

# **The Pattern of Intra-ASEAN Trade in the Priority Goods Sectors**

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## ABSTRACT

This study examined the pattern of intra-ASEAN trade and the degree of integration of the goods sectors considered by the ASEAN Leaders as priority for acceleration in economic integration. This was accomplished by first examining the factors driving economic integration in the region; and then measuring the degree of integration of the sectors and products using the intra-industry trade index. The sectors include agro-based products, fisheries, healthcare products, rubber-based products, wood-based products, textiles and garments, electronics, information and communication technology (ICT), and automotive.

Several forces are driving economic integration in the sectors. These include the international production sharing of multinational companies from developed economies, ASEAN's own initiatives at free trade and investment agreements, and member economies' domestic policies. To a large extent, the domestic policies of the member economies shaped the pattern of intra-ASEAN trade while the sectoral policies determined the model of integration for each sector.

The findings show that only ICT, electronics, automotive and healthcare products succeeded in achieving some degree of economic integration, although not in all products of the sectors. On the other hand, economic integration will not be forthcoming in the other sectors unless there is industrial upgrading in garments and textiles, and further industrial processing in agro-based, fisheries, rubber-based and wood-based products. While integration in most of the products of the priority sectors is still weak, there was an improvement in intra-industry trade between 1997 and 2001, indicating increasing integration. The study identified policy measures and strategies for achieving deepening economic integration in the sectors.



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## EXECUTIVE SUMMARY

The ASEAN has taken a serious step to deepen economic integration when it resolved to move towards an ASEAN Economic Community by 2020. Deepening economic integration implies that markets of member economies are fully integrated as a result of the liberalized flow of goods, services and factors of production, producing unrestricted competition and convergence of prices across national borders. As an initial step towards the goal, the Leaders, during their Summit in 2003, endorsed the acceleration of integration of eight priority goods sectors and three services sectors. The goods sectors include agro-based products, fisheries, healthcare products, rubber-based products, wood-based products, textiles and garments, electronics and information and communication technology (ICT), and automotive. The services sectors include e-ASEAN, healthcare, air travel and tourism.

However, before proceeding to accelerate the integration of the above sectors, there is a need to establish the degree of integration already achieved in the sectors. After all, the ASEAN, since 1992, has been implementing a number of initiatives to achieve economic integration in the region. Information on the degree of existing integration in the sectors will assist the ASEAN in determining how its resources (financial, manpower, time, etc.) be used for accelerating the integration of the priority sectors.

The primary goal of this study is to determine the degree of integration within each priority goods sector. This is accomplished by first examining the factors and forces driving economic integration in the region; and then measuring the degree of integration of the sectors and products using the intra-industry trade index.

### Factors Driving Economic Integration

Three factors drive economic integration in the ASEAN. The first factor is a market-led process through the international production sharing of multinational companies (MNCs), made possible by the unilateral and multilateral reduction of barriers to trade and investment, and the rapid development of transportation, and information and communication technology. Under the production scheme, different stages of production are spread to locations that offer significant advantages in production costs and access to export markets. The labor-intensive segment of the production chain is usually located in developing countries where wages are low. International production sharing is commonly applied more intensively in trade in electronics and semiconductors, automotive, and textiles and garments.

To a large extent, the integration of the ASEAN into the production network was the result of the industrial restructuring of the newly industrializing economies (NIEs), who were themselves the initial hosts of the offshore production of Japanese and American MNCs. When wage rates in the NIEs began to rise in the 1990s, these economies lost their comparative advantage in the labor-intensive segment of the production chain, causing them to move their production offshore to ASEAN, China and other developing countries in South Asia. The outcome of this integration process was the significant improvement of economic performance in East Asia and the intensification of economic linkages among economies in the region.

The domestic policies of the ASEAN play a crucial role in shaping their capacity to take part in the global production chain. In general, the unilateral trade and investment

liberalization policies of the member economies fostered domestic efficiency and produced competitive industries. The integration of the priority sectors, however, is strongly determined by the members' sectoral policies. The domestic policies vary across the priority goods sectors. There is greater openness and liberalization in the electronics and ICT sectors. In particular, the liberal investment policies facilitated immensely the expansion of the global operations of MNCs and the consequent FDI. Because of the liberal environment, the development of production networks across the region is largely market-determined. The result is a regionally integrated sector, as will be discussed later.

In contrast, there is protectionism in the textiles and garments industry, given the relatively high tariffs in the sector. This led to competition among the members and a highly fragmented industry. On the other hand, the production networks in the automotive industry are largely policy-determined, with the ASEAN-5 promoting their respective national car programs. The restrictive tariffs and regulations that supported the program have limited the development of a regionally integrated automobile industry. The other priority sectors (agro-based, fisheries, rubber-based and wood-based) are still relatively highly protected.

The second factor driving economic integration is institution-led, through the free trade and investment agreements and functional cooperation arrangements. Barriers to intra-regional trade were gradually reduced because of the ASEAN Free Trade Area (AFTA). AFTA was just the right policy for attracting the FDI-driven production networks. By reducing the barriers to trade across the region, AFTA created an environment where MNCs are freer to choose their cross-border bases and conduct their economic activities; thus allowing them to exploit factor price differences within the region.

Intra-ASEAN investment is promoted through the ASEAN Investment Area (AIA), where barriers to investment are gradually eliminated and rules and policies on investment are liberalized. On the other hand, intra-regional restrictions on trade in services are also gradually liberalized under the ASEAN Framework Agreement on Services (AFAS). While much still needs to be done in both areas, the AIA and AFAS reinforce the market-led integration process going in the region and strengthen production linkages. The ASEAN also implements a number of regional cooperation programs, particularly in industrial cooperation and harmonization of policies and institutions, to make the region more attractive to FDI.

The third factor driving economic integration is a private sector-led process through sub-regional economic zones (SREZs) in contiguous areas of two or more economies in the region. The aim of SREZs is to enhance the attractiveness of investment in the contiguous areas by combining their competitive advantages, and exploit economic complementarities and economies of scale. The SREZs help strengthen integration in the region.

### **Pattern of Intra-ASEAN Trade and Investment in the Priority Goods Sectors**

**Trade.** The share of the ASEAN in the world export market of the priority sectors ranged from an average of less than 1 percent per year for automotive to 18 percent per year for ICT for the period 1997-2001. Given the role of the ASEAN in the global production network of ICT and electronics, these sectors registered the highest shares in world exports, i.e. 16-18 percent per year. Fisheries and rubber-based products came next, with the ASEAN accounting for about 12-15 percent of total world exports. The rest of the priority sectors accounted for less than 10 percent of world exports.

The ASEAN also accounted for less than 6 percent per annum of the total world imports in the priority sectors over the same period, except for ICT which accounted for a



share of about 15 percent. Again, the role of the region in the global production network of ICT reflects the high share of the region in the world imports of the sector.

A general trend can be observed in the overall export performance of the priority sectors. Except for healthcare products, ICT and automotive, ASEAN's exports of the sectors suffered a decline in 1997, probably because of the crisis. While there was a gradual increase since 1999, exports in 2001 were still below the pre-crisis performance. The region's share in the world market also registered a decline. This implies that the sectors have not recovered yet from the crisis performance, despite the substantial depreciation of the currencies in the region. The declining trend and/or slow recovery from the crisis need to be addressed if an integrated ASEAN region is envisioned to increase its share in the world market.

In terms of the performance of the priority sectors relative to the total intra-ASEAN exports and imports, the priority sectors accounted for a combined share of 44 percent and 46 percent per year of the region's total intra-ASEAN exports and imports, respectively, over the period 1997-2001. The large percentage shares signify the importance that these sectors play in intra-ASEAN trade.

The importance of the priority sectors to the ASEAN is also shown by the shares of the sectors in the individual member's total intra-ASEAN exports. For the ASEAN-5, the total share of the priority sectors in a member's total intra-ASEAN exports ranged from an average of 36 percent per year (Indonesia) to 55 percent per year (Thailand) over the period 1997-2001. ICT accounted for the largest share in total intra-ASEAN exports of these economies. This is due primarily to the role that these economies play in the regional production network of MNCs.

On the other hand, for the CLMV, the total share of the priority sectors in a member's total intra-ASEAN exports ranged from an average of 42 percent (Vietnam) to 76 percent (Laos) over the same period. This was much higher than the shares registered by the ASEAN-5. This shows that the region is a significant market for the exports of the CLMV. In contrast to the ASEAN-5, however, agro-based and wood-based products accounted for the largest share in total intra-ASEAN exports of these economies.

To a large extent, the domestic policies shaped the pattern of intra-ASEAN trade and the model of integration that each sector took. For example, the findings of the study show that intra-ASEAN trade in the electronics and ICT sectors is highly concentrated to a few products, as shown by the large percentage shares of the top three exports and imports of each member economy. The high concentration implies specialization in production. Furthermore, the ASEAN-5 are exporting and importing the same products, and they are exporting to and importing from the same economy or economies. This implies that each economy is specializing on a particular segment of the production chain. This pattern of trade was the result of the liberal policy environment in the sectors. The market-determined environment enabled the MNCs to spread their operations across the region.

On the other hand, the pattern of intra-ASEAN trade in healthcare products differs from the ICT and electronics. The pattern of trade shows that each economy differs in their product niches; and that each economy's export niche differs from its import niche. The pattern shows that each economy serves as the regional production center for a particular healthcare product, which is ultimately distributed and exported to the rest of the region.

A different pattern of trade also characterized the automotive industry. Production strategies of MNCs in the region are largely dictated by their headquarters located in developed economies. Production is basically for the regional market. And because the individual markets of member economies are small, the pattern of trade shows that

production of specific automotive parts and products is centralized in a particular economy to achieve economies of scale; but are geared for distribution and exports to the rest of the region.

For the textiles and garments sector, there was no product specialization as each economy produces a wide range of products, as shown by small percentage share of the top three (or five) export and import products of each economy. The same pattern holds true for agro-based products and fisheries.

For rubber-based products, the intra-ASEAN trade pattern shows that the less developed members (Indonesia, Myanmar, Philippines, Thailand and Vietnam) exported natural rubber to the more developed member (Malaysia and Singapore), who in turn supplies them with rubber-based products. On the other hand, the intra-ASEAN pattern of trade for wood-based products divides the members into two groups. One group, composed of Laos Myanmar and Malaysia, exported products of lower value added; while another group, composed of Indonesia, Philippines, Singapore and Thailand, export products of higher value added.

**Investment.** The priority sectors together accounted for a combined share of 45 percent per year of the total FDI in the region over the period 1995-2001. The share of the sectors to total FDI in the region shows an increasing trend from 26 percent in 1995 to 61 percent in 2001. Even during the crisis period in 1997-1999, despite the dramatic drop in FDI by more than 50 percent, the sectors managed to increase their combined share from 37 percent in 1997 to 49 percent in 1999. This implies a growing attractiveness of the sector to FDI.

Among the sectors, electronics and ICT were the largest recipient of FDI for most of the ASEAN-5. The FDI inflows are consistent with the increasing extent to which MNCs in these sectors have located parts of their operations in these economies. On the other hand, automotive received the least FDI and this is true for every member economy. The small FDI could be attributed to the protection accorded the industry through the members' national car program and the restrictive tariffs and regulations that supported it.

On average, there was strong dependence on FDI from outside of the region, as shown by the small share of intra-ASEAN FDI to the total FDI in the sectors. The shares ranged from an average of 6 to 26 percent per year during the period 1995-2001. However, the CLMV were strongly dependent on the region for their source of FDI, particularly in agro-based, rubber-based and wood-based products.

### **Intra-Industry Trade and Integration in the Priority Goods Sector**

The above pattern of intra-ASEAN trade is also supported by the degree of integration in each sector as measured by the intra-industry trade index (IIT). The index is used to measure intra-industry trade, defined as the export and import of products belonging to the same industry. However, the index is also used as a measure of deepening integration since they reflect an increase in the division of labor. The sectors and products are classified according to their degree of integration based on the values of the IIT index.

The findings of the study show that the overall level of intra-industry trade and integration at the sectoral level was relatively high only for a few sectors, and only for some specific member economies. Singapore is the most integrated in the region. The economy had the most number of products that registered strong and moderately strong intra-industry trade. Among the sectors, intra-industry trade and integration was relatively strong in the ICT and electronics sectors for most of the ASEAN-5 members. Integration is moderately strong

in healthcare products in Malaysia, fisheries in the Philippines, rubber-based products in Singapore, and automotive in Malaysia and Indonesia.

For the CLMV, either no trade or integration exists in Brunei and Laos; and weak but improving integration in Vietnam and Myanmar.

For the other sectors, particularly agro-based, fisheries, wood-based and rubber-based, integration was at most mild for the ASEAN-5, and weak or no integration for the CLMV. In other words, trade in these sectors is basically inter-industry rather than intra-industry trade. But this is not surprising considering the nature of their production. These sectors are basically agricultural and consist of relatively simple transformation of raw materials with which the member economies are endowed; and that such transformations are not suited to division across the economies in the region.

Nonetheless, while intra-industry trade for most of the priority sectors is still below the moderately strong classification, the findings show a large increase in intra-industry trade between 1997 and 2001. The increase indicates increasing and deepening integration.

At the product level, the findings on intra-industry trade are mixed. Apart from the products of ICT and electronics, products belonging to the other priority sectors, particularly healthcare and automotive, also registered strong intra-industry trade and integration. Nonetheless, integration in most of the products of the priority sectors is still weak.

### **Policy Measures to Achieve Economic Integration**

The above findings pose a big challenge to the ASEAN on how to achieve economic integration in all the priority sectors. Given the significant role of FDI and production sharing of MNCs in the integration of the region, the key strategy is for the ASEAN-5 to remain competitive in the international production chain and for Brunei and the CLMV to be integrated in the same. This calls for policies that go beyond trade and investment liberalization. The key is to enhance the locational advantages of the region by lowering the costs of cross-border transactions in order to make the entire set of ASEAN membership more attractive as investment destination and export markets. Among others, this requires industrial upgrading, acceleration of trade and investment liberalization in the priority sectors, elimination of non-tariff barriers, trade and investment facilitation, enhancement of the mobility of labor across national borders, improvement of infrastructure and logistics, and adoption of a common framework for bilateralism and regionalism by the member economies.

The ASEAN should give priority to strengthening its efforts at deepening integration in ICT, electronics, automotive and healthcare products as these were the sectors that show great potential for economic integration.

Industrial upgrading is most critical to ICT, electronics, and garments and textiles, as the region is losing its comparative advantage in the labor-intensive segment of the global production chain. The ASEAN-5 needs to upgrade to the high-value and skill-intensive segment of the production chain in order to increase its competitiveness vis-à-vis China and to give Brunei and the CLMV the room to be integrated in the labor-intensive segment of the value chain. This requires the development of local supplier industries that can provide the intermediate inputs. As the local suppliers in the region are few and still immature, a package of technical assistance and specialized training to develop the skills of local suppliers must be implemented.

For the automotive sector, a more openly competitive trade and investment environment is crucial to achieving an economically integrated automobile industry. This will require the removal of the policy on local content requirement and the full implementation of CEPT on the sector by all members.

For healthcare products, since each member economy is aiming to be a regional production and distribution center for a particular healthcare product, harmonization of standards and regulations is crucial for the smooth flow of healthcare products across the region. MRAs for healthcare products should be developed.

Finally, for agro-based, fisheries, rubber-based and wood-based products, integration can be achieved if the value-added of these sectors will be increased through further industrial processing. Each economy can specialize in the production of a particular manufacturing product for exports to the rest of the region. Specialization will be driven by each economy's comparative advantage in these sectors.

## Chapter 1

### Introduction

#### 1.1 Background and Rationale

After reaching its original target of a free trade area in 2002, the ASEAN is again embarking on yet another ambitious goal – an ASEAN Economic Community (AEC) by 2020. The AEC is one of the three pillars of an ASEAN Community embodied in the Declaration of ASEAN Concord II (or the Bali Concord II) adopted during the ASEAN Leaders Summit in October 2003<sup>1</sup>. The ASEAN Leaders emphasized that the AEC would be the realization of the end goal for the ASEAN Vision 2020<sup>2</sup>.

Moving towards an Economic Community would mean deeper regional economic integration. This would imply that the member economies and their markets are fully integrated across national borders as a result of the liberalized flow of goods, services and factors of production. In short, there is free market access and unrestricted competition, resulting in convergence of prices across the member economies.

The ASEAN has already made substantial progress in its earlier efforts at integration by removing barriers to trade and investment through the implementation of the ASEAN Free Trade Area (AFTA), ASEAN Investment Area (AIA) and the ASEAN Framework Agreement of Services (AFAS). All these are important building blocks to the formation of the AEC.

At the 2003 ASEAN Summit, the Leaders endorsed the recommendations of the High Level Task Force on ASEAN Economic Integration to accelerate the integration of eight goods sectors and three services sectors. The goods sectors include agro-based products, fisheries, healthcare products, rubber-based products, wood-based products, textiles and garments, electronics, information and communication technology (ICT), and automotive. The services sectors include e-ASEAN, healthcare, air travel and tourism.

Nonetheless, before one can proceed with the acceleration of the integration of these sectors, there is a need to establish the degree of integration already achieved in the sectors for the following reasons:

- Accelerating integration would involve a lot of resources (financial, manpower, time, etc.) of the ASEAN. The knowledge of the degree of existing integration in the sectors will enable the ASEAN to focus its resources to the sectors that are still not integrated.
- For sectors that are still in a lower level of integration, measures to facilitate integration could be properly identified.
- For sectors that are already highly integrated, measures on how to sustain integration could also be properly identified.

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<sup>1</sup>The other two pillars of ASEAN Community are ASEAN Security Community and ASEAN Socio-cultural Community. The concept of an ASEAN Community was first conceived during the ASEAN Summit on 4 November 2002 in Phnom Penh, Cambodia.

<sup>2</sup>The vision is one of “ASEAN as a concert of Southeast Asian nations, outward-looking, living in peace, stability and prosperity, bonded together in partnership in dynamic development and in a community of caring societies”.

## 1.2 Objectives of the Project

*General:* To determine the degree of integration within each priority goods sector and derive the Intra-Industry Trade (IIT) indexes.

*Specific:*

- To analyze the factors and forces driving integration in the ASEAN region, particularly in the priority goods sectors;
- To identify the sectors and products which are already integrated and those which are still not;
- To analyze country and industry differences in the degree of integration;
- To identify and measure other indicators of intra-regional trade, in addition to the IIT index; and
- To recommend sector-specific regional measures to facilitate integration.

## 1.3 Organization of the Paper

The paper is organized as follows: Chapter 2 discusses the theoretical framework, highlighting the factors that determine intra-industry trade. Chapter 3 analyzes the factors and process driving economic integration in the ASEAN. Chapter 4 gives an overview of the pattern of trade and investment in the priority goods sectors. Chapter 5 discusses the methodology used in measuring intra-industry trade index. Chapter 6 presents the findings on intra-industry trade and the degree of integration occurring in the priority goods sectors. Chapter 7 discusses the challenge of achieving deeper economic integration and the policy measures that would facilitate economic integration of the priority sectors. Chapter 8 presents the summary and conclusions.

## Chapter 2

### Theoretical Framework:

#### Intra-Industry Trade and Product Specialization

##### 2.1 Inter-industry versus Intra-industry Trade

Prior to the 1980s, much of the analysis of international trade was dominated by the traditional theory of comparative advantage. The concept of comparative advantage says that countries engage in trade to take advantage of their differences in technology (Ricardian model) or factor endowments (Heckscher-Ohlin model) and specializes in the production of the goods that they produce relatively well (Krugman 1987). Under the Ricardian and Heckscher-Ohlin models, economies are assumed to be characterized by constant returns to scale and perfect competition. The Ricardian model says that a country has a comparative advantage in producing a good when the opportunity cost of producing that good in terms of other goods is lower in that country than it is in other countries. On the other hand, the Heckscher-Ohlin model says that a country has a comparative advantage in the good that is relatively intensive in the country's relatively abundant factor (Krugman and Obstfeld 2000). Each country will then specialize in the products where they have comparative advantage and exchange these products for those in which other countries enjoy comparative advantage. If a country has a comparative advantage in a product, most likely, it also has a comparative advantage in all the products belonging to that same industry (Grimwade 2000). Thus, this kind of specialization gives rise to trade in products belonging to different industries, or what is commonly referred to as *inter-industry trade*.

