1980s. Since then, trade flows within Asia have grown sharply as shown by a steady rise in intra-regional trade shares. The regional trade bias is reflected in a rising or at least stable trend of gravity coefficient. It is also noted that regional trade bias has intensified in a period when intra-regional foreign direct investment (FDI) began to flow at a massive scale, clearly indicating the trade-creating role of FDI.

While intra-Asian trade and investment interdependence started to intensify after the mid-1980s, such intensification for intra-ASEAN and the intra-SEACEN started only after mid-1990s. The study found that despite the existence of preferential trading arrangement initiated in the past several years, the intra-ASEAN gravity coefficient kept on declining till the mid-1990s. Even intra-ASEAN trade shares had not increased appreciably. However, this declining trend has reversed from 1995 as intra-ASEAN trade intensity ceased to decline, signalling the positive effects of the ASEAN Free Trade Area (AFTA), ASEAN Framework Agreement in Services (AFAS) and ASEAN Investment Area (AIA). Intra-SEACEN trade follows almost a similar pattern, although a decline in gravity coefficient during the last decade was not as steep as in the case of ASEAN. This has been mainly because of expansion in intra-SEACEN trade of Korea and Taiwan, which might again be attributed to expansion of investment from these economies to the region particularly to the ASEAN countries.

Regional efforts such as the Asia Pacific Economic Cooperation (APEC), the ASEAN Free Trade Area (AFTA) and the South Asian Preferential Trading Arrangement (SAPTA) are expected to help expand intra-Asian trade and FDI. However, the slower growth of intra-regional trade among the ASEAN countries indicates that these efforts have not yielded such great impact as in the case of the other regional groupings

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like the European Union and North American Free Trade Agreement (NAFTA). Thus, the increasing interdependence among the Asian countries could be mainly driven by unilateral liberalisation of trade and FDI of the individual countries.

The impact of trade and FDI on economic growth was assessed using descriptive analysis and statistical tests. As expected, we found a strong correlation between each pair of the three variables, GDP, trade and FDI. The causality test results, too, generally suggest the expansionary impact of trade and FDI on GDP growth. For the region as a whole, as well as for most of the individual countries, it was found that changes in trade and FDI preceded the changes in GDP. Regarding FDI and trade, the findings suggest that a causality ran from FDI to trade, implying that the increase in FDI preceded trade. However, the opposite results were also found in some countries.

Though rapid expansion in intra-regional trade and investment has contributed immensely to the region's prosperity, it has also increased dependency. This implies that countries within the region become more dependent on one another's performance. Economic ills in one economy may quickly be transmitted to another. In the liberalised context, its effect could be more severe if sufficient precautionary measures have not been put in place. This is apparent from the recent Asian crisis, when the run on the Thai baht had spread to the neighbouring countries as well as to the more remote countries both within and outside the Asian region. While the crisis could be caused by a number of factors, it is clear that poor trade performance in 1996 contributed to the erosion of confidence that culminated to the full-blown crisis.

Whether the current level of Asian integration is high or not is a secondary issue. Depending on one's definition and criteria, one may perceive it as very high while the other may consider it as low in the present context of emerging strong regional trading blocs, in which intra-group trade bias has been increasing. However, given the stronger tendencies in the intra-blocs trade bias of the other regions such as the European Union and the NAFTA in the recent years (Frankel, 1997), concerted efforts may be needed for the Asian countries to further promote intra-regional trade. There is ample scope in this direction as shown by relatively slow pace of integration of a number of these economies. In

fact, the increase in trade linkages observed in the Asian region over the years has been principally contributed by faster expansion in Asian trade with China, Hong Kong, Korea and Taiwan as well as Malaysia, Singapore, the Philippines and Thailand. In addition, Japan's trade with the other Asian countries has been decreasing, as trade shares of the rest of Asian countries to Japan have reduced significantly over the years, from about 21 percent in 1985 to 15 percent in 1997. Similarly, the Asian trade share with Indonesia is still less than in the 1980s, though the rise in intra-regional investment in recent years helps to improve the share somewhat. Besides, degree of integration of the South Asian countries has been low as shown by less than one-fourth of intra-Asian trade of India. Thus, although growth of intra-Asian trade and investment has brought economic growth, it does not seem to be the outcome of joint initiatives, thus nullifying the assertion of creation of yen bloc in Asia (ibid.).

Having said this, our intention is not to advocate regionalism to the extent of reducing welfare, as excessive regionalism may be trade diverting rather than trade creating. Besides, Asia being a fast growing continent with higher trade dependency, its efforts should be to integrate globally. However, given the growing trend of regionalism in other parts of the world in the recent years, it would be prudent for Asia to move toward this direction as having a strong group would make it more effective in dealing with the other regional blocs. It is argued that since Asia has prospered without regionalism, then why go for that as the old saying goes: 'If ain't broke, don't fix it' (Baldwin, 1997). But now, particularly after the crisis, the situation has changed. Had there been sufficient prior efforts for regional cooperation, particularly financial cooperation among the Asian economies, the crisis might have been prevented, or at least the magnitude and duration of the crisis would have been much more moderate.

Although there is still further scope to intensify interdependence and Asian countries should put more effort in this direction, it should be pointed out that the level of intra-regional trade and investment over the past decade has not been that small. The main point here is that there has been little attempt at cooperation and coordination among the Asian countries, particularly in the currency and financial matters (Yamazawa, 1998). Viewed from the diversity among the Asian countries, deep integration like Eu-

ropean Union may not be achievable in the near term. Yet it has now become crucial for these economies to initiate steps to enhance regional cooperation, particularly financial cooperation, so as to avoid the recurrence of similar financial crisis in the future, and to restore rapid growth.

Prior to the crisis, the Asian countries in particular ASEAN, had promoted and enhanced trade, investment and financial co-operation. Efforts to expand regional co-operation intensified following the crisis. The following are but a few examples: regular meetings of the East Asian leaders, which include Japan, China and South Korea in addition to the 10 ASEAN members; Japan's initiative to provide a substantial amount of rescue fund to the crisis-hit economies; and China's commitments not to devalue its currency. However, to foster a regional economic cooperation effectively, one needs to go beyond discussions. Granted that some of the initiatives, for instance creating the East Asian free trade zone, may take a long time to materialise, there are several initiatives that could be translated into actions much faster without much difficulty.

There is no doubt that, in addition to domestic policy initiatives and support from neighbours, sharp rise in exports to countries outside the region, particularly to the U.S., has contributed to a rapid recovery of the crisis-affected countries. However, one should not be over-optimistic that the U.S. economy will continue growing, and that it would absorb Asian products indefinitely.

Besides, the rise in exports seems to be mainly due to a sharp depreciation of exchange rate, which is not likely to be sustainable as manufacturing production in the Asian economies also depends highly on imported parts and raw materials. The depreciation will also lead to higher cost of imported parts and raw materials as well as other imported goods, and add pressure on domestic prices. This problem may not be immediately felt partly because of the depreciation of currencies of the exporter countries such as Japan, and partly because of the utilisation of existing stock of raw materials. However, the situation has changed as the yen has started to appreciate while the existing stock has also been depleted as seen in the re-emergence of trade deficits in 1999 in some of the Asian countries (*The Asian Wall Street Journal*, February 2, 2000). Therefore, there are reasons for concern that the free-floating exchange rate may prove to be too volatile and could lead to another round of

instability. There should also be better coordination of exchange rate policy within the region.

There has been a suggestion that in this context, pegging the individual currencies with an agreed currency basket consisting of the U.S. dollar, the yen and the euro, using the weights that reflect their respective proportion of trade and investment in the region, could be appropriate. It is further suggested that a common wide band of 5-10 percent should be allowed in order to allow some flexibility of the individual currencies in response to changes in the specific market. In addition, a crawling peg could be introduced so that the nominal exchange rates could be adjusted automatically to changes in relative prices. While it would be better to allow the yen to float with the U.S. dollar, there should be some form of currency cooperation between the U.S. and Japan so as to ensure a certain degree of stability of the yen-dollar rates in the market (Yamazawa, 1998).

After the crisis, several Asian economies have embarked on various structural reforms to address deficiencies and vulnerabilities in the economy. For most of the countries, however, the focus has been mainly on restructuring domestic financial and corporate sectors. No concrete and sustainable policy seems to have been adopted in respect of short-term foreign capital, the main culprit for pushing Asian economy into unprecedented turmoil. As a matter of fact, Asian policy regarding short-term foreign capital has been more liberal than even FDI. While the FDI was/is constrained by several factors including ownership limit, no such constraints seem to be applied to portfolio capital.

In this context, even if market confidence to Asian economies seems to have been restored recently as shown by a rebound in stock prices due to inflows of foreign capital, there are possibilities that the flows may be reversed again. It can be argued that the current attraction of foreign investors into Asian stock markets has been mainly due to exchange rate depreciation. But when exchange rate of Asian currencies appreciate, which is possible with the increasing inflows of foreign capital, the ensuing capital outflows may culminate to severe liquidity problems again. Thus, instead of competing with one another to attract short-term foreign capital, there should be coordinated efforts within the region to identify and implement measures to prevent disruptive capital movement. A more

towards this direction was the establishment of the SEACEN Experts Group (SEG) on Capital Flows to develop a regional framework to promote information sharing on capital flows among its members. The SEG aimed to draw up concrete and practical proposals that members could implement individually or collectively to enhance the management of capital flows. Apart from increased regional surveillance on capital flows, other policy options that Asian countries could consider is the introduction of tax on capital flows such as the Tobin Tax.

Another area that the region could cooperate is to establish some sort of financial mechanism to alleviate liquidity problem in certain country due to a sudden external shock. For example, a common fund could be set up in order to settle temporary liquidity problem. In this regard, the ASEAN+3 countries have established the Chiang Mai Initiative (CMI) to strengthen regional self-help and financial support mechanisms in East Asia. The CMI comprises on expanded ASEAN Swap Arrangement (ASA) and a network of Bilateral Swap Arrangements and Repurchase Agreements (BSA) between ASEAN and China, Japan and Korea. Side by side, while allowing individual countries to adopt suitable economic policy based on their specific circumstances, there should be coordination among the economies of the region in matters of common interest. While every country should be encouraged to implement sound and prudent macroeconomic policies and to strengthen domestic financial system, an occasional review of the individual countries' economic situation provided by multilateral or regional agency could be very helpful. Lastly, regional cooperation regarding training facilities needs to be enhanced, especially in the area of financial system.

In conclusion, the evidence suggests that while the efforts to integrate globally should continue, Asia needs to give greater emphasis in deepening intra-Asian integration by further expanding intra-regional trade and investment. The different sub-groups in the Asian region such as ASEAN and SAARC also need to pursue similar initiatives in this direction. Concurrently, there is also a need to expand cooperation, especially in matters relating to finance, macroeconomic management, training, among others.

ADDITION NOTES ON DATA

1. Direction of trade data for Japan, China, Hong Kong, India, Mongolia, Myanmar and Nepal are taken from *Direction of Trade Statistics Yearbook* (DOT), IMF, while for other countries such data are from national sources. Because of the differences in data source, there are some inconsistencies in direction of trade statistics of some countries. For instance, China's trade with Korea and Taiwan are not shown in the DOT up to 1989, but direction of trade data supplied by the central banks of Korea and Taiwan have shown their trade with China for that period. These reporting differences, however, were not considered in this study. Trade intensity has been presented on the basis of data appeared in the DOT and the national sources.

2. Entrepot trade of Hong Kong and Singapore has not been considered. They were used as appeared in the *Direction of Trade Statistics Yearbook*, IMF, in the case of Hong Kong, and data supplied by the Monetary Authorities of Singapore in the case of Singapore.

3. Since Singapore does not report its trade with Indonesia, such trade was derived by using Indonesia's source. A conversion factor of 1.1 was used to account for cost of freight and insurance.

BIBLIOGRAPHY

1. Aggarawal, Mangat Ram (1993): Exports and Total Capital Flows as a Source of ASEAN Economic Dynamism, Policy Issues for the Future, *ASEAN Economic Bulletin*, vol. 10, July.

2. Baig, Taimur and Ilan Goldfajn (1998): Financial Market Contagion in the Asian Crisis, *IMF Working Paper*, WP/98/155, International Monetary Fund, Washington D.C., November.

3. Baldwin Richard E. (1997): The Causes of Regionalism, *The World Economy*, vol. 20, Blackwell Publisher Ltd., Oxford, U.K. and Boston, U.S., November.

4. Bhagwati, Jagdish N. (1991): *Political Economy and International Economics*, ed. by Douglas A. Irwin, The MIT Press.

5. Chopra, Ajaya, Woosik Chu, and Oliver Fratzscher (1995): Structural Reforms and the Implications for Investment and Growth, in *India: Economic Reform and Growth*, International Monetary Fund, December.

6. Cooper, Richard N. (1978): International Economic Interdependence and Monetary Reform, in *Changing Pattern in Foreign Trade and Payments*, ed. by Bela Balassa, W.W. Norton and Company Inc., New York.

7. ESCAP (1998): Foreign Direct Investment in Selected Asian Countries: Policies, Related Institution-Building and Regional Co-operation, United Nations, *Development Papers*, no. 19.

8. Dobson, Wendy (1997): East Asian Integration, Synergies Between Firm Strategies and Government Policies, in *Multinationals and East Asian Integration*, ed. by Wendy Dobson and Chia Siow Yue, International Development Research Centre, Ottawa, Canada and Institute of South Asian Studies, Singapore.

9. Drysdale, P. and Ross Garnaut (1982): Trade Intensities and the Analysis of Bilateral Trade Flows in a Many-Country World: A Survey, Hitotsubashi, *Journal of Economics*, vol. 22, no. 2, The Hitotsubashi Academy, Hitotsubashi University, Kunitachi, Tokyo, Japan, February.

10. Federal Reserve Bank of San Francisco Economic Letter (1998): What Caused East Asia's Financial Crisis? *FRBSF No. 98-24*, San Francisco, August 7.

11. Frankel Jeffrey A. (1997): Regional Trading Blocs, in the *World Economic System*, Institute for International Economics, Washington D.C.

12. Frankel, Jeffrey A. and Shang-Jin Wei (1997): ASEAN in a Regional Perspective, in *Macroeconomic Issues Facing ASEAN Countries*, ed. by John Hicklin, David Robinson and Anoop Singh, International Monetary Fund, Washington D.C.

13. Garnaut, R (1998): ASEAN and Regionalization and Globalization of World Trade, *ASEAN Economic Bulletin*, vol.14, Institute of Southeast Asian studies, Singapore, March.

14. Grabbe, J. Orlin (1992): *International Financial Markets*, Prentice Hall, Simon and Schuster (Asia) Pte. Ltd., Singapore.

15. Hong Kong Monetary Authority and International Monetary Fund (1997): *Financial Integration in Asia and the Role of Hong Kong*, Hong Kong and Washington D.C.

16. Http://www.jetro.go.jp/it/e/pub/whitepaper/invest1999/inv2-5.html.

17. *International Herald Tribune* (1999): Eastern Asia Moves Closer to Forming Major Bloc, Kuala Lumpur, November, 26.

18. International Monetary Fund, *Balance of Payments Statistics Year Book*, various issues, Washington D.C.

19. ―――――――, *Direction of Trade Statistics Year Book*, various issues, Washington D.C.

20.   ———————, *Financial Statistics Year Book,* various issues, Washington D.C.

21.   ———————, *World Economic Outlook,* various issues, Washington D.C.

22.   Japan External Trade Organization (JETRO), various issues, Tokyo: Japan External Trade Organization.

23.   Lee Jane L., Jon E. Hilsenrath, and James T. Areddy (2000), Asia May be Importing Trade Trouble, *The Asian Wall Street Journal,* February 2.

24.   Lu Weiguo (1998): China's Textiles and Clothing Industry, in *Background Papers on the Effects of Liberalization in Asia's Textiles, Clothing and Electronics Industries,* Studies in APEC Liberalization, Australian Pacific Economic Cooperation Committee, http://sunsite.anu.edu.au/auspecc.

25.   Ming, Bai and Li Yongjing (1998): The Chinese Electronics Industry, in *Background Papers on the Effects of Liberalization in Asia's Textiles, Clothing and Electronics Industries,* Studies in APEC Liberalization, Australian Pacific Economic Cooperation Committee, http://sunsite.anu.edu.au/auspecc.

26.   Monetary Authority of Singapore (1998): Singapore's Trade Linkages, 1992- 96: Trends and Implications, *MAS Occasional Paper,* no. 7, August.

27.   Naya, S.(1987): *Toward an ASEAN Trade Area,* Institute of Strategic and International Studies (ISIS), Malaysia.

28.   Nepal Rastra Bank, *Economic Report (1996/97),* Research Department, Kathmandu, Nepal.

29.   World Bank (1998): *World Development Indicators,* World Bank, Washington D.C.

30. Petri, Peter A. (1993): The East Asian Trading Bloc: An Analytical History, in Jeffrey A. Frankel and Miles Kahler, eds., *Regionalism and Rivalry: Japan and United States in Pacific Asia*, Chicago: University of Chicago Press.

31. ———————, (1994): *Trade and Investment Interdependence in the Pacific*, the Paper prepared for 21st Pacific Trade and Development Conference "Corporate Links and Direct Foreign investment in Asia and the Pacific", Hong Kong, June.

32. Ramstetter, Eric D. (1997): Thailand: International Trade, Multinational Firms, and Regional Integration, in *Multinationals and East Asian Integration*, ed. by Wendy Dobson and Chia Siow Yue, International Development Research Centre, Ottawa, Canada and Institute of South Asian Studies, Singapore.

33. Robinson David, Yangho Byeon, and Ranjit Teja with Wonda Tseng. (1991): The Economy in a Regional Perspective, *IMF Occasional Papers*, no. 85, Washington D.C.

34. Salleh, Ismail M. and Saha Dhevan Meyanathan (1993): *The Lesson of East Asia, Malaysia: Growth, Equity, and Structural Transformation*, World Bank, Washington, D.C.

35. Samuelson, Paul A. and William D. Nordhaus (1989): *Economics*, McGraw-Hill Book Co.

36. Sieh Lee, M.L (1997): Malaysia: Electronics, Automobiles, and Trade-Investment Nexus, in *Multinationals and East Asian Integration*, ed. by Wendy Dobson and Chia Siow Yue, International Development Research Centre, Ottawa, Canada and Institute of South Asian Studies, Singapore.

37. Sieh Lee, M.L and Loke Wai Heng (1998): *FDIs in Malaysia: Firm Characteristics*, Papers and Proceedings of International Symposium on Foreign Direct Investment in Asia, Department of Research Cooperation, Economic Research Institute, Economic Planning Agency, Government of Japan, October 22 and 23.

38. The South East Asian Central Banks (SEACEN) Research and Training Centre: *SEACEN Financial Statistics*, various issues, The SEACEN Centre, Kuala Lumpur, Malaysia.

39. Talib Azizah (1994): *Foreign Direct Investment in the SEACEN Countries*, The SEACEN Centre, Kuala Lumpur, Malaysia.

40. UNCTAD (1995): *World Investment Reports*, 1995, New York and Geneva, United Nations.

41. ——————— (1998): *World Investment Reports*, 1998, New York and Geneva, United Nations.

42. Vamvakidis Athanasios (1998): Regional Integration and Economic Growth, *The World Bank Economic Review*, World Bank, Washington D.C., May.

43. World Bank (1994): *East Asia Trade and Investment, Regional and Global Gains from Liberalization*, World Bank, Washington D.C.

44. World Trade Organization (1998): Annual Report, *International Trade Statistics*, Geneva.

45. Yamazawa, Ippei (1998): The Asian Economic Crisis and Japan, *The Developing Economies*, vol. XXXVI-3, Institute of Developing Economies, Tokyo, Japan, September.

46. Yean, Siew Tham (1998): Competition and Cooperation for Foreign Direct Investment: an ASEAN Perspective, *Asia-Pacific Development Journal*, vol. 15, no. 1, United Nations, June.

47. Zhaoyong Z. and Chen Kang (1997): China: A Rapidly Emerging Light-Manufacturing Base in Guangdong Province, in *Multinationals and East Asian Integration*, ed. by Wendy Dobson and Chia Siow Yue, International Development Research Centre, Ottawa, Canada and Institute of South Asian Studies, Singapore.