Since the 1980s, however, much of the trade that occurred among developed countries is on products that belong to the same industry. The same thing was observed in the 1990s among the fast growing developing economies, like the newly industrializing economies of East Asia (NIEs) and some of the ASEAN economies. The trade that is happening is between countries that are specializing in particular products in a given industry and exchanging these products for other products belonging to the same industry. In other words, countries are exporting and importing products under the same industry, giving rise to what is known as *intra-industry trade*.

Intra-industry trade is the primary element of the new trade theory. Trade of this kind is driven, not only by differences in technology and factor endowments, but also by economies of scale or increasing returns (Krugman 1987; Krugman and Obstfeld 2000). When there are economies of scale, output increases by a greater proportion than the increase in inputs. Firms thus become more efficient, i.e. average cost falls. Gains from trade will then occur when each country will specialize in the production of a limited range of products so as to allow firms achieve economies of scale, and then trade with each other to be able to consume the full range of goods. Gains from trade come through lower prices, because of the lower average cost, and through a greater variety of a particular good. This kind of trade is often characterized by the geographical concentration of production of each good.

Intra-industry trade, however, violates the basic assumption of perfect competition of the traditional trade theory. When there are economies of scale, large firms have advantage over small firms and hence, tend to dominate the market. This gives rise to an imperfectly competitive market characterized by monopoly (only one firm) or duopoly (few firms)(Krugman and Obstfeld 2000).

Intra-industry trade is usually high among developed countries in their sophisticated manufactured products. These countries have increasingly become similar in their level of technology and availability of factor endowments. Thus, there is no clear comparative advantage in inter-industry specialization.

## **2.2 What Causes Intra-industry Trade?**

There are several reasons advanced in the literature why countries engage in intra-industry trade rather than inter-industry trade. Intra-industry trade may occur in products produced by weight-gaining industries where the two countries share a common border. These are industries in which the weight of the product increases with the degree of processing; hence, production is located near the market to minimize transportation cost. Two firms located near each country's border will therefore be exporting in each country, giving rise to intra-industry trade.

Another source of intra-industry trade is seasonal products due to differences in season between countries. A country producing particular goods during particular times of the year will be exporting these goods in one country but importing these same goods from the same country during another time of the year when they are out of season. Also, some products could only be produced simultaneously, like petrochemical products. Production in one product could exceed domestic demand while production in another product could be lower than demand. Thus, when the excess production is exported and the shortage in supply is met by imports, intra-industry trade occurs.

Another source of intra-industry trade is the practice of multinational companies (MNCs) to locate the labor-intensive segment of their sophisticated production processes in developing countries to take advantage of lower labor costs. This is the kind of trade that characterized trade in the electronics/semiconductor industry and garments and textiles. Parts and components are exported from the home countries (which are developed countries) of MNCs to developing countries for assembly. The final product is then re-exported back to the home countries for sale in the domestic market. Since the parts and components, and the final product belong to the same industry category, the outcome is intra-industry trade. It should be emphasized, however, that this kind of intra-industry trade closely resembles the Heckscher-Ohlin model, given that the trading partners are taking advantage of their differences in factor endowments. Because of this, the intra-industry trade occurring in developing economies is sometimes referred to as "pseudo-intraindustry" trade (Krugman and Obstfeld 2000) or special type of intra-industry trade (Grimwade 2000).

Finally, entrepot trade is also another source of intra-industry trade. Under this kind of trade, a country imports a product, not for consumption in the domestic market, but for re-export. The importing country provides specific services, like packaging and labeling before re-exporting the products to their final destination. Hong Kong and Singapore are two countries that specialize in this kind of trade.

## **2.3 Determinants of Intra-industry Trade**

Grimwade (2000) gave an excellent summary of the various empirical works on the factors affecting differences in the levels of intra-industry trade among countries and among industries.



**Country differences in intra-industry trade.** One set of factors explaining differences in the levels of intra-industry among countries are the level of a country's per capita income, degree of per capita income between countries, stage of economic development, and differences in the level of economic development. The higher is the level of per capita income, the higher is the demand for variety of the same good. This encourages the production of differentiated products and hence, intra-industry trade. Likewise, the more equal is the level of per capita income between two countries, the greater is the amount of trade between them. But since the level of per capita income influences the pattern of demand, countries with same level of per capita income will most likely have the same pattern of demand, giving rise to intra-industry trade. Furthermore, intra-industry trade is higher in manufactured products because production allows economies of scale. It then follows that intra-industry trade is higher in countries at higher levels of development (developed countries) than those that are not (developing economies). Similarly, countries at different levels of development will engage in inter-rather than intra- industry trade because of their differences in factor endowments. Thus, intra-industry trade is lower between developing and developed countries than between developed countries. However, studies have also shown that intra-industry trade is high between the newly industrializing economies and the developed countries. This implies that as developing countries grow, more of their trade with developed economies takes the form of intra-industry trade.

Another set of factors explaining differences in intra-industry trade between countries is the degree of economic integration and geographical proximity. Studies have shown that countries that are economically integrated, because they have lowered their barriers to trade with each other relative to their trade with other countries, have relatively higher levels of intra-industry trade. This was shown for the case of the OECD, Latin America Free Trade Area (LAFTA, and the ASEAN (Grubel and Lloyd (1975) for OECD; Balassa (1979) for LAFTA, and Ezran and Laird (1984) for ASEAN, all as cited in Grimwade (2000)).

**Industry differences in intra-industry trade.** As stated above, intra-industry trade is relatively higher in manufactured products than in agricultural products. Nonetheless, differences occur in intra-industry trade within manufacturing. One factor that explains the differences is the level of product differentiation – the greater is the degree of product differentiation, the greater is intra-industry trade.

Foreign direct investment (FDI) per se has been found to have ambiguous effect on intra-industry trade. This is because FDI can either be a substitute or a complement to trade. FDI is a substitute for trade when a company's subsidiary in a foreign country sells its products in the domestic market. This is the case when the establishment of the subsidiary is meant to avoid high tariff rates, as when the host country follows import substitution regime. Thus, FDI displaces exports. High levels of such investment are associated with low levels of intra-industry trade. On the other hand, FDI is a complement to trade when the parent company (MNC) exports parts and components or semi-finished products to the subsidiary for further processing before exporting back the finished product. Studies have shown strong positive relationship between this type of FDI and the level of intra-industry trade (Greenway, Hine and Milner (1995) as cited in Grimwade 2000).

Studies also failed to show that intra-industry trade is higher in industries with lower trade barriers, like tariff rates. This is because lower tariffs increase both inter- as well as intra-industry trade. However, the differences in tariff rates within an industry as between countries enhance the level of intra-industry trade. In particular, lower tariffs on finished products that use parts and components or semi-finished goods supplied by the importing country increases intra-industry trade.

## **2.4 Intra-industry Trade and Income Distribution**

The effect of intra-industry trade on income distribution is one area that has also drawn the interests of economists as well as policymakers. When trade expansion leads to intra-industry trade, resources do not move between industries. In contrast, in inter-industry trade, resources shift from the relatively inefficient to the relatively more efficient industries; and since resources cannot move immediately or costlessly from one industry to another, the benefits of trade are not distributed. Thus, the adjustment to increased trade is easier in intra- as opposed to inter-industry trade, leading to less resistance to freer trade. This is one reason why countries that engage in intra-industry trade are more prepared to lower their trade barriers to each other than those that engage in inter-industry trade. Generally, there is strong opposition to freer trade between developed and developing countries because the trade that occurs between them is more of inter- rather than intra-industry trade.

## Chapter 3

### Economic Integration in the ASEAN

#### 3.1 Process of Integration in the ASEAN

Three processes drive economic integration in the region: (i) market-led process, reflecting spontaneous trade and investment flows through international production sharing; (ii) institution-led process, driven by free trade agreements and functional cooperation arrangements; and (iii) private sector-led process through sub-regional economic zones in geographically contiguous areas of two or more economies in the region. Each of these processes is discussed below.

##### **(i) Market-led Process**

The growing interdependence and integration in the region is the outcome of a market-led process and without any formal economic and institutional arrangements. To a large extent, this kind of integration is the product of intra-regional trade and investment linkages between Northeast Asia and Southeast Asia but expanding to North America. This process of increased economic integration in the region has been called “flying geese”, made possible by the unilateral and multilateral reduction of barriers to trade and investment, and the rapid development of transportation, and information and communication technology.

The “flying geese” is best explained by the international production sharing of multinational companies of developed economies (Japan and the US). Under this production scheme, the labor-intensive segments of technologically complex production processes are separated from the capital- and skill-intensive segments and are located in different developing countries, linked through international subcontracting or outsourcing arrangements. Under the scheme, parts and components manufactured in developed economies are exported to developing economies for assembly and the finished product is then re-exported back to the developed economies for sale to domestic consumers. Such arrangements allow MNCs to exploit the comparative advantage specific to the production of a particular component, and the differences in labor costs across developing countries (Austria 2002).

Since the 1970s, international production has undergone several migration (Gereffi 1999). In the 1970s and 1980s, the rise in wage cost, shortage of labor and the appreciation of the Japanese yen following the Plaza Accord in 1985 forced Japanese multinational companies to undergo industrial restructuring and upgrading by establishing their affiliates in the Newly Industrializing Economies (NIEs – Hong Kong, Taiwan, South Korea and Singapore) whose wages were then relatively cheap. Soon, multinational companies from the US and Europe followed as part of their global strategy to remain competitive. However, in the 1990s, the NIEs experienced similar rising wage rates and production costs, causing them also to move their production offshore - this time to the ASEAN, China and a number of other developing countries in South Asia (Intal and Austria 2000). The outcome of this integration process was the significant improvement of economic performance in East Asia and the intensification of economic linkages among the economies in the region.

***Models of international production sharing.*** International production sharing is commonly applied more intensively in trade in electronics and semiconductors, automotive, and the textiles and garments industries. However, these industries followed contrasting

models of development. Electronics and semiconductors, and the automotive industries are classic examples of producer-driven commodity chain while textiles and garments are classic examples of buyer-driven commodity chain (Gereffi 1999 & 2001).

Producer-driven commodity chain is characterized by capital- and technology-intensive industries, where multinational companies (i.e. global oligopolies) play the central roles in coordinating production networks, including their backward and forward linkages (Gereffi 1999 & 2001). Production system is FDI-driven and multi-layered involving thousands of firms, from the parent companies, subsidiaries and sub-contractors; and each layer in the system involves a specific production process (product design, assembly, etc.), located in a particular country. The result is vertical integration and trade in vertically differentiated products. For example, in the automotive industry, wiring harness is done in Malaysia, transmission in the Philippines and electronic componentry in Singapore (Flynn, Alkire and Senter 1999).

Buyer-driven commodity chain, on the other hand, is characterized by globally dispersed production networks, predominantly locally owned, and typically located in developing economies. However, large retailers, branded marketers and branded manufacturers from developed economies act as strategic brokers in linking overseas factories to product niches in the consumer markets in developed economies (Gereffi 1999 & 2001). Production system is also multi-tiered but often involved outsourcing where contractors from developing economies make finished goods to the specification of foreign buyers. This production system is typical of the garments and textiles industry where marketers link retailers to manufacturers. The result is horizontal integration and trade in differentiated product.

The roles of the NIEs and the ASEAN in the complex production system of producer-driven or commodity-driven production chains are driven by the differences in their factor endowments. At the initial stage, the NIEs were involved in the assembly process of parts and components, involving cheap labor. Over time, they were involved in original equipment manufacturing (OEM), where they produced a product according to the design and specification of their buyers but the product is sold under the buyer's brand name. This activity generated substantial backward linkages in the domestic economy as contractors are expected to develop their sources of inputs. As these economies learned about the upstream and downstream segments of the production chain, they are now pushing for original brand manufacturing (OBM), producing and exporting their own brands and product. The trade shift and industrial upgrading to higher value-added products was a deliberate policy response to remain competitive and stay in the global value chain. South Korea, for example, is known for its automobiles (Hyundai) and consumer electronics (Samsung and Goldstar). Hong Kong is well known for its garments (Giordano) while Taiwan is well known for its computers (Acer).

The production shifts in the NIEs from assembly to OEM and OBM, opened the opportunity for the ASEAN to be integrated in the production network, depending on their comparative advantages. Malaysia, Thailand and Indonesia are considered to have the broadest and most mature assembly capacity for components (Ng and Yeats 2001). Thailand is considered to be the most promising regional production base for the automobile industry (Flynn, Alkire and Senter 1999). The country is poised to become the automotive hub of ASEAN, both in terms of commercial and passenger vehicles as well as parts manufacturing (Tham 2003). On the other hand, the Philippines is considered to be promising in the semiconductor industry.

In general, the international production network is considered to be a crucial factor in the rapid expansion of trade in such products as computers and office equipment, telecommunications, video and audio equipment, semiconductors, and clothing; and the

rising market shares of developing economies, including the ASEAN, for such products (UNCTAD 2002).

Studies have also shown the high intra-industry trade and increasing integration among Northeast Asia, Southeast Asia (and China), and North America. The study by Bora (1996) for the APEC economies shows that “the intra-industry trade values for member economies have increased between 1980 and 1993, suggesting a more integrated region”. The study by Austria (2002) also shows an increasing intra-industry trade in manufactures between the Philippines and the APEC member economies. In particular intra-industry trade is high in semiconductors and electrical machineries between the Philippines and the ASEAN economies, Taiwan, South Korea, Japan and the United States. The increasing integration is attributed to the declining barriers to trade and investment. In a more recent study, Austria (2003) also concluded an increasing intra-industry trade in manufactures between pairs of the ASEAN economies between 1990 and 1999, signifying an increasing integration.

**Role of domestic policies.** The domestic policies of the ASEAN play a crucial role in shaping their capacity to take part in the global production chain. In general, the ASEAN gradually adopted an openness policy. Since the 1980s, the ASEAN-5 undertook extensive domestic policy reforms by way of trade liberalization. In the 1990s, reforms in investment policies were also undertaken.

In general, the outward looking orientation of the economies was an important ingredient in their success in the production network. To be able to participate in regional economic integration and face regional competition, an economy must have domestic industries that are efficient and competitive. And this is where the unilateral policy reforms of the ASEAN members made a crucial role. That is, by fostering domestic efficiency where resources are allocated according a country’s comparative advantage, the unilateral liberalization policies prepared the members for regional as well as global competition.

The integration of the priority sectors, however, is strongly determined by the members’ sectoral policies. The domestic policies vary across the priority goods sectors. There is relatively greater openness and liberalization in the electronics and ICT sectors. In particular, the liberal investment policies facilitated immensely the expansion of the operations of MNCs in the region and the consequent FDI. Because of the liberal environment, the development of production networks across the region is largely market-determined. The result is a regionally integrated sector, as will be supported later by the findings in Chapter 6.

In contrast, there is protectionism in the textiles and garments industry, given the relatively high tariffs in the sector. This led to competition among the members and a highly fragmented industry.

On the other hand, the production networks in the automotive industry are largely policy-determined, with the ASEAN-5 promoting their respective national car programs. The restrictive tariffs and regulations that supported the program have limited the development of a regionally integrated automobile industry. Malaysia, for example, has deferred the full implementation of the automobile CEPT rate from 2003 to 2005 and hence, there are still 218 tariff lines of the sector that are still not included in the inclusion list (Tham 2003). Indonesia has already brought the CEPT rate to 0-5 percent. On the other hand, the position of the Philippines and Thailand are mixed although they have committed their CEPT rates to 0-5 percent (Tham 2003).

The other priority sectors (agro-based, fisheries, rubber-based and wood-based) are still relatively highly protected.

As discussed earlier, the rapid development in transportation and communication and information technology was a crucial factor in the development of production networks. Except for Singapore, the state of infrastructure and logistics (seaport and airport facilities, shipping civil aviation services, telecommunications, power, energy, etc) for most of the ASEAN members is still below world-class standards; and hence, a major constraint to an integrated region.

### (ii) Institution-led Process

Another process of economic integration in the ASEAN is institution-led, driven by formal institutional arrangements of free trade and investment agreements.

**ASEAN Free Trade (AFTA).** The primary goal of AFTA is to increase ASEAN's competitive edge as the production base for the world market by lowering intra-regional tariffs, through the Common Effective Preferential Tariff (CEPT) scheme, to 0-5 percent within a 15-year period beginning 1993. Within 10 years, AFTA has succeeded in lowering the average tariff rates from 11.44 percent in 1993 to 2.39 percent in 2003 for the original AFTA signatories, i.e. ASEAN-6 (Table 3.1). The average is a little higher (3.33 percent in 2003) if the new members are included.

**Table 3.1 Average CEPT Rates, By Country, 1993-2003 (Percent)**

Country	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Brunei D.	3.78	2.64	2.54	2.02	1.61	1.37	1.55	1.26	1.17	0.96	1.04
Indonesia	17.27	17.27	15.22	10.39	8.53	7.06	5.36	4.76	4.27	3.69	2.17
Malaysia	10.79	10.00	9.21	4.56	4.12	3.46	3.20	3.32	2.71	2.62	1.95
Philippines	12.45	11.37	10.65	9.55	9.22	7.72	7.34	5.18	4.48	4.13	3.82
Singapore	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thailand	19.85	19.84	18.16	14.21	12.91	10.24	9.58	6.12	5.67	4.97	4.63
<b>ASEAN-6</b>	<b>11.44</b>	<b>10.97</b>	<b>10.00</b>	<b>7.15</b>	<b>6.38</b>	<b>5.22</b>	<b>4.79</b>	<b>3.64</b>	<b>3.22</b>	<b>2.89</b>	<b>2.39</b>
Cambodia								10.39	10.39	8.89	7.94
Lao PDR						5.00	7.54	7.07	7.08	6.72	5.86
Myanmar						2.39	4.45	4.43	4.57	4.72	4.61
Vietnam				0.92	4.59	3.95	7.11	7.25	6.75	6.92	6.43
<b>CLMV</b>				<b>0.92</b>	<b>4.59</b>	<b>2.98</b>	<b>6.31</b>	<b>7.51</b>	<b>7.17</b>	<b>6.77</b>	<b>6.22</b>
<b>ASEAN-10</b>				<b>7.03</b>	<b>6.32</b>	<b>4.91</b>	<b>5.01</b>	<b>4.43</b>	<b>4.11</b>	<b>3.84</b>	<b>3.33</b>

Source: ASEAN Secretariat.

In 1999, AFTA's original goal of 0-5 percent has been deepened by targeting a zero-ending tariff rates on all products by 2010 for the original members, five years earlier than the original schedule of 2015; and by 2015 for the new members, three years ahead of the original date of 2018. Further acceleration of the schedule was made in 2002. The Leaders, through the ASEAN Integration System of Preferences, agreed to grant Cambodia, Laos, Myanmar and Vietnam (CLMV) tariff-free access to the markets of the more developed ASEAN members by 2003, seven years ahead of the original schedule of 2010.

As of 2002, about 98.4 percent of the tariff lines of the ASEAN-6 have been included into the CEPT scheme, or 10 percentage points more than the number of tariff lines included in 1993 (Table 3.2). In terms of tariff structure, about 96.46 percent of the tariff lines of the ASEAN-6 are already under the 0-5 percent tariff rate as of 2002 (Table 3.3). The new members, however, still have a lot of work to do as more than 44 percent of their tariff lines still have rates higher than 5 percent.

**Table 3.2 Percentage Distribution of Tariff Lines, 1993 & 2003 CEPT Package (Percent)**

Country	Inclusion List	Temporary Exclusion List	General Exception List	Sensitive List	Total
<b>1993</b>					
Brunei Darussalam	92.9	3.2	3.1	0.9	100.0
Indonesia	78.4	17.6	0.5	3.5	100.0
Malaysia	87.4	6.2	1.0	5.4	100.0
Philippines	79.6	12.8	0.5	7.1	100.0
Singapore	97.9		2.1		100.0
Thailand	94.0	1.3	0.3	4.5	100.0
<b>ASEAN-6</b>	<b>88.1</b>	<b>7.1</b>	<b>1.1</b>	<b>3.7</b>	<b>100.0</b>
<b>2002</b>					
Brunei Darussalam	96.7	0.0	3.1	0.2	100.0
Indonesia	98.9	0.0	0.9	0.2	100.0
Malaysia	96.6	2.1	0.5	0.8	100.0
Philippines	98.6	0.0	0.3	1.2	100.0
Singapore	100.0	0.0	0.0	0.0	100.0
Thailand	99.9	0.0	0.0	0.1	100.0
<b>ASEAN-6</b>	<b>98.4</b>	<b>0.5</b>	<b>0.8</b>	<b>0.4</b>	<b>100.0</b>
Cambodia	45.7	51.6	2.0	0.7	100.0
Lao PDR	59.1	36.4	2.1	2.5	100.0
Myanmar	65.4	33.3	0.9	0.4	100.0
Vietnam	86.1	10.9	2.2	0.8	100.0
<b>New members</b>	<b>64.3</b>	<b>33.0</b>	<b>1.8</b>	<b>0.9</b>	<b>100.0</b>
<b>ASEAN-10</b>	<b>87.1</b>	<b>11.2</b>	<b>1.1</b>	<b>0.6</b>	<b>100.0</b>

Source: ASEAN Secretariat; AFTA Reader, 1993.

AFTA is compatible and consistent with the broader market-oriented policies of individual member economies. AFTA therefore only added an external dimension to the competition going in the domestic markets, without changing the fundamental rules of the game (Austria 2003).

In general, AFTA was just the right policy for attracting the FDI-driven production networks. With the emergence of other competing locations for this type of FDI, AFTA increased the attractiveness of the region to this type of FDI. That is, by lowering, if not eliminating, barriers to trade and investment among the members, and hence reducing the costs of production of a product across the region, AFTA makes the entire set of economies that participates in the integrated production sharing more attractive as export markets and investment destinations, i.e. a win-win arrangement for all participants. In other words, AFTA facilitates the division of sophisticated production process of the MNCs, with locations in the ASEAN countries. AFTA created an environment in which the MNCs are freer to choose

their cross-border bases and conduct their economic activities; thus allowing them to exploit factor price differences within the region.

**Table 3.3 Tariff Structure Based on the 2002 CEPT Package (Percent)**

Country	Number of Tariff Lines			Percentage		
	0 - 5%	> 5%	Total	0 - 5%	> 5%	Total
Brunei Darussalam	6,260	16	6,276	99.75	0.25	100.00
Indonesia	7,139	67	7,206	99.07	0.93	100.00
Malaysia	9,223	816	10,039	91.87	8.13	100.00
Philippines	5,370	206	5,576	96.31	3.69	100.00
Singapore	5,859	-	5,859	100.00	-	100.00
Thailand	8,746	457	9,203	95.03	4.97	100.00
<b>ASEAN-6</b>	<b>42,597</b>	<b>1,562</b>	<b>44,159</b>	<b>96.46</b>	<b>3.54</b>	<b>100.00</b>
Cambodia	238	2,877	3,115	7.64	92.36	100.00
Lao PDR	1,297	803	2,100	61.76	38.24	100.00
Myanmar	2,850	730	3,580	79.61	20.39	100.00
Vietnam	3,623	1,938	5,561	65.15	34.85	100.00
<b>New Members</b>	<b>8,008</b>	<b>6,348</b>	<b>14,356</b>	<b>55.78</b>	<b>44.22</b>	<b>100.00</b>
<b>All ASEAN</b>	<b>50,605</b>	<b>7,910</b>	<b>58,515</b>	<b>86.48</b>	<b>13.52</b>	<b>100.00</b>

Source: ASEAN Secretariat.

**ASEAN Investment Area (AIA).** The Framework on ASEAN Investment Area (AIA), formulated in 1998, is the framework for promoting the inflow of foreign direct investment in region. The agreement binds the member economies to gradually eliminate investment barriers, liberalize investment rules and policies, grant national treatment, and open industries to ASEAN investors by 2010 and to all investors by 2020.

The CLMV are benefiting from intra-ASEAN FDI as will be shown later in Chapter 4 by the large share of intra-ASEAN FDI in their total of FDI.

One significant achievement in 2003 was the acceleration of the liberalization of the investment regimes of some of the ASEAN members. In particular, Brunei, Indonesia, Myanmar, Philippines and Thailand agreed to phase out their "temporary exclusion list" in the manufacturing sector. Singapore and Malaysia do not have temporary exclusion list. This means that any ASEAN investor can now invest in these countries and enjoy national treatment in the manufacturing sector, including those industries that were previously excluded.

Like AFTA, the AIA reinforces the market-led integration going in the region and strengthens the production linkages.

**ASEAN Framework Agreement on Services (AFAS).** The liberalization of services is being promoted through the ASEAN Framework Agreement on Services (AFAS) signed in 1995. The framework provides for the elimination of intra-regional restrictions on trade in services and the expansion of the scope of liberalization beyond those covered by the WTO-General Agreement on Trade in Services (GATS). Seven sectors were initially covered namely air transport, maritime transport, telecommunications, tourism, business services, construction and financial services. However, unlike AFTA and AIA, not much has been achieved under AFAS.



### **(iii) Private-sector Led Process**

Another process driving economic integration in the region is the sub-regional economic zones (SREZs). The aim of SREZs is to enhance the attractiveness of investment in the contiguous areas by combining their competitive advantages, and exploit economic complementarities and economies of scale. Unlike the institutionalized arrangements, subregional economic zones are private sector-led, with the role of national and local governments being limited to facilitating business through appropriate policy frameworks and investment promotion. The focus of cooperation is mainly on investment and infrastructure provision rather than specifically on trade liberalization.

***Indonesia-Malaysia-Singapore Growth Triangle (SIJORI).*** This is the pioneer among the SREZs having been formally established in 1994. It involves Singapore, Johor of Malaysia and Riau of Indonesia. The areas of cooperation are manufacturing, agriculture and trade. The main thrust of the cooperation is the investment from Singapore into Johor and Riau. Businesses, including multinational corporations based in Singapore, have relocated and expanded investment in Johor and Riau to take advantage of the latter's abundant land, natural resource and labor (Chia, 2002). Under the arrangement, the products of plants in Johor and Riau could be designed, marketed and distributed by service industries in Singapore where they would benefit from the latter's excellent infrastructure (APEC, 1997).

***Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT).*** The growth triangle includes estates or provinces in Western Indonesia (Northern Sumatra and Aceh), Northern Malaysia (Penang, Kedah, Perlis and Perak) and southern provinces of Thailand. Areas for cooperation include tourism, development of infrastructure, off-shore fishing and development of joint natural resources, liberalization of tariffs and harmonization of customs and immigration regulations.

***Brunei-Indonesia-Malaysia-Philippines East Asian Growth Area (BIMP-EAGA).*** This growth triangle involves Brunei, East and West Kalimantan and North Sulawesi in Indonesia, Sarawak, Sabah and Labuan in East Malaysia, and Mindanao in the Philippines. Programs identified for immediate implementation includes expansion of airlinks, sea transport linkages, joint fishing cooperation and joint tourism development.

***Greater Mekong Subregion.*** This region covers parts of Cambodia, Laos, Myanmar, Thailand, Vietnam and Yunnan Province of China. The Mekong River forms a natural economic zone with shared interests among the areas involved in the development of agriculture, forestry, fishery, energy, water resources, water transport and environmental management. The development of infrastructure in the area is the highlight of the economic cooperation, the most ambitious of which is the development of the East-West corridor where heavy investments were made to improve land transportation and connect the Pacific Ocean (at Danang in Vietnam) with the Indian Ocean (at the Myanmar end) (Chia, 2002).

### 3.2 ASEAN Regional Cooperation

The ASEAN implements a number of regional cooperation programs to promote the integration of the member economies through increased trade in goods and services, and to make the region more attractive to foreign direct investment, both foreign and intra-ASEAN. The programs involve either industrial cooperation or harmonization of policies and institutions.

**Industrial Cooperation.** For industrial cooperation, the ASEAN Industrial Cooperation Scheme (AICO) is the latest program to promote joint manufacturing industrial activities between ASEAN-based companies. It replaced the ASEAN Industrial Joint Venture (AIJV) and the Brand-to-Brand Complementation (BBC) schemes. AICO aims to exploit complementary locational advantages in the region through resource-pooling by granting 0-5 percent preferential tariff upon approval of application of participating companies. The program requires a minimum of 2 participating companies from 2 different ASEAN economies.

Since its introduction in 1996, 166 applications were received, of which 104 applications have been approved as of March 2003. Most of the participating companies are from the automotive sector. Most automotive companies see the implementation of complementation scheme as critical to the expansion of their activity in the ASEAN (Flynn, Alkire and Senter 1999). Nonetheless, given the full implementation of AFTA commitments last year, the AICO will no longer give due advantage to companies located in the ASEAN-5, except for Malaysia which has deferred its CEPT on automobile, as discussed earlier.

**Harmonization of Policies and Institutions.** Harmonization refers to the adoption of similar policies, regulations and legislations in a number of areas (such as customs, standards and conformance, mutual recognition agreements, and trade facilitation), so as to ensure the smooth cross-border flow of goods, investment, services and people within the region.

In the area of customs, tariff nomenclature is being simplified and harmonized. Guidelines on customs valuation are also being developed to bring uniformity and common interpretations in the customs of the member economies. These initiatives will make customs processes and procedures more transparent and hence, facilitate trade.

In the area of standards and conformance, mutual recognition agreements (MRAs) for specific products are also being developed to ensure that product related standards and regulations will not become barriers to trade. The MRAs will require member economies to recognize the testing procedures and certification conducted in the country of origin and hence, will no longer require testing by the importing country. The MRAs cover telecommunication equipment, pharmaceutical products, cosmetics, electrical and electronic products, and prepared foodstuff.

Furthermore, to facilitate the cross border movement of goods by road or rail across the region, an agreement has been reached to allow minimum inspections and regulations for drivers.

## Chapter 4

### Overview of Trade and Investment Performance, Priority Goods Sectors

#### 4.1 Overall Trade Performance, 1997-2001

**Exports.** The share of the ASEAN in the world export market for the priority sectors ranged from an average of less than 1 percent per year for automotive to 18 percent per year for information and communication technology (ICT) for the period 1997-2001 (Figure 4.1). Given the role of the ASEAN in the global production network of ICT and electronics, these two sectors registered the highest shares in world exports among the priority sectors. The shares range from an average of 16-18 percent (Figure 4.1). Fisheries and rubber-based sectors come next, with the ASEAN accounting for about 12-15 percent of total world exports. The rest of the priority goods sectors accounted for less than 10 percent of world exports.

A general trend can be observed in the overall export performance of the priority sectors. The ASEAN'S exports of agro-based products have been gradually decreasing since 1997 and so was the region's share in the world export market (Figure 4.1). On other hand, the ASEAN's exports of fisheries, rubber based products, wood-based products, textiles and garments, and electronics also fell in 1998, probably because of the Asian crisis. And while there was a gradual increase starting in 1999, exports of the sectors in 2001 was still below the 1997 performance. The region's share in the world export market for these sectors also registered a decline, except for textiles and garments. This implies that the sectors have not recovered yet from the crisis performance, despite the depreciation of the currencies in the region during the period.

Only healthcare products, ICT and automotive registered an increase in export performance despite the crisis; and the region's share in the world market for these sectors was also increasing (Figure 4.1).

As will be discussed in the next sub-section of the paper, the above trend is also true for the sectoral intra-ASEAN exports. The declining trend and/or slow recovery from the crisis need to be addressed if an integrated ASEAN region is envisioned to increase its share in the world market.

In terms of the performance of the priority sectors relative to the total intra-ASEAN exports, the priority goods sectors accounted for a combined share of 44 percent per year of the region's total intra-ASEAN exports over the period 1997-2001 (Table 4.1). During the Asian crisis of 1997-1998, total intra-ASEAN exports went down by 17 percent but the intra-ASEAN exports of the priority goods sectors went down only by 13 percent. Likewise, despite the decrease, the share of the priority goods sectors in total intra-ASEAN exports went up from 42.7 percent in 1997 to 44.8 percent in 1998. This only signifies the importance that these sectors play in intra-ASEAN exports.

Intra-ASEAN exports of the priority sectors went up by as much as the increase in total intra-ASEAN exports of 12 percent and 23 percent in 1999 and 2000, respectively. In 2001, the priority sectors and total intra-ASEAN exports declined by 12 percent. Nonetheless, the priority sectors managed to maintain their share of 44 percent in total intra-ASEAN exports.

The importance of the priority sectors to the ASEAN members is also shown by the shares of the sectors in individual member's total intra-ASEAN exports (Table 4.1). For the ASEAN-5, the total share of the priority sectors in a member's total intra-ASEAN exports ranged from an average of 36 percent per year (Indonesia) to 55 percent per year (Thailand) over the period 1997-2001. Also, among the priority sectors, ICT accounted for the largest share in the total intra-ASEAN exports of these economies. This is primarily due to the role that these economies play in the regional production network of MNCs.

On the other hand, for the CLMV, the total share of the priority sectors in a member's total intra-ASEAN exports ranged from an average of 42 percent (Vietnam) to 76 percent (Laos) over the same period (Table 4.1). This was much higher than the shares registered in the ASEAN-5. This shows the significant role of the region as a market for the exports of the CLMV. In contrast to the ASEAN-5, however, agro-based and wood-based sectors accounted for the largest share in total intra-ASEAN exports of these countries.

**Imports.** The ASEAN accounted for less than 6 percent per annum of the total world imports in the priority sectors over the period 1997-2001, except for ICT which accounted for a share of about 15 percent (Figure 4.2). Again, the role of the region in the global production network of ICT reflects the high share of the region in the world imports of the sector.

Imports have not reached yet the pre-crisis performance despite the recovery registered starting 1998. Figure 4.2 shows that this was true for all sectors, without exception.

The priority sectors accounted for an average of 46 percent per year of total intra-ASEAN imports during the period 1997-2001 (Table 4.2). While imports of the sectors declined during the 1997-1998 crisis, the share of the sectors to total intra-ASEAN imports increased by 1.5 percentage points. In contrast to exports, the sectors registered a higher share in the total intra-ASEAN imports of the ASEAN-5 compared to the CLMV. The share ranged from 23.5 percent (Indonesia) to 57.6 percent (Singapore) for the ASEAN-5 compared to 25.1 percent (Vietnam) to 30 percent (Myanmar) for the CLMV.

Among the priority sectors, the ICT again accounted for the largest share in total intra-ASEAN imports of the ASEAN-5, except for Indonesia, for the period 1997-2001 (Table 4.2). The share of ICT was highest in Singapore at an average of 36 percent. On the other hand, the agro-based sector accounted for the largest share in the total intra-ASEAN imports of the CLMV, including Indonesia, the highest share being registered by Myanmar at an average of 18.2 percent over the same period.

**Balance of Trade.** The priority sectors together registered a balance of trade surplus that was increasing since 1997 until it decreased in 2001 (Figure 4.3). The largest surplus was recorded by electronics sector.

Among the sectors, only healthcare products and automotive experienced a trade deficit, although the deficit was improving since 1997. The ICT sector also registered a deficit in 1997 and 1998; but the deficit turned into a surplus in 1999 and 2000 until it registered again a deficit in 2001.

## 4.2 Sectoral Trade Performance, 1997-2001

**Information and communication technology (ICT).** Intra-ASEAN exports of information and communication technology (ICT) products increased from US\$19,899 million in 1997 to US\$23,400 million in 2001 (Figure 4.4). On the average, intra-ASEAN exports accounted for 31 percent per year of ASEAN's total exports of the product to the world during the period 1997-2001. Each of the member economies experienced a decline in their intra-ASEAN exports in 1998 because of the Asian crisis but each have also gradually recovered, as shown by the increase in intra-ASEAN exports, until 2000 (Figure 4.4). The sector suffered a setback in 2001 because of the global downturn in the industry; but nonetheless, exports were 18 percent higher than the 1997 level.

The region is a significant market for the exports of Indonesia and Vietnam, as the region accounted for more than 50 percent of the total ICT exports of these countries to the world during the same period (Figure 4.4). The region also accounted for 34 percent of Malaysia's total exports in the sector. On the other hand, about 30 percent of Thailand's and Singapore's total exports in the sector were sold in the region, and only 22 percent for the case of the Philippines.

Among the members, Singapore accounted for the largest share of intra-ASEAN ICT exports, an average of 42.8 percent per year during the period 1997-2001 (Table 4.3). Malaysia comes second with an average share of 31.9 percent during the same period. Thailand, on the other hand, accounted for an average share of 14.5 percent. Indonesia and the Philippines had a share of less than 10 percent while Vietnam had a share of less than 1 percent.

In terms of imports, intra-ASEAN imports of ICT comprised about one-fourth per year of ASEAN's total imports of the sector from the world (Figure 4.5). The share has steadily increased from 1997 to 2000 but declined in 2001. Just as in exports, the region was a significant source of imports of ICT for most of the ASEAN members. For example, an average of 46 percent per year of Vietnam's total imports from 1997 to 2001 came from the region, although there was a sudden drop in 2001 (Figure 4.). Likewise, about one-fourth of Myanmar's imports during the same period were intra-ASEAN. Singapore registered a continuous increase in its intra-ASEAN imports, from 27.4 percent of its total imports in 1997 to 38.7 percent in 2001. This is in contrast to Malaysia where the share of intra-ASEAN imports registered a continuous decline since 1997. Since Malaysia's total imports of ICT has been increasing, the decline in the share of intra-ASEAN imports implies that the country was increasing its imports from outside the region.

Singapore accounted for the bulk of intra-ASEAN imports, with the country's share increasing from 48 percent in 1997 to 60.7 percent in 2001 (Table 4.4). Malaysia contributed about one-fourth of the total, although the share has been continuously going down since 1997. The share of Philippines and Thailand has been also decreasing during the same period.

The importance of the region to individual member's exports and imports is shown by the intra-ASEAN export and import index numbers. The index is given by the ratio of the share of a member's intra-ASEAN exports (or imports) to its total exports (or imports) to the world, and the share of the ASEAN as a group to the region's total world exports (or imports). An index value of greater than 1 means that intra-ASEAN exports (imports) is relatively more important to a member economy than they are for the ASEAN as a group. A value of less than 1 means the opposite.

The value of the index shows that intra-ASEAN exports were more important to Indonesia, Malaysia and Vietnam than they were to the ASEAN as a group (Table 4.5). On the other hand, intra-ASEAN imports were more important to Vietnam and Singapore (Table 4.6).

The ASEAN as a group experienced an increasing trade surplus in ICT since 1997, until the surplus went down in 2001 (Figure 4.6). Among the members, only Thailand, Malaysia and Indonesia registered a surplus. The Philippines experienced a decreasing trade deficit until 2000. The deficit turned to a surplus in 2001. Vietnam, on the other hand, registered an increasing deficit during the period 1997-2000; and then a surplus in 2001. Singapore experienced a trade surplus in 1997-1998; and since 1999, the trade balance has been in deficit and was worsening. Myanmar also experienced a rising trade deficit.

In terms of specific products for the sector, the pattern of intra-ASEAN trade shows that the ASEAN-5 are specializing on the same products, as shown by the large percentage share of these products in a member's total intra-ASEAN exports and imports of ICT (Table 4.7). The trade pattern also shows that each member exports to and imports from the same economy or economies, as shown by the large shares of these economies in a member's total exports and imports.

For example, the top exports of Indonesia, Malaysia, Philippines and Thailand were parts for typewriters and other office machines (HS 8473) and their major market was Singapore, except for the Philippines whose major market was Thailand. Likewise, this product (HS 8473) and electronic circuits and micro-assembly (HS 8542) together accounted for more than 50 percent of the intra-ASEAN imports of these countries, except for Indonesia. Again, Singapore was the major source of their imports.

The above pattern of trade of the ASEAN-5 is further confirmed by Singapore having electronic circuits and micro-assembly (HS 8542) and parts for typewriters and other office machines (HS 8473) as its major intra-ASEAN exports and imports. These products represent a combined share of 47 percent and 72 percent of Singapore's exports and imports, respectively (Table 4.7).

On the other hand, the products which were relatively less important to the exports of Indonesia, Malaysia, Philippines and Thailand were the same products considered as the niches of the less developed members. Vietnam, for example, is specializing on printed circuits (HS 8534), the product accounting for almost 82 percent of the country's intra-ASEAN exports (Table 4.7). The same product accounted for less than 10 percent of the exports of Indonesia, Malaysia, Philippines and Thailand. On the other hand, the only export product of Brunei was electronic integrated circuits and micro assembly (HS 8542). The same product accounted for less than 20 percent of the exports of Indonesia, Malaysia, Philippines and Thailand.