APPENDICES

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	6.46	5.87	6.85	8.12	9.43	11.50	11.97	11.97	13.70	15.26	17.33	17.54	16.27
SEACEN	13.55	14.80	17.72	19.50	21.16	23.09	24.29	23.57	25.24	27.58	31.05	31.13	29.13
Indonesia	1.24	1.27	1.30	1.15	1.20	1.76	1.78	1.64	1.67	1.94	2.25	2.20	2.42
Korea	4.04	5.01	5.77	5.83	6.01	6.08	6.38	5.23	5.29	6.16	7.06	7.14	6.20
Malaysia	1.23	0.82	0.95	1.16	1.50	1.92	2.43	2.39	2.67	3.13	3.79	3.73	3.45
Mongolia	N/A	N/A	N/A	N/A	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Myanmar	0.10	0.10	0.08	0.07	0.04	0.04	0.03	0.03	0.03	0.02	0.04	0.06	0.05
Nepal	0.03	0.03	0.03	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.01
Philippines	0.53	0.52	0.62	0.66	0.86	0.87	0.85	1.04	1.33	1.49	1.60	2.04	2.06
Singapore	2.20	2.19	2.62	3.14	3.35	⌐.73	3.88	3.82	4.60	4.96	5.19	5.06	4.81
Sri Lanka	0.15	0.14	0.11	0.11	0.11	0.11	0.09	0.11	0.11	0.12	0.10	0.10	0.10
Taiwan	2.86	3.75	4.95	5.42	5.59	5.37	5.80	6.23	6.12	6.02	6.54	6.32	6.54
Thailand	1.16	0.97	1.29	1.95	2.48	3.18	3.00	3.06	3.40	3.72	4.45	4.45	3.47
China	7.11	4.72	3.60	3.58	3.09	2.14	2.73	3.52	4.79	4.73	4.95	5.31	5.15
Hong Kong	3.70	3.42	3.87	4.42	4.18	4.56	5.19	6.11	6.30	6.51	6.27	6.17	6.47
India	0.91	1.01	0.85	0.79	0.73	0.59	0.48	0.44	0.42	0.52	0.57	0.59	0.52
Rest of Asian-15	25.27	23.95	26.04	28.28	29.15	30.38	32.70	33.64	36.75	39.34	42.85	43.20	41.27
United States	37.63	38.88	36.75	34.06	34.22	31.68	29.28	28.46	29.48	30.03	27.55	27.52	28.12
European Union	11.92	14.77	16.56	17.80	19.19	20.41	20.36	19.74	16.61	15.48	15.88	15.35	15.61
Others	25.17	22.41	20.65	19.85	17.45	17.54	17.66	18.16	17.16	15.15	13.72	13.93	15.00
Total Export (US$ Mn)	177189	210718	231332	264961	274590	287664	314845	339864	362583	395201	443005	411242	421067
Import													
ASEAN-6	14.15	12.17	12.34	11.48	11.76	11.94	12.81	12.97	13.60	13.37	13.49	14.08	13.74
SEACEN	20.00	20.11	22.59	22.51	22.25	20.61	22.12	22.09	22.56	22.31	23.01	23.03	21.85
Indonesia	7.81	5.79	5.63	5.12	5.23	5.42	5.40	5.26	5.19	4.70	4.23	4.36	4.31
Korea	3.18	4.18	5.42	6.31	6.17	4.99	5.23	4.98	4.86	4.93	5.16	4.57	4.31
Malaysia	3.33	3.12	3.19	2.53	2.43	2.30	2.73	2.82	3.18	2.99	3.14	3.37	3.36
Mongolia	N/A	N/A	N/A	N/A	0.02	0.01	0.01	0.02	0.01	0.02	0.03	0.03	0.03
Myanmar	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
Nepal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Philippines	0.96	0.97	0.91	1.09	0.98	0.91	0.99	0.99	1.00	0.97	1.04	1.29	1.48
Singapore	1.23	1.16	1.38	1.25	1.40	1.52	1.44	1.33	1.50	1.69	2.04	2.10	1.73
Sri Lanka	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08
Taiwan	2.62	3.70	4.77	4.66	4.25	3.62	4.01	4.06	4.01	3.91	4.27	4.28	3.68
Thailand	0.79	1.10	1.20	1.47	1.70	1.77	2.22	2.56	2.70	2.98	3.02	2.94	2.83
China	5.01	4.49	4.96	5.26	5.29	5.12	6.02	7.29	8.55	10.06	10.69	11.56	12.35
Hong Kong	0.59	0.85	1.05	1.13	1.05	0.93	0.87	0.88	0.83	0.78	0.81	0.74	0.66
India	0.92	1.03	1.02	0.96	0.94	0.88	0.92	0.87	0.95	0.97	0.87	0.82	0.78
Rest of Asian-15	26.52	26.47	29.61	29.86	29.53	27.54	29.94	31.13	32.88	34.11	35.38	36.15	35.65
United States	20.00	23.04	21.18	22.54	23.02	22.46	22.67	22.63	23.15	23.01	22.59	22.86	22.43
European Union	7.18	11.10	11.84	12.89	14.44	16.07	14.55	14.48	13.69	14.13	14.55	14.16	13.37
Others	46.30	39.39	37.37	34.71	33.01	33.93	32.85	31.75	30.28	28.74	27.48	26.84	28.55
Total Import (US$ Mn)	130516	127860	150907	187483	209597	235289	236612	232809	241604	274123	335937	349508	338646

[1] Percentage distribution of Japan's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Japan's trade with its respective trading partner/partners by its total exports or imports.

Source: *Direction of Trade Statistics Yearbook* of IMF, various issues.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	1.78	1.84	1.99	2.04	2.15	2.36	2.25	2.23	2.16	2.26	2.43	2.45	2.41
SEACEN	2.04	2.39	2.57	2.43	2.51	2.62	2.51	2.43	2.29	2.39	2.54	2.53	2.47
Indonesia	2.12	2.30	2.39	2.25	2.10	2.62	2.35	2.20	2.09	2.45	2.67	2.59	3.07
Korea	2.28	3.07	3.19	2.91	2.80	2.84	2.66	2.34	2.24	2.44	2.52	2.39	2.27
Malaysia	1.76	1.46	1.69	1.80	1.90	2.15	2.25	2.20	2.08	2.12	2.35	2.40	2.31
Mongolia	N/A	N/A	N/A	N/A	0.60	1.10	3.12	1.48	0.53	0.86	0.90	1.37	0.90
Myanmar	6.54	6.43	6.51	7.36	5.70	1.71	0.84	0.99	0.79	0.47	0.77	1.24	0.99
Nepal	2.09	1.93	1.68	1.13	1.73	1.48	2.12	1.36	1.26	1.10	0.87	1.26	0.66
Philippines	1.73	1.87	1.95	1.94	2.21	2.18	2.24	2.45	2.52	2.66	2.74	3.01	2.80
Singapore	1.47	1.66	1.82	1.85	1.93	2.00	1.99	1.94	1.91	1.95	2.01	1.94	1.93
Sri Lanka	1.48	1.46	1.21	1.23	1.47	1.36	1.03	1.11	0.96	1.04	0.98	0.98	0.91
Taiwan	2.50	3.00	3.21	2.82	3.06	3.20	3.14	3.17	2.82	2.85	3.04	3.11	3.02
Thailand	2.20	2.05	2.25	2.48	2.80	3.10	2.69	2.75	2.62	2.76	3.03	3.11	2.90
China	2.94	2.11	1.89	1.67	1.50	1.29	1.46	1.58	1.64	1.65	1.80	1.93	1.92
Hong Kong	2.20	1.87	1.81	1.79	1.66	1.80	1.76	1.81	1.61	1.63	1.57	1.57	1.64
India	0.98	1.29	1.15	1.06	1.09	0.81	0.84	0.69	0.71	0.82	0.80	0.83	0.71
Rest of Asian-15	2.16	2.17	2.23	2.11	2.13	2.21	2.17	2.11	1.99	2.07	2.18	2.19	2.15
United States	1.83	1.94	1.97	1.91	1.99	2.00	1.96	1.89	1.74	1.76	1.72	1.70	1.65
European Union	0.32	0.36	0.40	0.44	0.43	0.43	0.44	0.44	0.42	0.39	0.40	0.40	0.42
Others	0.81	0.79	0.73	0.71	0.71	0.76	0.75	0.76	0.68	0.61	0.56	0.55	0.57

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	3.36	3.30	3.22	2.71	2.63	2.65	2.54	2.44	2.20	2.02	2.00	2.07	2.05
SEACEN	2.49	2.53	2.61	2.42	2.39	2.33	2.27	2.20	2.00	1.92	1.92	1.93	1.84
Indonesia	6.87	6.93	6.97	6.47	6.34	6.53	5.90	5.28	4.73	4.52	4.31	4.27	4.12
Korea	1.71	2.14	2.43	2.52	2.66	2.38	2.32	2.22	1.98	1.98	1.91	1.72	1.62
Malaysia	3.54	3.96	3.77	2.91	2.61	2.42	2.53	2.35	2.26	1.96	1.97	2.10	2.18
Mongolia	N/A	N/A	N/A	N/A	4.17	2.60	4.42	5.20	1.68	3.17	3.75	3.29	3.89
Myanmar	1.45	2.36	2.25	2.82	2.03	1.33	1.25	1.01	1.16	1.17	1.10	1.21	1.27
Nepal	0.09	0.21	0.28	0.11	0.14	0.18	0.10	0.08	0.15	0.12	0.09	0.08	0.15
Philippines	3.39	3.54	3.38	3.75	3.36	3.45	3.57	3.43	2.96	2.79	2.76	3.07	3.00
Singapore	0.88	0.91	1.02	0.77	0.84	0.89	0.78	0.71	0.68	0.67	0.80	0.82	0.71
Sri Lanka	0.78	1.08	0.97	1.01	0.97	0.94	0.89	0.89	0.83	0.83	0.84	0.93	0.86
Taiwan	1.39	1.65	1.88	1.86	1.72	1.67	1.68	1.70	1.58	1.62	1.77	1.80	1.54
Thailand	1.82	2.19	2.19	2.22	2.27	2.37	2.48	2.67	2.44	2.53	2.46	2.56	2.47
China	3.00	2.54	2.66	2.68	2.69	2.52	2.67	2.91	3.13	3.21	3.33	3.73	3.45
Hong Kong	0.32	0.42	0.46	0.43	0.39	0.35	0.28	0.25	0.21	0.20	0.22	0.20	0.18
India	1.81	1.99	2.01	1.80	1.59	1.53	1.65	1.61	1.57	1.54	1.32	1.23	1.20
Rest of Asian-15	2.20	2.16	2.22	2.07	2.02	1.95	1.91	1.88	1.77	1.77	1.81	1.87	1.80
United States	1.53	1.88	1.78	1.71	1.70	1.77	1.71	1.72	1.67	1.73	1.79	1.79	1.67
European Union	0.18	0.26	0.27	0.30	0.34	0.33	0.31	0.31	0.32	0.33	0.33	0.33	0.33
Others	1.28	1.18	1.19	1.18	1.12	1.36	1.35	1.32	1.23	1.17	1.13	1.06	1.11

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 1.

Appendix-3: Percentage Distribution of China's Trade
(The Relative Measure of Trade Intensity) [1/]

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	10.38	6.11	6.03	6.19	6.04	6.56	6.13	5.27	5.46	5.58	6.46	6.19	6.28
SEACEN	10.67	6.42	6.21	6.38	6.26	8.02	10.23	9.26	10.45	11.24	13.27	13.22	13.34
Indonesia	0.45	0.46	0.48	0.50	0.42	0.64	0.67	0.55	0.76	0.87	0.97	0.95	1.01
Korea	N/A	N/A	N/A	N/A	N/A	0.69	3.03	2.85	3.12	3.62	4.49	4.98	4.99
Malaysia	0.68	0.65	0.65	0.65	0.67	0.59	0.73	0.75	0.77	0.93	0.86	0.91	1.05
Mongolia	N/A	N/A	N/A	N/A	0.04	0.04	0.04	0.16	0.09	0.04	0.04	0.05	0.03
Myanmar	0.13	0.12	0.17	0.28	0.36	0.44	0.40	0.30	0.35	0.31	0.42	0.34	0.31
Nepal	0.06	0.07	0.05	0.05	0.05	0.07	0.04	0.04	0.04	0.03	0.04	0.02	0.03
Philippines	1.15	0.50	0.62	0.56	0.45	0.33	0.35	0.24	0.31	0.39	0.69	0.67	0.73
Singapore	7.55	3.88	3.35	3.13	3.20	3.21	2.80	2.38	2.45	2.12	2.35	2.48	2.36
Sri Lanka	0.22	0.24	0.13	0.14	0.13	0.15	0.16	0.12	0.15	0.12	0.16	0.13	0.13
Taiwan	N/A	N/A	N/A	N/A	N/A	0.51	0.83	0.82	1.59	1.86	2.08	1.86	1.86
Thailand	0.42	0.51	0.76	1.07	0.94	1.36	1.18	1.05	0.82	0.96	1.18	0.83	0.82
Japan	22.29	15.12	16.20	16.88	15.86	14.65	14.25	13.68	17.23	17.79	19.12	20.44	17.40
Hong Kong	26.16	31.17	34.88	38.27	41.42	43.20	44.67	43.88	24.09	26.79	24.18	21.78	23.94
India	0.31	0.28	0.22	0.31	0.32	0.28	0.20	0.18	0.28	0.47	0.51	0.46	0.51
Rest of Asian-15	59.42	52.99	57.51	61.84	63.86	66.14	69.36	67.01	52.04	56.29	57.08	55.91	55.19
United States	8.55	8.39	7.68	7.13	8.34	8.45	8.62	10.06	18.53	17.73	16.62	17.69	17.90
European Union	8.35	12.81	9.92	9.96	9.66	9.98	9.91	9.36	13.38	12.76	12.93	13.15	13.05
Others	23.68	25.81	24.89	21.07	18.14	15.43	12.12	13.57	16.05	13.22	13.36	13.25	13.86
Total Export (US$ Mn)	27329	31367	39464	47663	52916	62876	71940	85492	91611	1E+05	1E+05	2E+05	2E+05
Import													
ASEAN-6	2.76	3.55	4.98	5.73	6.32	5.79	6.15	5.29	5.94	6.03	7.23	7.59	8.41
SEACEN	2.80	3.62	5.03	5.78	6.35	10.44	13.56	15.76	23.69	24.61	26.30	28.32	30.58
Indonesia	0.78	0.75	1.37	1.23	0.98	1.57	2.20	1.90	1.40	1.37	1.65	1.65	1.88
Korea	N/A	N/A	N/A	N/A	N/A	0.44	1.67	3.20	5.18	6.33	7.79	8.98	10.47
Malaysia	0.47	0.42	0.70	1.03	1.17	1.58	1.26	1.01	1.05	1.40	1.56	1.62	1.75
Mongolia	N/A	N/A	N/A	N/A	0.02	0.02	0.03	0.06	0.07	0.07	0.08	0.09	0.13
Myanmar	0.11	0.13	0.22	0.25	0.21	0.18	0.17	0.16	0.16	0.12	0.11	0.10	0.05
Nepal	0.00	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	N/A	0.00	0.01
Philippines	0.23	0.31	0.32	0.24	0.14	0.17	0.20	0.19	0.21	0.24	0.21	0.27	0.23
Singapore	0.57	1.28	1.43	1.84	2.54	1.57	1.66	1.51	2.56	2.15	2.57	2.60	3.08
Sri Lanka	0.03	0.05	0.05	0.04	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01
Taiwan	N/A	N/A	N/A	N/A	N/A	4.18	5.70	7.20	12.49	12.18	11.20	11.65	11.56
Thailand	0.62	0.66	0.94	1.14	1.28	0.72	0.66	0.52	0.58	0.75	1.22	1.36	1.41
Japan	35.73	28.82	23.34	19.98	17.81	14.20	15.71	16.72	22.50	22.76	21.96	21.01	20.39
Hong Kong	11.21	12.88	19.52	21.69	21.21	27.01	27.47	-25.10	10.14	8.21	6.51	5.64	4.92
India	0.09	0.09	0.07	0.18	0.17	0.18	0.19	0.22	0.40	0.28	0.30	0.52	0.63
Rest of Asian-15	49.83	45.41	47.95	47.63	45.55	51.84	56.93	57.80	56.73	55.86	55.07	55.49	56.53
United States	12.24	10.91	11.19	11.98	13.30	12.22	12.54	10.88	10.27	12.09	12.21	11.64	11.46
European Union	14.48	17.94	16.83	14.77	16.55	16.97	14.56	13.27	15.20	16.09	16.14	14.31	13.51
Others	23.45	25.75	24.03	25.61	24.61	18.97	15.96	18.05	17.80	15.97	16.58	18.56	18.51
Total Import (US$ Mn)	42480	43247	43222	55352	59131	53915	63855	81643	1E+05	1E+05	1E+05	1E+05	1E+05

[1/] Percentage distribution of China's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing China's trade with its respective trading partner/partners by its total exports or imports.

Source: *Direction of Trade Statistics Yearbook* of IMF, various issues.

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Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	3.01	1.99	1.84	1.63	1.45	1.42	1.21	1.02	0.89	0.86	0.94	0.90	0.96
SEACEN	1.68	1.08	0.94	0.84	0.78	0.96	1.11	1.00	0.98	1.01	1.13	1.12	1.17
Indonesia	0.82	0.86	0.92	1.02	0.78	1.01	0.92	0.77	0.98	1.14	1.19	1.16	1.33
Korea	N/A	N/A	N/A	N/A	N/A	0.34	1.33	1.33	1.37	1.49	1.67	1.74	1.89
Malaysia	1.02	1.21	1.21	1.06	0.89	0.69	0.71	0.72	0.62	0.65	0.56	0.61	0.73
Mongolia	N/A	N/A	N/A	N/A	9.34	10.64	7.93	22.46	9.45	5.05	4.17	4.66	3.51
Myanmar	8.37	8.04	15.48	31.07	55.23	22.70	13.31	11.04	10.60	8.70	9.31	7.20	6.39
Nepal	3.89	4.31	2.59	2.35	3.59	5.09	3.18	3.27	2.59	2.26	2.37	2.03	2.79
Philippines	3.90	1.87	2.05	1.75	1.22	0.86	0.98	0.60	0.60	0.73	1.23	1.03	1.03
Singapore	5.32	3.07	2.44	1.94	1.94	1.81	1.51	1.25	1.06	0.87	0.95	0.99	0.98
Sri Lanka	2.25	2.64	1.49	1.70	1.88	1.97	1.92	1.34	1.38	1.13	1.69	1.33	1.30
Taiwan	N/A	N/A	N/A	N/A	N/A	0.32	0.47	0.43	0.76	0.91	1.01	0.95	0.89
Thailand	0.85	1.12	1.39	1.44	1.12	1.40	1.11	0.98	0.66	0.74	0.83	0.61	0.71
Japan	3.16	2.39	2.55	2.45	2.28	2.14	2.15	2.24	2.63	2.73	2.86	3.07	2.82
Hong Kong	16.27	17.81	17.11	16.27	17.31	18.02	15.93	13.55	6.41	6.96	6.29	5.76	6.29
India	0.35	0.38	0.31	0.44	0.50	0.39	0.37	0.30	0.48	0.78	0.75	0.67	0.72
Rest of Asian-15	3.74	3.59	3.67	3.52	3.55	3.62	3.62	3.48	2.42	2.55	2.49	2.44	2.50
United States	0.44	0.44	0.43	0.42	0.51	0.56	0.60	0.69	1.14	1.08	1.08	1.14	1.09
European Union	0.24	0.33	0.25	0.26	0.23	0.22	0.22	0.22	0.35	0.34	0.34	0.35	0.36
Others	0.80	0.95	0.93	0.79	0.78	0.70	0.54	0.59	0.66	0.56	0.57	0.55	0.55
Import													
ASEAN-6	0.72	1.06	1.41	1.47	1.53	1.38	1.31	1.07	1.04	0.97	1.14	1.18	1.31
SEACEN	0.38	0.50	0.63	0.68	0.74	1.27	1.49	1.69	2.27	2.27	2.34	2.50	2.70
Indonesia	0.75	0.99	1.85	1.69	1.29	2.04	2.58	2.05	1.38	1.42	1.69	1.70	1.88
Korea	N/A	N/A	N/A	N/A	N/A	0.22	0.80	1.53	2.28	2.72	3.07	3.56	4.11
Malaysia	0.54	0.58	0.90	1.29	1.36	1.78	1.25	0.91	0.81	0.98	1.04	1.06	1.19
Mongolia	N/A	N/A	N/A	N/A	3.79	7.45	16.03	17.76	11.25	10.56	11.38	12.33	16.44
Myanmar	6.24	8.94	23.22	44.49	28.85	14.03	10.80	8.57	6.79	5.57	4.74	4.26	2.33
Nepal	0.62	1.35	0.36	0.61	1.34	1.43	0.21	0.13	0.19	0.20	n.a	0.31	0.95
Philippines	0.88	1.27	1.31	0.91	0.52	0.68	0.79	0.71	0.66	0.72	0.59	0.67	0.49
Singapore	0.44	1.11	1.15	1.24	1.65	0.99	0.96	0.87	1.25	0.91	1.07	1.07	1.32
Sri Lanka	0.43	0.89	0.80	0.78	0.13	0.07	0.14	0.11	0.07	0.07	0.02	0.04	0.07
Taiwan	N/A	N/A	N/A	N/A	N/A	2.07	2.56	3.24	5.33	5.41	4.94	5.16	5.06
Thailand	1.55	1.46	1.86	1.88	1.84	1.03	0.79	0.58	0.57	0.68	1.06	1.25	1.29
Japan	3.60	2.67	2.33	1.99	1.89	1.64	1.71	1.80	2.25	2.38	2.44	2.63	2.59
Hong Kong	6.63	7.10	9.32	9.07	8.44	10.92	9.55	7.69	2.73	2.24	1.85	1.61	1.40
India	0.20	0.19	0.15	0.36	0.32	0.34	0.36	0.44	0.72	0.47	0.49	0.82	1.01
Rest of Asian-15	2.56	2.24	2.34	2.22	2.16	2.60	2.63	2.58	2.30	2.26	2.26	2.37	2.42
United States	1.03	0.98	1.02	0.99	1.06	1.03	1.02	0.89	0.80	0.97	1.03	0.96	0.89
European Union	0.41	0.47	0.42	0.37	0.42	0.38	0.33	0.31	0.38	0.40	0.39	0.35	0.35
Others	0.71	0.85	0.83	0.95	0.90	0.81	0.71	0.81	0.78	0.70	0.73	0.77	0.75

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 3.