The above analysis confirms the intra-industry trade existing among the ASEAN members. While they export and import the same products, each country is specializing on a particular stage of the regional production network. This vertical specialization of production across the region is driven by differences in the member economies' factor endowments, particular skills of the workforce and high fixed research and development costs.

**Electronics.** Intra-ASEAN exports of electronics represent an average of 8.1 percent per year of ASEAN's total exports to the world during the period 1997-2001 (Figure 4.7). Intra-ASEAN exports registered a big decline in 1998, but gradually increased until a global

downturn hit the sector in 2001. Unlike the ICT, however, electronics have not recovered from its export performance at the onset of the 1997 crisis (Figure 4.7).

As shown in Figure 4.7, much of the decline in exports was due to the drop in the exports of Thailand and Singapore, particularly after 1997 (i.e. the crisis period). The decline, however, was not true for all members. Indonesia, Philippines and Vietnam, for example, experienced an unprecedented increase in the value of their exports to the region in 1999-2001 compared to 1997-1998. Likewise, Malaysia's exports were not affected by the crisis (Figure 4.7).

Intra-ASEAN exports accounted for an average of 29 percent per year of Indonesia's total exports of electronics to the world in 1997-2001 (Figure 4.7). While Singapore registered an increase in the share of its intra-ASEAN exports to its total exports to the world from 4.36 percent in 1998 to 7.2 percent in 2001, Thailand registered a decrease from a very high of 26.3 percent in 1997 to only 7.7 percent in 2001. This means that Singapore was increasingly exporting its products to the ASEAN members while Thailand was increasingly exporting its products to non-ASEAN members.

Among the members, Singapore accounted for the largest average share (41.1%) of intra-ASEAN exports, followed by Malaysia (28.5%). Vietnam contributed the least (less than 1 %) (Table 4.3).

In terms of imports, Intra-ASEAN imports of electronics represent about one-third of the members' total imports from the world during the period 1997-2001 (Figure 4.8). About three-fourths of these imports were accounted for by Singapore although the share of the country has been continuously going down from almost 80 percent in 1997 to 68.9 percent in 2001 (Table 4.4). This was partly because the intra-ASEAN imports of the country have also been going down.

The less developed members were the most dependent on the region for their imports of electronics. Laos imports were 100 percent intra-ASEAN (Figure 4.8). Myanmar also imported from the region more than 70 percent of its total imports. On the other hand, about 39 percent and 34 percent of Singapore's and Philippines' total imports, respectively, are intra-ASEAN.

Annual exports were less than imports for the region as a whole; hence, the balance of trade was in deficit during 1997-2001 (Figure 4.9). Among the members, only Malaysia registered a surplus. Thailand also experienced a surplus, but the surplus was going down until it became a deficit in 2001. On the other hand, Philippines and Indonesia recorded a deficit in 1997-1998 and a surplus in 1998-2001. The rest of the members registered a deficit.

The intra-ASEAN export index shows that intra-ASEAN exports were relatively more important to Indonesia, Malaysia, and Vietnam than it is for the ASEAN as a group (Table 4.5). On the other hand, intra-ASEAN imports were relatively more important to Laos, Myanmar, Singapore and Philippines than was it is for the ASEAN as a group (Table 4.6).

Just as in ICT, the pattern of trade in electronics confirms the high intra-industry trade occurring among the ASEAN-5. That is, trade is highly concentrated to one product; they export and import the same product; and they export to, and import from the same country. Such pattern of trade is shown by both their intra-ASEAN exports and imports, which was highly concentrated on automatic data processing machines (HS 8471) (Table 4.8). The high concentration implies specialization of production. Singapore was the major export market and source of imports. On the other hand, Singapore's major export market and source of imports is Malaysia.

The ASEAN-5 also exports and imports air or vacuum pumps, compressors and fans (HS 8414) and air conditioning machines (HS 8415) although the magnitude of trade was small compared to automatic data processing machines (Table 4.8). In contrast, intra-ASEAN trade for the less developed members was concentrated on these very same products. Intra-ASEAN exports for Vietnam was solely on air or vacuum pumps, compressors and fans (HS 8414), with Singapore as major market; while the bulk of imports of Brunei and Myanmar were on air conditioning machines (HS 8415) sourced from Singapore.

**Healthcare products.** Intra-ASEAN exports of healthcare products contributed one-fifth per year to the region's total exports of the product to the world over the period 1997-2001 (Figure 4.10). Exports dropped in 1998 but have steadily increased since 1999. As will become apparent in the succeeding discussions in this section of the paper, healthcare products and ICT were the only sectors whose total intra-ASEAN exports in 2001 surpassed their 1997 crisis level. Nevertheless, the share of intra-ASEAN exports to the region's total exports fell during the crisis period; and while this has increased since 2000, it has not reached its peak in 1997.

Intra-ASEAN exports also accounted for a greater proportion of individual member's total exports to the world. On the average, almost one-third of Thailand's and Vietnam's total exports were intra-ASEAN. However, while the share of intra-ASEAN exports was increasing in Thailand, it was decreasing in Vietnam (Figure 4.10). On the other hand, Indonesia's intra-ASEAN exports were almost one-fourth of the country's total exports. Malaysia's, Philippines' and Singapore's intra-ASEAN exports were about one-fifth of their total exports.

Among the members, Singapore accounted for the bulk of intra-ASEAN exports, with an average share of almost 53 percent (Table 4.3). About one-fourth was contributed by Thailand and the country's share was steadily increasing since 1997.

Intra-ASEAN imports, on the other hand, accounted for only 10 percent per year of the region's total imports in 1997-2001 (Figure 4.11). The region was a significant source of imports of healthcare products for the less developed members. In particular, Laos' imports were solely from the region (100%). Likewise, Myanmar's intra-ASEAN imports accounted for about 50 percent of the country's total imports. About 20 percent of Vietnam's imports were also from the region. On the other hand, intra-ASEAN imports represented less than 10 percent of the total imports of Indonesia, Singapore and Thailand; and less than 20 percent for Malaysia and the Philippines. Given the relatively large share of intra-ASEAN exports to the total exports of the ASEAN-5, this means that such exports basically went to the less developed members.

Among the members, Malaysia, Philippines and Singapore contributed the largest share, with each country having an average share of 22 percent per year (Table 4.4).

Among the countries, intra-ASEAN exports was relatively more important to Indonesia, Thailand and Vietnam compared to the region as a whole, as shown by their intra-ASEAN export index of greater than 1 (Table 4.5). On the other hand, intra-ASEAN imports were relatively more important to Laos, Malaysia, Myanmar, Philippines and Vietnam (Table 4.6).

Since intra-ASEAN exports of healthcare products were larger than intra-ASEAN imports, the sector registered a trade surplus (Figure 4.12). Among the members, only Indonesia, Singapore and Thailand recorded a surplus.



The pattern of trade in the region, however, differs from that of ICT and electronics. Unlike these two sectors where the ASEAN-5 export and import the same products, the analysis of Table 4.9 shows three important points: (i) each member economy differs in their product niches, i.e. each country has its own product specialization; (ii) each country's export niche differs with its import niche; and (iii) each member economy's major export market differs with its major source of imports.

To illustrate the above points, the bulk of Indonesia's exports were soap (HS3401) and medical, surgical and dental instruments (HS 9018), with Singapore and Malaysia as its major export markets; while the bulk of its imports were hair preparations (HS 3305) and provitamins and vitamins (HS 2936), with Thailand and Singapore as its major sources of imports (Table 4.9). The other member economies exhibited patterns of trade that were different from each member.

The above analysis implies that each member economy serves as a regional production and distribution center for a particular healthcare product. That is, each economy specializes on the production of a particular product, which is distributed and exported to the rest of the region.

**Textiles and garments.** Intra-ASEAN exports of textiles and garments accounted for an average of 12 percent per annum of the region's total exports of the sector during the period 1997-2001 (Figure 4.13), with Singapore (31.4%), Indonesia (26.5%), and Thailand (20.3%) contributing the largest shares (Table 4.3). Just like the other sectors, intra-ASEAN exports fell in 1998, with Singapore registering the largest decline (Figure 4.13). Intra-ASEAN exports slowly recovered until 2000; but before it could reach its 1997 level, it dropped again in 2001.

The small average share of intra-ASEAN exports, however, was not true for all the individual members. In particular, of the total exports of Singapore, an average of 42 percent was intra-ASEAN. Likewise, Malaysia's intra-ASEAN exports represented almost 18 percent of the economy's total exports and the share was increasing since 1998. Thus, intra-ASEAN exports were relatively more important to these two economies compared to the region as a whole, as shown by their intra-ASEAN export index of greater than 1 (Table 4.5).

On the other hand, intra-ASEAN imports represented an average of 17 percent per year of the region's total imports from the world during the same period (Figure 4.14). About 57 percent of these imports were accounted for by Singapore (Table 4.4). Compared to the members' imports from the world, intra-ASEAN imports were significant for Laos, Singapore and Myanmar. Intra-ASEAN imports accounted for 84 percent, 37 percent and 33 percent, respectively of these countries' total imports. The greater importance of intra-ASEAN imports to these three countries relative to the region as a whole is also shown by their intra-ASEAN import index which is larger than 1 (Table 4.6).

Except for 1998, intra-ASEAN exports were larger than intra-ASEAN imports thus, generating a trade surplus (Figure 4.15). However, the trade surplus was continuously declining since 1997. Not all the members registered a trade surplus. Only Indonesia, Malaysia and Thailand did (Figure 4.15).

The textiles and garments sector exhibited a pattern of trade that was very different from that of ICT and electronics, and of healthcare products. There was no product specialization as each economy was producing a wide range of textiles and garments products. This was shown by the small percentage share of each member's top three (or

five) exports and imports (Table 4.10). The trade pattern substantiates the fact that the members are competitors in the market.

The only discerning pattern is that, for Brunei, Malaysia, Laos, Myanmar, Philippines and Vietnam, intra-ASEAN exports were mostly garments while intra-ASEAN imports were mostly textiles (Figure 4.10). On the other hand, for Indonesia and Thailand, both intra-ASEAN exports and imports were textiles. For Singapore, both intra-ASEAN exports and imports were garments. This kind of trade pattern is basically inter-industry trade, driven by member economies' differences in resources.

**Automotive.** Intra-ASEAN exports on automotive occurred only among the ASEAN-5. While Laos also recorded some exports, the value was too small to make a difference. Intra-ASEAN exports of the sector represented about 24 percent of the region's total exports during the period 1997-2001 (Figure 4.16). Exports suffered a major setback in 1998; and then slowly recovered, barely reaching its 1997 level in 2001.

As shown in Figure 4.16, the same trend is observed for individual members of the ASEAN-5, with Singapore registering the largest drop in 1998. Only the Philippines and Thailand surpassed their 1997 intra-ASEAN exports in 2001.

Thailand contributed the largest share (35%) to total intra-ASEAN exports, followed by Singapore (29%) (Table 4.3).

The region accounted for 100 percent of Laos' total exports and 41 percent of Indonesia's (Figure 4.16). After 1998, intra-ASEAN exports of the ASEAN-5 increased their shares in each member economy's total exports, except in Thailand. This means that the region was increasingly becoming an important market for these economies' exports. In contrast, the share of the region in Thailand's total exports was continuously decreasing. Given that Thailand's total exports of automotive has been increasing since 1997, the decreasing share of the region implies that Thailand was increasing its exports outside of the region.

On the other hand, intra-ASEAN imports of automotive represented only 7 percent per year of the region's total imports, although the share has been increasing since 1997 (Figure 4.17). The same increasing share was registered by Malaysia, Philippines and Thailand. The less developed members (Laos, Myanmar and Vietnam) sourced their imports solely (100%) from the region. In contrast to intra-ASEAN exports, imports registered a rapid increase after the drop the 1998, with most of the members surpassing their 1997 imports in 2001.

Among the members, the Philippines (20%) and Singapore (32%) contributed the largest shares to the total intra-ASEAN imports (Table 4.4).

The intra-ASEAN export index shows that intra-ASEAN exports were relatively more important for Indonesia, Laos and Singapore than for the region as a group (Table 4.5). On the other hand, the index for intra-ASEAN imports show that intra-ASEAN imports were relatively more significant for Laos, Myanmar, Philippines and Vietnam (Table 4.6).

The ASEAN as a group, as well as individual member economies, experienced a trade surplus over the period 1997-2001 (Figure 4.18). Thailand registered the largest surplus.

The pattern of trade shows product specialization, although this differs for exports and imports (Table 4.11). For example, the Philippines specializes on parts and accessories

for motor vehicles (HS 8708) (98% of total), exporting these products to Thailand and Indonesia. However, the country's major imports included motor cars and vehicles for transporting persons (HS 8702) and motorcycles and cycles with auxiliary motor (HS 8711), with Thailand and Indonesia as its major source. This finding on the trade pattern of the Philippines supports the findings of Tham (2003), which shows that among the ASEAN-4, the Philippines is the only country that experienced positive net trade ratio on parts and accessories for motor vehicles between 1997-2001.

Thailand, on the other hand, specializes on parts and accessories for cycles and invalid carriages (HS 8714) and motorcycles and cycles with auxiliary motor (HS 8711) for its exports (Table 4.11). The economy's major export markets were Vietnam, Laos and the Philippines. On the other hand, its major imports were parts and access for motor vehicles (HS 8708), with the Philippines as its major source. As discussed above, this is the niche product of the Philippines, with Thailand as its major export market.

The same kind of trade pattern is observed for the rest of the ASEAN-5 (Table 4.11). This pattern of trade is quite similar to healthcare products as discussed earlier. This implies that each member economy is aiming to be a regional production center for specific automotive parts and products, and supplying the entire region through exports.

**Agro-based products.** Intra-ASEAN exports of agro-based products for the region as a whole, as well as for individual members, registered a gradual decrease since 1997 (Figure 4.19). Exports to the region represented only 14 percent per year of the members' total exports of the sector during the period 1997-2001. Nevertheless, the region was a significant market for the exports of Myanmar (average of 28%), Singapore (average of 23%) and Vietnam (average of 22%). As shown in Figure 4.19, the region's share was increasing for Myanmar and Singapore but decreasing for Vietnam.

Among the members, Thailand and Malaysia contributed the largest shares to the total intra-ASEAN exports (Table 4.3).

On the other hand, intra-ASEAN imports contributed an average of 19 percent to the region's total imports (Figure 4.20). The region was also an important source of imports of the less developed members. In particular, intra-ASEAN imports accounted for about 67 percent of the total imports of Laos and Myanmar, and 32 percent of Vietnam's total imports.

The balance of trade for the region as whole recorded a surplus (Figure 4.21). However, only Malaysia, Thailand and Vietnam experienced a surplus, although the surplus has been going down since 1997.

Like textiles and garments, there was no established pattern of trade or product specialization as each member economy exported and imported a wide range of products that differ from each other (Table 4.12).

**Fisheries.** Like agro-based products, intra-ASEAN exports of fisheries, for the region as a whole as well as for individual members, registered a gradual decrease since 1997 (Figure 4.22). Intra-ASEAN exports accounted for only 9 percent per annum of the region's total exports of fisheries over the period 1997-2001. The rather small share of intra-ASEAN exports was also true for the individual members, except for Myanmar where the region accounted about 32 percent of the country's total exports of fisheries. Nevertheless, Malaysia was increasing its exports of fisheries to the region, reaching 21 percent of its total fishery exports in 2001.

Indonesia and Thailand contributed the largest share, accounting for 32 percent and 30 percent, respectively, of the region's total intra-ASEAN exports (Table 4.3)

Intra-ASEAN imports represent a quarter of the region's total imports of fisheries (Figure 4.23), with Thailand and Malaysia contributing the largest share to the total intra-ASEAN imports, accounting for 43 percent and 35 percent, respectively (Table 4.4).

Likewise, 52 percent of Malaysia's total imports were from the region. The region also accounted for an average of 20 percent of Thailand's total imports. For the rest of the members, less than 20 percent of their total imports were sourced from the region.

The intra-ASEAN export index shows that intra-ASEAN exports were more important for Indonesia, Malaysia, Myanmar and Singapore than for the region as a whole (Table 4.5). On the other hand, intra-ASEAN imports were more important for Malaysia than for the region as whole (Table 4.6)

The balance of trade was positive for the region as a whole (Figure 4.24). Nonetheless, only Indonesia, Myanmar and Vietnam recorded a surplus, with Indonesia registering the largest surplus.

The major export and import fish products of the member economies were fish (either live, fresh/chilled, frozen, fillet or dried/salted/smoked) and crustaceans (live or fresh). The pattern of trade shows that the major export product of each economy differs from its major import product (Table 4.13). Malaysia's major exports, for example, were crustaceans (HS 0306) while its major imports were frozen fish (HS 0303). The exception to the general trade pattern was the Philippines where the country's exports to and imports from the region are the same product, i.e. frozen fish (HS 0303).

Nonetheless, some of the member economies have common major export or import product. For example, the major export product of Thailand, Myanmar, Malaysia and Vietnam were crustaceans, live and fresh (HS 0306). This was the same product which constituted the major imports of Indonesia, Laos, Singapore and Vietnam.

Another feature of the trade pattern was, the major export market of each economy differs from its major source of imports.

**Rubber-based products.** Just like most of the priority sectors, intra-ASEAN exports of rubber-based products dropped in 1998; and while it has increased gradually since 1999, it has not recovered its 1997 level. The same trend holds true for the individual members, except Thailand where its intra-ASEAN exports in 2001 was 18 percent higher than 1997 (Figure 4.25).

Intra-ASEAN exports of rubber-based products represented an average of 9 percent per year of the regions' total exports of the product during the period 1997-2001 (Figure 4.25), with Thailand contributing the largest share of 45 percent (Table 4.3). The small share of the region can also be observed in individual members' total exports, except Myanmar where the region accounted for 94 percent of the country's total export of the sector.

Just like intra-ASEAN exports, intra-ASEAN imports also steadily slowed down since 1998 (Figure 4.26). This was also true for the individual members, except Malaysia and Indonesia.

Intra-ASEAN imports also accounted for an average of 30 percent per year of the region's total imports of the sector over the period 1997-2001 (Figure 4.26). The region was

a major source of imports for Malaysia (53%), Laos (70%), and Myanmar (47%). Malaysia and Singapore also contributed the largest shares to the total intra-ASEAN imports (Table 4.4).

Intra-ASEAN imports were larger than intra-ASEAN exports; thus, trade balance was negative (Figure 4.27). Only Indonesia and Thailand experienced a trade surplus.

The trade patterns shows that the less developed members (Indonesia, Myanmar, Philippines, Thailand and Vietnam) exported natural rubber (HS 4001) to the more developed members (Malaysia and Singapore), who in turn were their major sources of imports for rubber-based products of either new pneumatic tires (HS 4011), article of unhardened vulcanized rubber (HS 4016), or articles of apparel and accessories of unhardened vulcanized rubber (Table 4.14). It is interesting to note, however, that while Malaysia and Singapore were the major sources of processed rubber-based products, Thailand also exported the same products (HS 4011) but its niche markets were the CLMV.

**Wood-based products.** Just like most of the priority sectors, intra-ASEAN exports of wood-based products fell in 1998; and while it went up gradually since 1999, it has not recovered its 1997 level (Figure 4.28). Most of the individual members experienced the same pattern, except Indonesia and Thailand whose intra-ASEAN exports continued to increase even during the crisis period.

Intra-ASEAN exports of wood-based products represented an average of 12 percent per year of the region's total exports of the sector over the period 1997-2001 (Figure 4.28). Indonesia and Malaysia contributed the largest share of 31 percent and 30 percent, respectively (Table 4.3).

The region also accounted for a large proportion of the total exports of Laos (67%), Singapore (34%), and Myanmar (31%) (Figure 4.28).

Intra-ASEAN imports of wood-based products, on the other hand, accounted for 26 percent of the region's total imports of the sector (Figure 4.29). The region was also a major source of imports of most of the members, except Indonesia, supplying 20-50 percent of their total imports of the sector.