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Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	6.43	6.54	6.17	6.06	6.61	7.18	6.19	5.75	5.53	6.27	6.48	6.49	6.23
SEACEN	10.88	11.98	12.34	12.53	13.15	13.97	12.61	11.17	10.19	10.55	11.01	10.75	10.48
Indonesia	1.12	1.06	0.84	0.76	0.78	0.92	0.72	0.61	0.36	0.61	0.61	0.56	0.49
Korea	1.80	2.34	2.62	2.64	2.62	2.32	2.14	1.62	1.68	1.60	1.62	1.63	1.49
Malaysia	0.74	0.65	0.64	0.65	0.71	0.70	0.72	0.70	0.67	0.76	0.89	0.94	0.92
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	0.00	0.00	0.01	0.00	0.01	0.00	0.00
Myanmar	0.03	0.02	0.01	0.01	0.00	0.01	0.01	0.01	0.03	0.03	0.04	0.05	0.04
Nepal	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.05	0.04
Philippines	1.03	1.11	1.03	0.93	1.06	1.05	0.93	0.93	0.99	1.23	1.16	1.19	1.18
Singapore	2.82	2.91	2.74	2.82	2.95	3.18	2.73	2.62	2.73	2.78	2.85	2.75	2.62
Sri Lanka	0.26	0.32	0.34	0.24	0.23	0.22	0.23	0.23	0.25	0.21	0.21	0.20	0.19
Taiwan	2.37	2.75	3.19	3.57	3.67	4.21	4.02	3.53	2.70	2.44	2.66	2.39	2.52
Thailand	0.70	0.79	0.92	0.89	1.11	1.31	1.09	0.89	0.76	0.85	0.93	1.00	0.99
Japan	4.24	4.66	5.10	5.85	6.19	5.70	5.38	5.24	5.15	5.57	6.11	6.55	6.08
China	26.03	21.31	23.29	26.95	25.74	24.75	27.12	29.63	32.36	32.81	33.34	34.33	34.91
India	0.41	0.45	0.35	0.38	0.38	0.37	0.24	0.28	0.29	0.34	0.46	0.43	0.37
Rest of Asian-15	41.56	38.39	41.08	45.71	45.45	44.79	45.36	46.31	47.99	49.27	50.92	52.06	51.83
United States	30.82	31.34	27.87	24.83	25.31	24.13	22.71	23.08	23.08	23.24	21.81	21.25	21.80
European Union	12.29	14.55	15.84	15.70	16.60	18.54	18.81	17.07	16.12	15.14	14.96	14.88	14.73
Others	15.34	15.71	15.20	13.76	12.64	12.54	13.12	13.55	12.81	12.35	12.31	11.80	11.64
Total Export (US$ Mn)	**30182**	**35438**	**48473**	**63182**	**73114**	**82143**	**98578**	**119532**	**135005**	**151393**	**173546**	**180526**	**187870**
Import													
ASEAN-6	7.75	7.02	7.15	7.39	7.44	7.75	7.75	7.76	8.24	9.14	9.91	10.40	10.31
SEACEN	20.39	19.72	20.50	21.62	21.15	21.19	21.83	21.51	21.52	22.35	23.51	23.22	22.57
Indonesia	0.51	0.54	0.69	0.75	0.63	0.70	0.70	0.69	0.66	0.78	0.85	0.82	0.80
Korea	3.59	3.98	4.49	5.26	4.53	4.38	4.48	4.62	4.50	4.61	4.91	4.77	4.54
Malaysia	0.58	0.74	0.98	1.25	1.20	1.28	1.27	1.34	1.48	1.61	1.93	2.21	2.35
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	0.00	N/A	N/A
Myanmar	0.08	0.10	0.05	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.02
Nepal	N/A	N/A	0.00	0.00	N/A	0.00	0.00	0.00	N/A	N/A	0.00	N/A	N/A
Philippines	0.70	0.61	0.55	0.46	0.41	0.40	0.38	0.36	0.37	0.38	0.45	0.48	0.61
Singapore	4.88	3.95	3.80	3.70	3.96	4.07	4.05	4.09	4.46	4.96	5.23	5.31	4.91
Sri Lanka	0.03	0.03	0.04	0.07	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Taiwan	9.03	8.69	8.82	8.89	9.17	9.04	9.57	9.11	8.77	8.58	8.67	8.02	7.71
Thailand	0.99	1.09	1.09	1.20	1.21	1.27	1.32	1.24	1.21	1.38	1.42	1.55	1.61
Japan	23.06	20.44	19.03	18.65	16.56	16.09	16.35	17.40	16.61	15.60	14.84	13.56	13.72
China	25.48	29.59	31.05	31.20	34.95	36.75	37.65	37.09	37.51	37.62	36.18	37.15	37.67
India	0.55	0.75	0.73	0.79	0.82	0.72	0.71	0.61	0.88	0.90	0.97	0.99	1.02
Rest of Asian-15	69.48	70.50	71.31	72.26	73.48	74.75	76.55	76.61	76.51	76.47	75.50	74.92	74.99
United States	9.48	8.43	8.54	8.30	8.22	8.07	7.56	7.40	7.41	7.15	7.72	7.89	7.77
European Union	11.58	11.48	11.04	10.37	10.60	10.37	9.73	10.05	10.26	10.31	10.76	11.11	11.01
Others	9.46	9.60	9.10	9.08	7.70	6.81	6.17	5.94	5.82	6.07	6.03	6.09	6.24
Total Import (US$ Mn)	**29701**	**35360**	**48463**	**63900**	**72149**	**82482**	**100274**	**123430**	**138596**	**161770**	**192764**	**198551**	**208623**

[1/] Percentage distribution of Hong Kong's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Hong Kong's trade with its respective trading partner/partners by its total exports or imports.

Source: *Direction of Trade Statistics Yearbook* of IMF, various issues.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	1.88	2.14	1.87	1.59	1.58	1.54	1.21	1.10	0.90	0.96	0.93	0.93	0.94
SEACEN	1.73	2.03	1.87	1.64	1.63	1.66	1.36	1.19	0.95	0.94	0.93	0.90	0.91
Indonesia	2.03	2.01	1.60	1.56	1.42	1.43	0.98	0.85	0.46	0.79	0.75	0.67	0.63
Korea	1.08	1.51	1.51	1.38	1.28	1.13	0.93	0.75	0.73	0.65	0.59	0.56	0.56
Malaysia	1.12	1.22	1.19	1.06	0.94	0.82	0.69	0.66	0.53	0.53	0.57	0.62	0.63
Mongolia	n.a	n.a	n.a	n.a	n.a	0.29	0.44	0.35	1.01	0.65	0.56	0.21	0.26
Myanmar	1.75	1.13	0.55	0.70	0.64	0.68	0.44	0.45	0.90	0.82	0.80	1.05	0.77
Nepal	1.04	1.46	1.05	0.96	1.34	2.11	1.87	2.05	1.95	2.14	2.81	3.81	3.79
Philippines	3.52	4.17	3.39	2.88	2.86	2.75	2.56	2.26	1.92	2.27	2.04	1.81	1.63
Singapore	2.00	2.32	1.99	1.74	1.78	1.78	1.46	1.37	1.17	1.13	1.14	1.09	1.08
Sri Lanka	2.63	3.54	3.90	2.84	3.25	2.90	2.60	2.54	2.28	1.95	2.18	2.02	1.86
Taiwan	2.20	2.31	2.16	1.94	2.11	2.63	2.27	1.85	1.28	1.19	1.27	1.21	1.19
Thailand	1.40	1.74	1.68	1.19	1.31	1.34	1.02	0.82	0.60	0.65	0.65	0.72	0.85
Japan	0.60	0.74	0.80	0.84	0.89	0.83	0.81	0.85	0.78	0.84	0.90	0.97	0.97
China	11.40	9.99	12.78	13.19	13.07	15.67	15.03	13.65	11.41	11.79	12.51	12.83	13.30
India	0.46	0.61	0.50	0.53	0.59	0.53	0.44	0.45	0.49	0.56	0.67	0.61	0.51
Rest of Asian-15	2.52	2.55	2.65	2.64	2.58	2.55	2.47	2.52	2.31	2.32	2.31	2.36	2.46
United States	1.59	1.64	1.56	1.46	1.54	1.59	1.58	1.57	1.40	1.40	1.40	1.35	1.31
European Union	0.35	0.38	0.40	0.40	0.39	0.41	0.42	0.39	0.42	0.40	0.39	0.40	0.40
Others	0.52	0.58	0.57	0.52	0.54	0.57	0.58	0.58	0.52	0.51	0.52	0.48	0.45
Import													
ASEAN-6	2.00	2.10	2.03	1.89	1.79	1.83	1.64	1.55	1.42	1.46	1.55	1.61	1.61
SEACEN	2.77	2.72	2.57	2.51	2.44	2.55	2.39	2.28	2.04	2.04	2.08	2.04	1.99
Indonesia	0.49	0.71	0.92	1.04	0.83	0.90	0.81	0.74	0.65	0.80	0.91	0.84	0.80
Korea	2.11	2.23	2.19	2.28	2.10	2.22	2.12	2.19	1.96	1.97	1.93	1.88	1.78
Malaysia	0.67	1.04	1.26	1.55	1.38	1.43	1.25	1.20	1.13	1.12	1.28	1.44	1.60
Mongolia	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.10	0.08	n.a	n.a
Myanmar	4.95	6.51	4.78	4.47	3.91	2.88	2.38	2.11	1.88	1.52	1.38	1.41	1.11
Nepal	n.a	n.a	0.32	0.17	0.14	0.19	0.26	0.08	n.a	n.a	0.08	n.a	n.a
Philippines	2.71	2.45	2.22	1.69	1.51	1.60	1.47	1.34	1.18	1.14	1.26	1.20	1.29
Singapore	3.81	3.42	3.05	2.47	2.55	2.54	2.33	2.34	2.16	2.10	2.17	2.17	2.09
Sri Lanka	0.43	0.52	0.64	1.24	0.44	0.38	0.39	0.24	0.23	0.22	0.25	0.24	0.24
Taiwan	5.24	4.25	3.79	3.85	4.00	4.44	4.27	4.06	3.69	3.78	3.80	3.54	3.37
Thailand	2.48	2.39	2.16	1.97	1.73	1.81	1.57	1.38	1.17	1.24	1.22	1.41	1.48
Japan	2.32	1.89	1.90	1.85	1.74	1.85	1.77	1.86	1.64	1.62	1.64	1.68	1.74
China	16.62	18.39	18.13	17.20	19.09	19.30	17.80	15.75	14.68	12.76	11.91	12.56	11.00
India	1.19	1.59	1.55	1.60	1.50	1.34	1.35	1.20	1.56	1.53	1.56	1.57	1.63
Rest of Asian-15	3.60	3.50	3.53	3.44	3.58	3.84	3.64	3.54	3.22	3.17	3.15	3.25	3.22
United States	0.79	0.76	0.78	0.68	0.65	0.68	0.61	0.60	0.57	0.57	0.65	0.65	0.60
European Union	0.32	0.30	0.28	0.26	0.27	0.23	0.22	0.23	0.25	0.26	0.26	0.27	0.28
Others	0.29	0.32	0.31	0.33	0.28	0.29	0.27	0.26	0.25	0.26	0.26	0.25	0.25

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 5.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	2.47	3.26	3.23	3.36	3.91	4.20	5.60	6.50	7.60	7.17	7.42	7.83	8.13
SEACEN	5.46	6.35	6.28	6.27	6.36	6.60	9.47	10.21	11.46	11.13	11.14	12.27	12.63
Indonesia	0.16	0.19	0.19	0.19	0.34	0.52	0.81	0.77	0.99	1.05	1.64	1.76	1.79
Korea	0.88	0.91	0.99	0.95	1.09	0.92	1.35	1.06	1.14	1.15	1.29	1.56	1.45
Malaysia	0.73	0.70	0.65	0.65	0.66	0.71	1.14	1.20	1.15	1.03	1.16	1.41	1.58
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	0.01	0.01	0.00	0.00	0.00	0.01	0.00
Myanmar	0.02	0.01	0.01	0.01	0.00	0.01	0.02	0.02	0.07	0.10	0.07	0.14	0.14
Nepal	0.99	0.90	0.68	0.63	0.20	0.22	0.43	0.39	0.37	0.35	0.35	0.49	0.44
Philippines	0.05	0.05	0.10	0.14	0.15	0.12	0.36	0.42	0.24	0.39	0.40	0.54	0.76
Singapore	1.25	1.89	1.74	1.72	1.69	1.73	2.16	2.78	3.59	3.05	2.64	2.92	2.68
Sri Lanka	0.86	0.73	0.69	0.69	0.39	0.57	0.98	1.25	1.22	1.38	1.25	1.42	1.41
Taiwan	0.25	0.55	0.69	0.64	0.76	0.68	1.10	0.99	1.14	1.08	0.82	0.96	1.21
Thailand	0.27	0.42	0.55	0.65	1.07	1.13	1.11	1.31	1.57	1.55	1.51	1.06	1.18
Japan	13.18	11.13	11.09	10.92	13.49	9.30	9.25	8.23	8.18	7.95	6.98	6.43	5.61
China	0.25	0.09	0.07	0.18	0.27	0.10	0.27	0.51	1.41	0.89	0.93	1.68	1.85
Hong Kong	1.80	3.08	3.21	3.51	3.10	3.06	3.44	3.90	5.65	5.58	5.96	5.46	5.79
Rest of Asian-15	20.69	20.65	20.66	20.88	23.22	19.06	22.43	22.85	26.70	25.55	25.01	25.83	25.88
United States	18.91	19.46	19.58	19.31	16.35	15.12	16.35	19.10	19.18	19.26	17.37	19.13	19.34
European Union	18.74	21.22	25.56	25.48	29.78	27.71	28.25	30.92	28.25	27.48	26.96	26.20	25.40
Others	41.66	38.68	34.20	34.32	30.65	38.11	32.97	27.13	25.87	27.70	30.66	28.84	29.38
Total Export (US$ Mn)	**8265**	**9135**	**10798**	**12961**	**15839**	**17813**	**17873**	**18500**	**20259**	**24196**	**30537**	**32325**	**33289**
Import													
ASEAN-6	5.30	5.42	6.01	6.06	6.06	6.52	4.61	6.37	5.12	6.72	7.08	7.85	8.94
SEACEN	7.61	8.13	8.68	8.77	9.16	9.78	7.89	9.51	7.70	10.46	10.25	11.40	12.27
Indonesia	0.23	0.51	0.31	0.28	0.27	0.72	0.34	0.31	0.41	1.11	1.11	1.60	1.81
Korea	1.26	1.67	1.59	1.64	1.47	1.35	1.61	1.77	1.72	2.72	2.08	2.32	2.01
Malaysia	2.47	2.62	3.41	3.44	1.87	2.28	2.00	2.30	1.07	1.70	2.23	2.59	3.13
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	0.16	0.19	0.18	0.20	0.91	0.38	0.26	0.45	0.55	0.47	0.46	0.41	0.47
Nepal	0.31	0.27	0.24	0.23	0.02	0.06	0.10	0.10	0.09	0.05	0.08	0.14	0.18
Philippines	0.06	0.03	0.04	0.03	0.07	0.02	0.16	0.06	0.03	0.04	0.04	0.06	0.06
Singapore	1.97	1.68	1.84	1.86	2.55	2.87	1.59	2.97	2.79	2.83	2.80	2.70	2.89
Sri Lanka	0.03	0.07	0.04	0.04	0.06	0.09	0.06	0.06	0.08	0.12	0.11	0.10	0.11
Taiwan	0.72	0.71	0.81	0.81	1.55	1.75	1.51	1.21	0.70	0.84	0.90	0.99	1.04
Thailand	0.42	0.38	0.23	0.24	0.40	0.26	0.25	0.29	0.25	0.57	0.42	0.49	0.57
Japan	8.35	12.83	10.34	10.16	7.74	7.51	6.99	6.48	6.48	7.22	6.48	5.92	4.70
China	0.64	0.95	0.65	0.67	0.29	0.13	0.11	0.40	1.22	2.44	2.35	1.95	2.78
Hong Kong	0.33	0.42	0.55	0.55	0.68	0.66	0.55	0.73	0.89	0.69	0.70	0.92	0.72
Rest of Asian-15	16.93	22.33	20.23	20.15	17.86	18.08	15.54	17.12	16.29	20.81	19.79	20.18	20.46
United States	10.84	9.50	8.92	9.01	11.97	10.98	9.69	9.72	10.23	9.55	9.70	8.84	8.76
European Union	25.67	31.20	33.48	33.43	34.35	32.66	29.86	30.92	33.01	26.59	25.92	27.40	26.10
Others	46.56	36.97	37.37	37.41	35.82	38.28	44.91	42.24	40.47	43.05	44.60	43.58	44.68
Total Import (US$ Mn)	**16320**	**15051**	**16841**	**19130**	**19297**	**23990**	**19509**	**23227**	**21225**	**25477**	**34484**	**36055**	**38911**

[1] Percentage distribution of Hong Kong's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Hong Kong's trade with its respective trading partner/partners by its total exports or imports.

Source: *Direction of Trade Statistics Yearbook* of IMF, various issues.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	0.73	1.08	0.99	0.90	0.95	0.92	1.12	1.28	1.27	1.13	1.10	1.16	1.27
SEACEN	0.87	1.09	0.96	0.83	0.80	0.80	1.04	1.12	1.10	1.03	0.97	1.06	1.13
Indonesia	0.29	0.36	0.36	0.40	0.64	0.82	1.14	1.10	1.31	1.40	2.07	2.20	2.40
Korea	0.53	0.59	0.58	0.50	0.54	0.46	0.60	0.50	0.51	0.48	0.49	0.56	0.56
Malaysia	1.11	1.33	1.23	1.08	0.90	0.84	1.12	1.17	0.95	0.74	0.77	0.97	1.12
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	1.24	1.55	0.53	0.60	0.33	0.62	0.31
Myanmar	1.60	0.74	0.83	0.87	0.00	0.29	0.76	0.80	2.11	2.89	1.57	3.03	2.82
Nepal	62.99	58.57	34.87	32.56	14.39	17.25	31.19	32.02	26.42	24.52	23.80	41.29	39.00
Philippines	0.17	0.21	0.34	0.44	0.41	0.31	1.01	1.04	0.48	0.74	0.72	0.84	1.09
Singapore	0.89	1.52	1.28	1.08	1.04	0.98	1.18	1.49	1.58	1.28	1.09	1.19	1.14
Sri Lanka	8.79	8.21	8.01	8.38	5.64	7.54	11.58	13.92	11.47	13.22	13.46	15.09	13.89
Taiwan	0.24	0.46	0.48	0.35	0.45	0.43	0.63	0.53	0.56	0.54	0.41	0.50	0.59
Thailand	0.54	0.93	1.01	0.89	1.28	1.17	1.06	1.24	1.28	1.22	1.09	0.79	1.04
Japan	1.89	1.79	1.77	1.60	1.97	1.37	1.42	1.37	1.28	1.25	1.06	0.98	0.93
China	0.11	0.04	0.04	0.09	0.14	0.07	0.15	0.24	0.51	0.33	0.36	0.65	0.73
Hong Kong	1.14	1.78	1.59	1.51	1.31	1.29	1.24	1.22	1.54	1.48	1.58	1.47	1.55
Rest of Asian-15	23.75	28.10	29.49	30.05	36.77	27.58	41.62	38.08	47.41	43.05	37.10	38.37	37.15
United States	0.98	1.03	1.11	1.16	1.01	1.02	1.16	1.34	1.20	1.20	1.15	1.25	1.20
European Union	0.54	0.55	0.65	0.66	0.71	0.62	0.65	0.73	0.76	0.74	0.72	0.72	0.72
Others	1.43	1.44	1.29	1.31	1.33	1.76	1.49	1.19	1.09	1.19	1.33	1.21	1.18

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	1.39	1.64	1.73	1.58	1.49	1.57	1.00	1.31	0.91	1.11	1.14	1.25	1.43
SEACEN	1.05	1.14	1.11	1.04	1.08	1.20	0.88	1.04	0.75	0.99	0.93	1.03	1.11
Indonesia	0.23	0.68	0.42	0.39	0.37	0.95	0.41	0.35	0.42	1.17	1.24	1.69	1.86
Korea	0.75	0.95	0.79	0.72	0.70	0.70	0.78	0.86	0.77	1.20	0.84	0.94	0.81
Malaysia	2.89	3.71	4.46	4.37	2.20	2.60	2.03	2.10	0.84	1.22	1.53	1.74	2.19
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	9.48	13.22	19.68	37.13	124.34	30.28	17.27	24.42	23.97	21.73	19.83	18.15	22.06
Nepal	40.93	39.18	38.52	26.20	2.50	9.74	13.20	10.49	9.02	6.62	12.19	19.96	25.45
Philippines	0.21	0.14	0.15	0.12	0.25	0.07	0.63	0.21	0.11	0.12	0.13	0.15	0.13
Singapore	1.55	1.48	1.50	1.27	1.68	1.83	0.94	1.74	1.40	1.23	1.20	1.14	1.27
Sri Lanka	0.44	1.13	0.63	0.67	1.09	1.63	1.08	0.90	1.04	1.60	1.50	1.25	1.27
Taiwan	0.42	0.35	0.35	0.36	0.69	0.88	0.69	0.56	0.30	0.38	0.41	0.45	0.47
Thailand	1.05	0.84	0.45	0.40	0.58	0.38	0.31	0.33	0.25	0.53	0.38	0.46	0.54
Japan	0.85	1.20	1.05	1.03	0.83	0.88	0.77	0.71	0.66	0.77	0.74	0.76	0.61
China	0.42	0.60	0.39	0.38	0.16	0.07	0.05	0.18	0.49	0.85	0.80	0.68	0.83
Hong Kong	0.20	0.23	0.27	0.23	0.27	0.27	0.19	0.23	0.24	0.19	0.20	0.27	0.21
Rest of Asian-15	0.83	1.05	0.94	0.90	0.81	0.86	0.68	0.72	0.62	0.79	0.76	0.80	0.80
United States	0.92	0.86	0.83	0.75	0.97	0.94	0.80	0.81	0.81	0.79	0.84	0.75	0.70
European Union	0.73	0.83	0.85	0.86	0.89	0.74	0.70	0.73	0.85	0.68	0.65	0.70	0.69
Others	1.43	1.23	1.31	1.40	1.33	1.66	2.02	1.93	1.82	1.93	2.00	1.85	1.87

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 7.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	10.69	10.25	9.94	10.81	10.93	9.77	10.96	12.80	12.90	14.21	13.45	14.58	16.12
Rest of SEACEN	16.17	14.86	16.73	17.76	17.79	18.51	21.37	22.88	23.06	24.96	23.95	24.61	26.20
Korea	3.53	2.40	3.93	4.37	4.16	5.31	6.68	6.13	6.03	6.47	6.42	6.59	6.48
Malaysia	0.41	0.55	0.55	0.96	0.99	0.99	1.17	1.44	1.59	1.84	2.17	2.23	2.54
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00
Myanmar	0.02	0.03	0.01	0.01	0.01	0.01	0.02	0.04	0.11	0.09	0.13	0.16	0.28
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00
Philippines	1.07	0.73	0.42	0.45	0.67	0.63	0.57	0.53	0.77	0.91	1.30	1.38	1.49
Singapore	8.75	8.37	8.46	8.60	8.20	7.41	8.27	9.76	9.16	10.36	8.29	9.16	10.23
Sri Lanka	0.04	0.07	0.09	0.10	0.10	0.12	0.10	0.18	0.23	0.20	0.23	0.21	0.26
Taiwan	1.90	2.14	2.77	2.49	2.60	3.31	3.62	3.77	3.90	4.08	3.85	3.23	3.33
Thailand	0.44	0.56	0.51	0.79	1.06	0.73	0.92	1.04	1.27	1.00	1.55	1.65	1.59
Japan	46.24	44.88	43.15	41.72	42.07	42.54	36.95	31.68	30.34	27.29	27.06	25.87	23.36
China	0.45	0.94	2.00	2.56	2.57	3.25	4.09	4.11	3.39	3.30	3.83	4.13	4.17
Hong Kong	1.88	2.33	2.45	2.88	2.48	2.41	2.41	2.59	2.44	3.30	3.65	3.26	3.34
India	0.23	0.38	0.37	0.35	0.23	0.23	0.17	0.20	0.27	0.69	0.84	1.07	1.29
Rest of ASIAN-15	64.96	63.38	64.70	65.28	65.13	66.94	64.98	61.47	59.51	59.54	59.32	58.94	58.36
United States	21.74	19.60	19.54	15.99	15.78	13.11	12.04	13.01	14.20	14.55	13.92	13.64	13.38
European Union	6.24	9.34	9.27	11.49	10.89	12.22	13.33	14.68	14.86	15.12	15.12	15.75	15.38
Others	7.06	7.67	6.48	7.24	8.20	7.74	9.66	10.84	11.43	10.79	11.64	11.67	12.88
Total Export (US$ Mn)	18587	14805	17135	19219	22159	25675	29142	33967	36823	40053	45418	49815	53444
Import													
Rest of ASEAN-6	9.37	10.44	10.06	9.85	10.91	8.41	9.53	9.55	9.24	9.27	9.99	11.45	12.87
Rest of SEACEN	14.21	15.74	15.94	17.41	20.33	19.07	20.24	21.23	21.31	20.58	20.55	20.97	22.33
Korea	2.00	1.48	2.17	2.84	3.44	4.51	5.56	6.94	7.42	6.77	6.03	5.62	5.59
Malaysia	0.51	0.47	1.12	2.08	2.38	1.49	1.57	1.92	1.83	1.81	1.89	1.92	2.07
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00
Myanmar	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.05	0.12	0.26	0.08	0.23
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.05
Philippines	0.22	0.26	0.67	0.27	0.39	0.25	0.31	0.19	0.20	0.20	0.20	0.21	0.30
Singapore	8.17	9.04	7.65	6.76	6.86	5.82	6.56	6.13	6.33	5.87	5.83	6.70	8.18
Sri Lanka	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.04	0.03	0.01
Taiwan	2.83	3.81	3.71	4.72	5.98	6.14	5.13	4.74	4.65	4.53	4.49	3.88	3.81
Thailand	0.47	0.67	0.61	0.72	1.28	0.84	1.07	1.26	0.83	1.27	1.81	2.55	2.08
Japan	25.73	29.17	29.07	25.55	23.02	24.27	24.46	22.05	22.06	24.20	22.69	19.81	19.80
China	2.42	3.14	3.30	3.31	3.22	2.99	3.23	2.76	3.30	4.28	3.68	3.72	3.64
Hong Kong	0.51	0.88	0.84	1.00	1.09	1.25	0.90	0.84	0.87	0.75	0.68	0.61	0.78
India	0.15	0.23	0.24	0.27	0.49	0.68	0.87	0.79	1.18	1.00	1.18	2.02	1.67
Rest of ASIAN-15	43.02	49.16	49.39	47.55	48.16	48.26	49.69	47.66	48.73	50.81	48.77	47.13	48.23
United States	16.75	13.82	11.44	13.10	13.56	11.54	13.13	14.01	11.49	11.22	11.71	11.79	13.05
European Union	17.54	17.14	22.48	22.15	18.76	21.49	21.13	23.00	24.95	21.75	21.35	22.67	20.97
Others	22.70	19.88	16.68	17.20	19.53	18.71	16.05	15.33	14.83	16.23	18.17	18.41	17.74
Total Import (US$ Mn)	10275	10724	12370	13249	16360	21837	25869	27280	28328	31984	40629	42929	41680

[1] Percentage distribution of Indonesia's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Indonesia's trade with its respective trading partner/partners by its total exports or imports.

Sources: *Direction of Trade Statistics Yearbook* of IMF, various issues, and Bank Indonesia.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	3.15	3.40	3.06	2.90	2.67	2.13	2.19	2.52	2.15	2.23	2.00	2.16	2.52
Rest of SEACEN	2.59	2.55	2.57	2.36	2.25	2.24	2.35	2.50	2.22	2.30	2.08	2.12	2.35
Korea	2.13	1.56	2.31	2.33	2.07	2.64	2.96	2.90	2.71	2.71	2.43	2.34	2.50
Malaysia	0.63	1.05	1.04	1.59	1.34	1.17	1.15	1.39	1.31	1.33	1.43	1.52	1.79
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.04
Myanmar	1.43	2.28	0.52	1.18	1.07	0.77	0.77	1.55	3.29	2.55	3.04	3.33	5.85
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.37
Philippines	3.70	2.78	1.41	1.43	1.84	1.67	1.62	1.33	1.55	1.73	2.36	2.16	2.13
Singapore	6.27	6.73	6.24	5.41	5.05	4.22	4.51	5.23	4.03	4.33	3.41	3.73	4.33
Sri Lanka	0.44	0.76	1.09	1.17	1.42	1.60	1.23	1.98	2.17	1.93	2.43	2.28	2.54
Taiwan	1.78	1.82	1.90	1.38	1.52	2.10	2.08	2.02	1.90	2.05	1.90	1.69	1.63
Thailand	0.88	1.26	0.94	1.07	1.27	0.76	0.87	0.99	1.04	0.79	1.12	1.22	1.40
Japan	6.66	7.22	6.88	6.14	6.14	6.28	5.64	5.26	4.72	4.27	4.11	3.96	3.85
China	0.20	0.45	1.12	1.28	1.33	2.09	2.31	1.94	1.23	1.22	1.48	1.59	1.64
Hong Kong	1.19	1.35	1.22	1.24	1.05	1.01	0.87	0.81	0.66	0.87	0.97	0.88	0.89
India	0.27	0.52	0.53	0.50	0.36	0.34	0.31	0.34	0.48	1.17	1.24	1.58	1.85
Rest of Asian-15	3.75	3.94	3.86	3.46	3.40	3.52	3.25	3.01	2.58	2.52	2.44	2.42	2.49
United States	1.13	1.04	1.11	0.96	0.98	0.88	0.85	0.91	0.89	0.90	0.92	0.89	0.83
European Union	0.18	0.24	0.24	0.30	0.26	0.28	0.30	0.34	0.40	0.41	0.40	0.43	0.44
Others	0.24	0.29	0.24	0.28	0.36	0.36	0.44	0.48	0.48	0.46	0.50	0.49	0.52
Import													
Rest of ASEAN-6	2.44	3.15	2.89	2.56	2.67	2.02	2.06	1.96	1.64	1.53	1.61	1.81	2.06
Rest of SEACEN	1.94	2.20	2.03	2.06	2.38	2.34	2.26	2.30	2.08	1.93	1.87	1.89	2.02
Korea	1.18	0.84	1.07	1.25	1.62	2.33	2.69	3.37	3.32	2.97	2.43	2.27	2.25
Malaysia	0.59	0.66	1.46	2.64	2.79	1.70	1.59	1.75	1.43	1.29	1.29	1.28	1.44
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.03
Myanmar	0.58	0.64	1.03	0.96	1.25	0.55	0.51	2.19	2.29	5.35	11.01	3.35	10.79
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.33
Philippines	0.87	1.06	2.72	1.03	1.45	1.03	1.23	0.72	0.65	0.64	0.58	0.53	0.66
Singapore	6.42	7.91	6.23	4.59	4.51	3.71	3.85	3.59	3.15	2.55	2.48	2.80	3.57
Sri Lanka	0.14	0.00	0.01	0.06	0.06	0.04	0.14	0.02	0.09	0.12	0.52	0.36	0.14
Taiwan	1.65	1.88	1.61	2.08	2.65	3.07	2.34	2.16	2.01	2.05	2.02	1.75	1.71
Thailand	1.17	1.49	1.22	1.21	1.87	1.22	1.31	1.44	0.82	1.18	1.61	2.39	1.95
Japan	2.61	2.73	2.93	2.58	2.47	2.83	2.70	2.41	2.24	2.58	2.58	2.52	2.57
China	1.59	1.97	1.95	1.86	1.79	1.60	1.56	1.20	1.33	1.49	1.24	1.29	1.09
Hong Kong	0.30	0.49	0.41	0.42	0.44	0.51	0.32	0.26	0.24	0.21	0.20	0.18	0.23
India	0.32	0.50	0.52	0.55	0.91	1.29	1.70	1.59	2.15	1.73	1.94	3.27	2.75
Rest of Asian-15	2.17	2.34	2.32	2.13	2.20	2.32	2.20	2.03	1.89	1.94	1.88	1.89	1.92
United States	1.41	1.25	1.06	1.10	1.10	0.98	1.08	1.16	0.91	0.92	1.01	0.99	1.04
European Union	0.49	0.45	0.57	0.57	0.48	0.48	0.49	0.54	0.64	0.55	0.53	0.57	0.55
Others	0.69	0.66	0.58	0.64	0.72	0.81	0.72	0.70	0.66	0.72	0.81	0.78	0.74

[1/] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 9.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	5.07	3.84	4.18	5.05	6.39	7.84	9.88	11.18	11.35	11.86	13.28	14.39	13.72
Rest of SEACEN	6.05	5.06	5.58	6.81	8.66	10.04	12.40	14.44	14.47	15.07	16.68	17.78	17.46
Indonesia	0.65	0.52	0.51	0.66	1.07	1.66	1.88	2.53	2.55	2.65	2.37	2.47	2.60
Malaysia	1.48	0.63	0.63	0.68	0.87	1.09	1.44	1.48	1.74	1.72	2.36	3.34	3.20
Mongolia	N/A	N/A	N/A	N/A	N/A	0.00	0.01	0.01	0.00	0.02	0.02	0.02	0.02
Myanmar	0.05	0.07	0.03	0.03	0.03	0.06	N/A	N/A	N/A	N/A	0.07	0.10	0.10
Nepal	0.07	0.05	0.05	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Philippines	0.80	0.54	0.47	0.56	0.76	0.77	0.94	0.97	1.14	1.26	1.19	1.47	1.91
Singapore	1.62	1.53	1.96	2.23	2.46	2.78	3.76	4.20	3.78	4.32	5.35	4.96	4.26
Sri Lanka	0.27	0.21	0.19	0.16	0.15	0.26	0.25	0.27	0.31	0.32	0.26	0.27	0.33
Taiwan	0.65	0.96	1.17	1.57	2.09	1.92	2.24	2.95	2.79	2.85	3.10	3.09	3.39
Thailand	0.47	0.55	0.58	0.88	1.21	1.49	1.86	2.00	2.14	1.91	1.94	2.05	1.65
Japan	15.00	15.63	17.84	19.78	21.57	19.44	17.19	15.14	14.06	14.08	13.63	12.16	10.85
China	N/A	0.35	0.45	0.61	0.70	0.90	.40	3.46	6.26	6.46	7.31	8.77	9.97
Hong Kong	5.17	4.87	4.66	5.87	5.41	5.81	6.64	7.71	7.82	8.35	8.54	8.58	8.61
India	1.54	1.47	0.85	0.77	1.08	0.67	0.65	0.57	2.19	1.21	0.90	0.91	0.84
Rest of Asian-15	27.76	27.39	29.39	33.84	37.43	36.86	38.27	41.32	44.81	45.17	47.07	48.19	47.73
United States	35.51	39.98	38.73	35.26	33.09	29.78	25.82	23.61	22.06	21.41	19.30	16.71	15.88
European Union	10.75	12.46	14.00	13.45	11.89	13.65	13.54	12.05	11.45	11.71	13.04	11.81	12.39
Others	25.97	20.16	17.88	17.45	17.60	19.71	22.37	23.03	21.69	21.71	20.60	23.29	24.00
Total Export (US$ Mn)	30283	34714	47281	60696	62377	65016	71870	76632	82236	96013	#####	#####	#####

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	7.98	6.17	6.49	6.28	6.35	6.90	7.15	8.24	8.27	7.24	7.08	7.56	8.17
Rest of SEACEN	9.16	7.57	8.37	8.37	8.54	9.02	9.05	9.91	10.00	9.05	9.03	9.41	9.91
Indonesia	2.15	1.35	2.01	1.75	1.85	2.29	2.51	2.80	3.09	2.78	2.46	2.67	2.84
Malaysia	3.96	2.86	2.65	2.57	2.45	2.27	2.29	2.15	2.32	1.83	1.86	2.00	2.27
Mongolia	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Myanmar	0.03	0.02	0.01	0.01	0.00	0.00	N/A	N/A	N/A	N/A	0.01	0.01	0.01
Nepal	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.0	N/A	N/A	0.00	0.00
Philippines	0.48	0.39	0.30	0.35	0.33	0.39	0.40	0.32	0.38	0.40	0.45	0.39	0.49
Singapore	0.86	0.68	1.05	1.09	1.04	1.28	1.26	2.19	1.84	1.62	1.60	1.68	1.67
Sri Lanka	0.12	0.04	0.03	0.02	0.03	0.03	0.05	0.06	0.04	0.05	0.04	0.04	0.06
Taiwan	1.07	1.37	1.85	2.07	2.16	2.08	1.86	1.61	1.68	1.76	1.90	1.81	1.67
Thailand	0.49	0.88	0.47	0.51	0.68	0.66	0.69	0.78	0.64	0.64	0.61	0.69	0.89
Japan	24.28	34.41	33.29	30.74	28.39	26.59	25.87	23.79	23.89	24.81	24.13	20.92	19.30
China	N/A	1.97	2.11	2.68	2.77	3.25	4.22	4.56	4.69	5.34	5.48	5.68	7.00
Hong Kong	1.58	1.27	0.97	1.07	0.95	0.88	0.95	0.97	1.12	0.64	0.62	0.76	0.62
India	0.69	0.40	0.49	0.33	0.42	0.41	0.59	0.58	0.62	0.57	0.59	0.65	0.65
Rest of Asian-15	35.72	45.62	45.24	43.19	41.07	40.14	40.69	39.82	40.31	40.41	39.85	37.42	37.47
United States	20.84	20.72	21.35	24.62	25.89	24.26	23.15	22.36	21.39	21.08	22.52	22.15	20.83
European Union	9.54	10.19	11.26	11.68	10.57	12.06	12.23	11.72	12.14	14.20	13.46	14.10	13.13
Others	33.90	23.46	22.16	20.51	22.47	23.54	23.94	26.10	26.16	24.30	24.17	26.32	28.57
Total Import (US$ Mn)	31136	31584	41020	51811	61465	69844	81625	81775	83800	#####	#####	#####	#####

[1] Percentage distribution of Korea's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Korea's trade with its respective trading partner/partners by its total exports or imports.

Sources: *Direction of Trade Statistics Yearbook* of IMF, various issues, and The Bank of Korea.

Appendix-12: Export and Import Trade Intensity of Korea [1]

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	1.48	1.26	1.27	1.33	1.54	1.69	1.95	2.17	1.87	1.83	1.94	2.09	2.10
Rest of SEACEN	0.96	0.86	0.85	0.89	1.08	1.20	1.34	1.55	1.37	1.36	1.42	1.50	1.54
Indonesia	1.17	0.98	0.98	1.36	1.97	2.60	2.58	3.53	3.33	3.49	2.92	3.01	3.42
Malaysia	2.24	1.18	1.19	1.11	1.16	1.28	1.40	1.42	1.41	1.22	1.53	2.23	2.22
Mongolia	N/A	N/A	N/A	N/A	N/A	0.37	1.52	1.66	0.52	2.82	2.05	1.96	1.92
Myanmar	3.26	5.00	2.62	3.86	4.48	3.00	N/A	N/A	N/A	N/A	1.56	2.09	2.06
Nepal	4.58	2.98	2.48	1.68	1.69	1.17	1.29	1.25	1.19	1.14	0.69	0.83	0.77
Philippines	2.72	2.02	1.54	1.73	2.06	2.02	2.60	2.40	2.24	2.35	2.12	2.25	2.68
Singapore	1.15	1.22	1.43	1.39	1.49	1.56	2.02	2.22	1.64	1.78	2.16	1.98	1.77
Sri Lanka	2.71	2.37	2.15	1.89	2.15	3.42	2.93	3.01	2.87	3.01	2.78	2.77	3.18
Taiwan	0.60	0.81	0.80	0.86	1.21	1.20	1.27	1.56	1.34	1.41	1.50	1.58	1.62
Thailand	0.95	1.23	1.05	1.19	1.43	1.53	1.75	1.87	1.72	1.48	1.38	1.49	1.43
Japan	2.14	2.49	2.81	2.87	3.10	2.83	2.59	2.48	2.16	2.17	2.03	1.82	1.76
China	N/A	0.17	0.25	0.30	0.36	0.57	0.78	1.61	2.24	2.36	2.78	3.31	3.84
Hong Kong	3.24	2.80	2.29	2.50	2.26	2.41	2.35	2.38	2.09	2.18	2.22	2.26	2.26
India	1.76	1.99	1.21	1.09	1.69	0.96	1.19	0.94	3.83	2.00	1.31	1.32	1.19
Rest of Asian-15	1.69	1.80	1.86	1.91	2.09	2.06	2.04	2.15	2.04	2.02	2.05	2.12	2.17
United States	1.83	2.10	2.17	2.09	2.02	1.97	1.80	1.63	1.36	1.31	1.26	1.07	0.97
European Union	0.31	0.32	0.35	0.35	0.28	0.30	0.30	0.28	0.30	0.31	0.34	0.32	0.34
Others	0.89	0.75	0.67	0.66	0.75	0.90	0.99	1.00	0.90	0.92	0.88	0.96	0.95

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	2.06	1.84	1.84	1.60	1.53	1.64	1.53	1.67	1.45	1.18	1.12	1.18	1.29
Rest of SEACEN	1.24	1.05	1.05	0.97	0.99	1.09	1.00	1.06	0.96	0.84	0.81	0.84	0.88
Indonesia	2.06	1.78	2.71	2.39	2.42	2.96	2.96	3.03	3.05	2.88	2.68	2.77	2.87
Malaysia	4.58	3.98	3.40	3.20	2.83	2.56	2.28	1.94	1.79	1.29	1.25	1.32	1.55
Mongolia	N/A	N/A	N/A	N/A	0.00	1.04	0.00	0.74	0.81	0.79	1.11	0.18	0.17
Myanmar	1.89	1.29	1.54	1.73	0.66	0.34	N/A	N/A	N/A	N/A	0.40	0.52	0.54
Nepal	N/A	N/A	N/A	0.22	0.26	0.22	0.16	0.13	0.12	N/A	N/A	0.10	0.09
Philippines	1.87	1.56	1.22	1.30	1.24	1.57	1.53	1.21	1.21	1.24	1.28	0.97	1.05
Singapore	0.67	0.59	0.85	0.73	0.68	0.81	0.73	1.27	0.90	0.70	0.67	0.69	0.72
Sri Lanka	1.63	0.64	0.51	0.42	0.49	0.58	0.82	0.81	0.81	0.50	0.62	0.54	0.67
Taiwan	0.62	0.67	0.79	0.90	0.95	1.03	0.84	0.72	0.72	0.79	0.84	0.81	0.74
Thailand	1.22	1.92	0.92	0.84	0.97	0.95	0.83	0.88	0.63	0.55	0.60	0.75	0.82
Japan	2.44	3.18	3.32	3.05	3.00	3.07	2.82	2.57	2.40	2.61	2.70	2.62	2.47
China	N/A	1.22	1.23	1.48	1.52	1.71	2.01	1.96	1.86	1.84	1.82	1.94	2.06
Hong Kong	0.94	0.70	0.46	0.45	0.38	0.36	0.33	0.30	0.30	0.18	0.18	0.22	0.18
India	1.50	0.86	1.05	0.66	0.77	0.75	1.14	1.16	1.12	0.98	0.96	1.04	1.05
Rest of Asian-15	1.85	2.26	2.23	2.05	1.97	2.02	1.88	1.76	1.62	1.61	1.61	1.57	1.56
United States	1.74	1.86	1.95	2.03	2.06	2.05	1.88	1.84	1.67	1.71	1.91	1.84	1.63
European Union	0.27	0.27	0.28	0.29	0.27	0.27	0.28	0.27	0.31	0.36	0.33	0.35	0.34
Others	1.03	0.77	0.76	0.76	0.82	1.01	1.06	1.17	1.16	1.07	1.07	1.10	1.17

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 11.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	25.73	21.72	23.71	24.18	25.22	29.14	29.03	29.25	27.63	26.99	26.77	27.39	27.12
Rest of SEACEN	34.02	29.59	32.17	32.21	32.67	36.30	36.46	36.06	34.63	33.02	32.96	34.75	34.78
Indonesia	0.43	0.39	0.82	1.33	1.66	1.16	1.46	1.24	1.15	1.21	1.32	1.55	1.56
Korea	5.88	5.17	5.31	4.79	5.01	4.62	4.40	3.42	3.45	2.79	2.79	3.04	3.18
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00
Myanmar	0.08	0.06	0.03	0.03	0.06	0.17	0.19	0.22	0.22	0.38	0.31	0.28	0.47
Nepal	0.01	0.00	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Philippines	2.39	1.77	1.80	1.49	1.30	1.34	0.87	1.17	1.02	1.03	0.91	1.02	1.49
Singapore	19.41	16.93	18.21	19.34	19.75	22.95	23.31	22.97	21.64	20.62	20.31	20.44	20.02
Sri Lanka	0.16	0.27	0.32	0.29	0.18	0.36	0.30	0.27	0.34	0.25	0.25	0.20	0.19
Taiwan	2.25	2.43	2.81	2.95	2.26	2.17	2.71	3.11	3.20	2.97	3.14	4.10	4.28
Thailand	3.42	2.58	2.85	1.98	2.46	3.51	3.19	3.64	3.59	3.76	3.92	4.09	3.58
Japan	24.56	23.30	19.54	16.96	16.03	15.32	15.86	13.40	12.97	12.01	12.67	13.38	12.41
China	1.04	1.17	1.56	1.97	1.92	2.10	1.86	1.90	2.55	3.28	2.65	2.40	2.37
Hong Kong	1.34	2.23	2.82	3.39	3.07	3.17	3.35	3.78	4.12	4.60	5.35	5.88	5.50
India	2.80	2.53	2.87	2.55	1.33	1.62	0.93	1.05	0.45	0.83	1.13	1.54	1.49
Rest of Asian-15	63.77	58.82	58.96	57.09	55.03	58.52	58.45	56.20	54.72	53.74	54.76	57.95	56.56
United States	12.79	16.43	16.57	17.36	18.70	16.95	16.88	18.56	20.31	21.06	20.68	18.18	18.56
European Union	14.41	14.50	14.27	14.44	15.40	15.38	15.17	15.26	13.84	14.24	14.20	13.70	14.42
Others	9.03	10.25	10.20	11.11	10.87	9.15	9.49	9.98	11.12	10.96	10.36	10.17	10.46
Total Export	**15408**	**13977**	**17934**	**21096**	**25049**	**29420**	**34405**	**40773**	**47130**	**58870**	**73790**	**78336**	**78745**
(US$ Mn)													
Import													
Rest of ASEAN-6	22.59	21.59	20.92	18.84	18.84	18.85	19.81	20.45	19.87	18.68	17.23	19.72	20.06
Rest of SEACEN	27.50	27.15	27.34	26.23	26.32	26.98	28.20	29.20	28.31	26.97	26.46	29.92	30.70
Indonesia	1.13	1.33	1.39	1.71	1.53	1.08	1.38	1.60	1.57	1.57	1.57	1.82	1.86
Korea	2.24	2.26	2.63	2.60	2.49	2.54	2.92	3.06	3.06	3.18	4.09	5.19	5.86
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	N/A	N/A	N/A
Myanmar	0.22	0.09	0.13	0.07	0.06	0.06	0.05	0.05	0.13	0.05	0.05	0.05	0.07
Nepal	N/A	N/A	N/A	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	1.87	1.15	1.17	0.81	0.70	0.53	0.45	0.60	0.48	0.54	0.59	1.20	1.18
Singapore	15.84	15.05	14.75	13.19	13.54	14.77	15.51	15.73	15.21	14.06	12.38	13.35	13.04
Sri Lanka	0.02	0.05	0.02	0.02	0.01	0.01	0.03	0.01	0.02	0.02	0.03	0.03	0.03
Taiwan	2.65	3.25	3.77	4.59	4.98	5.58	5.45	5.67	5.36	5.09	5.10	4.98	4.76
Thailand	3.54	3.96	3.49	3.04	3.00	2.41	2.43	2.48	2.48	2.47	2.64	3.31	3.90
Japan	23.03	20.51	21.65	23.03	24.07	24.19	26.07	25.97	27.45	26.62	27.29	24.53	21.81
China	2.04	2.60	2.94	2.91	2.70	1.92	2.18	2.44	2.40	2.29	2.21	2.39	2.82
Hong Kong	1.70	2.07	2.21	2.30	2.05	1.91	2.04	2.27	2.02	1.99	2.16	2.32	2.43
India	0.80	0.79	0.78	0.72	1.16	0.74	0.77	0.89	0.87	0.69	0.71	0.94	0.96
Rest of Asian-15	55.08	53.12	54.92	55.19	56.30	55.74	59.27	60.77	61.05	58.55	58.82	60.10	58.73
United States	15.29	18.78	18.71	17.66	16.84	16.95	15.31	15.79	16.90	16.64	16.15	15.46	16.69
European Union	14.43	14.64	13.38	13.32	15.08	15.92	15.21	13.59	12.43	14.74	15.40	14.40	14.06
Others	15.20	13.46	12.99	13.83	11.78	11.40	10.21	9.85	9.62	10.06	9.63	10.04	10.53
Total Import	**12301**	**10828**	**12701**	**16567**	**22589**	**29170**	**36749**	**39856**	**45649**	**59624**	**77658**	**78420**	**79036**
(US$ Mn)													

[1/] Percentage distribution of Malaysia's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Malaysia's trade with its respective trading partner/partners by its total exports or imports.