Balance of trade for the region as a whole was negative in 1997 (Figure 4.30). It turned to a surplus in 1998 but the surplus gradually slowed down until it recorded a deficit in 2001. Only Indonesia, Laos, Malaysia and Myanmar experienced a surplus.

The pattern of trade that can be discerned from Table 4.15 divides the members into two groups. One group which is composed of Laos, Myanmar and Malaysia exported wood products of lower value added (HS 44 – rough wood, plywood, articles of wood or sawn/chipped wood). Another group composed of Indonesia, Philippines, Singapore and Thailand, exported wood products of higher value added (HS 47- wood pulp; and HS 48– paper and paper products). This pattern is also very evident on the import side. The bulk of the imports of the first group were the exports of the second group; while the bulk of imports of the second group were the exports of the first group.

### 4.3 Overall Investment Performance, 1995-2001

The priority sectors together accounted for a combined average share of 45 percent per year of the total FDI in the region over the period 1995-2001 (Table 4.16). The trend on

the annual total value of FDI is rather erratic, with increases and decreases in some years. Nonetheless, the share of the sectors to the total FDI in the region shows an increasing trend from 26 percent in 1995 to almost 61 percent in 2001. Even during the crisis period of 1997-1999, despite the dramatic drop in FDI by more than 50 percent, the sectors managed to increase their aggregate share from 37 percent in 1997 to 49 percent in 1999. This implies a growing attractiveness of the sectors to FDI.

The attractiveness of the priority sectors to FDI is also manifested in the shares of the sectors to the total FDI of individual members (Table 4.16). The shares of the sectors are particularly high in Cambodia (average of 79% per year) and Myanmar (average of 77% per year). The lowest share was recorded by Indonesia, with priority sectors accounting for only 36 percent of the country's total FDI.

In terms of sectoral distribution of total FDI across countries, electronics and ICT together were the largest recipient of FDI in the Philippines, Malaysia and Thailand (Table 4.16). This finding supports the FDI-driven nature of the production of these sectors and the role that these economies play in the regional production network of the industry. The FDI inflows are consistent with the increasing extent to which MNCs have located parts of their operations in these economies.

For Indonesia, wood-based products received the largest share in the country's total FDI. For the CLMV, the largest share went to textiles and garments. For Myanmar, the largest share went to agro-based products during the period 1995-1998 but this shifted to textiles and garments in 1999-2001.

Among the sectors, the automotive industry received the least FDI and this is true for every member economy. The small FDI could be attributed to the protection accorded the industry through the members' national car program and the restrictive tariffs and regulations that supported it.

#### 4.4 Sectoral Investment Performance, 1995-2001

**Electronics and ICT.** FDI in the region has not recovered yet from the 1996 pre-crisis level. The total FDI in 2001 was only 54 percent of the FDI in 1996 (Table 4.17). Except for the Philippines where the country's FDI in 2001 was 40 percent higher than the 1996 level, the other ASEAN-5 experienced a decline in FDI in between 1996 and 2001. On the other hand, the data available for Vietnam shows a 132 percent growth in FDI between 2000 and 2001. Given the FDI-driven nature of the regional production network of the sectors, the high growth of FDI in Vietnam was facilitating the integration of the country in the region, as will be discussed in the next chapter.

There was strong dependence on FDI from outside of the region, as shown by the less than 12 percent average share of intra-ASEAN FDI to the total FDI in the sector (Table 4.17). This was expected given the significant role that multinational companies from developed economies play in the region's electronics and ICT industries. Among the member economies, intra-ASEAN FDI was most important to Indonesia. The country recorded the highest share of intra-ASEAN FDI to an economy's total FDI, i.e. average of 20 percent per year during the period 1995-2001 (Table 4.17).

The bulk of intra-ASEAN FDI went to Malaysia (average of 50% per year); followed by Indonesia (average of 24% per year) (Table 4.17).

**Textiles and garments.** In contrast to electronics and ICT, FDI in the textiles and garments sector registered a 10.4 percent increase in 2001 from 1996 (Table 4.18). The ASEAN-5 all experienced a substantial drop in FDI between 1996 and 2001. In contrast, Vietnam again registered substantial growth in FDI of 239 percent between 1996 and 2001.

Except for the Philippines, Thailand, Indonesia and Vietnam, the rest of the member economies were highly dependent on intra-ASEAN FDI for the sector, as shown by the relatively high share of intra-ASEAN FDI to their total FDI (Table 4.18). In particular, almost 100 percent of FDI in Brunei's textiles and garments sector were intra-ASEAN. Likewise, an average of 52 percent of FDI in Laos' textiles and garments sector were intra-ASEAN.

Indonesia and Malaysia received the largest share in intra-ASEAN FDI of 32 percent and 27 percent, respectively, during the period 1995-2001 (Table 4.18).

**Automotive.** FDI in the sector suffered a significant decline. FDI in 2001 was only 32 percent of the 1996 pre-crisis level (Table 4.19). The decline was also true for all the ASEAN members.

Among the ASEAN-5, the Philippines was the most dependent on the region for FDI, with intra-ASEAN FDI contributing 25 percent of the country's total FDI (Table 4.19). On the other hand, among the CLMV, only Vietnam received intra-ASEAN FDI.

Most of the intra-ASEAN FDI went to Indonesia (Table 4.19).

**Agro-based products.** There was a drop in FDI between 1996 and 2001 but not as large compared to the other priority sectors (Table 4.20). FDI in Thailand and Malaysia registered an increase in 2001 from the 1996 pre-crisis level. Vietnam again registered a substantial increase of 152 percent between 2000 and 2001.

Among the economies, Laos was the most dependent on the region for its source of FDI in the sector (Table 4.20). Almost 89 percent of the economy's FDI in the sector was intra-ASEAN.

Indonesia and Malaysia received the bulk of intra-ASEAN FDI, with a share of 45 percent and 28 percent, respectively (Table 4.20). There was no intra-ASEAN FDI in the Philippines since 1997 and in Myanmar since 1999.

**Rubber-based products.** FDI in the sector also went down. Total FDI in the region in 2001 was only 74 percent of the FDI in 1996 (Table 4.21). The decline was also true for all the members, except Malaysia where the country's FDI in 2001 was 21 percent higher than its 1996 pre-crisis level.

Intra-ASEAN FDI accounted for an average of 12 percent per year of the region's total FDI during the period 1995-2001.

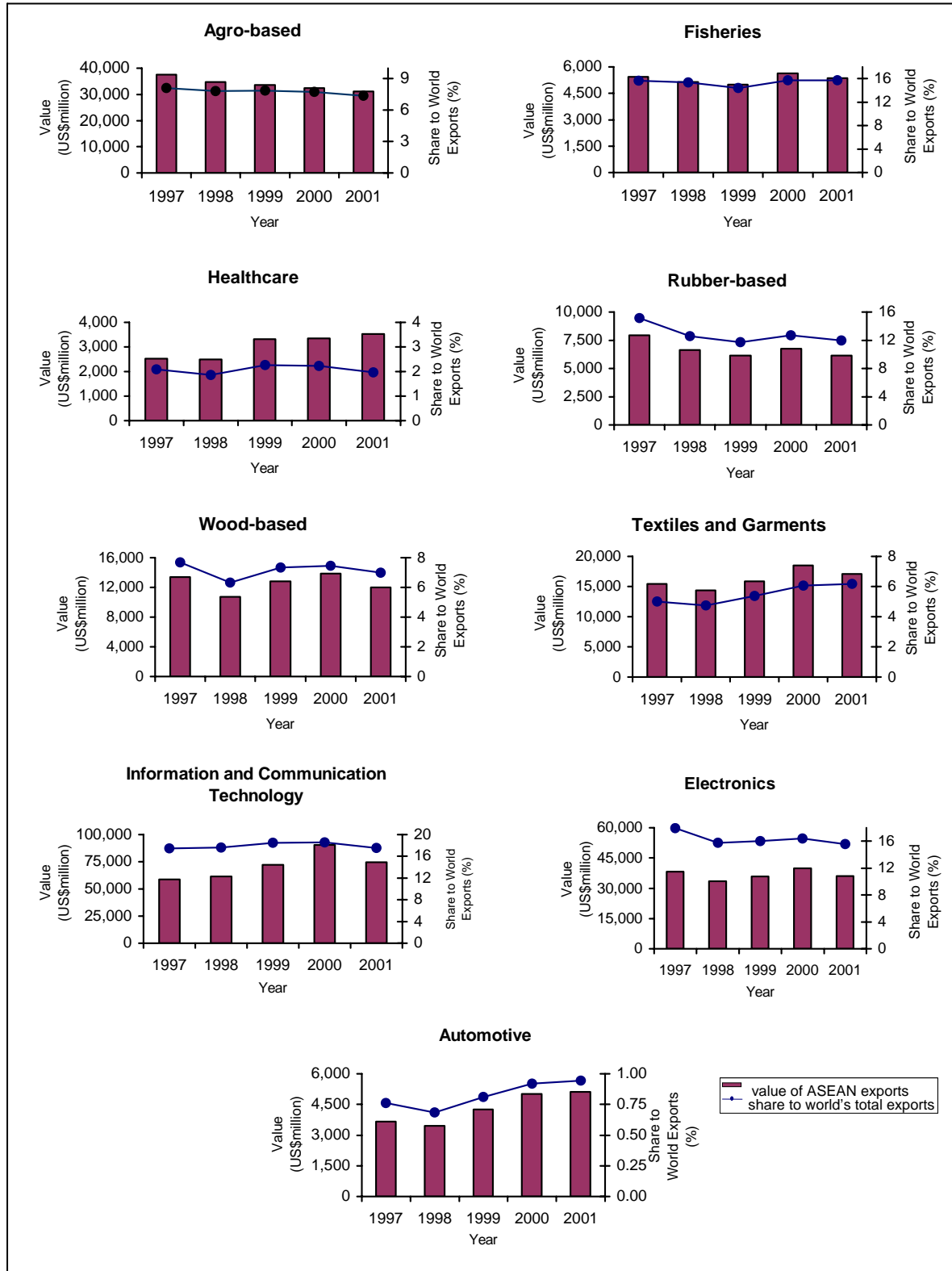
Most of the intra-ASEAN FDI went to Indonesia, Malaysia and Thailand. These economies accounted for an average annual share of 31 percent, 27 percent and 36 percent, respectively (Table 4.21)

**Wood-based products.** FDI in the sector suffered a significant decline. FDI in 2001 was only 45 percent of the 1996 pre-crisis level (Table 4.22). The decline was also true for all the ASEAN members.

The region was an important source of FDI to almost all the members, as shown by the large share of intra-ASEAN FDI in each economy's total FDI.

Furthermore, Indonesia and Malaysia received the bulk of intra-ASEAN FDI, with a share of 31 percent and 40 percent, respectively.

**Figure 4.1 Value of ASEAN Exports, and Its Share to World's Total Exports, By Sector, 1997-2001**



Source: PC/TAS



**Table 4.1 Share of Priority Sectors to Total Intra-ASEAN Exports, By Sector, By Country, 1997-2001**

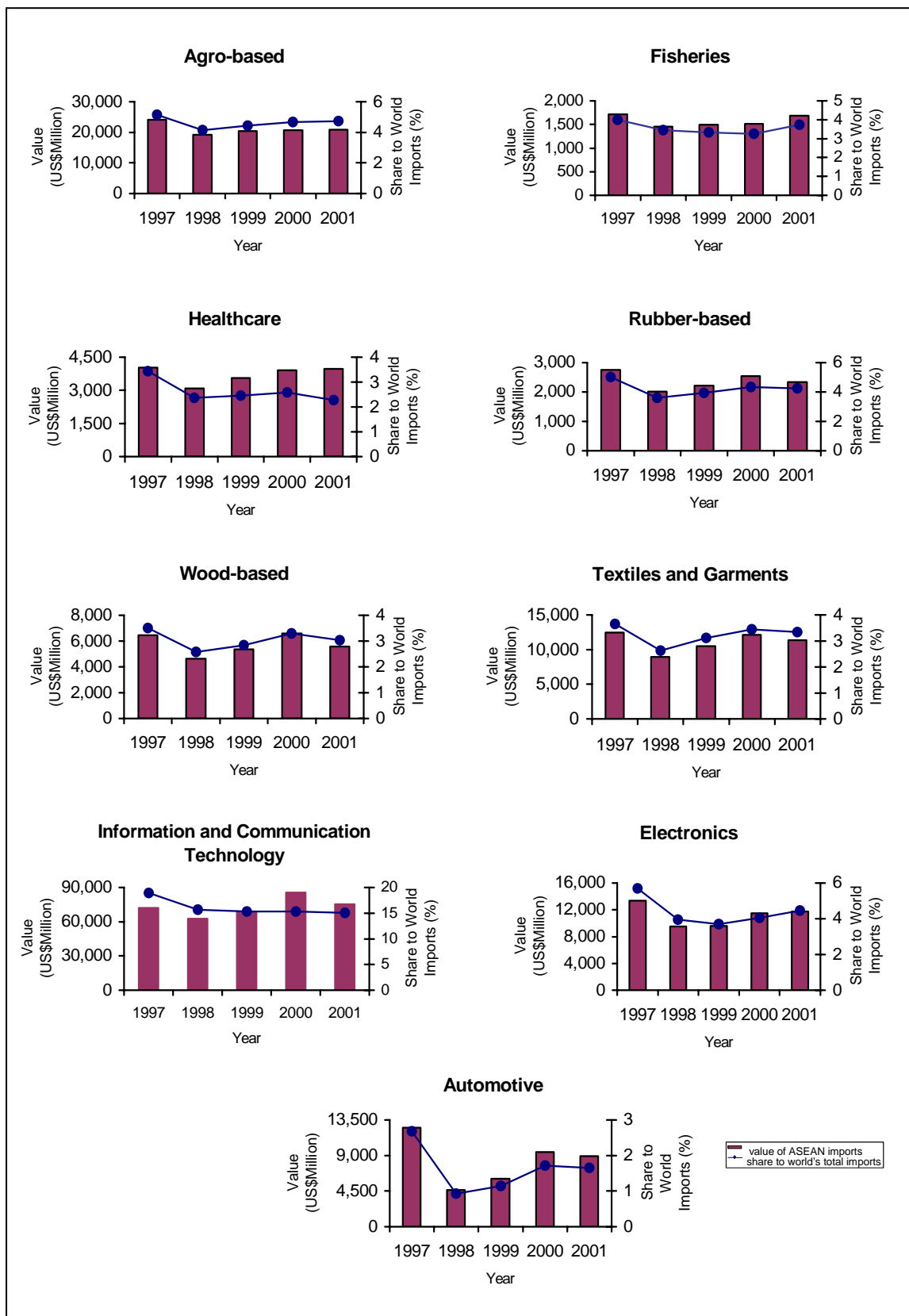
Year/Sector	Brunei		Indonesia		Laos		Malaysia		Myanmar		Philippines		Singapore		Thailand		Vietnam		ASEAN	
	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share
<b>1997</b>																				
Agro-Based			675.0	7.46	0.4	0.77	1416.4	6.43	72.3	21.87	125.3	3.65	984.3	2.87	1499.2	12.28	364.5	28.12	5137.5	6.17
Fisheries			182.9	2.02			26.4	0.12	65.1	19.70	8.0	0.23	66.2	0.19	165.6	1.36	35.5	2.74	549.7	0.66
Healthcare			44.1	0.49			71.5	0.32			9.8	0.28	372.2	1.08	117.5	0.96	2.9	0.23	617.9	0.74
Rubber-Based			155.2	1.71			80.6	0.37	29.5	8.94	13.0	0.38	180.7	0.53	269.8	2.21	19.5	1.51	748.4	0.90
Wood-Based			350.4	3.87	46.4	80.38	641.4	2.91	97.1	29.39	25.4	0.74	329.2	0.96	125.0	1.02	1.9	0.15	1616.9	1.94
Textiles and Garments	1.8	0.32	470.2	5.20			341.5	1.55	16.7	5.05	70.5	2.05	916.4	2.67	384.5	3.15	33.1	2.56	2234.7	2.68
ICT	1.0	0.19	797.8	8.82			6218.4	28.25			926.3	26.97	8760.9	25.53	3043.2	24.92	152.1	11.73	19899.7	23.90
Electronics			71.6	0.79			767.4	3.49			66.3	1.93	1568.9	4.57	1162.6	9.52			3636.8	4.37
Automotives			195.4	2.16			77.0	0.35			86.9	2.53	485.3	1.41	273.3	2.24			1117.8	1.34
<b>TOTAL (Priority Sectors)</b>	<b>2.8</b>	<b>0.51</b>	<b>2942.5</b>	<b>32.52</b>	<b>46.9</b>	<b>81.18</b>	<b>9640.6</b>	<b>43.79</b>	<b>280.7</b>	<b>84.94</b>	<b>1331.4</b>	<b>38.76</b>	<b>13664.1</b>	<b>39.82</b>	<b>7040.7</b>	<b>57.66</b>	<b>609.6</b>	<b>47.03</b>	<b>35559.4</b>	<b>42.71</b>
<b>TOTAL INTRA-ASEAN EXPORTS</b>	<b>551.9</b>		<b>9048.1</b>		<b>57.7</b>		<b>22015.3</b>		<b>330.5</b>		<b>3434.8</b>		<b>34313.8</b>		<b>12209.9</b>		<b>1296.2</b>		<b>83258.2</b>	
<b>1998</b>																				
Agro-Based			841.3	9.06	2.8	8.63	1308.6	7.34	64.1	25.21	94.8	2.48	766.9	2.95	1426.9	14.85	685.8	42.26	5191.1	7.54
Fisheries			187.9	2.02			22.6	0.13	51.7	20.34	18.5	0.49	48.6	0.19	158.4	1.65	38.6	2.38	526.3	0.76
Healthcare			43.9	0.47			62.1	0.35			8.2	0.21	275.0	1.06	109.0	1.13	3.1	0.19	501.3	0.73
Rubber-Based			106.9	1.15			68.1	0.38	16.7	6.58	7.4	0.19	100.5	0.39	257.8	2.68	13.5	0.83	571.0	0.83
Wood-Based			483.6	5.21	20.5	63.65	351.2	1.97	57.5	22.62	28.8	0.75	238.6	0.92	120.1	1.25	1.6	0.10	1301.8	1.89
Textiles and Garments	9.4	2.70	351.7	3.79			252.6	1.42	12.6	4.96	50.4	1.32	522.1	2.01	319.9	3.33	25.6	1.57	1544.3	2.24
ICT			695.6	7.49			5558.9	31.20			910.8	23.84	8001.8	30.75	3073.4	31.98	208.0	12.82	18448.5	26.81
Electronics			39.5	0.43			722.3	4.05			90.9	2.38	938.0	3.60	301.8	3.14			2092.5	3.04
Automotives	4.0	1.16	104.5	1.13			55.1	0.31			46.3	1.21	176.1	0.68	247.5	2.58			633.5	0.92
<b>TOTAL (Priority Sectors)</b>	<b>13.4</b>	<b>3.86</b>	<b>2854.9</b>	<b>30.76</b>	<b>23.3</b>	<b>72.42</b>	<b>8401.5</b>	<b>47.15</b>	<b>202.6</b>	<b>79.71</b>	<b>1256.0</b>	<b>32.88</b>	<b>11067.6</b>	<b>42.53</b>	<b>6014.8</b>	<b>62.58</b>	<b>976.2</b>	<b>60.16</b>	<b>30810.3</b>	<b>44.77</b>
<b>TOTAL INTRA-ASEAN EXPORTS</b>	<b>346.6</b>		<b>9282.0</b>		<b>32.2</b>		<b>17819.8</b>		<b>254.2</b>		<b>3819.8</b>		<b>26022.8</b>		<b>9611.6</b>		<b>1622.7</b>		<b>68811.8</b>	
<b>1999</b>																				
Agro-Based			748.9	9.12	5.2	8.01	1349.8	6.11	31.6	10.81	76.7	1.54	842.0	2.88	1132.4	10.78	779.4	42.50	4965.9	6.43
Fisheries			170.1	2.07			30.5	0.14	38.5	13.19	8.5	0.17	45.5	0.16	146.6	1.40	29.7	1.62	469.4	0.61
Healthcare			59.3	0.72			75.6	0.34			9.9	0.20	311.2	1.06	134.4	1.28	3.0	0.16	593.4	0.77
Rubber-Based			103.7	1.26			65.8	0.30	12.7	4.35	8.8	0.18	113.8	0.39	245.1	2.33	32.4	1.77	582.2	0.75
Wood-Based			481.0	5.86	39.0	59.99	453.0	2.05	100.1	34.30	20.9	0.42	264.4	0.90	142.9	1.36	2.7	0.15	1503.9	1.95
Textiles and Garments			2.1	0.03	2.1	3.23	12.7	0.06	31.5	10.80	559.9	11.23	380.2	1.30	30.7	0.29			1019.2	1.32
ICT			1066.2	12.99			6858.6	31.04			1137.9	22.82	9171.2	31.32	3313.1	31.54	56.0	3.05	21603.0	27.96
Electronics			176.6	2.15			818.3	3.70			215.3	4.32	1039.0	3.55	294.1	2.80	19.9	1.08	2563.2	3.32
Automotives			168.0	2.05			80.2	0.36			106.1	2.13	235.3	0.80	335.2	3.19			924.8	1.20
<b>TOTAL (Priority Sectors)</b>			<b>2975.9</b>	<b>36.25</b>	<b>46.4</b>	<b>71.34</b>	<b>9744.5</b>	<b>44.11</b>	<b>214.4</b>	<b>73.45</b>	<b>2143.9</b>	<b>43.00</b>	<b>12402.6</b>	<b>42.35</b>	<b>5774.5</b>	<b>54.98</b>	<b>922.9</b>	<b>50.33</b>	<b>34225.1</b>	<b>44.30</b>
<b>TOTAL INTRA-ASEAN EXPORTS</b>			<b>8209.1</b>		<b>65.0</b>		<b>22092.8</b>		<b>292.0</b>		<b>4986.0</b>		<b>29283.8</b>		<b>10503.9</b>		<b>1833.6</b>		<b>77266.1</b>	