Sources: *Direction of Trade Statistics Yearbook* of IMF, various issues, and Bank Negara Malaysia

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	7.57	7.20	7.30	6.47	6.14	6.35	5.79	5.74	4.59	4.21	3.95	4.02	4.21
Rest of SEACEN	5.45	5.07	4.94	4.28	4.12	4.39	3.99	3.92	3.31	3.02	2.84	2.98	3.10
Indonesia	0.78	0.74	1.60	2.76	3.09	1.85	2.04	1.75	1.52	1.61	1.65	1.92	2.08
Korea	3.55	3.36	3.12	2.55	2.49	2.29	1.94	1.61	1.54	1.16	1.05	1.08	1.22
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.24	0.14	0.25	0.26
Myanmar	5.18	3.86	2.50	3.75	8.79	8.99	6.57	8.13	6.70	10.84	7.07	5.96	9.80
Nepal	0.41	0.00	0.86	0.49	0.57	0.78	0.84	0.99	0.45	0.47	0.37	0.64	0.79
Philippines	8.24	6.73	6.03	4.71	3.54	3.56	2.45	2.92	2.03	1.94	1.65	1.59	2.12
Singapore	13.90	13.62	13.44	12.15	12.13	13.05	12.67	12.27	9.49	8.55	8.28	8.27	8.42
Sri Lanka	1.60	3.05	3.79	3.50	2.63	4.69	3.56	2.97	3.15	2.39	2.68	2.13	1.82
Taiwan	2.10	2.07	1.93	1.64	1.32	1.38	1.55	1.66	1.56	1.48	1.54	2.13	2.08
Thailand	6.94	5.79	5.28	2.68	2.95	3.64	3.03	3.45	2.92	2.94	2.81	3.01	3.14
Japan	3.53	3.75	3.12	2.49	2.33	2.26	2.42	2.22	2.01	1.87	1.91	2.03	2.03
China	0.46	0.55	0.87	0.98	0.99	1.35	1.05	0.90	0.92	1.21	1.02	0.92	0.93
Hong Kong	0.85	1.29	1.40	1.46	1.30	1.33	1.20	1.18	1.11	1.21	1.41	1.57	1.46
India	3.22	3.45	4.11	3.68	2.10	2.35	1.71	1.75	0.79	1.39	1.66	2.27	2.13
Rest of Asian-15	3.70	3.66	3.52	3.05	2.90	3.10	2.96	2.79	2.41	2.33	2.30	2.43	2.46
United States	0.66	0.87	0.94	1.04	1.16	1.14	1.19	1.29	1.27	1.30	1.36	1.18	1.15
European Union	0.42	0.38	0.36	0.38	0.37	0.35	0.35	0.36	0.37	0.38	0.38	0.37	0.41
Others	0.31	0.38	0.38	0.42	0.47	0.42	0.43	0.44	0.46	0.47	0.45	0.42	0.42
Import													
Rest of ASEAN-6	5.90	6.52	6.00	4.89	4.60	4.53	4.27	4.18	3.52	3.06	2.76	3.11	3.19
Rest of SEACEN	3.77	3.79	3.47	3.10	3.09	3.30	3.14	3.16	2.75	2.52	2.39	2.68	2.76
Indonesia	1.09	1.77	1.89	2.38	2.03	1.42	1.64	1.74	1.56	1.65	1.73	1.90	1.89
Korea	1.33	1.28	1.30	1.14	1.17	1.31	1.41	1.48	1.37	1.39	1.64	2.08	2.35
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.27	N/A	N/A	N/A
Myanmar	13.02	6.32	13.43	13.15	7.87	4.69	3.04	2.58	5.48	2.07	2.24	2.24	3.22
Nepal	N/A	N/A	N/A	21.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	7.26	4.70	4.76	3.07	2.64	2.19	1.76	2.27	1.55	1.67	1.70	3.03	2.56
Singapore	12.48	13.19	12.00	8.96	8.89	9.39	9.08	9.19	7.54	6.08	5.24	5.56	5.67
Sri Lanka	0.23	0.78	0.28	0.33	0.17	0.12	0.47	0.19	0.28	0.20	0.42	0.42	0.33
Taiwan	1.55	1.61	1.64	2.02	2.21	2.78	2.48	2.58	2.31	2.29	2.28	2.24	2.12
Thailand	8.91	8.77	6.98	5.06	4.37	3.49	2.95	2.82	2.46	2.28	2.33	3.08	3.64
Japan	2.34	1.92	2.19	2.32	2.58	2.82	2.87	2.83	2.78	2.82	3.08	3.11	2.82
China	1.34	1.64	1.74	1.63	1.50	1.03	1.05	1.06	0.96	0.79	0.74	0.83	0.84
Hong Kong	1.01	1.15	1.07	0.97	0.82	0.78	0.72	0.70	0.55	0.55	0.62	0.67	0.70
India	1.75	1.69	1.69	1.48	2.14	1.39	1.50	1.78	1.58	1.19	1.16	1.51	1.57
Rest of Asian-15	2.76	2.53	2.59	2.48	2.58	2.69	2.63	2.61	2.38	2.27	2.31	2.45	2.37
United States	1.29	1.70	1.73	1.48	1.36	1.44	1.26	1.31	1.33	1.36	1.38	1.29	1.32
European Union	0.41	0.39	0.34	0.34	0.39	0.36	0.35	0.32	0.32	0.37	0.38	0.36	0.37
Others	0.46	0.45	0.45	0.52	0.44	0.49	0.46	0.45	0.43	0.45	0.43	0.42	0.44

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 13.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.78	N/A	0.53	0.70
Rest of SEACEN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.65	N/A	0.78	N/A	0.53	0.70
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Korea	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.65	N/A	N/A	N/A	N/A	N/A
Malaysia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.39	N/A	0.26	0.70
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.39	N/A	N/A	N/A
Singapore	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.26	N/A
Sri Lanka	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Taiwan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Japan	N/A	N/A	N/A	N/A	29.91	28.57	29.85	32.23	11.16	20.62	24.77	21.43	23.49
China	N/A	N/A	N/A	N/A	6.84	10.99	26.87	36.36	29.30	26.85	27.79	30.42	39.77
Hong Kong	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.39	0.30	N/A	N/A
India	N/A	N/A	N/A	N/A	0.85	2.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rest of Asian-15	N/A	N/A	N/A	N/A	37.61	41.76	56.72	70.25	40.47	48.64	52.87	52.38	63.95
United States	N/A	N/A	N/A	N/A	1.71	2.20	1.49	5.79	14.88	10.12	6.95	7.94	9.30
European Union	N/A	N/A	N/A	N/A	17.09	20.88	23.88	19.01	9.30	12.84	10.57	11.38	7.44
Others	N/A	N/A	N/A	N/A	43.59	35.16	17.91	4.96	35.35	28.40	29.61	28.31	19.30
Total Export (US$ Mn)	N/A	N/A	N/A	N/A	117	91	97	121	215	257	331	378	430

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.68	4.13	5.03	4.58
Rest of SEACEN	N/A	N/A	N/A	N/A	N/A	N/A	3.68	3.70	N/A	0.68	4.13	5.03	4.58
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Korea	N/A	N/A	N/A	N/A	N/A	N/A	3.68	3.70	N/A	N/A	N/A	N/A	N/A
Malaysia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.34	0.39	0.37	0.37
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/N	N/A	N/A	N/A	N/A	N/A
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Singapore	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.14	4.28	4.03
Sri Lanka	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Taiwan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.34	0.59	0.37	0.18
Japan	N/A	N/A	N/A	N/A	6.56	10.42	31.90	15.19	6.02	9.12	9.23	12.29	7.88
China	N/A	N/A	N/A	N/A	18.03	21.53	17.79	55.19	25.79	15.88	13.56	14.90	12.82
Hong Kong	N/A	N/A	N/A	N/A	N/A	0.69	1.23	1.11	4.30	2.70	2.16	0.74	0.92
India	N/A	N/A	N/A	N/A	N/A	N/A	0.61	1.11	0.29	0.34	0.20	0.56	0.18
Rest of Asian-15	N/A	N/A	N/A	N/A	24.59	32.64	55.21	76.30	36.39	28.72	29.27	33.52	26.37
United States	N/A	N/A	N/A	N/A	N/A	N/A	8.59	1.11	5.16	2.70	2.95	0.93	6.96
European Union	N/A	N/A	N/A	N/A	20.49	36.11	26.99	15.56	6.88	11.82	17.68	17.88	21.79
Others	N/A	N/A	N/A	N/A	54.92	31.25	9.20	7.04	51.58	56.76	50.10	47.67	44.87
Total Import (US$ Mn)	N/A	N/A	N/A	N/A	122	144	163	270	349	296	509	537	546

[1] Percentage distribution of Mongolia's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Mongolia's trade with its respective trading partner/partners by its total exports or imports.

Source: *Direction of Trade Statistics Yearbook* of IMF, various issues.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.12	N/A	0.08	0.11
Rest of SEACEN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.18	N/A	0.07	N/A	0.05	0.06
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Korea	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.79	N/A	N/A	N/A	N/A	N/A
Malaysia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.28	N/A	0.18	0.50
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.74	N/A	N/A	N/A
Singapore	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.11	N/A
Sri Lanka	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Taiwan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Japan	N/A	N/A	N/A	N/A	4.39	4.24	4.59	5.39	1.75	3.25	3.80	3.30	3.90
China	N/A	N/A	N/A	N/A	3.56	7.12	15.31	17.30	10.72	10.02	10.84	11.80	15.74
Hong Kong	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.10	0.08	N/A	N/A
India	N/A	N/A	N/A	N/A	1.36	3.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rest of Asian-15	N/A	N/A	N/A	N/A	1.92	2.14	2.76	3.35	1.71	2.01	2.12	2.10	2.66
United States	N/A	N/A	N/A	N/A	0.11	0.15	0.11	0.41	0.94	0.63	0.46	0.52	0.58
European Union	N/A	N/A	N/A	N/A	0.41	0.47	0.55	0.45	0.25	0.35	0.28	0.31	0.21
Others	N/A	N/A	N/A	N/A	1.91	1.63	0.81	0.22	1.49	1.23	1.29	1.20	0.78
Import													
ASEAN-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.11	0.67	0.80	0.74
Rest of SEACEN	N/A	N/A	N/A	N/A	N/A	N/A	0.41	0.41	N/A	0.06	0.38	0.46	0.42
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Korea	N/A	N/A	N/A	N/A	N/A	N/A	1.79	1.81	N/A	N/A	N/A	N/A	N/A
Malaysia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.24	0.27	0.25	0.26
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Singapore	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.35	1.81	1.78
Sri Lanka	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Taiwan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.32	0.53	0.35	0.17
Japan	N/A	N/A	N/A	N/A	0.71	1.23	3.55	1.68	0.62	0.98	1.06	1.58	1.03
China	N/A	N/A	N/A	N/A	10.10	11.58	8.66	24.20	10.47	5.58	4.62	5.22	3.87
Hong Kong	N/A	N/A	N/A	N/A	N/A	0.29	0.44	0.35	1.18	0.76	0.63	0.22	0.27
India	N/A	N/A	N/A	N/A	N/A	N/A	1.20	2.25	0.53	0.59	0.33	0.91	0.30
Rest of Asian-15	N/A	N/A	N/A	N/A	1.09	1.52	2.37	3.16	1.37	1.07	1.10	1.31	1.02
United States	N/A	N/A	N/A	N/A	N/A	N/A	0.71	0.09	0.41	0.22	0.26	0.08	0.56
European Union	N/A	N/A	N/A	N/A	0.53	0.82	0.63	0.37	0.18	0.30	0.44	0.46	0.58
Others	N/A	N/A	N/A	N/A	2.05	1.37	0.42	0.32	2.33	2.55	2.26	2.04	1.89

[1/] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 15.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	19.80	19.79	19.63	19.05	20.00	27.58	19.17	18.42	19.62	21.83	29.32	25.15	23.09
Rest of SEACEN	31.02	30.90	31.05	30.61	31.16	33.57	23.15	22.81	22.80	24.67	32.63	28.43	25.81
Indonesia	6.93	6.94	6.85	6.80	6.98	2.40	0.57	1.46	1.65	1.86	6.61	2.52	1.87
Korea	5.28	5.21	5.48	5.44	5.12	2.16	0.76	0.73	N/A	N/A	N/A	N/A	N/A
Malaysia	2.31	2.08	2.28	2.04	2.33	2.16	3.04	2.49	6.11	2.73	3.22	3.03	3.90
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	N/A	N/A	N/A	N/A	N/A	0.24	0.19	0.15	N/A	0.11	0.08	3.53	3.99
Singapore	9.90	9.72	9.59	9.52	9.77	11.03	15.37	14.33	11.87	13.97	16.27	16.06	13.33
Sri Lanka	5.94	5.90	5.94	6.12	6.05	3.12	n.a	0.44	0.71	0.11	0.08	0.93	0.42
Taiwan	N/A	N/A	N/A	N/A	N/A	0.72	3.23	3.22	2.47	2.73	3.22	2.35	2.29
Thailand	0.66	1.04	0.91	0.68	0.93	11.75	N/A	N/A	N/A	3.17	3.14	N/A	N/A
Japan	8.36	8.36	8.36	8.39	8.35	6.80	8.54	6.29	7.64	7.53	7.29	7.91	7.64
China	1.22	1.22	1.22	1.23	1.22	7.98	18.22	17.40	17.63	14.19	11.53	10.51	5.69
Hong Kong	9.13	9.13	9.12	9.16	9.12	5.48	6.45	6.58	6.58	5.46	4.92	4.96	3.90
India	2.31	2.43	2.28	2.04	2.33	10.55	8.92	13.89	12.46	11.90	12.37	11.35	14.26
Rest of Asian-15	52.05	52.05	52.04	51.44	52.18	64.39	65.28	66.96	67.10	63.76	68.73	63.16	57.30
United States	4.29	0.69	0.91	1.36	0.93	2.16	5.12	5.56	5.41	7.21	6.69	8.92	9.51
European Union	19.14	8.68	8.68	8.84	8.84	6.71	7.02	6.14	7.40	7.42	6.10	8.58	11.80
Others	24.51	38.58	38.37	38.35	38.05	26.73	22.58	21.35	20.09	21.62	18.47	19.34	21.39
Total Export (US$ Mn)	303	288	219	147	215	417	527	684	851	916	1160	1189	1178
Import													
Rest of ASEAN-6	9.03	9.03	9.04	9.03	8.81	26.06	35.67	38.62	42.66	48.68	45.62	44.69	49.31
Rest of SEACEN	9.10	9.11	9.11	9.10	8.89	29.50	38.95	42.07	42.98	49.63	46.69	46.36	51.59
Indonesia	0.02	0.02	0.02	0.02	0.02	0.45	0.66	1.53	3.57	2.98	2.91	3.42	4.93
Korea	0.07	0.07	0.07	0.07	0.07	3.44	3.00	3.25	N/A	N/A	N/A	N/A	N/A
Malaysia	2.60	2.60	2.60	2.60	2.58	4.79	6.93	9.46	9.25	16.54	11.27	9.66	15.29
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	0.03	0.03	0.03	0.03	0.03	0.01	N/A	N/A	N/A	N/A	0.09	0.04	0.04
Singapore	5.84	5.84	5.84	5.84	5.67	17.81	27.72	27.63	29.85	29.15	31.35	31.57	29.05
Sri Lanka	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Taiwan	N/A	N/A	N/A	N/A	N/A	0.00	0.28	0.19	0.32	0.95	1.07	1.63	2.28
Thailand	0.54	0.55	0.55	0.55	0.52	2.99	0.37	N/A	N/A	N/A	N/A	N/A	N/A
Japan	39.02	39.02	39.02	39.02	39.18	16.62	8.52	10.13	8.92	5.08	7.74	11.09	8.67
China	3.16	3.16	3.16	3.16	3.09	20.66	29.49	27.25	28.95	27.53	30.41	22.78	23.44
Hong Kong	0.62	0.62	0.62	0.62	0.52	1.35	1.40	1.63	3.65	3.32	3.09	4.02	2.92
India	0.47	0.48	0.47	0.48	0.52	0.15	0.37	0.48	1.30	1.76	1.03	1.99	1.87
Rest of Asian-15	52.37	52.38	52.38	52.37	52.19	68.27	78.75	81.55	85.81	87.32	88.95	86.24	88.49
United States	6.02	6.02	6.01	6.01	6.19	2.84	2.43	0.48	1.14	0.81	0.81	1.39	0.82
European Union	22.57	22.57	22.58	22.57	23.71	15.57	10.21	7.46	9.65	8.88	7.74	8.43	7.33
Others	19.04	19.03	19.03	19.04	17.92	13.32	8.61	10.52	3.41	2.98	2.50	3.94	3.36
Total Import (US$ Mn)	283	304	266	244	194	668	1006	1046	1233	1475	2236	2515	2675

[1] Percentage distribution of Myanmar's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Myanmar's trade with its respective trading partner/partners by its total exports or imports.

Source: *Direction of Trade Statistics Yearbook* of IMF, various issues.

Appendix-18: Export and Import Trade Intensity of Myanmar [1/]

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	5.87	6.59	6.08	5.13	4.90	6.06	3.86	3.65	3.30	3.45	4.39	3.75	3.63
Rest of SEACEN	5.00	5.32	4.80	4.09	3.96	4.09	2.56	2.50	2.21	2.29	2.85	2.47	2.33
Indonesia	12.75	13.36	13.40	14.23	13.11	3.84	0.80	2.09	2.20	2.50	8.37	3.17	2.52
Korea	3.21	3.40	3.23	2.91	2.56	1.08	0.34	0.35	N/A	N/A	N/A	N/A	N/A
Malaysia	3.55	3.97	4.35	3.41	3.17	2.59	3.01	2.43	5.07	1.98	2.14	2.08	2.78
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	N/A	N/A	N/A	N/A	N/A	0.64	0.54	0.37	N/A	0.21	0.15	5.57	5.75
Singapore	7.13	7.86	7.11	6.02	6.04	6.32	8.44	7.73	5.27	5.88	6.73	6.59	5.68
Sri Lanka	61.30	66.58	69.86	74.47	89.08	41.33	N/A	4.92	6.67	1.05	0.92	9.91	4.22
Taiwan	N/A	N/A	N/A	N/A	N/A	0.46	1.87	1.74	1.21	1.38	1.60	1.24	1.13
Thailand	1.35	2.35	1.70	0.93	1.13	12.29	N/A	N/A	N/A	2.51	2.28	N/A	N/A
Japan	1.21	1.35	1.34	1.24	1.23	1.01	1.31	1.05	1.20	1.19	1.12	1.22	1.27
China	0.54	0.58	0.69	0.62	0.64	5.17	10.38	8.28	6.45	5.30	4.49	4.08	2.25
Hong Kong	5.81	5.33	4.56	3.97	3.88	2.32	2.34	2.08	1.80	1.46	1.31	1.35	1.05
India	2.67	3.33	3.28	2.96	3.71	15.37	16.63	23.28	22.23	20.16	18.47	16.97	20.61
Rest of Asian-15	2.93	3.15	3.03	2.68	2.67	3.30	3.17	3.20	2.84	2.64	2.76	2.54	2.39
United States	0.22	0.04	0.05	0.08	0.06	0.15	0.37	0.39	0.34	0.45	0.45	0.59	0.59
European Union	0.56	0.23	0.22	0.23	0.21	0.15	0.16	0.15	0.20	0.20	0.16	0.24	0.34
Others	0.85	1.45	1.46	1.47	1.67	1.24	1.03	0.94	0.85	0.94	0.81	0.82	0.86
Import													
Rest of ASEAN-6	2.38	2.75	2.61	2.36	2.17	6.32	7.77	7.99	7.65	8.09	7.40	7.14	7.96
Rest of SEACEN	1.26	1.28	1.17	1.08	1.05	3.64	4.38	4.61	4.23	4.70	4.28	4.22	4.70
Indonesia	0.02	0.03	0.03	0.02	0.03	0.59	0.79	1.69	3.60	3.16	3.25	3.63	5.10
Korea	0.04	0.04	0.04	0.03	0.03	1.79	1.46	1.59	N/A	N/A	N/A	N/A	N/A
Malaysia	3.06	3.69	3.41	3.31	3.05	5.51	7.05	8.70	7.30	11.94	7.75	6.52	10.73
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	0.12	0.13	0.14	0.12	0.12	0.03	N/A	N/A	N/A	N/A	0.26	0.10	0.08
Singapore	4.64	5.15	4.79	3.99	3.75	11.43	16.39	16.33	14.99	12.78	13.46	13.34	12.81
Sri Lanka	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.51	N/A
Taiwan	N/A	N/A	N/A	N/A	N/A	0.00	0.13	0.09	0.14	0.43	0.49	0.74	1.03
Thailand	1.38	1.22	1.10	0.91	0.76	4.38	0.46	N/A	N/A	N/A	N/A	N/A	N/A
Japan	3.99	3.67	3.97	3.96	4.23	1.95	0.95	1.12	0.92	0.55	0.89	1.43	1.14
China	2.09	2.00	1.88	1.78	1.73	11.12	14.35	11.95	11.75	9.68	10.36	7.97	7.08
Hong Kong	0.37	0.35	0.30	0.26	0.21	0.55	0.50	0.51	1.01	0.93	0.90	1.18	0.86
India	1.04	1.03	1.03	0.99	0.96	0.28	0.73	0.97	2.38	3.10	1.71	3.25	3.10
Rest of Asian-15	2.54	2.43	2.40	2.29	2.32	3.19	3.39	3.38	3.23	3.26	3.35	3.36	3.42
United States	0.51	0.55	0.56	0.51	0.50	0.24	0.20	0.04	0.09	0.07	0.07	0.12	0.07
European Union	0.64	0.60	0.58	0.58	0.62	0.35	0.24	0.18	0.25	0.23	0.19	0.22	0.19
Others	0.59	0.64	0.67	0.72	0.67	0.58	0.39	0.48	0.15	0.13	0.11	0.17	0.14

[1/] Derived by using equations 5 and 6 in Chapter 3.

Source: Same as Appendix 17.

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Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	1.50	1.57	1.49	14.05	4.46	2.42	1.68	0.57	0.54	0.57	0.31	0.28	0.28
Rest of SEACEN	4.47	11.27	3.52	14.28	6.72	3.00	2.18	7.10	0.84	1.17	1.02	0.70	2.46
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.03
Korea	N/A	N/A	N/A	0.21	0.55	0.46	0.39	0.28	0.03	0.03	0.09	0.14	0.15
Malaysia	0.01	0.04	0.14	12.34	0.05	0.05	0.05	N/A	N/A	N/A	N/A	N/A	N/A
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Singapore	1.48	1.49	1.35	1.70	4.37	2.31	1.56	0.57	0.27	0.28	0.31	0.28	0.25
Sri Lanka	2.96	9.70	2.03	0.02	0.09	0.00	0.01	6.25	N/A	0.28	0.31	N/A	1.27
Taiwan	N/A	N/A	N/A	N/A	1.62	0.11	0.10	N/A	N/A	N/A	N/A	N/A	N/A
Thailand	0.01	0.04	0.01	0.00	0.04	0.06	0.07	N/A	0.27	0.28	N/A	N/A	N/A
Japan	0.74	0.75	2.03	0.85	1.09	0.93	0.78	0.57	1.09	0.85	0.62	0.56	0.76
China	1.48	2.24	0.68	1.28	2.73	2.31	0.39	0.28	0.54	0.57	N/A	0.84	2.28
Hong Kong	0.07	0.30	0.34	0.43	0.22	0.46	0.39	0.28	N/A	N/A	N/A	N/A	N/A
India	34.07	27.61	25.00	17.02	1.64	6.48	6.61	5.97	4.63	3.70	7.72	12.57	16.50
Rest of Asian-15	40.84	42.16	31.56	33.85	12.40	13.19	10.35	14.20	7.11	6.30	9.66	14.66	22.01
United States	35.56	25.37	22.97	23.83	27.32	21.30	23.74	23.01	27.25	33.33	30.56	33.24	29.19
European Union	20.74	26.87	38.51	36.60	51.91	56.94	57.98	54.55	58.86	53.85	53.09	45.81	41.37
Others	2.87	5.60	6.95	5.72	8.36	8.57	7.94	8.24	6.78	6.52	6.70	6.28	7.44
Total Export (US$ Mn)	135	134	148	235	183	216	257	352	367	351	524	358	394
Import													
ASEAN-6	6.22	8.32	14.29	20.53	24.94	19.91	16.20	18.45	25.76	30.73	31.87	14.35	11.54
Rest of SEACEN	14.58	13.98	19.90	25.45	30.54	24.34	20.20	23.06	27.08	32.52	33.73	15.30	12.50
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Korea	8.24	5.54	5.41	4.08	3.73	2.43	2.60	2.94	N/A	N/A	N/A	N/A	N/A
Malaysia	0.36	0.13	0.67	0.45	0.47	0.66	0.80	1.05	0.57	0.81	0.66	0.95	1.12
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	0.20	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Singapore	4.35	6.14	7.56	9.27	15.62	16.81	12.00	11.95	11.93	12.20	12.35	8.52	7.05
Sri Lanka	0.02	0.02	0.02	0.12	0.70	N/A	N/A	0.21	N/A	N/A	N/A	0.16	0.32
Taiwan	0.11	0.11	0.19	0.72	1.17	1.99	1.40	1.47	1.33	1.79	1.86	0.79	0.64
Thailand	1.31	2.04	6.06	10.80	8.86	2.43	3.40	5.45	13.26	17.72	18.86	4.89	3.37
Japan	22.92	23.19	18.84	12.77	18.41	14.38	21.60	13.63	14.20	11.87	8.90	11.36	5.77
China	6.48	7.39	4.82	4.49	6.99	10.18	7.00	8.18	7.01	7.15	7.84	6.47	10.26
Hong Kong	1.83	2.77	2.38	2.51	3.50	5.53	5.80	7.13	7.77	8.46	10.89	14.51	14.42
India	30.46	28.74	17.20	16.84	8.39	9.51	17.00	16.77	15.72	15.12	15.67	27.29	25.48
Rest of Asian-15	76.27	76.07	63.14	62.06	67.83	63.94	71.60	68.76	71.78	75.12	77.03	74.92	68.43
United States	2.72	2.70	13.12	13.24	2.33	2.43	1.40	1.26	1.14	1.30	1.46	1.42	4.65
European Union	13.42	14.02	15.16	17.72	17.25	19.69	12.20	15.30	12.69	12.68	9.69	13.88	16.19
Others	7.58	7.20	8.58	6.97	12.59	13.94	14.80	14.68	14.39	10.89	11.82	9.78	10.74
Total Import (US$ Mn)	295	314	466	534	429	452	500	477	526	615	753	634	624

[1] Percentage distribution of Nepal's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Nepal's trade with its respective trading partner/partners by its total exports or imports.

Source: *Direction of Trade Statistics Yearbook* of IMF, various issues.

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Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	0.45	0.52	0.46	3.78	1.09	0.53	0.34	0.11	0.09	0.09	0.05	0.04	0.04
Rest of SEACEN	0.72	1.94	0.54	1.91	0.85	0.37	0.24	0.78	0.08	0.11	0.09	0.06	0.22
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.03
Korea	N/A	N/A	N/A	0.11	0.27	0.23	0.17	0.14	0.01	0.01	0.04	0.05	0.06
Malaysia	0.02	0.07	0.26	20.64	0.07	0.06	0.05	N/A	N/A	N/A	N/A	N/A	N/A
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Singapore	1.07	1.21	1.00	1.08	2.70	1.33	0.85	0.31	0.12	0.12	0.13	0.11	0.11
Sri Lanka	30.57	109.43	23.85	0.21	1.29	0.06	0.09	70.08	N/A	2.74	3.33	N/A	12.63
Taiwan	N/A	N/A	N/A	N/A	0.95	0.07	0.06	N/A	N/A	N/A	N/A	N/A	N/A
Thailand	0.02	0.08	0.01	0.01	0.05	0.06	0.07	N/A	0.22	0.23	N/A	N/A	N/A
Japan	0.11	0.12	0.33	0.13	0.16	0.14	0.12	0.10	0.17	0.13	0.09	0.09	0.13
China	0.66	1.07	0.38	0.64	1.42	1.50	0.22	0.14	0.20	0.21	N/A	0.33	0.90
Hong Kong	0.05	0.17	0.17	0.18	0.09	0.20	0.14	0.09	N/A	N/A	N/A	N/A	N/A
India	39.44	37.86	35.92	24.66	2.61	9.44	12.34	10.00	8.27	6.28	11.52	18.79	23.85
Rest of Asian-15	2.30	2.55	1.84	1.76	0.63	0.68	0.50	0.68	0.30	0.26	0.39	0.59	0.92
United States	1.86	1.35	1.31	1.44	1.70	1.44	1.70	1.62	1.72	2.09	2.04	2.19	1.83
European Union	0.61	0.71	0.99	0.96	1.25	1.29	1.34	1.29	1.60	1.46	1.43	1.26	1.18
Others	0.10	0.21	0.26	0.22	0.37	0.40	0.36	0.36	0.29	0.28	0.29	0.27	0.30

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	1.64	2.53	4.13	5.37	6.15	4.83	3.53	3.81	4.62	5.11	5.17	2.29	1.86
Rest of SEACEN	2.01	1.97	2.55	3.03	3.61	3.01	2.27	2.53	2.66	3.08	3.09	1.39	1.14
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Korea	4.93	3.16	2.69	1.81	1.77	1.27	1.27	1.44	N/A	N/A	N/A	N/A	N/A
Malaysia	0.42	0.19	0.88	0.58	0.55	0.76	0.81	0.96	0.45	0.59	0.46	0.64	0.79
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	0.78	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Singapore	3.46	5.42	6.20	6.34	10.34	10.78	7.10	7.06	5.99	5.35	5.30	3.60	3.11
Sri Lanka	0.29	0.27	0.26	2.24	13.46	N/A	N/A	3.16	N/A	N/A	N/A	2.04	3.81
Taiwan	0.07	0.05	0.08	0.32	0.52	1.00	0.64	0.68	0.58	0.82	0.84	0.36	0.29
Thailand	3.32	4.56	12.22	18.12	13.00	3.56	4.17	6.27	13.29	16.59	16.87	4.62	3.18
Japan	2.34	2.18	1.92	1.30	1.99	1.69	2.40	1.50	1.46	1.28	1.02	1.46	0.76
China	4.30	4.68	2.87	2.53	3.92	5.48	3.41	3.59	2.85	2.52	2.67	2.26	3.10
Hong Kong	1.10	1.55	1.16	1.07	1.42	2.28	2.06	2.24	2.14	2.37	3.18	4.25	4.24
India	66.80	62.45	37.47	34.90	15.70	18.07	33.29	33.99	28.86	26.56	26.04	44.65	42.31
Rest of Asian-15	3.70	3.53	2.89	2.72	3.01	2.99	3.08	2.85	2.70	2.80	2.90	2.92	2.64
United States	0.23	0.25	1.22	1.12	0.19	0.21	0.12	0.11	0.09	0.11	0.13	0.12	0.37
European Union	0.38	0.37	0.39	0.46	0.45	0.45	0.29	0.36	0.33	0.33	0.24	0.35	0.43
Others	0.23	0.24	0.30	0.26	0.47	0.61	0.67	0.67	0.65	0.49	0.53	0.42	0.45

[1/] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 19.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	11.45	7.29	8.86	6.96	8.07	7.14	6.97	5.27	6.64	10.13	12.84	13.80	13.22
Rest of SEACEN	14.97	12.19	13.31	12.10	13.02	12.54	11.96	10.01	11.65	15.71	18.70	18.85	19.78
Indonesia	0.39	0.60	1.14	0.38	0.72	0.75	0.48	0.41	0.42	0.53	0.74	0.69	0.85
Korea	1.56	2.31	1.89	2.28	2.24	2.81	2.58	1.79	1.93	2.17	2.54	1.81	1.88
Malaysia	3.76	2.02	2.08	1.65	2.54	1.55	1.39	1.30	1.41	1.65	1.81	3.34	2.54
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	N/A	N/A	N/A	N/A	0.00	0.00	N/A	N/A	N/A	N/A	0.01	0.00	0.02
Nepal	0.02	N/A	N/A	N/A	N/A	N/A	0.00	N/A	N/A	N/A	N/A	N/A	0.00
Singapore	5.40	3.24	3.44	3.17	2.83	2.93	2.60	2.57	3.32	5.26	5.71	5.96	6.43
Sri Lanka	0.09	0.02	0.04	0.03	0.03	0.04	0.03	0.02	0.04	0.05	0.05	0.03	0.04
Taiwan	1.86	2.56	2.52	2.84	2.69	2.55	2.38	2.92	3.04	3.36	3.26	3.22	4.63
Thailand	1.90	1.43	2.20	1.75	1.98	1.91	2.50	1.00	1.49	2.70	4.58	3.80	3.39
Japan	18.90	17.58	17.13	20.07	20.28	19.74	19.94	17.69	15.97	15.01	15.72	17.86	16.62
China	1.73	2.17	1.54	0.95	0.65	0.76	1.45	1.16	1.53	1.22	1.23	1.60	0.97
Hong Kong	4.04	4.56	4.88	4.89	3.90	4.03	4.43	4.72	4.81	4.83	4.72	4.23	4.64
India	0.35	0.10	0.09	1.00	0.38	0.02	0.19	0.09	1.98	0.10	0.11	0.18	0.13
Rest of Asian-15	39.99	36.60	36.95	39.02	38.23	37.09	37.98	33.67	35.94	36.86	40.48	42.71	42.14
United States	35.73	35.46	36.08	35.57	37.67	37.81	35.57	39.01	38.42	38.14	35.31	33.91	34.94
European Union	14.02	18.77	19.04	17.66	16.95	17.70	18.57	19.38	17.71	17.47	17.58	17.50	18.00
Others	10.26	9.17	7.93	7.76	7.15	7.40	7.88	7.94	7.94	7.52	6.63	5.89	4.93
Total Export (US$ Mn)	4629	4842	5720	7074	7821	8186	8840	9824	11375	13483	17447	20543	25228

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	14.01	9.48	8.46	8.71	9.61	8.83	8.32	8.59	10.40	11.32	11.74	12.00	12.68
Rest of SEACEN	21.31	17.95	16.43	18.81	20.14	19.13	19.95	19.83	21.16	22.19	22.31	22.27	23.52
Indonesia	3.49	2.55	1.28	1.04	1.61	1.54	1.38	1.27	1.96	1.76	2.20	2.07	1.98
Korea	3.93	3.12	2.80	3.98	3.98	3.84	4.97	4.79	5.03	5.18	5.07	5.23	5.88
Malaysia	7.16	3.99	3.25	2.97	2.53	2.22	2.46	2.65	2.01	2.02	2.21	2.51	2.61
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	N/A	0.03	N/A
Myanmar	N/A	0.04	0.02	0.00	0.01	0.02	0.01	0.01	N/A	0.00	0.00	0.14	0.01
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00
Singapore	2.33	2.35	3.30	4.05	4.65	3.90	3.69	3.72	5.41	6.60	5.80	5.35	5.86
Sri Lanka	N/A	N/A	0.00	0.01	0.00	0.06	0.02	0.01	0.02	0.03	0.03	0.01	0.02
Taiwan	3.37	5.34	5.17	6.10	6.53	6.40	6.64	6.45	5.71	5.66	5.47	5.00	4.93
Thailand	1.03	0.55	0.61	0.64	0.81	1.15	0.78	0.94	1.01	0.94	1.52	1.93	2.22
Japan	13.77	16.44	15.98	17.40	19.46	18.18	19.37	21.13	22.78	24.11	22.36	22.19	20.40
China	5.34	2.24	3.01	3.07	2.17	1.40	1.89	1.29	1.08	1.47	2.34	2.23	2.49
Hong Kong	3.84	4.79	4.29	4.44	4.48	4.42	4.78	4.82	4.87	5.15	4.91	4.27	4.19
India	0.11	0.17	0.14	0.33	0.30	0.67	0.61	0.61	0.66	0.65	0.62	0.71	0.68
Rest of Asian-15	44.38	41.58	39.85	44.06	46.54	43.80	46.60	47.68	50.54	53.58	52.55	51.68	51.28
United States	24.68	23.98	21.42	21.14	19.00	19.48	20.26	18.22	20.03	18.48	18.57	19.82	19.54
European Union	8.36	10.57	11.54	12.75	11.20	11.13	10.24	12.02	10.93	11.07	10.76	11.33	12.59
Others	22.59	23.87	27.19	22.05	23.26	25.59	22.89	22.07	18.50	16.87	18.11	17.18	16.58
Total Import (US$ Mn)	5445	5394	7188	8731	11171	13042	12856	15454	18770	22838	26194	34153	39002

[1/] Percentage distribution of Philippines's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Philippines's trade with its respective trading partner/partners by its total exports or imports.

Sources: *Direction of Trade Statistics Yearbook* of IMF, various issues, and Bangko Sentral ng Pilipinas.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	3.38	2.42	2.74	1.87	1.97	1.56	1.40	1.04	1.11	1.60	1.91	2.04	2.07
Rest of SEACEN	2.41	2.09	2.05	1.61	1.65	1.52	1.32	1.09	1.12	1.45	1.63	1.63	1.77
Indonesia	0.71	1.15	2.22	0.80	1.34	1.19	0.67	0.58	0.56	0.71	0.93	0.86	1.14
Korea	0.94	1.51	1.11	1.21	1.12	1.40	1.15	0.85	0.87	0.91	0.96	0.64	0.73
Malaysia	5.76	3.85	3.95	2.76	3.45	1.85	1.37	1.27	1.16	1.19	1.19	2.28	1.79
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	N/A	N/A	N/A	N/A	0.20	0.06	N/A	N/A	N/A	N/A	0.26	0.10	0.41
Nepal	1.38	N/A	N/A	N/A	N/A	N/A	0.08	N/A	N/A	N/A	N/A	N/A	0.35
Singapore	3.88	2.62	2.55	1.99	1.74	1.67	1.42	1.38	1.47	2.20	2.35	2.43	2.72
Sri Lanka	0.91	0.28	0.49	0.34	0.38	0.52	0.40	0.23	0.33	0.50	0.55	0.31	0.35
Taiwan	1.74	2.18	1.74	1.58	1.57	1.62	1.37	1.57	1.49	1.69	1.61	1.68	2.26
Thailand	3.87	3.20	4.09	2.39	2.39	1.99	2.39	0.95	1.22	2.13	3.32	2.82	3.00
Japan	2.73	2.83	2.74	2.96	2.96	2.92	3.06	2.95	2.49	2.35	2.40	2.74	2.74
China	0.77	1.03	0.86	0.47	0.34	0.49	0.82	0.55	0.56	0.45	0.48	0.62	0.38
Hong Kong	2.56	2.66	2.43	2.12	1.66	1.70	1.60	1.48	1.31	1.28	1.25	1.14	1.24
India	0.40	0.14	0.13	1.45	0.61	0.04	0.36	0.15	3.51	0.16	0.17	0.27	0.19
Rest of Asian-15	2.28	2.24	2.18	2.06	1.98	1.93	1.87	1.63	1.54	1.55	1.65	1.75	1.79
United States	1.86	1.89	2.05	2.14	2.34	2.55	2.53	2.74	2.41	2.38	2.35	2.22	2.17
European Union	0.41	0.49	0.49	0.46	0.41	0.40	0.43	0.46	0.48	0.47	0.47	0.48	0.51
Others	0.35	0.34	0.30	0.30	0.31	0.34	0.36	0.35	0.33	0.32	0.29	0.25	0.20

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	3.68	2.88	2.44	2.27	2.36	2.13	1.81	1.77	1.86	1.88	1.90	1.91	2.04
Rest of SEACEN	2.94	2.52	2.10	2.23	2.37	2.36	2.24	2.17	2.08	2.10	2.04	2.02	2.14
Indonesia	3.39	3.41	1.75	1.46	2.15	2.03	1.66	1.40	1.97	1.86	2.45	2.19	2.04
Korea	2.35	1.78	1.39	1.76	1.89	1.99	2.41	2.34	2.27	2.28	2.05	2.12	2.38
Malaysia	8.40	5.65	4.25	3.77	2.99	2.54	2.49	2.43	1.58	1.46	1.52	1.69	1.82
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.73	N/A	4.08	N/A
Myanmar	N/A	3.06	1.64	0.84	1.23	1.24	0.52	0.35	N/A	0.20	0.15	6.10	0.60
Nepal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.36
Singapore	1.85	2.07	2.70	2.77	3.07	2.50	2.18	2.19	2.71	2.88	2.48	2.25	2.57
Sri Lanka	N/A	N/A	0.05	0.25	0.05	1.09	0.27	0.10	0.28	0.41	0.38	0.15	0.21
Taiwan	1.98	2.65	2.26	2.70	2.91	3.22	3.04	2.96	2.49	2.58	2.48	2.27	2.22
Thailand	2.61	1.23	1.24	1.08	1.18	1.68	0.95	1.08	1.01	0.87	1.35	1.82	2.09
Japan	1.41	1.54	1.62	1.76	2.09	2.13	2.15	2.33	2.33	2.58	2.55	2.84	2.67
China	3.54	1.41	1.79	1.73	1.21	0.75	0.92	0.57	0.44	0.52	0.80	0.78	0.75
Hong Kong	2.30	2.68	2.08	1.89	1.81	1.81	1.69	1.51	1.34	1.44	1.43	1.25	1.23
India	0.24	0.37	0.30	0.69	0.57	1.26	1.20	1.24	1.20	1.14	1.03	1.16	1.12
Rest of Asian-15	2.17	1.95	1.84	1.95	2.09	2.06	2.02	1.99	1.92	2.01	1.99	2.04	2.01
United States	2.09	2.18	1.99	1.78	1.54	1.67	1.68	1.52	1.60	1.53	1.61	1.68	1.56
European Union	0.24	0.28	0.30	0.33	0.29	0.25	0.24	0.28	0.28	0.28	0.27	0.29	0.33
Others	0.69	0.80	0.95	0.83	0.87	1.12	1.03	1.01	0.83	0.76	0.82	0.73	0.69