**Table 4.1 (cont'd) Share of Priority Sectors to Total Intra-ASEAN Exports, By Sector, By Country, 1997-2001**

Year/Sector	Brunei		Indonesia		Laos		Malaysia		Myanmar		Philippines		Singapore		Thailand		Vietnam		ASEAN	
	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share
<b>2000</b>																				
Agro-Based			0.8	0.01	1.9	2.41	1241.9	4.78	58.0	12.52	160.3	2.68	906.3	2.43	1097.2	8.43	407.5	19.56	3873.8	4.05
Fisheries			102.9	0.95			37.4	0.14	49.2	10.62	8.0	0.13	54.9	0.15	156.5	1.20	39.9	1.92	448.9	0.47
Healthcare			68.4	0.63			84.8	0.33			7.2	0.12	345.5	0.93	181.6	1.39	3.2	0.15	690.7	0.72
Rubber-Based			95.9	0.89			68.5	0.26	14.6	3.15	10.6	0.18	129.7	0.35	320.7	2.46	15.8	0.76	655.8	0.68
Wood-Based			519.5	4.80	59.5	77.36	484.4	1.86	110.7	23.87	22.7	0.38	286.3	0.77	188.0	1.44	2.3	0.11	1673.3	1.75
Textiles and Garments			684.4	6.32	0.1	0.16	358.5	1.38	28.4	6.13	46.6	0.78	593.4	1.59	433.8	3.33	42.8	2.05	2188.0	2.28
ICT			1527.5	14.10			9866.0	37.96			1403.5	23.47	11968.6	32.07	3471.3	26.66	14.2	0.68	28251.2	29.50
Electronics			815.0	7.52			976.1	3.76			210.9	3.53	1288.6	3.45	327.5	2.52	11.3	0.54	3629.3	3.79
Automotives			183.6	1.69			110.0	0.42			161.2	2.70	286.1	0.77	459.8	3.53			1200.7	1.25
<b>TOTAL (Priority Sectors)</b>			<b>3997.9</b>	<b>36.91</b>	<b>61.5</b>	<b>80.03</b>	<b>13227.6</b>	<b>50.90</b>	<b>260.9</b>	<b>56.28</b>	<b>2030.9</b>	<b>33.96</b>	<b>15859.4</b>	<b>42.50</b>	<b>6636.5</b>	<b>50.96</b>	<b>537.0</b>	<b>25.77</b>	<b>42611.7</b>	<b>44.50</b>
<b>TOTAL INTRA-ASEAN EXPORTS</b>			<b>10832.0</b>		<b>76.9</b>		<b>25988.8</b>		<b>463.6</b>		<b>5980.2</b>		<b>37316.5</b>		<b>13022.0</b>		<b>2084.1</b>		<b>95764.1</b>	
<b>2001</b>																				
Agro-Based			714.4	7.57	0.5	0.58	1317.7	5.97	70.8	6.93	105.4	2.12	908.0	2.80	1184.0	9.76	270.5	13.63	4571.3	5.43
Fisheries			150.4	1.59			51.0	0.23	58.4	5.72	7.6	0.15	49.3	0.15	113.9	0.94	38.9	1.96	469.6	0.56
Healthcare			74.6	0.79			86.7	0.39			10.0	0.20	321.0	0.99	206.4	1.70	8.2	0.41	707.0	0.84
Rubber-Based			84.9	0.90			60.1	0.27	10.0	0.98	10.0	0.20	113.2	0.35	318.5	2.62	14.8	0.75	611.5	0.73
Wood-Based			466.5	4.94	66.6	74.24	318.1	1.44	100.1	9.80	20.4	0.41	248.4	0.77	174.9	1.44	4.5	0.23	1399.5	1.66
Textiles and Garments			513.0	5.44			319.0	1.45	30.2	2.96	41.2	0.83	464.0	1.43	433.6	3.57	35.7	1.80	1836.8	2.18
ICT			1476.7	15.65			7349.9	33.30			1521.9	30.55	9835.2	30.30	3020.1	24.89	196.2	9.88	23400.0	27.80
Electronics			395.9	4.20			871.3	3.95			221.9	4.45	1274.4	3.93	312.3	2.57	7.2	0.36	3083.1	3.66
Automotives			179.3	1.90	1.3	1.48	92.8	0.42			163.6	3.28	279.6	0.86	397.8	3.28			1114.5	1.32
<b>TOTAL (Priority Sectors)</b>			<b>4055.7</b>	<b>42.99</b>	<b>68.4</b>	<b>76.31</b>	<b>10466.7</b>	<b>47.43</b>	<b>269.5</b>	<b>26.38</b>	<b>2102.2</b>	<b>42.19</b>	<b>13493.2</b>	<b>41.56</b>	<b>6161.5</b>	<b>50.78</b>	<b>575.9</b>	<b>29.02</b>	<b>37193.2</b>	<b>44.18</b>
<b>TOTAL INTRA-ASEAN EXPORTS</b>			<b>9434.9</b>		<b>89.7</b>		<b>22069.2</b>		<b>1021.4</b>		<b>4982.5</b>		<b>32463.4</b>		<b>12134.8</b>		<b>1984.4</b>		<b>84180.4</b>	

Source: PC/TAS

**Figure 4.2 Value of ASEAN Imports, and Its Share to World's Total Imports, By Sector, 1997-2001**



Source: PC/TAS

**Table 4.2 Share of Priority Sectors to Total Intra-ASEAN Imports, By Sector, By Country, 1997-2001**

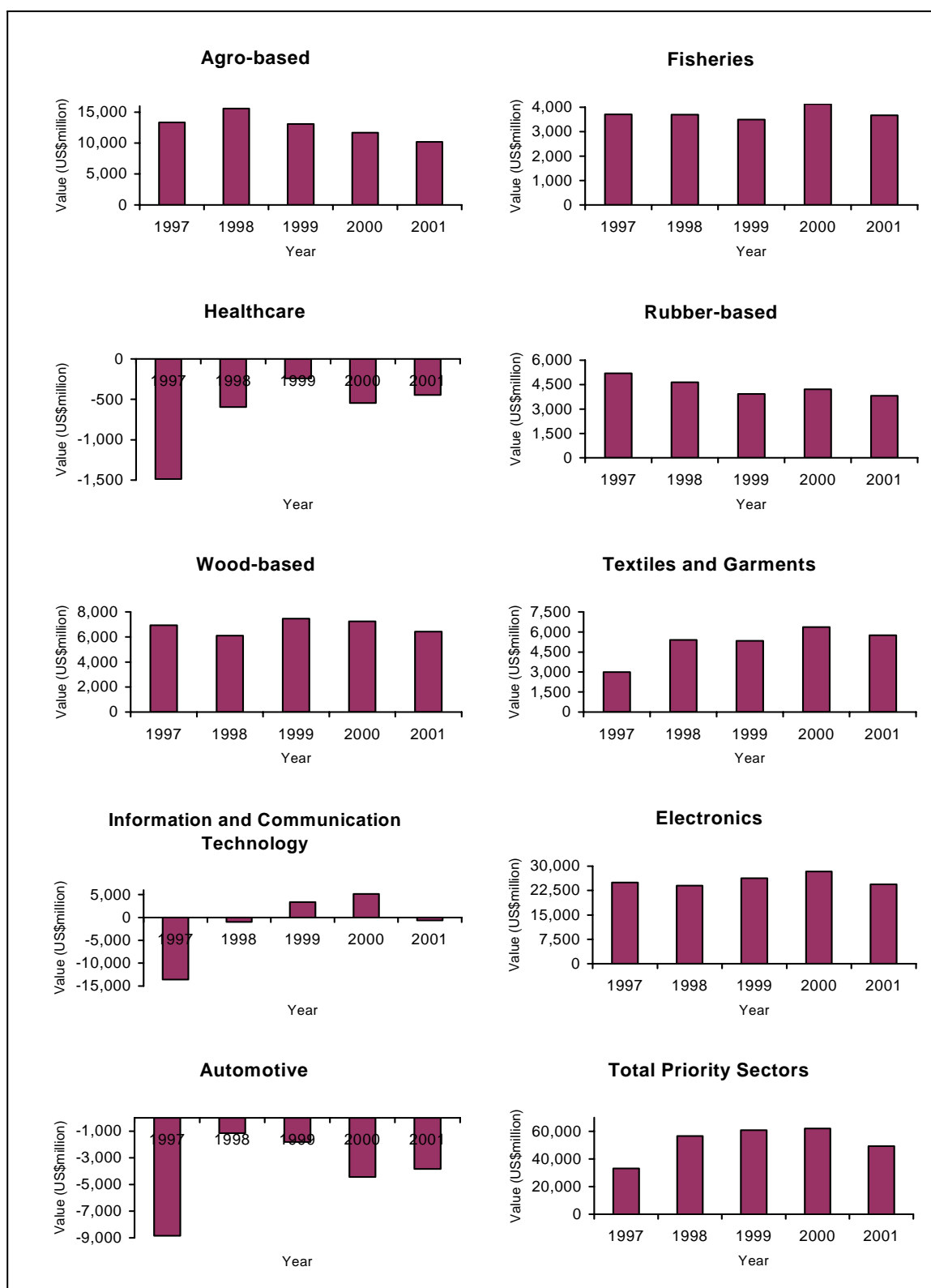
Year/Sector	Brunei		Indonesia		Laos		Malaysia		Myanmar		Philippines		Singapore		Thailand		Vietnam		ASEAN	
	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share
<b>1997</b>																				
Agro-Based	180.6	18.81	635.2	11.73	59.9	14.27	749.1	4.64	326.4	19.94	343.6	6.56	1574.7	5.32	159.3	2.00	259.8	8.60	4288.5	6.09
Fisheries	15.4	1.60	1.5	0.03	0.0	0.00	146.4	0.91	0.0	0.00	2.8	0.05	122.4	0.41	169.7	2.13	0.1	0.00	458.4	0.65
Healthcare	15.9	1.66	28.2	0.52	4.4	1.04	94.3	0.58	17.7	1.08	61.0	1.17	78.1	0.26	13.3	0.17	60.3	2.00	373.2	0.53
Rubber-Based	3.2	0.33	35.0	0.65	6.8	1.61	350.2	2.17	22.0	1.34	34.6	0.66	310.2	1.05	39.6	0.50	15.4	0.51	816.9	1.16
Wood-Based	41.6	4.33	59.8	1.11	0.0	0.00	289.6	1.79	11.2	0.68	166.6	3.18	536.2	1.81	553.8	6.95	58.1	1.92	1716.9	2.44
Textiles and Garments	56.6	5.90	63.4	1.17	24.9	5.93	287.3	1.78	70.2	4.29	106.7	2.04	1121.5	3.79	110.9	1.39	116.2	3.85	1957.6	2.78
ICT	12.8	1.34	119.2	2.20	0.0	0.00	4727.2	29.29	10.4	0.64	1426.9	27.26	8074.2	27.30	2298.6	28.85	164.3	5.44	16833.7	23.92
Electronics	24.7	2.58	113.6	2.10	17.5	4.17	331.6	2.05	24.8	1.52	158.6	3.03	3495.3	11.82	189.5	2.38	14.7	0.49	4370.5	6.21
Automotives	10.3	1.07	92.6	1.71	0.1	0.02	84.7	0.52	0.0	0.00	106.6	2.04	152.6	0.52	71.3	0.90	0.1	0.00	518.4	0.74
<b>TOTAL (Priority Sectors)</b>	<b>361.2</b>	<b>37.63</b>	<b>1148.5</b>	<b>21.22</b>	<b>113.5</b>	<b>27.04</b>	<b>7060.2</b>	<b>43.75</b>	<b>482.6</b>	<b>29.49</b>	<b>2407.5</b>	<b>45.99</b>	<b>15465.4</b>	<b>52.28</b>	<b>3606.0</b>	<b>45.26</b>	<b>689.1</b>	<b>22.81</b>	<b>31334.0</b>	<b>44.53</b>
<b>TOTAL INTRA-ASEAN IMPORTS</b>	<b>959.8</b>		<b>5413.0</b>		<b>419.9</b>		<b>16137.3</b>		<b>1636.3</b>		<b>5234.8</b>		<b>29579.1</b>		<b>7967.2</b>		<b>3021.0</b>		<b>70368.4</b>	
<b>1998</b>																				
Agro-Based	163.6	21.90	975.9	21.66	44.6	11.33	723.6	5.48	242.4	19.23	462.0	9.79	1069.8	4.51	131.7	2.05	276.4	9.45	4090.0	7.06
Fisheries	10.9	1.47	1.0	0.02	0.0	0.00	118.4	0.90	0.0	0.00	11.0	0.23	56.1	0.24	189.0	2.94	1.3	0.05	387.8	0.67
Healthcare	15.3	2.05	13.8	0.31	5.1	1.30	69.2	0.52	12.5	0.99	69.6	1.47	67.1	0.28	9.6	0.15	56.3	1.92	318.4	0.55
Rubber-Based	3.7	0.50	27.5	0.61	7.4	1.89	303.5	2.30	17.3	1.38	30.7	0.65	245.4	1.04	36.8	0.57	17.7	0.61	690.0	1.19
Wood-Based	28.3	3.78	40.8	0.91	0.0	0.00	265.5	2.01	11.7	0.93	118.7	2.51	364.6	1.54	255.9	3.98	74.5	2.55	1160.0	2.00
Textiles and Garments	54.7	7.32	83.6	1.86	20.9	5.30	216.8	1.64	65.2	5.17	102.1	2.16	975.0	4.11	96.9	1.51	123.9	4.24	1739.0	3.00
ICT	8.6	1.15	44.1	0.98	0.0	0.00	3857.4	29.21	5.1	0.41	1459.1	30.91	7486.3	31.58	1883.2	29.28	233.2	7.98	14977.1	25.87
Electronics	15.7	2.11	50.8	1.13	12.2	3.11	270.0	2.04	15.1	1.20	137.2	2.91	2390.8	10.09	111.5	1.73	11.9	0.41	3015.2	5.21
Automotives	2.9	0.39	34.2	0.76	0.1	0.03	20.2	0.15	0.0	0.00	50.8	1.08	132.4	0.56	17.8	0.28	0.1	0.00	258.4	0.45
<b>TOTAL (Priority Sectors)</b>	<b>303.8</b>	<b>40.67</b>	<b>1271.7</b>	<b>28.22</b>	<b>90.3</b>	<b>22.95</b>	<b>5844.5</b>	<b>44.26</b>	<b>369.4</b>	<b>29.30</b>	<b>2441.2</b>	<b>51.71</b>	<b>12787.5</b>	<b>53.95</b>	<b>2732.2</b>	<b>42.48</b>	<b>795.4</b>	<b>27.20</b>	<b>26636.1</b>	<b>46.01</b>
<b>TOTAL INTRA-ASEAN IMPORTS</b>	<b>747.0</b>		<b>4506.3</b>		<b>393.5</b>		<b>13206.4</b>		<b>1260.7</b>		<b>4720.6</b>		<b>23702.5</b>		<b>6432.3</b>		<b>2924.2</b>		<b>57893.5</b>	
<b>1999</b>																				
Agro-Based			1130.2	23.63	63.1	14.12	682.7	4.45	217.3	19.27	432.7	9.09	1226.9	4.67	163.7	2.06	272.8	9.58	4189.4	6.60
Fisheries			1.1	0.02	0.0	0.00	120.7	0.79	0.0	0.00	15.4	0.32	59.0	0.22	168.5	2.12	1.3	0.05	366.0	0.58
Healthcare			7.7	0.16	3.3	0.74	73.3	0.48	20.5	1.82	88.2	1.85	78.0	0.30	10.8	0.14	53.4	1.88	335.3	0.53
Rubber-Based			45.8	0.96	7.0	1.56	266.2	1.74	18.9	1.67	28.6	0.60	220.3	0.84	37.6	0.47	13.6	0.48	637.9	1.00
Wood-Based			38.1	0.80	0.0	0.00	373.9	2.44	20.5	1.82	156.3	3.28	390.4	1.49	332.6	4.18	80.4	2.82	1392.2	2.19
Textiles and Garments			62.3	1.30	24.8	5.54	258.9	1.69	61.1	5.42	114.4	2.40	1044.0	3.98	94.4	1.19	142.9	5.02	1802.8	2.84
ICT			37.3	0.78	0.0	0.01	4166.3	27.16	5.7	0.50	1248.5	26.23	10246.5	39.03	1643.5	20.65	181.0	6.36	17528.7	27.60
Electronics			49.2	1.03	17.0	3.79	369.5	2.41	10.8	0.95	139.6	2.93	2379.5	9.06	155.2	1.95	7.4	0.26	3128.2	4.92
Automotives			107.3	2.24	0.1	0.03	39.2	0.26	0.0	0.00	94.9	1.99	145.6	0.55	97.2	1.22	0.1	0.00	484.4	0.76
<b>TOTAL (Priority Sectors)</b>			<b>1479.0</b>	<b>30.93</b>	<b>115.3</b>	<b>25.79</b>	<b>6350.6</b>	<b>41.41</b>	<b>354.8</b>	<b>31.45</b>	<b>2318.7</b>	<b>48.71</b>	<b>15790.1</b>	<b>60.14</b>	<b>2703.6</b>	<b>33.96</b>	<b>752.9</b>	<b>26.45</b>	<b>29864.9</b>	<b>47.02</b>
<b>TOTAL INTRA-ASEAN IMPORTS</b>			<b>4782.1</b>		<b>447.2</b>		<b>15337.4</b>		<b>1128.0</b>		<b>4760.1</b>		<b>26255.8</b>		<b>7960.4</b>		<b>2846.2</b>		<b>63517.2</b>	

Table 4.2 (Cont'd) Share of Priority Sectors to Total Intra-ASEAN Imports, By Sector, By Country, 1997-2001

Year/Sector	Brunei		Indonesia		Laos		Malaysia		Myanmar		Philippines		Singapore		Thailand		Vietnam		ASEAN	
	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share	value (US\$M)	% Share
<b>2000</b>																				
Agro-Based			582.7	8.99	58.4	14.08	661.4	3.36	211.6	17.00	387.4	7.09	1175.8	3.54	233.8	2.27	339.5	8.83	3650.5	4.53
Fisheries			3.5	0.05	1.0	0.25	132.6	0.67	0.0	0.00	10.2	0.19	61.1	0.18	134.7	1.31	1.3	0.04	344.5	0.43
Healthcare			22.3	0.34	5.2	1.25	74.4	0.38	24.7	1.98	99.6	1.82	79.0	0.24	18.1	0.18	61.2	1.59	384.4	0.48
Rubber-Based			57.5	0.89	4.4	1.06	369.8	1.88	19.3	1.55	23.6	0.43	212.0	0.64	37.3	0.36	16.5	0.43	740.4	0.92
Wood-Based			87.3	1.35	0.0	0.00	494.1	2.51	22.7	1.82	124.3	2.27	426.8	1.29	413.0	4.01	97.2	2.53	1665.3	2.07
Textiles and Garments			118.8	1.83	29.7	7.16	289.9	1.47	74.1	5.96	120.5	2.21	1217.2	3.67	129.7	1.26	169.5	4.41	2149.4	2.67
ICT			49.4	0.76	1.2	0.29	5285.5	26.82	9.9	0.79	1412.4	25.85	13497.4	40.68	2580.1	25.05	269.6	7.01	23105.6	28.65
Electronics			125.6	1.94	19.2	4.63	344.5	1.75	13.7	1.10	157.5	2.88	3161.0	9.53	278.8	2.71	7.5	0.19	4107.9	5.09
Automotives			156.7	2.42	0.1	0.02	71.3	0.36	0.0	0.00	130.0	2.38	184.8	0.56	136.5	1.32	0.1	0.00	679.5	0.84
<b>TOTAL (Priority Sectors)</b>			<b>1203.8</b>	<b>18.57</b>	<b>119.2</b>	<b>28.74</b>	<b>7723.4</b>	<b>39.20</b>	<b>376.0</b>	<b>30.21</b>	<b>2465.5</b>	<b>45.13</b>	<b>20015.1</b>	<b>60.32</b>	<b>3962.0</b>	<b>38.46</b>	<b>962.5</b>	<b>25.03</b>	<b>36827.6</b>	<b>45.67</b>
<b>TOTAL INTRA-ASEAN IMPORTS</b>			<b>6484.1</b>		<b>414.8</b>		<b>19704.2</b>		<b>1244.6</b>		<b>5463.3</b>		<b>33183.3</b>		<b>10301.1</b>		<b>3845.6</b>		<b>80641.0</b>	
<b>2001</b>																				
Agro-Based			493.1	9.03	69.9	15.89	756.2	4.53	162.0	15.44	398.2	7.99	1126.9	3.89	275.9	2.75	394.7	10.50	3677.0	5.15
Fisheries			1.1	0.02	0.0	0.00	155.6	0.93	0.0	0.00	6.8	0.14	55.6	0.19	162.6	1.62	4.1	0.11	385.8	0.54
Healthcare			33.3	0.61	5.3	1.20	89.0	0.53	20.2	1.93	97.1	1.95	87.3	0.30	21.8	0.22	51.5	1.37	405.5	0.57
Rubber-Based			49.6	0.91	6.0	1.37	323.6	1.94	13.5	1.29	35.0	0.70	178.3	0.62	37.0	0.37	16.4	0.44	659.4	0.92
Wood-Based			68.4	1.25	0.0	0.00	479.4	2.87	27.8	2.65	131.8	2.64	364.5	1.26	403.0	4.02	95.7	2.55	1570.6	2.20
Textiles and Garments			104.6	1.91	38.7	8.79	248.2	1.49	61.7	5.88	121.9	2.45	1054.6	3.64	35.0	0.35	153.9	4.09	1818.6	2.55
ICT			52.2	0.96	0.0	0.00	4083.6	24.45	10.8	1.03	1365.3	27.39	11987.6	41.40	2078.2	20.73	174.1	4.63	19751.9	27.67
Electronics			103.0	1.89	25.7	5.84	598.2	3.58	13.8	1.32	110.9	2.22	2691.0	9.29	356.7	3.56	8.9	0.24	3908.1	5.48
Automotives			116.1	2.12	0.0	0.01	132.0	0.79	0.0	0.00	152.4	3.06	164.6	0.57	154.8	1.54	0.0	0.00	720.0	1.01
<b>TOTAL (Priority Sectors)</b>			<b>1021.3</b>	<b>18.70</b>	<b>145.7</b>	<b>33.10</b>	<b>6865.8</b>	<b>41.11</b>	<b>309.9</b>	<b>29.53</b>	<b>2419.4</b>	<b>48.55</b>	<b>17710.3</b>	<b>61.16</b>	<b>3525.1</b>	<b>35.16</b>	<b>899.4</b>	<b>23.91</b>	<b>32896.9</b>	<b>46.09</b>
<b>TOTAL INTRA-ASEAN IMPORTS</b>			<b>5461.9</b>		<b>440.2</b>		<b>16700.5</b>		<b>1049.6</b>		<b>4983.7</b>		<b>28957.2</b>		<b>10026.5</b>		<b>3760.9</b>		<b>71380.3</b>	

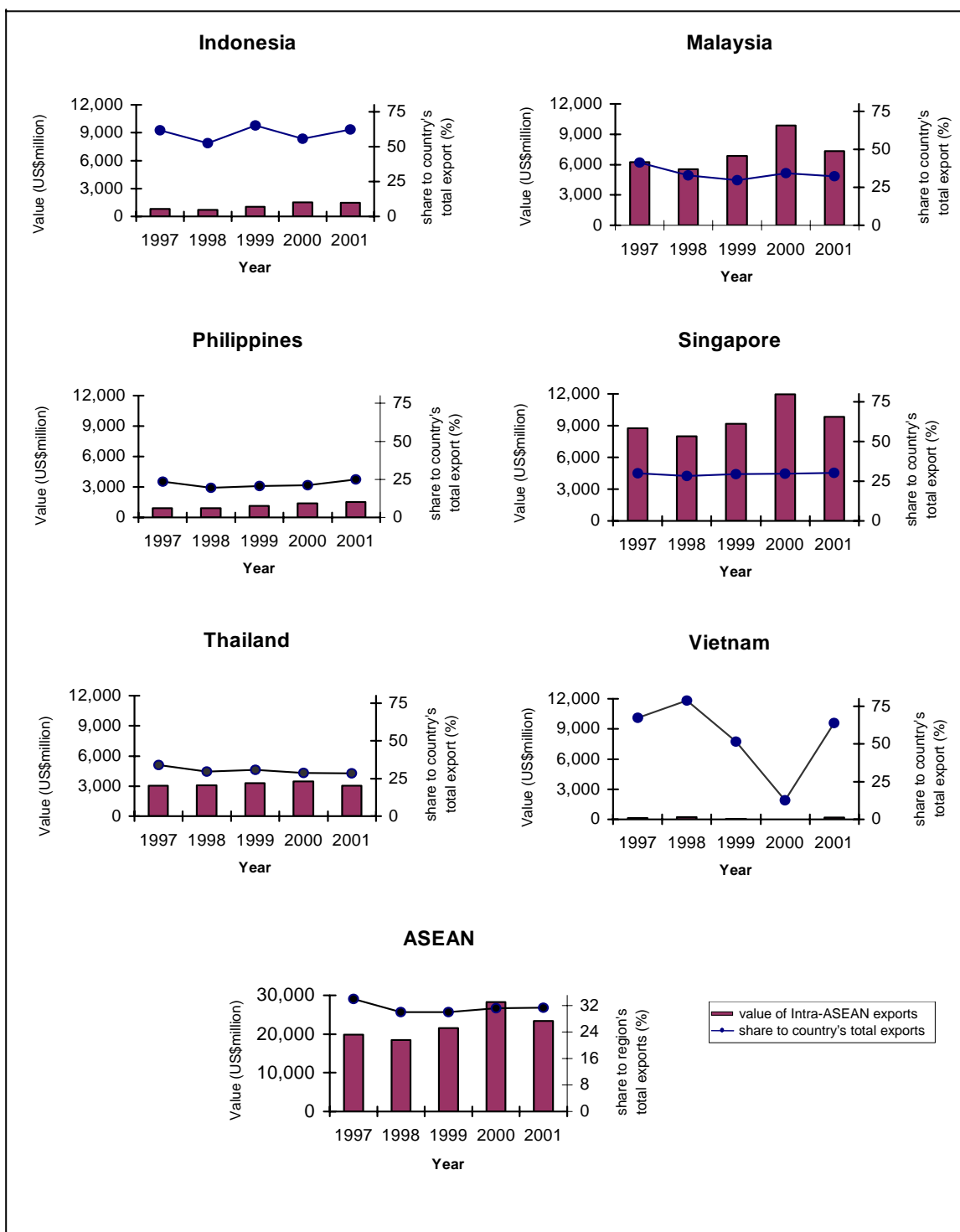
Source: PC/TAS

Figure 4.3 Balance of Trade, By Sector, ASEAN, 1997-2001



Source: PC/TAS

**Figure 4.4 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By Country, Information and Communication Technology, 1997-2001.**



Notes: 1. Data for Brunei includes 1997 and 1998 only; and hence, Brunei is excluded from the graph.  
 2. The values for Myanmar are too small for the scale of the graph; hence, Myanmar is excluded from the graph.  
 3. No exports reported for Laos.  
 4. PC/TAS does not include Cambodia.

Source: PC/TAS

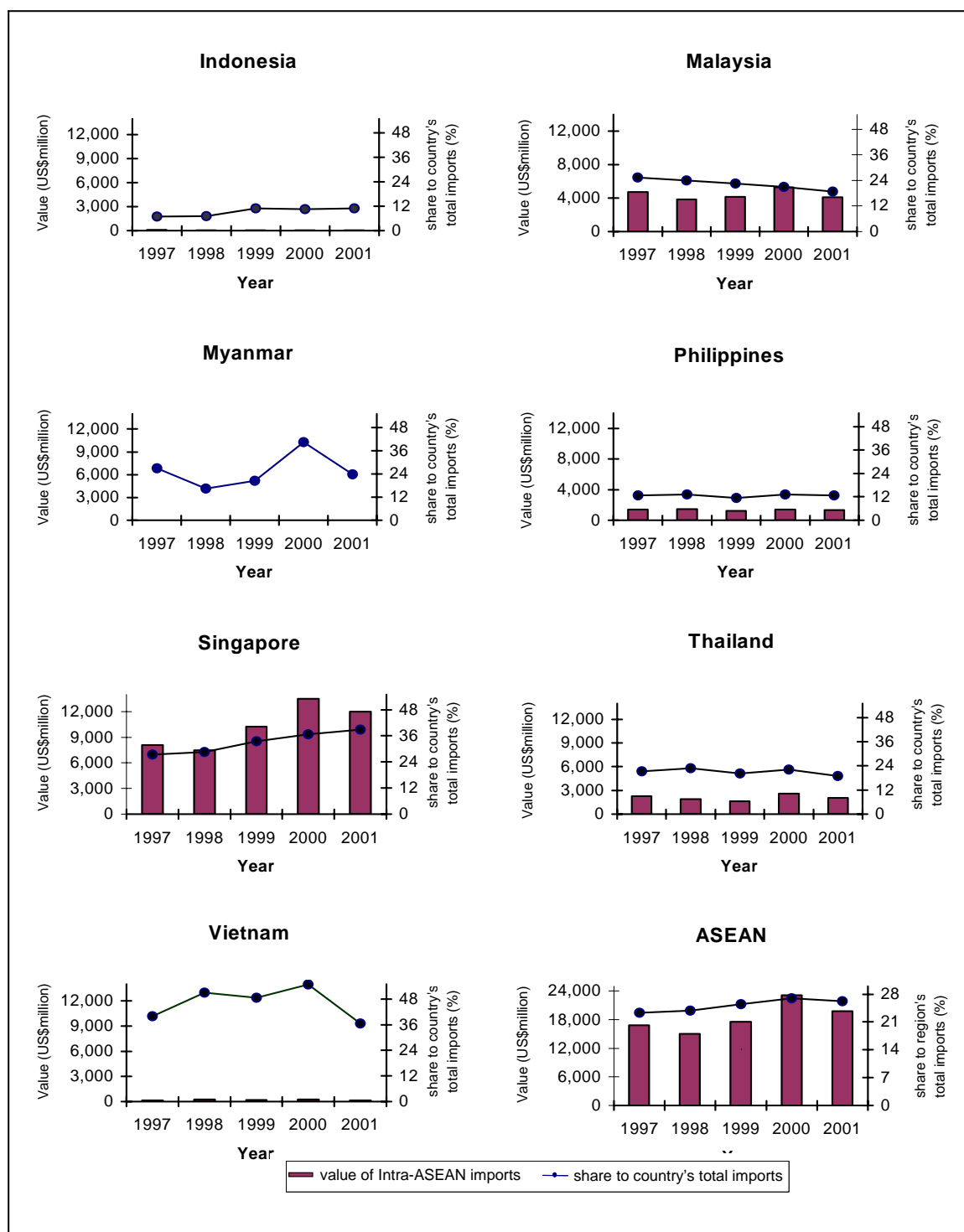
**Table 4.3 Percentage Distribution of Intra-ASEAN Exports,  
By Sector, By Country, 1997-2001 (%).**

Sector/Year	Brunei	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
<b>Agro-Based</b>									
1997		13.14	0.01	27.57	1.41	2.44	19.16	29.18	7.10
1998		16.21	0.05	25.21	1.23	1.83	14.77	27.49	13.21
1999		15.08	0.10	27.18	0.64	1.54	16.96	22.80	15.69
2000		16.43	0.04	26.80	1.25	3.46	19.56	23.68	8.79
2001		15.63	0.01	28.83	1.55	2.31	19.86	25.90	5.92
Average		15.30	0.04	27.12	1.22	2.31	18.06	25.81	10.14
<b>Fisheries</b>									
1997		33.28		4.79	11.84	1.46	12.05	30.12	6.46
1998		35.69		4.29	9.82	3.52	9.24	30.10	7.33
1999		36.24		6.50	8.20	1.80	9.69	31.24	6.32
2000		22.92		8.34	10.97	1.78	12.22	34.88	8.90
2001		32.03		10.87	12.44	1.63	10.51	24.26	8.26
Average		32.03		6.96	10.66	2.04	10.74	30.12	7.45
<b>Healthcare</b>									
1997		7.13		11.57		1.58	60.23	19.01	0.48
1998		8.76		12.39		1.63	54.86	21.74	0.62
1999		10.00		12.74		1.67	52.45	22.64	0.51
2000		9.90		12.28		1.04	50.03	26.30	0.46
2001		10.56		12.27		1.41	45.41	29.20	1.16
Average		9.27		12.25		1.47	52.59	23.78	0.64
<b>Rubber-Based</b>									
1997		20.73		10.77	3.95	1.73	24.15	36.06	2.61
1998		18.72		11.93	2.93	1.30	17.60	45.15	2.36
1999		17.81		11.30	2.18	1.51	19.55	42.10	5.56
2000		14.62		10.45	2.23	1.62	19.77	48.90	2.41
2001		13.88		9.82	1.63	1.64	18.51	52.09	2.42
Average		17.15		10.85	2.58	1.56	19.92	44.86	3.07
<b>Wood-Based</b>									
1997		21.67	2.87	39.67	6.01	1.57	20.36	7.73	0.12
1998		37.14	1.57	26.98	4.42	2.21	18.33	9.22	0.13
1999		31.98	2.59	30.12	6.66	1.39	17.58	9.50	0.18
2000		31.05	3.55	28.95	6.61	1.36	17.11	11.24	0.14
2001		33.33	4.76	22.73	7.15	1.46	17.75	12.50	0.32
Average		31.04	3.07	29.69	6.17	1.60	18.23	10.04	0.18
<b>Textiles and Garments</b>									
1997	0.08	21.04		15.28	0.75	3.16	41.01	17.20	1.48
1998	0.61	22.78		16.36	0.82	3.26	33.81	20.71	1.65
1999		29.45	0.11	16.12	0.68	1.69	29.97	20.35	1.64
2000		31.28	0.01	16.38	1.30	2.13	27.12	19.83	1.96
2001		27.93		17.37	1.64	2.24	25.26	23.61	1.94
Average	0.14	26.50	0.02	16.30	1.04	2.50	31.43	20.34	1.74
<b>Information and Communication Technology</b>									
1997	0.01	4.01		31.25		4.65	44.03	15.29	0.76
1998		3.77		30.13		4.94	43.37	16.66	1.13
1999		4.94		31.75		5.27	42.45	15.34	0.26
2000		5.41		34.92		4.97	42.36	12.29	0.05
2001		6.31		31.41		6.50	42.03	12.91	0.84
Average	0.00	4.89		31.89		5.27	42.85	14.50	0.61
<b>Electronics</b>									
1997		1.97		21.10		1.82	43.14	31.97	
1998		1.88		34.52		4.34	44.83	14.42	
1999		6.89		31.93		8.40	40.53	11.47	0.78
2000		22.46		26.89		5.81	35.51	9.02	0.31
2001		12.84		28.26		7.20	41.34	10.13	0.23
Average		9.21		28.54		5.52	41.07	15.40	0.26
<b>Automotives</b>									
1997		17.48		6.89		7.77	43.41	24.45	
1998	1.00	16.49		8.69		7.31	27.80	39.07	
1999		18.16		8.67		11.47	25.44	36.24	
2000		15.29		9.16		13.42	23.83	38.29	
2001		16.08		8.33		14.68	25.09	35.70	
Average	0.00	16.70		8.35		10.93	29.12	34.75	

Source: PC/TAS



**Figure 4.5 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Information and Communication Technology, 1997-2001.**



- Notes:
1. Data for Brunei includes 1997 and 1998 only; and hence, Brunei is excluded from the graph.
  2. The values of Intra-ASEAN imports for Myanmar are too small for the scale of the graph; hence, only % share is included.
  3. No imports reported for Laos.
  4. PC/TAS does not include Cambodia.