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 21.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	24.22	23.63	23.15	22.58	23.11	23.53	25.34	22.82	24.38	28.95	28.94	28.16	27.47
Rest of SEACEN	28.06	28.16	28.27	28.09	28.70	29.88	31.72	29.55	31.54	36.00	36.16	36.19	35.28
Indonesia	3.34	3.91	3.00	2.07	2.28	2.19	2.61	2.39	2.20	1.76	1.82	2.09	2.47
Korea	1.23	1.44	1.65	1.96	1.93	2.22	2.35	2.06	2.78	2.61	2.74	3.77	2.95
Malaysia	15.51	14.79	14.29	13.56	13.65	13.03	14.87	12.50	14.18	19.64	19.18	17.99	17.46
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.01	0.02	0.02
Myanmar	0.25	0.17	0.16	0.17	0.20	0.42	0.45	0.41	0.45	0.40	0.54	0.58	0.56
Nepal	0.05	0.08	0.11	0.11	0.14	0.13	0.09	0.08	0.08	0.07	0.07	0.04	0.03
Philippines	0.96	1.10	1.46	1.32	1.48	1.27	1.15	1.28	1.85	1.63	1.63	1.84	2.35
Sri Lanka	0.85	0.77	0.66	0.61	0.51	0.42	0.39	0.54	0.42	0.35	0.32	0.31	0.32
Taiwan	1.71	2.24	2.71	2.83	3.00	3.58	3.54	4.05	3.88	4.01	4.07	3.89	4.50
Thailand	4.16	3.65	4.23	5.45	5.51	6.62	6.26	6.23	5.69	5.53	5.77	5.67	4.62
Japan	9.42	8.58	9.05	8.63	8.55	8.75	8.67	7.61	7.46	6.98	7.80	8.19	7.06
China	1.46	2.54	2.57	3.03	2.68	1.51	1.45	1.75	2.57	2.16	2.33	2.71	3.23
Hong Kong	6.37	6.50	6.32	6.25	6.31	6.50	7.20	7.82	8.68	8.65	8.57	8.16	9.60
India	2.13	2.10	1.94	1.87	2.09	2.09	1.70	1.47	1.29	1.30	1.59	1.66	1.82
Rest of Asian-15	47.43	47.87	48.16	47.88	48.32	48.74	50.74	48.21	51.54	55.09	56.45	56.91	57.00
United States	21.17	23.36	24.39	23.83	23.30	21.26	19.72	21.12	20.36	18.67	18.26	18.43	18.45
European Union	10.59	11.14	12.19	12.97	14.05	15.04	14.64	15.77	14.60	13.39	13.39	13.02	13.93
Others	20.80	17.62	15.26	15.32	14.32	14.96	14.90	14.91	13.50	12.85	11.90	11.64	10.62
Total Export (US$ Mn)	22874	22501	23698	39318	44769	52733	59162	63157	74041	96911	118672	125125	125007

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	24.14	22.53	22.53	22.21	20.29	20.34	23.01	24.05	25.63	26.40	25.02	25.52	26.50
Rest of SEACEN	29.26	28.96	29.89	29.71	27.87	27.55	30.03	31.06	32.85	34.11	33.52	34.04	33.87
Indonesia	6.82	5.34	4.89	4.14	4.02	3.43	4.00	5.05	4.34	4.45	3.33	3.82	4.56
Korea	1.61	2.32	2.42	2.88	2.99	2.91	2.85	2.95	3.22	3.82	4.34	4.47	3.13
Malaysia	14.24	13.33	13.83	14.66	13.12	13.55	15.29	14.70	16.45	16.29	15.48	15.02	15.14
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	N/A
Myanmar	0.26	0.25	0.16	0.10	0.09	0.11	0.13	0.15	0.13	0.14	0.17	0.16	0.13
Nepal	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Philippines	0.75	0.72	0.55	0.60	0.54	0.51	0.42	0.44	0.59	0.76	0.88	1.06	1.50
Sri Lanka	0.16	0.06	0.09	0.08	0.06	0.05	0.07	0.04	0.05	0.06	0.04	0.04	0.04
Taiwan	3.33	4.04	4.58	4.53	4.51	4.23	4.09	4.02	3.96	3.84	4.11	4.01	4.19
Thailand	2.07	2.89	3.12	2.70	2.52	2.74	3.18	3.71	4.12	4.76	5.16	5.46	5.17
Japan	17.10	19.90	20.46	21.96	21.35	20.12	21.30	21.06	21.86	21.93	21.15	18.15	17.66
China	8.64	5.60	4.33	3.85	3.42	3.44	3.36	3.12	2.82	2.81	3.25	3.38	4.30
Hong Kong	1.88	2.36	2.64	2.76	2.86	3.08	3.01	3.05	3.15	3.37	3.30	3.20	2.96
India	0.84	0.63	0.77	0.60	0.61	0.61	0.64	0.74	0.79	0.77	0.74	0.77	0.79
Rest of Asian-15	57.72	57.45	58.08	58.88	56.12	54.80	58.34	59.04	61.47	62.99	61.96	59.54	59.58
United States	15.20	14.97	14.67	15.56	17.15	16.08	15.85	16.46	16.34	15.23	15.05	16.41	16.98
European Union	11.35	11.65	12.24	12.04	13.51	13.76	13.01	13.60	12.45	13.04	13.33	14.46	13.99
Others	15.73	15.93	15.01	13.53	13.22	15.36	12.81	10.90	9.73	8.75	9.66	9.60	9.44
Total Import (US$ Mn)	26237	25513	32626	43869	49694	60954	66261	72175	85378	102642	124394	131329	131639

1/ Percentage distribution of Singapore's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Singapore's trade with its respective trading partner/partners by its total exports or imports.

Sources: *Direction of Trade Statistics Yearbook* of IMF, various issues, and Monetary Authority of Singapore.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	7.08	7.78	7.07	5.98	5.58	5.08	5.01	4.44	4.01	4.47	4.23	4.10	4.22
Rest of SEACEN	4.46	4.79	4.31	3.70	3.59	3.58	3.45	3.19	2.99	3.26	3.09	3.07	3.11
Indonesia	6.07	7.44	5.79	4.27	4.21	3.45	3.60	3.36	2.88	2.32	2.25	2.56	3.26
Korea	0.74	0.93	0.96	1.03	0.95	1.09	1.03	0.96	1.23	1.08	1.02	1.32	1.12
Malaysia	23.51	27.83	26.87	22.33	18.28	15.34	14.46	11.99	11.50	13.88	12.43	12.07	12.14
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.25	1.64	1.85
Myanmar	16.48	11.61	14.57	19.06	30.65	21.54	15.20	15.09	13.59	11.53	12.11	12.07	11.59
Nepal	3.32	5.19	5.71	5.85	9.61	9.94	6.64	6.57	5.40	4.81	4.80	2.98	2.46
Philippines	3.27	4.16	4.84	4.12	4.01	3.35	3.20	3.15	3.66	3.03	2.91	2.83	3.31
Sri Lanka	8.61	8.62	7.65	7.31	7.45	5.48	4.58	5.92	3.88	3.27	3.36	3.24	3.09
Taiwan	1.58	1.89	1.85	1.55	1.74	2.25	2.01	2.15	1.87	1.98	1.98	2.00	2.16
Thailand	8.38	8.11	7.78	7.33	6.56	6.80	5.90	5.86	4.58	4.28	4.10	4.13	4.01
Japan	1.34	1.37	1.43	1.26	1.23	1.28	1.31	1.25	1.14	1.07	1.17	1.23	1.15
China	0.64	1.20	1.42	1.50	1.37	0.96	0.81	0.82	0.92	0.79	0.89	1.03	1.25
Hong Kong	4.00	3.75	3.12	2.67	2.64	2.71	2.56	2.42	2.32	2.25	2.23	2.16	2.53
India	2.43	2.84	2.75	2.67	3.28	2.99	3.11	2.43	2.25	2.15	2.31	2.42	2.57
Rest of Asian-15	2.85	3.09	3.00	2.67	2.65	2.69	2.65	2.48	2.35	2.47	2.45	2.47	2.57
United States	1.09	1.23	1.37	1.41	1.43	1.41	1.38	1.46	1.26	1.14	1.19	1.19	1.13
European Union	0.30	0.29	0.31	0.33	0.33	0.33	0.33	0.37	0.39	0.36	0.35	0.35	0.39
Others	0.71	0.65	0.57	0.58	0.62	0.68	0.67	0.65	0.56	0.54	0.51	0.48	0.42

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	6.27	6.77	6.43	5.72	4.93	4.85	4.93	4.89	4.51	4.29	3.96	3.98	4.18
Rest of SEACEN	3.99	4.03	3.78	3.49	3.25	3.35	3.32	3.34	3.17	3.16	3.00	3.02	3.02
Indonesia	6.56	7.08	6.63	5.72	5.30	4.45	4.72	5.48	4.30	4.61	3.63	3.96	4.61
Korea	0.95	1.31	1.32	1.26	1.40	1.49	1.36	1.42	1.43	1.65	1.72	1.78	1.24
Malaysia	16.54	18.71	17.92	18.42	15.28	15.34	15.29	13.29	12.72	11.49	10.39	9.90	10.38
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.10	N/A
Myanmar	15.31	17.09	16.59	18.50	11.75	8.65	8.77	8.06	5.57	6.18	7.12	6.95	6.02
Nepal	1.01	1.15	0.96	1.03	2.89	1.26	1.01	0.29	0.12	0.12	0.12	0.11	0.10
Philippines	2.92	2.92	2.22	2.25	2.01	2.09	1.62	1.65	1.89	2.34	2.51	2.66	3.22
Sri Lanka	2.32	1.06	1.55	1.49	1.22	0.95	1.20	0.60	0.59	0.72	0.57	0.49	0.41
Taiwan	1.94	1.99	1.98	1.98	1.99	2.10	1.85	1.82	1.70	1.71	1.83	1.79	1.86
Thailand	5.20	6.37	6.21	4.47	3.64	3.95	3.83	4.20	4.05	4.35	4.51	5.04	4.78
Japan	1.73	1.85	2.06	2.20	2.27	2.33	2.33	2.28	2.20	2.30	2.37	2.28	2.27
China	5.66	3.51	2.55	2.14	1.88	1.82	1.61	1.35	1.12	0.97	1.08	1.16	1.27
Hong Kong	1.11	1.30	1.26	1.16	1.14	1.25	1.05	0.94	0.85	0.92	0.94	0.91	0.85
India	1.82	1.35	1.65	1.23	1.13	1.15	1.22	1.47	1.42	1.32	1.20	1.23	1.29
Rest of Asian-15	2.94	2.78	2.78	2.71	2.63	2.72	2.66	2.58	2.45	2.51	2.49	2.50	2.47
United States	1.28	1.35	1.35	1.29	1.38	1.36	1.29	1.36	1.28	1.23	1.28	1.36	1.33
European Union	0.32	0.31	0.31	0.31	0.35	0.31	0.30	0.32	0.31	0.33	0.33	0.36	0.36
Others	0.48	0.53	0.52	0.50	0.49	0.66	0.57	0.49	0.43	0.38	0.43	0.40	0.39

[1/] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 23.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	4.77	3.20	3.24	4.46	3.93	3.91	5.69	2.33	2.94	3.89	3.67	2.86	2.88
Rest of SEACEN	4.94	3.46	3.85	4.93	4.45	4.60	6.64	3.82	4.09	5.45	4.88	3.93	4.37
Indonesia	0.08	0.09	0.01	0.07	0.03	0.16	0.10	0.08	0.10	0.16	0.42	0.15	0.15
Korea	0.08	0.17	0.37	0.21	0.13	0.26	0.55	1.13	0.94	1.21	0.97	0.85	0.95
Malaysia	0.95	0.43	0.07	0.14	0.06	0.16	1.36	0.16	0.10	0.19	0.58	0.66	0.47
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	N/A	N/A	N/A	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.02	0.02
Nepal	0.01	N/A	0.01	0.07	0.19	0.01	N/A	0.04	N/A	N/A	N/A	0.02	0.04
Philippines	0.03	0.02	0.07	0.07	0.01	0.05	0.15	0.08	0.24	0.22	0.26	0.05	0.26
Singapore	3.64	2.41	2.32	2.67	2.34	2.37	3.37	1.33	1.71	2.37	1.92	1.46	1.25
Taiwan	0.08	0.09	0.22	0.21	0.19	0.42	0.40	0.32	0.21	0.34	0.24	0.20	0.49
Thailand	0.08	0.26	0.75	1.51	1.49	1.16	0.70	0.68	0.77	0.97	0.50	0.51	0.73
Japan	5.06	5.59	4.95	5.75	5.78	5.38	5.13	5.23	5.18	5.14	5.25	6.25	5.03
China	1.34	1.46	1.20	1.64	0.26	0.16	0.25	0.08	0.10	0.06	0.08	0.27	0.17
Hong Kong	0.71	0.95	1.35	1.03	1.17	0.90	0.75	0.96	1.12	1.12	1.52	1.54	1.16
India	0.47	1.03	0.45	1.30	0.65	1.06	0.65	0.48	0.70	0.75	0.84	1.05	0.95
Rest of Asian-15	12.53	12.48	11.79	14.65	12.31	12.09	13.44	10.57	11.19	12.52	12.57	13.03	11.67
United States	22.29	25.97	26.54	25.12	25.97	25.86	28.13	34.16	35.22	34.74	35.54	34.07	35.81
European Union	19.37	24.08	22.19	23.34	26.36	26.28	28.38	33.64	31.79	31.87	31.60	30.02	29.54
Others	45.81	37.47	39.48	36.89	35.36	35.77	30.05	21.62	21.79	20.87	20.29	22.87	22.98
Total Export (US$ Mn)	**1265**	**1163**	**1534**	**1461**	**1540**	**1895**	**1987**	**2488**	**2859**	**3210**	**3810**	**4097**	**4652**
Import													
ASEAN-6	7.60	9.43	11.11	10.06	13.27	13.28	13.66	15.58	14.68	14.06	14.35	13.84	13.28
Rest of SEACEN	13.47	18.78	20.24	18.61	23.44	24.13	27.57	22.40	26.87	26.93	27.67	26.53	28.03
Indonesia	0.36	0.84	1.04	1.19	1.29	1.48	1.34	1.90	2.15	1.90	2.03	2.17	2.35
Korea	2.51	3.82	3.83	3.92	4.60	4.86	7.15	6.13	6.54	7.27	7.30	6.96	8.08
Malaysia	1.45	2.28	2.86	2.72	2.87	4.32	4.57	3.74	4.27	4.04	4.47	3.64	2.94
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	0.25	0.15	0.25	0.13	0.19	0.23	N/A	0.09	0.17	0.02	0.02	0.24	0.11
Nepal	0.24	0.77	0.15	n.a	0.01	N/A	N/A	0.69	n.a	0.02	0.02	N/A	0.09
Philippines	0.35	0.07	0.15	0.10	0.14	0.11	0.10	0.09	0.17	0.13	0.19	0.10	0.12
Singapore	4.02	3.92	4.87	4.08	4.50	3.91	4.41	6.94	5.19	5.22	5.24	5.13	5.06
Taiwan	3.12	4.76	5.16	4.62	5.56	5.99	6.76	N/A	5.64	5.58	6.00	5.73	6.58
Thailand	1.17	2.17	1.95	1.84	4.26	3.22	3.23	2.82	2.72	2.74	2.39	2.57	2.71
Japan	15.45	17.43	14.79	13.39	12.51	12.33	11.70	12.15	11.31	11.74	10.47	9.88	8.47
China	3.86	4.76	3.10	4.60	4.94	4.29	3.30	3.54	3.75	3.48	3.38	2.94	3.01
Hong Kong	3.14	4.67	6.31	5.12	5.22	4.55	6.96	7.05	7.79	7.07	7.49	7.04	7.27
India	4.08	4.33	4.06	3.99	3.16	4.48	7.19	8.84	8.56	9.01	9.84	11.18	9.90
Rest of Asian-15	39.99	49.97	48.51	45.71	49.27	49.77	56.71	53.99	58.28	58.23	58.84	57.58	56.69
United States	7.06	6.43	5.74	6.70	6.56	7.85	5.72	4.66	3.27	n.a	3.63	3.94	3.31
European Union	15.50	15.51	17.00	16.79	17.82	15.63	15.75	15.72	16.38	24.23	17.87	17.72	17.10
Others	37.44	28.09	28.75	30.81	26.34	26.75	21.82	25.63	22.07	17.54	19.66	20.76	22.90
Total Import (US$ Mn)	**1832**	**1829**	**2056**	**2279**	**2087**	**2636**	**3061**	**3473**	**4005**	**4482**	**4767**	**5028**	**5654**

[1/] Percentage distribution of Sri Lanka's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Sri Lanka's trade with its respective trading partner/partners by its total exports or imports.

Sources: *Direction of Trade Statistics Yearbook* of IMF, various issues, and Central Bank of Sri Lanka.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	1.41	1.07	1.00	1.20	0.96	0.86	1.14	0.46	0.49	0.62	0.55	0.43	0.45
Rest of SEACEN	0.80	0.59	0.59	0.66	0.57	0.56	0.73	0.42	0.40	0.50	0.43	0.34	0.39
Indonesia	0.15	0.17	0.03	0.14	0.05	0.25	0.14	0.11	0.14	0.21	0.53	0.18	0.20
Korea	0.05	0.11	0.22	0.11	0.06	0.13	0.25	0.54	0.43	0.51	0.37	0.31	0.37
Malaysia	1.46	0.82	0.14	0.23	0.09	0.19	1.34	0.16	0.09	0.14	0.38	0.45	0.34
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	N/A	N/A	N/A	0.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.52	0.50
Nepal	0.51	n.a	0.39	3.55	13.95	0.41	N/A	3.28	N/A	N/A	N/A	2.07	3.87
Philippines	0.11	0.07	0.25	0.22	0.02	0.14	0.43	0.20	0.49	0.42	0.48	0.08	0.37
Singapore	2.62	1.95	1.72	1.69	1.45	1.36	1.85	0.72	0.76	0.99	0.79	0.60	0.53
Taiwan	0.07	0.07	0.16	0.11	0.11	0.27	0.23	0.17	0.10	0.17	0.12	0.10	0.24
Thailand	0.16	0.58	1.39	2.05	1.81	1.21	0.68	0.65	0.63	0.77	0.36	0.38	0.65
Japan	0.73	0.90	0.79	0.85	0.85	0.80	0.79	0.87	0.81	0.81	0.80	0.96	0.83
China	0.60	0.70	0.67	0.82	0.13	0.10	0.14	0.04	0.04	0.02	0.03	0.10	0.07
Hong Kong	0.45	0.55	0.67	0.45	0.50	0.38	0.27	0.30	0.31	0.30	0.41	0.42	0.31
India	0.55	1.41	0.65	1.88	1.03	1.54	1.22	0.81	1.25	1.27	1.25	1.57	1.37
Rest of Asian-15	0.71	0.76	0.69	0.76	0.63	0.62	0.65	0.51	0.47	0.52	0.51	0.52	0.49
United States	1.16	1.38	1.51	1.51	1.62	1.75	2.01	2.41	2.22	2.17	2.37	2.24	2.24
European Union	0.56	0.63	0.57	0.61	0.63	0.59	0.65	0.80	0.86	0.87	0.85	0.83	0.84
Others	1.59	1.41	1.50	1.41	1.55	1.66	1.37	0.96	0.92	0.90	0.89	0.97	0.93

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	2.00	2.87	3.21	2.63	3.27	3.22	2.97	3.22	2.63	2.34	2.33	2.21	2.14
Rest of SEACEN	1.86	2.64	2.59	2.21	2.77	2.98	3.10	2.45	2.64	2.55	2.53	2.41	2.55
Indonesia	0.35	1.12	1.42	1.66	1.73	1.95	1.61	2.10	2.17	2.01	2.27	2.30	2.43
Korea	1.50	2.18	1.91	1.74	2.18	2.53	3.48	3.00	2.96	3.22	2.96	2.84	3.28
Malaysia	1.70	3.24	3.75	3.47	3.40	4.97	4.65	3.44	3.37	2.91	3.07	2.46	2.06
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	15.01	10.54	26.63	24.08	26.41	18.46	N/A	4.73	7.63	1.03	0.90	10.61	4.98
Nepal	32.23	114.10	23.18	n.a	1.55	N/A	N/A	73.56	n.a	2.70	3.28	n.a	12.40
Philippines	1.37	0.27	0.60	0.38	0.54	0.47	0.39	0.33	0.57	0.42	0.55	0.26	0.27
Singapore	3.19	3.46	3.99	2.79	2.98	2.50	2.61	4.10	2.61	2.29	2.25	2.17	2.23
Taiwan	1.84	2.37	2.26	2.05	2.48	3.02	3.11	n.a	2.47	2.55	2.72	2.61	2.98
Thailand	2.97	4.84	3.93	3.09	6.25	4.72	3.96	3.24	2.73	2.57	2.14	2.42	2.56
Japan	1.58	1.64	1.50	1.36	1.35	1.45	1.30	1.34	1.16	1.26	1.20	1.27	1.11
China	2.56	3.01	1.85	2.60	2.76	2.31	1.60	1.55	1.52	1.22	1.15	1.03	0.91
Hong Kong	1.88	2.61	3.06	2.18	2.12	1.87	2.47	2.21	2.14	1.98	2.19	2.06	2.14
India	8.94	9.40	8.84	8.27	5.91	8.50	14.07	17.90	15.71	15.82	16.34	18.28	16.43
Rest of Asian-15	1.94	2.32	2.23	2.00	2.19	2.33	2.44	2.24	2.20	2.18	2.22	2.25	2.19
United States	0.60	0.59	0.53	0.56	0.53	0.67	0.47	0.39	0.26	n.a	0.32	0.33	0.27
European Union	0.44	0.41	0.44	0.43	0.46	0.35	0.37	0.37	0.42	0.62	0.45	0.45	0.45
Others	1.15	0.94	1.01	1.16	0.98	1.17	0.99	1.17	1.00	0.79	0.89	0.89	0.96

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 25.

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Appendix-27: Percentage Distribution of Taiwan's Trade
(The Relative Measure of Trade Intensity) [1]

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	5.98	5.36	5.52	6.79	8.28	10.10	9.68	9.76	10.46	11.50	12.47	12.28	12.22
Rest of SEACEN	6.99	6.48	6.89	8.49	10.19	12.16	11.62	11.42	12.21	13.63	15.03	14.81	14.45
Indonesia	0.91	0.98	0.85	1.04	1.41	1.85	1.58	1.49	1.51	1.54	1.67	1.69	1.75
Korea	0.83	0.88	1.19	1.51	1.71	1.80	1.69	1.41	1.50	1.87	2.30	2.30	1.94
Malaysia	0.63	0.52	0.51	0.74	1.05	1.64	1.92	1.96	1.96	2.39	2.60	2.55	2.49
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	0.00	0.00	0.00	N/A	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.05
Nepal	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Philippines	0.78	0.82	0.86	0.99	1.17	1.21	1.11	1.26	1.21	1.31	1.48	1.67	1.94
Singapore	2.88	2.34	2.52	2.77	2.98	3.28	3.16	3.07	3.40	3.62	3.95	3.94	4.01
Sri Lanka	0.18	0.24	0.18	0.18	0.19	0.24	0.25	0.24	0.25	0.25	0.25	0.23	0.29
Thailand	0.77	0.70	0.79	1.24	1.67	2.12	1.90	1.98	2.37	2.62	2.75	2.41	2.10
Japan	11.26	11.44	13.01	14.46	13.67	12.40	12.06	10.92	10.55	10.98	11.78	11.80	9.58
China	3.21	2.04	2.28	3.70	4.37	4.88	6.13	7.72	8.91	9.15	8.85	8.38	7.96
Hong Kong	5.05	5.29	5.40	5.51	6.25	7.85	10.19	11.20	12.79	13.84	14.87	14.67	16.05
India	0.29	0.27	0.23	0.29	0.32	0.34	0.21	0.21	0.25	0.37	0.47	0.40	0.45
Rest of Asian-15	26.81	25.51	27.82	32.45	34.80	37.64	40.21	41.47	44.72	47.98	50.99	50.06	48.49
United States	48.08	47.70	44.12	38.68	36.25	32.35	29.30	28.93	27.72	26.15	23.65	23.17	24.21
European Union	9.75	11.98	14.70	16.30	16.52	17.15	17.36	16.15	14.18	12.89	13.07	13.63	14.07
Others	15.36	14.81	13.36	12.57	12.43	12.86	13.12	13.45	13.39	12.97	12.29	13.14	13.23
Total Export (US$ Mn)	30726	39862	53679	60567	66304	67214	76178	81470	85092	93049	#####	#####	#####

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	7.16	6.34	6.38	5.83	5.99	7.35	7.84	8.45	8.81	9.91	9.86	10.53	11.27
Rest of SEACEN	8.11	7.73	7.91	7.66	8.37	9.82	10.64	11.66	12.12	13.45	14.06	14.61	15.68
Indonesia	2.06	1.48	1.62	1.23	1.35	1.68	1.96	1.95	2.11	2.48	2.08	1.84	1.91
Korea	0.93	1.36	1.52	1.81	2.37	2.46	2.78	3.20	3.29	3.53	4.18	4.07	4.39
Malaysia	2.40	2.07	2.08	1.90	1.70	1.83	2.24	2.54	2.52	2.73	2.85	3.48	3.70
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	0.08	0.08	0.05	0.03	0.03	0.01	0.03	0.03	0.03	0.04	0.04	0.03	0.03
Nepal	N/A	N/A	N/A	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Philippines	0.52	0.63	0.56	0.49	0.46	0.43	0.37	0.42	0.47	0.54	0.60	0.82	1.20
Singapore	1.37	1.41	1.49	1.49	1.70	2.57	2.30	2.35	2.42	2.83	2.86	2.72	2.75
Sri Lanka	0.03	0.04	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
Thailand	0.73	0.67	0.57	0.69	0.75	0.82	0.93	1.15	1.26	1.30	1.43	1.63	1.68
Japan	27.60	34.14	33.85	29.85	30.67	29.24	30.00	30.23	30.09	29.04	29.23	26.86	25.36
China	0.58	0.60	0.83	0.96	1.12	1.40	1.79	1.55	1.43	1.52	1.52	1.55	1.52
Hong Kong	1.01	0.97	1.33	2.91	3.10	1.24	1.77	1.96	2.13	2.46	3.24	3.11	3.64
India	0.12	0.20	0.29	0.19	0.26	0.39	0.38	0.30	0.41	0.48	0.40	0.46	0.58
Rest of Asian-15	37.43	43.64	44.20	41.56	43.52	42.10	44.59	45.70	46.18	46.94	48.45	46.58	46.79
United States	23.61	22.47	21.86	26.18	22.97	23.05	22.45	21.90	21.70	21.14	20.06	19.51	20.30
European Union	12.21	13.38	15.09	16.12	16.04	14.69	13.39	14.35	14.39	15.11	14.42	16.23	15.65
Others	26.76	20.52	18.85	16.14	17.48	20.16	19.57	18.05	17.73	16.81	17.07	17.68	17.26
Total Import (US$ Mn)	20102	24182	34963	49673	52265	54716	62861	72007	77061	85349	#####	#####	#####

[1] Percentage distribution of Taiwan's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Taiwan's trade with its respective trading partner/partners by its total exports or imports.

Source: Central Bank of Taiwan .

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Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ASEAN-6	1.75	1.76	1.69	1.80	2.00	2.18	1.91	1.90	1.72	1.78	1.83	1.80	1.88
Rest of SEACEN	1.12	1.10	1.05	1.12	1.27	1.46	1.26	1.23	1.16	1.24	1.29	1.26	1.28
Indonesia	1.66	1.87	1.64	2.14	2.60	2.92	2.19	2.09	1.98	2.04	2.08	2.08	2.31
Korea	0.50	0.57	0.69	0.79	0.84	0.89	0.74	0.66	0.66	0.77	0.86	0.81	0.74
Malaysia	0.96	0.97	0.95	1.22	1.40	1.94	1.87	1.88	1.60	1.70	1.69	1.72	1.73
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	0.19	0.07	0.20	n.a	0.07	0.02	0.12	0.08	0.11	0.42	0.45	0.67	0.94
Nepal	0.08	0.08	0.09	0.29	0.48	0.92	0.62	0.65	0.53	0.77	0.74	0.32	0.25
Philippines	2.67	3.12	2.84	3.09	3.18	3.18	3.10	3.10	2.40	2.46	2.65	2.58	2.60
Singapore	2.05	1.87	1.84	1.72	1.81	1.85	1.70	1.63	1.48	1.49	1.60	1.59	1.68
Sri Lanka	1.84	2.64	2.13	2.17	2.70	3.19	2.92	2.63	2.31	2.38	2.61	2.37	2.81
Thailand	1.55	1.56	1.45	1.67	1.99	2.18	1.79	1.86	1.91	2.04	1.96	1.76	1.83
Japan	1.61	1.83	2.06	2.10	1.97	1.81	1.82	1.79	1.62	1.70	1.77	1.79	1.56
China	1.41	0.96	1.26	1.82	2.23	3.11	3.43	3.60	3.20	3.35	3.38	3.19	3.09
Hong Kong	3.18	3.05	2.66	2.35	2.62	3.28	3.63	3.47	3.43	3.62	3.89	3.91	4.24
India	0.34	0.36	0.32	0.41	0.51	0.49	0.38	0.35	0.44	0.62	0.68	0.59	0.64
Rest of Asian-15	1.59	1.64	1.74	1.83	1.91	2.06	2.10	2.13	2.03	2.12	2.18	2.13	2.16
United States	2.49	2.51	2.48	2.29	2.22	2.15	2.06	2.00	1.72	1.61	1.55	1.50	1.48
European Union	0.28	0.31	0.37	0.42	0.39	0.38	0.39	0.37	0.38	0.34	0.34	0.37	0.39
Others	0.53	0.55	0.50	0.47	0.53	0.59	0.59	0.58	0.55	0.55	0.53	0.54	0.52
Import													
ASEAN-6	1.85	1.89	1.80	1.49	1.44	1.75	1.67	1.71	1.54	1.61	1.56	1.65	1.78
Rest of SEACEN	1.10	1.07	0.99	0.89	0.97	1.19	1.17	1.25	1.16	1.25	1.26	1.30	1.40
Indonesia	1.97	1.94	2.18	1.69	1.77	2.18	2.31	2.11	2.08	2.57	2.27	1.91	1.93
Korea	0.55	0.76	0.74	0.79	1.10	1.25	1.32	1.53	1.46	1.53	1.66	1.62	1.74
Malaysia	2.77	2.88	2.67	2.37	1.96	2.07	2.23	2.29	1.94	1.93	1.92	2.30	2.54
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	4.71	5.47	5.25	4.57	4.20	1.13	1.91	1.76	1.31	1.64	1.68	1.32	1.21
Nepal	N/A	N/A	N/A	0.07	0.97	0.08	0.04	0.06	0.10	0.11	0.15	0.13	0.44
Philippines	2.00	2.54	2.23	1.81	1.69	1.75	1.45	1.58	1.51	1.66	1.71	2.07	2.57
Singapore	1.07	1.21	1.20	1.00	1.10	1.62	1.33	1.36	1.19	1.21	1.20	1.13	1.19
Sri Lanka	0.43	0.59	0.19	0.31	0.20	0.28	0.30	0.15	0.13	0.12	0.18	0.13	0.23
Thailand	1.82	1.47	1.13	1.13	1.07	1.17	1.12	1.29	1.24	1.19	1.25	1.51	1.56
Japan	2.78	3.15	3.36	2.96	3.24	3.37	3.26	3.26	3.02	3.05	3.27	3.38	3.26
China	0.38	0.37	0.48	0.53	0.61	0.74	0.85	0.67	0.57	0.52	0.51	0.53	0.45
Hong Kong	0.60	0.53	0.63	1.21	1.23	0.50	0.62	0.60	0.57	0.68	0.93	0.89	1.05
India	0.26	0.42	0.61	0.38	0.47	0.73	0.73	0.60	0.74	0.83	0.65	0.73	0.94
Rest of Asian-15	1.94	2.19	2.21	1.97	2.10	2.12	2.07	2.03	1.86	1.86	1.94	1.94	1.93
United States	1.97	2.01	1.99	2.16	1.83	1.94	1.82	1.80	1.70	1.71	1.71	1.62	1.60
European Union	0.34	0.35	0.38	0.41	0.41	0.33	0.31	0.33	0.36	0.38	0.35	0.41	0.40
Others	0.81	0.67	0.65	0.60	0.64	0.86	0.87	0.81	0.78	0.74	0.75	0.74	0.71

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 27.

Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	14.43	14.30	13.60	11.63	11.49	11.42	11.94	12.88	15.83	18.06	19.57	19.16	19.57
Rest of SEACEN	18.26	19.17	16.96	15.68	15.21	15.10	15.57	16.80	19.49	21.98	24.01	23.83	24.35
Indonesia	0.60	0.65	0.53	0.53	0.80	0.67	0.75	0.87	0.55	0.97	1.44	1.73	2.15
Korea	1.85	2.75	1.31	1.60	1.49	1.71	1.62	1.64	1.25	1.26	1.42	1.82	1.76
Malaysia	4.97	4.29	3.32	2.96	2.92	2.49	2.41	2.59	2.28	2.43	2.75	3.62	4.33
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	0.01	0.00	0.00
Myanmar	0.15	0.17	0.14	0.09	0.12	0.18	0.20	0.25	0.41	0.53	0.62	0.57	0.71
Nepal	0.06	0.07	0.22	0.32	0.17	0.04	0.06	0.07	0.17	0.22	0.23	0.05	0.03
Philippines	0.76	0.33	0.61	0.37	0.51	0.73	0.37	0.48	0.54	0.49	0.74	1.13	1.22
Singapore	7.94	8.87	9.00	7.68	7.13	7.35	8.22	8.69	12.06	13.63	14.03	12.11	11.16
Sri Lanka	0.29	0.46	0.34	0.31	0.48	0.30	0.29	0.30	0.24	0.27	0.38	0.25	0.26
Taiwan	1.63	1.58	1.48	1.82	1.57	1.62	1.66	1.90	2.00	2.17	2.40	2.55	2.73
Japan	13.35	14.19	14.87	15.96	17.04	17.20	18.06	17.51	17.04	17.08	16.79	16.82	15.15
China	3.81	3.11	3.34	2.97	2.69	1.15	1.18	1.19	1.46	2.05	2.91	3.35	3.04
Hong Kong	4.04	3.99	4.19	4.45	3.95	4.50	4.74	4.64	5.30	5.27	5.17	5.82	5.94
India	0.98	0.58	0.39	1.39	0.45	0.27	0.22	0.20	0.20	0.43	0.51	0.44	0.51
Rest of Asian-15	40.44	41.05	39.74	40.46	39.34	38.22	39.77	40.34	43.48	46.80	49.39	50.26	49.00
United States	19.66	18.09	18.58	20.04	21.68	22.67	21.27	22.44	21.61	21.02	17.83	17.97	19.45
European Union	19.07	21.40	22.23	20.77	19.12	21.53	20.69	19.57	16.67	14.89	15.09	16.00	15.92
Others	20.84	19.46	19.45	18.73	19.86	17.58	18.27	17.66	18.24	17.29	17.70	15.77	15.64
Total Export (US$ Mn)	7137	8899	11671	16035	20197	23125	28541	32604	37115	45399	56722	55964	58431

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	15.05	12.56	14.02	11.62	11.70	12.10	12.35	12.58	11.92	12.94	12.53	12.79	12.22
Rest of SEACEN	20.25	18.63	20.30	18.67	19.80	20.50	21.33	22.55	21.27	21.70	20.89	20.88	20.41
Indonesia	0.66	0.68	0.85	0.85	1.06	0.59	0.58	0.72	1.11	0.83	0.95	1.30	1.41
Korea	2.01	2.38	2.39	2.77	2.92	3.13	4.20	4.39	4.23	3.64	3.50	3.71	3.58
Malaysia	5.91	4.20	4.01	2.10	2.56	3.37	3.14	3.92	3.63	4.86	4.57	4.99	4.80
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	0.41	0.36	0.28	0.30	0.33	0.39	0.49	0.35	0.34	0.29	0.31	0.18	0.14
Nepal	N/A	0.00	N/A	N/A	0.00	0.00	N/A	N/A	0.00	N/A	N/A	N/A	N/A
Philippines	0.64	0.77	1.08	0.94	0.37	0.33	0.26	0.30	0.39	0.65	0.82	0.80	0.87
Singapore	7.44	6.56	7.79	7.44	7.37	7.42	7.88	7.30	6.45	6.32	5.88	5.54	5.01
Sri Lanka	0.08	0.07	0.15	0.12	0.14	0.09	0.06	0.05	0.05	0.05	0.03	0.03	0.05
Taiwan	3.10	3.62	3.73	4.15	5.04	5.17	4.72	5.53	5.07	5.07	4.83	4.35	4.55
Japan	26.46	26.41	25.97	27.06	30.49	30.36	29.10	29.26	30.31	30.23	30.55	28.27	25.71
China	2.41	2.87	3.88	3.35	2.93	3.31	3.03	3.00	1.96	2.55	2.96	2.70	3.59
Hong Kong	1.16	1.52	1.45	2.57	1.32	1.25	2.05	1.21	1.16	1.27	1.05	1.18	1.30
India	0.38	0.59	0.73	0.84	1.25	1.63	2.47	0.82	1.13	0.97	0.89	0.89	0.94
Rest of Asian-15	50.66	50.03	52.33	52.49	55.80	57.05	57.98	56.84	55.84	56.72	56.35	53.92	51.96
United States	11.36	14.31	12.46	13.56	11.20	10.78	10.52	11.74	11.68	11.86	12.01	12.49	13.80
European Union	2.08	2.35	2.16	1.80	15.21	16.19	16.38	15.85	16.88	15.12	14.46	15.07	14.08
Others	35.90	33.31	33.05	32.14	17.79	15.99	15.12	15.57	15.60	16.31	17.19	18.52	20.16
Total Import (US$ Mn)	9260	9166	12998	20208	25373	33408	37925	40686	46065	54394	70718	72245	63286

[1] Percentage distribution of Thailand's exports and imports with country/group of countries listed. This measure of trade intensity has been derived by dividing Thailand's trade with its respective trading partner/partners by its total exports or imports.

Sources: *Direction of Trade Statistics Yearbook* of IMF, various issues, and Bank of Thailand.

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Export	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	4.26	4.75	4.19	3.11	2.79	2.48	2.38	2.53	2.63	2.82	2.89	2.82	3.04
Rest of SEACEN	2.93	3.29	2.61	2.08	1.92	1.82	1.70	1.83	1.86	2.01	2.07	2.04	2.17
Indonesia	1.10	1.25	1.03	1.10	1.50	1.06	1.04	1.23	0.72	1.30	1.80	2.14	2.87
Korea	1.12	1.79	0.77	0.85	0.74	0.85	0.71	0.77	0.56	0.53	0.53	0.64	0.68
Malaysia	7.61	8.15	6.30	4.92	3.94	2.96	2.36	2.51	1.87	1.74	1.80	2.45	3.05
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.32	0.53	0.35	0.17
Myanmar	10.26	11.38	12.29	9.85	19.46	9.41	6.85	9.15	12.43	15.28	13.98	12.09	14.77
Nepal	3.57	4.41	11.51	16.71	12.32	3.31	4.04	5.95	12.23	15.27	15.46	4.20	3.05
Philippines	2.61	1.24	2.04	1.18	1.41	1.93	1.03	1.18	1.07	0.93	1.32	1.76	1.73
Singapore	5.70	7.14	6.64	4.82	4.38	4.17	4.47	4.64	5.29	5.66	5.73	4.91	4.71
Sri Lanka	3.02	5.17	4.01	3.77	6.94	3.98	3.42	3.34	2.24	2.54	4.09	2.63	2.53
Taiwan	1.52	1.35	1.02	1.01	0.92	1.03	0.95	1.02	0.97	1.08	1.18	1.33	1.33
Japan	1.92	2.28	2.37	2.34	2.48	2.53	2.75	2.90	2.64	2.66	2.54	2.56	2.49
China	1.69	1.48	1.86	1.48	1.39	0.74	0.66	0.56	0.53	0.76	1.12	1.28	1.19
Hong Kong	2.56	2.32	2.08	1.92	1.67	1.89	1.70	1.45	1.43	1.39	1.36	1.56	1.58
India	1.13	0.80	0.55	2.00	0.70	0.39	0.41	0.33	0.35	0.71	0.76	0.64	0.73
Rest of Asian-15	2.33	2.54	2.37	2.17	2.08	2.04	2.01	2.01	1.91	2.02	2.07	2.10	2.12
United States	1.02	0.96	1.05	1.20	1.34	1.52	1.50	1.56	1.35	1.30	1.17	1.17	1.20
European Union	0.55	0.56	0.57	0.54	0.46	0.48	0.47	0.46	0.45	0.40	0.40	0.44	0.45
Others	0.72	0.73	0.73	0.71	0.86	0.81	0.82	0.77	0.76	0.74	0.76	0.66	0.63

Import	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Rest of ASEAN-6	3.95	3.80	4.03	3.02	2.86	2.91	2.67	2.58	2.12	2.13	2.01	2.02	1.95
Rest of SEACEN	2.78	2.61	2.59	2.21	2.32	2.51	2.38	2.45	2.07	2.03	1.89	1.88	1.84
Indonesia	0.64	0.90	1.17	1.18	1.41	0.78	0.69	0.78	1.11	0.87	1.05	1.36	1.44
Korea	1.20	1.35	1.18	1.22	1.38	1.62	2.03	2.13	1.89	1.59	1.40	1.50	1.44
Malaysia	6.92	5.94	5.23	2.66	3.01	3.85	3.17	3.57	2.84	3.47	3.11	3.33	3.33
Mongolia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	24.26	24.40	30.43	54.40	45.32	31.60	32.48	18.83	14.56	13.16	13.29	7.92	6.31
Nepal	N/A	0.16	N/A	N/A	0.06	0.05	N/A	N/A	0.22	N/A	N/A	N/A	N/A
Philippines	2.51	3.15	4.43	3.55	1.39	1.34	1.01	1.13	1.27	2.02	2.35	2.03	1.89
Singapore	5.89	5.76	6.35	5.06	4.85	4.73	4.62	4.28	3.21	2.74	2.50	2.32	2.19
Sri Lanka	1.09	1.22	2.71	2.26	2.71	1.59	0.97	0.81	0.59	0.60	0.43	0.37	0.56
Taiwan	1.82	1.80	1.63	1.83	2.24	2.59	2.15	2.52	2.19	2.29	2.17	1.96	2.04
Japan	2.70	2.48	2.63	2.73	3.27	3.55	3.21	3.20	3.08	3.22	3.46	3.60	3.34
China	1.59	1.81	2.30	1.88	1.63	1.77	1.46	1.30	0.79	0.89	1.00	0.94	1.07
Hong Kong	0.70	0.85	0.70	1.09	0.53	0.51	0.72	0.38	0.32	0.35	0.30	0.34	0.38
India	0.84	1.28	1.57	1.73	2.33	3.07	4.80	1.65	2.06	1.69	1.46	1.43	1.55
Rest of Asian-15	2.49	2.36	2.44	2.34	2.54	2.73	2.56	2.42	2.16	2.18	2.19	2.17	2.07
United States	0.96	1.30	1.15	1.14	0.91	0.92	0.87	0.98	0.92	0.97	1.03	1.05	1.10
European Union	0.06	0.06	0.06	0.05	0.39	0.36	0.38	0.37	0.43	0.38	0.36	0.38	0.37
Others	1.10	1.11	1.16	1.21	0.66	0.69	0.68	0.71	0.70	0.73	0.77	0.78	0.84

[1] Derived by using equations 5 and 6 given in Chapter 3.

Source: Same as Appendix 29.