Source: PC/TA

**Table 4.4 Percentage Distribution of Intra-ASEAN Imports, By Sector, By Country, 1997-2001 (%).**

Sector/Year	Brunei	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
<b>Agro-Based</b>									
1997	4.00	14.81	1.40	17.47	7.61	8.01	36.72	3.71	6.06
1998	4.00	23.86	1.09	17.69	5.93	11.30	26.16	3.22	6.76
1999		26.98	1.51	16.30	5.19	10.33	29.29	3.91	6.51
2000		15.96	1.60	18.12	5.80	10.61	32.21	6.41	9.30
2001		13.41	1.90	20.57	4.41	10.83	30.65	7.50	10.74
Average	2.00	19.00	1.50	18.03	5.79	10.22	31.00	4.95	7.87
<b>Fisheries</b>									
1997	3.00	0.33		31.93		0.62	26.71	37.03	0.03
1998	3.00	0.25		30.52		2.84	14.48	48.73	0.34
1999		0.29		32.98		4.21	16.11	46.04	0.37
2000		1.02	0.30	38.49		2.96	17.74	39.10	0.39
2001		0.28		40.34		1.76	14.40	42.15	1.06
Average	1.00	0.44	0.06	34.85		2.48	17.89	42.61	0.44
<b>Healthcare</b>									
1997	4.27	7.55	1.17	25.27	4.74	16.35	20.94	3.57	16.16
1998	4.82	4.33	1.61	21.73	3.91	21.84	21.08	3.00	17.68
1999		2.31	0.98	21.87	6.11	26.31	23.26	3.23	15.93
2000		5.79	1.35	19.35	6.41	25.91	20.55	4.71	15.93
2001		8.21	1.30	21.95	4.98	23.94	21.54	5.37	12.70
Average	1.82	5.64	1.28	22.03	5.23	22.87	21.47	3.98	15.68
<b>Rubber-Based</b>									
1997		4.28	0.83	42.86	2.69	4.24	37.97	4.84	1.89
1998	1.00	3.98	1.08	43.99	2.51	4.44	35.57	5.33	2.57
1999		7.18	1.09	41.73	2.96	4.48	34.53	5.90	2.13
2000		7.77	0.59	49.94	2.60	3.19	28.63	5.04	2.23
2001		7.52	0.91	49.07	2.05	5.31	27.04	5.62	2.48
Average	0.00	6.15	0.90	45.52	2.56	4.33	32.75	5.35	2.26
<b>Wood-Based</b>									
1997	2.00	3.49		16.87	0.65	9.70	31.23	32.25	3.38
1998	2.00	3.52		22.89	1.01	10.24	31.43	22.06	6.42
1999		2.74		26.86	1.47	11.23	28.04	23.89	5.78
2000		5.24		29.67	1.36	7.46	25.63	24.80	5.84
2001		4.35		30.52	1.77	8.39	23.21	25.66	6.10
Average	1.00	3.87		25.36	1.25	9.40	27.91	25.73	5.50
<b>Textiles and Garments</b>									
1997	2.89	3.24	1.27	14.68	3.58	5.45	57.29	5.66	5.93
1998	3.14	4.81	1.20	12.46	3.75	5.87	56.07	5.57	7.13
1999		3.46	1.38	14.36	3.39	6.35	57.91	5.24	7.93
2000		5.53	1.38	13.49	3.45	5.61	56.63	6.03	7.88
2001		5.75	2.13	13.65	3.39	6.70	57.99	1.93	8.46
Average	1.21	4.56	1.47	13.73	3.51	6.00	57.18	4.89	7.47
<b>Information and Communication Technology</b>									
1997	0.08	0.71		28.08	0.06	8.48	47.96	13.65	0.98
1998	0.06	0.29		25.76	0.03	9.74	49.99	12.57	1.56
1999		0.21		23.77	0.03	7.12	58.46	9.38	1.03
2000		0.21	0.01	22.88	0.04	6.11	58.42	11.17	1.17
2001		0.26		20.67	0.05	6.91	60.69	10.52	0.88
Average	0.03	0.34	0.00	24.23	0.05	7.67	55.10	11.46	1.12
<b>Electronics</b>									
1997	0.57	2.60	0.40	7.59	0.57	3.63	79.98	4.34	0.34
1998	0.52	1.69	0.41	8.95	0.50	4.55	79.29	3.70	0.39
1999		1.57	0.54	11.81	0.34	4.46	76.07	4.96	0.24
2000		3.06	0.47	8.39	0.33	3.83	76.95	6.79	0.18
2001		2.63	0.66	15.31	0.35	2.84	68.86	9.13	0.23
Average	0.22	2.31	0.49	10.41	0.42	3.86	76.23	5.78	0.28
<b>Automotives</b>									
1997	2.00	17.87	0.02	16.34	0.01	20.57	29.44	13.75	0.02
1998	1.00	13.23	0.04	7.80	0.01	19.64	51.22	6.87	0.05
1999		22.15	0.03	8.08	0.01	19.58	30.05	20.07	0.02
2000		23.06	0.01	10.49		19.14	27.20	20.08	0.02
2001		16.12	0.01	18.34		21.17	22.86	21.50	0.00
Average	1.00	18.49	0.02	12.21	0.00	20.02	32.15	16.46	0.02

Source: PC/TAS

**Table 4.5 Intra-ASEAN Export Index, By Country, By Sector, 1997-2001.**

Sector/Year	Brunei	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
Agro-Based									
1997		0.74	0.13	1.12	1.70	0.41	1.45	0.91	1.34
1998		0.97	0.72	0.92	1.79	0.29	1.24	0.90	2.03
1999		0.85	1.15	1.05	1.33	0.29	1.55	0.71	2.14
2000		0.91	0.50	1.18	2.08	0.55	1.80	0.68	1.32
2001		0.92	0.19	1.28	2.91	0.36	1.92	0.70	0.90
Fisheries									
1997		1.21		1.27	3.37	0.29	1.63	0.74	0.53
1998		1.27		1.11	3.20	0.62	1.43	0.76	0.56
1999		1.31		1.61	3.12	0.33	1.46	0.80	0.44
2000		0.91		1.87	3.44	0.33	1.82	0.92	0.51
2001		1.27		2.39	4.09	0.33	1.90	0.70	0.38
Healthcare									
1997		1.14		0.76		0.81	0.98	1.24	2.52
1998		1.20		0.86		0.93	0.90	1.45	1.47
1999		1.24		1.01		1.21	0.81	1.78	1.34
2000		1.15		0.91		0.85	0.82	1.75	0.80
2001		1.31		0.98		1.01	0.75	1.78	1.50
Rubber-Based									
1997		0.90		0.34	9.96	2.34	2.51	1.07	2.37
1998		0.87		0.36	10.58	1.28	1.93	1.35	1.77
1999		0.88		0.35	9.93	1.06	1.95	1.25	2.59
2000		0.73		0.36	9.90	1.17	2.30	1.27	1.03
2001		0.69		0.36	9.56	1.31	2.27	1.30	0.91
Wood-Based									
1997		0.47	5.30	1.12	3.14	0.56	3.20	1.29	0.15
1998		0.79	3.65	0.93	2.07	0.67	2.26	1.02	0.15
1999		0.67	5.40	1.01	2.34	0.51	2.79	1.04	0.19
2000		0.64	6.45	1.03	2.24	0.39	2.97	1.15	0.13
2001		0.67	7.27	0.87	3.17	0.49	3.01	1.15	0.23
Textiles and Garments									
1997	1.02	0.76	0.00	1.18	0.53	0.28	3.63	0.68	0.16
1998	6.42	0.76	0.00	1.36	0.43	0.27	3.70	0.87	0.17
1999		0.84	0.16	1.50	0.27	0.16	3.47	0.93	0.17
2000		0.87	0.01	1.60	0.31	0.20	3.33	0.97	0.20
2001		0.78	0.00	1.86	0.32	0.21	3.58	1.12	0.19
Information and Communication Technology									
1997	1.39	1.82		1.22		0.69	0.89	1.00	1.99
1998	0.04	1.76		1.10		0.65	0.95	0.99	2.63
1999		2.18		0.99		0.69	0.99	1.03	1.72
2000		1.78		1.10		0.68	0.95	0.92	0.40
2001		1.99		1.03		0.79	0.97	0.91	2.04
Electronics									
1997		2.15		1.22		0.32	0.67	2.77	0.49
1998		3.26		1.92		0.59	0.70	1.46	0.07
1999		5.84		1.58		0.82	0.70	1.12	8.73
2000		4.01		1.32		0.49	0.69	0.86	3.19
2001		3.24		1.16		0.62	0.85	0.91	1.62
Automotives									
1997		1.85	0.00	0.56		0.68	1.17	0.83	
1998		1.81	5.45	0.62		0.65	1.02	1.03	
1999		1.81	4.61	0.81		0.97	1.22	0.78	
2000		1.56	4.18	1.05		1.05	1.26	0.77	
2001		1.76	4.58	1.25		1.09	1.52	0.66	

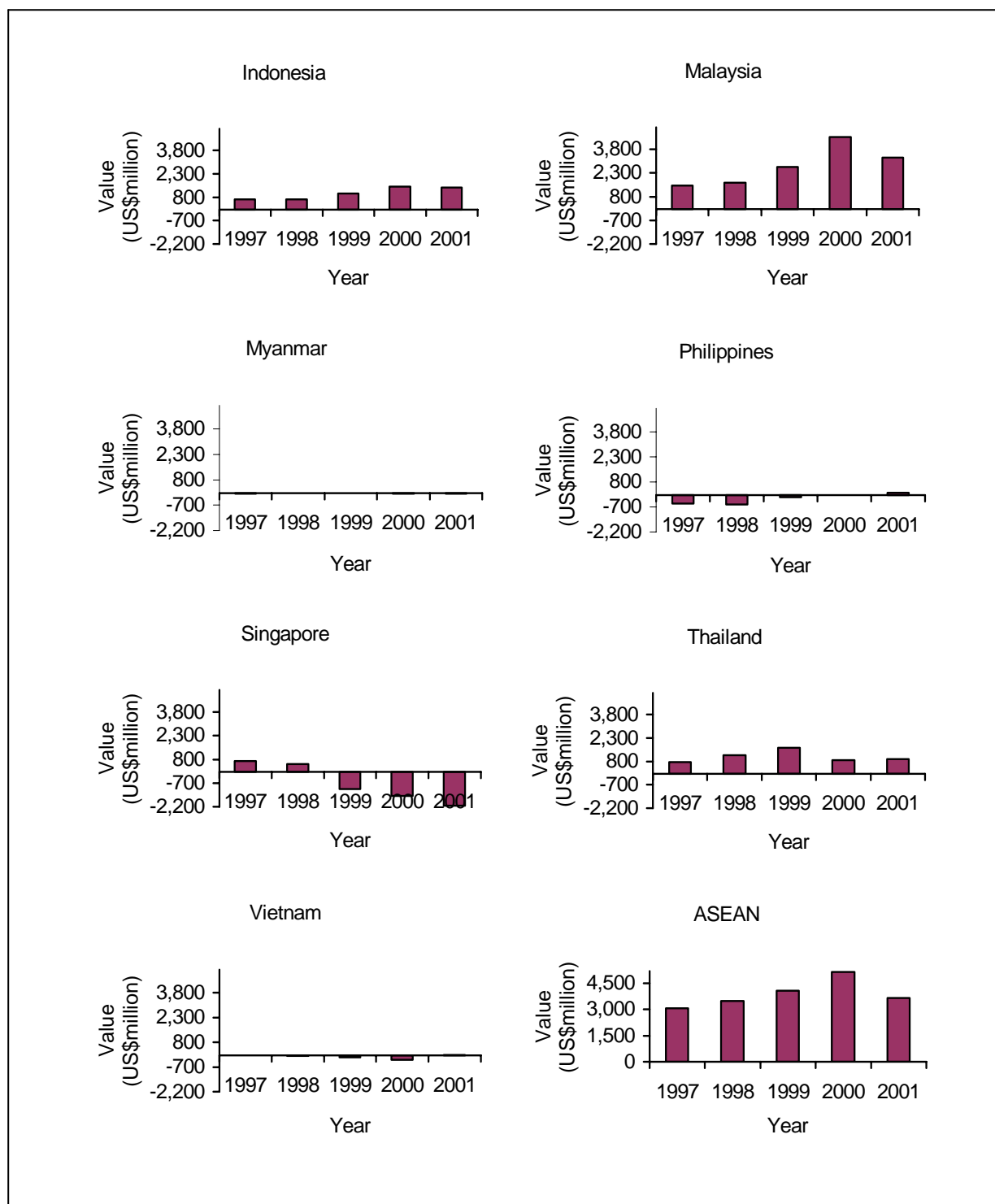
Source: PC/TAS

Table 4.6 Intra-ASEAN Import Index, By Country, By Sector, 1997-2001.

Sector/Year	Brunei	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
Agro-Based									
1997	4.00	0.81	3.33	0.87	4.13	0.60	1.31	0.28	1.75
1998	3.00	1.34	2.91	0.89	3.32	0.73	0.98	0.26	1.48
1999		1.29	3.49	0.82	3.33	0.72	1.15	0.30	1.47
2000		0.83	4.16	0.90	3.70	0.77	1.30	0.43	1.78
2001		0.78	4.14	0.97	3.24	0.77	1.30	0.47	1.80
Fisheries									
1997	3.00	0.27	0.09	1.83		0.13	0.91	0.81	0.09
1998	3.00	0.26	0.20	2.17		0.63	0.61	0.88	0.95
1999		0.18	0.22	2.12		0.67	0.66	0.89	0.62
2000		0.44	3.60	2.14		0.62	0.60	0.84	0.40
2001		0.16	0.20	2.24		0.67	0.65	0.75	1.58
Healthcare									
1997	5.42	1.12	10.77	1.48	5.77	1.50	0.54	0.21	2.08
1998	4.72	0.75	9.69	1.39	4.28	1.65	0.53	0.22	1.92
1999		0.51	10.63	1.31	5.12	1.91	0.57	0.21	2.08
2000		0.75	10.15	1.19	5.03	2.09	0.53	0.29	2.14
2001		1.48	9.79	1.17	5.57	1.95	0.56	0.31	1.91
Rubber-Based									
1997	1.00	0.32	2.39	1.76	1.65	0.55	1.16	0.30	0.64
1998	1.00	0.34	2.00	1.67	1.51	0.63	1.13	0.33	0.63
1999		0.60	2.43	1.74	1.65	0.52	1.12	0.32	0.51
2000		0.53	2.27	1.91	1.54	0.44	1.06	0.26	0.59
2001		0.52	2.67	1.83	1.58	0.72	1.10	0.26	0.69
Wood-Based									
1997	3.00	0.21		0.82	1.67	0.76	1.38	1.37	1.21
1998	3.00	0.17		1.14	1.78	0.80	1.42	1.18	1.44
1999		0.15		1.19	2.05	0.80	1.36	1.21	1.30
2000		0.23		1.30	1.89	0.66	1.44	1.19	1.49
2001		0.22		1.32	1.96	0.71	1.32	1.18	1.23
Textiles and Garments									
1997	3.22	0.18	5.36	1.10	2.57	0.42	2.03	0.35	0.66
1998	2.57	0.21	4.39	0.88	2.06	0.37	2.06	0.28	0.62
1999		0.21	4.86	1.08	1.77	0.46	2.21	0.28	0.82
2000		0.29	4.73	1.08	1.58	0.46	2.19	0.31	0.90
2001		0.27	5.06	1.20	1.65	0.57	2.44	0.10	0.95
Information and Communication Technology									
1997	0.72	0.29	0.00	1.09	1.15	0.55	1.18	0.91	1.71
1998	0.47	0.30	0.00	1.01	0.69	0.56	1.20	0.95	2.13
1999		0.43	0.01	0.88	0.81	0.45	1.32	0.79	1.91
2000		0.39	0.95	0.77	1.49	0.49	1.36	0.82	2.03
2001		0.42	0.00	0.72	0.91	0.49	1.48	0.72	1.40
Electronics									
1997	1.28	0.42	3.06	0.57	2.71	0.94	1.22	0.47	0.23
1998	1.16	0.36	3.15	0.66	1.70	1.16	1.17	0.50	0.21
1999		0.46	3.07	0.77	2.18	1.05	1.15	0.58	0.13
2000		0.66	2.79	0.65	1.97	1.05	1.16	0.67	0.10
2001		0.56	3.00	0.77	2.40	0.92	1.23	0.66	0.11
Automotives									
1997	1.00	0.84	24.15	0.68	24.15	1.65	1.47	0.67	24.15
1998	1.00	0.57	17.83	0.48	17.83	1.43	1.57	0.56	17.83
1999		1.80	12.55	0.36	12.55	1.33	1.06	0.91	12.55
2000		1.15	13.93	0.56	13.93	1.67	0.97	0.93	13.93
2001		0.77	14.42	1.01	12.42	1.79	0.88	0.93	12.42

Source: PC/TAS

**Figure 4.6 Intra-ASEAN Balance of Trade, By Country, Information and Communication Technology, 1997-2001.**



Source: PC/TAS

**Table 4.7 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Information and Communication Technology. (Based on Average Share, 1997-2001)**

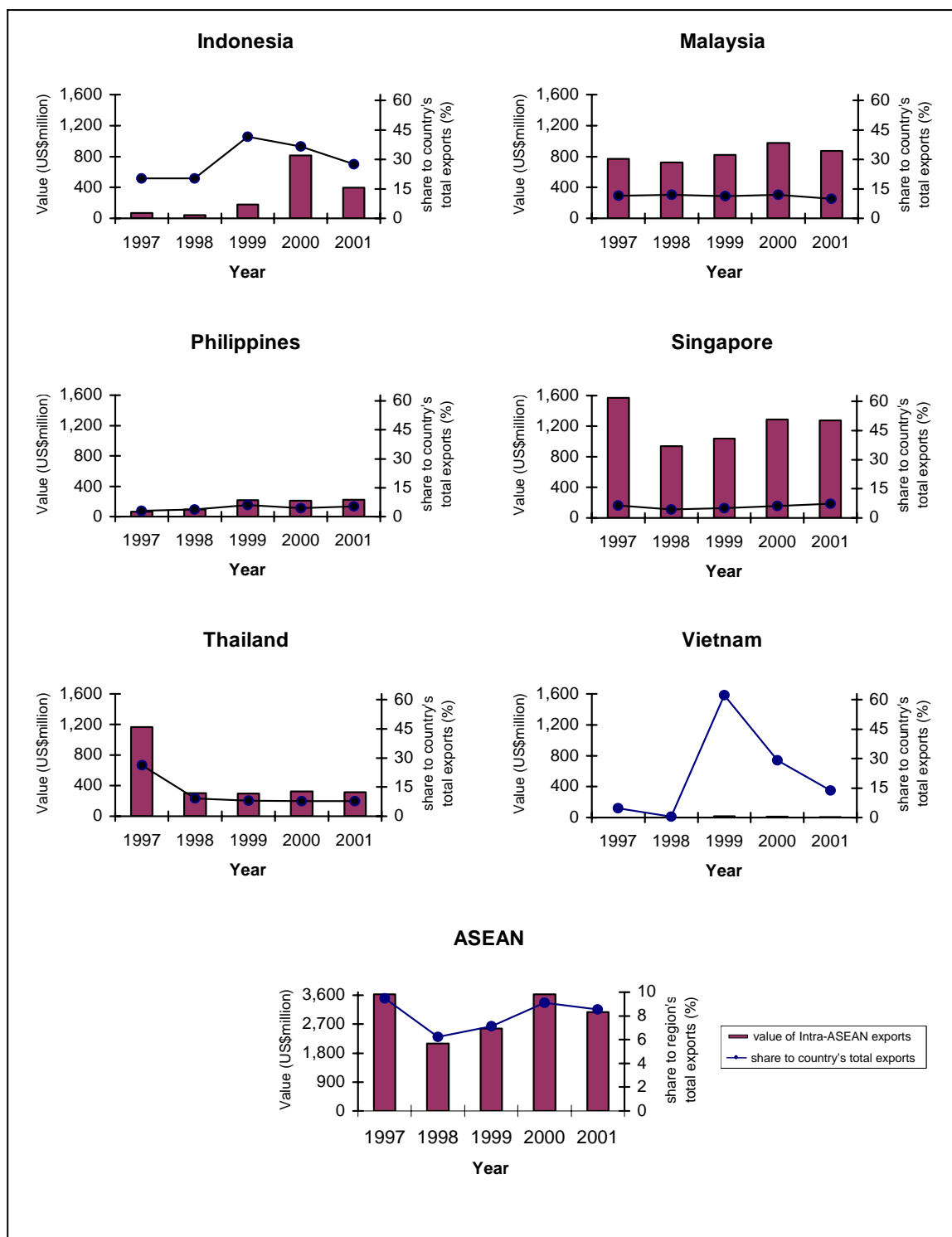
Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei	8542	100.00	Singapore	98.39	8473 8544 8529	49.34 25.09 15.67	Singapore	100.00
Indonesia	8473 8529 8534	49.75 18.36 6.11	Singapore Malaysia	85.27 11.14	8529 9026 8534	17.10 11.81 11.35	Singapore Malaysia Thailand	69.31 17.07 12.94
Laos					9030	100.00	Thailand	100.00
Malaysia	8473 8542 8534	40.24 27.26 7.41	Singapore Thailand	81.15 12.58	8542 8473 8541	28.57 26.88 9.40	Singapore Thailand Philippines	70.27 15.86 10.41
Myanmar					8473 8529 8523	44.38 23.69 14.83	Singapore Thailand Malaysia	86.37 9.24 4.39
Philippines	8473 8542 8534	66.73 12.70 7.92	Thailand Singapore Malaysia	52.47 29.87 16.06	8473 8542 8534	38.44 34.88 7.47	Singapore Thailand Malaysia	55.21 22.40 16.83
Singapore	8542 8473 8541	27.24 19.59 11.97	Malaysia Thailand Philippines	74.40 14.16 9.52	8542 8473 8541	38.28 33.37 8.02	Malaysia Thailand Philippines	73.84 14.64 11.46
Thailand	8473 8542 8534	64.55 10.42 9.12	Singapore Malaysia Philippines	70.78 18.99 8.99	8473 8542 8541	43.18 18.90 6.43	Singapore Malaysia Philippines	40.32 31.00 25.42
Vietnam	8534 8473 8529	81.59 9.37 2.23	Philippines Singapore Thailand	88.24 4.91 3.28	8529 8473 8532	28.27 14.20 9.24	Singapore Malaysia	71.03 24.24

Note:

8472 Parts for typewriters & other office machines  
8473 Parts for typewriters & other office machines  
8523 Prepared unrecorded media (no film) for sound  
8529 Parts for television, radio and radar apparatus  
8532 Electric capacitors, fixed, variations or adjusted (preset)  
8534 Printed circuits  
8541 Semiconductor devices; light-emit diodes  
8542 Electronic integrated circuits & micro assembly  
9026 Inst measure or check flow, level  
9030 Oscilloscopes, spectrum analyzers, parts

Source: PC/TAS

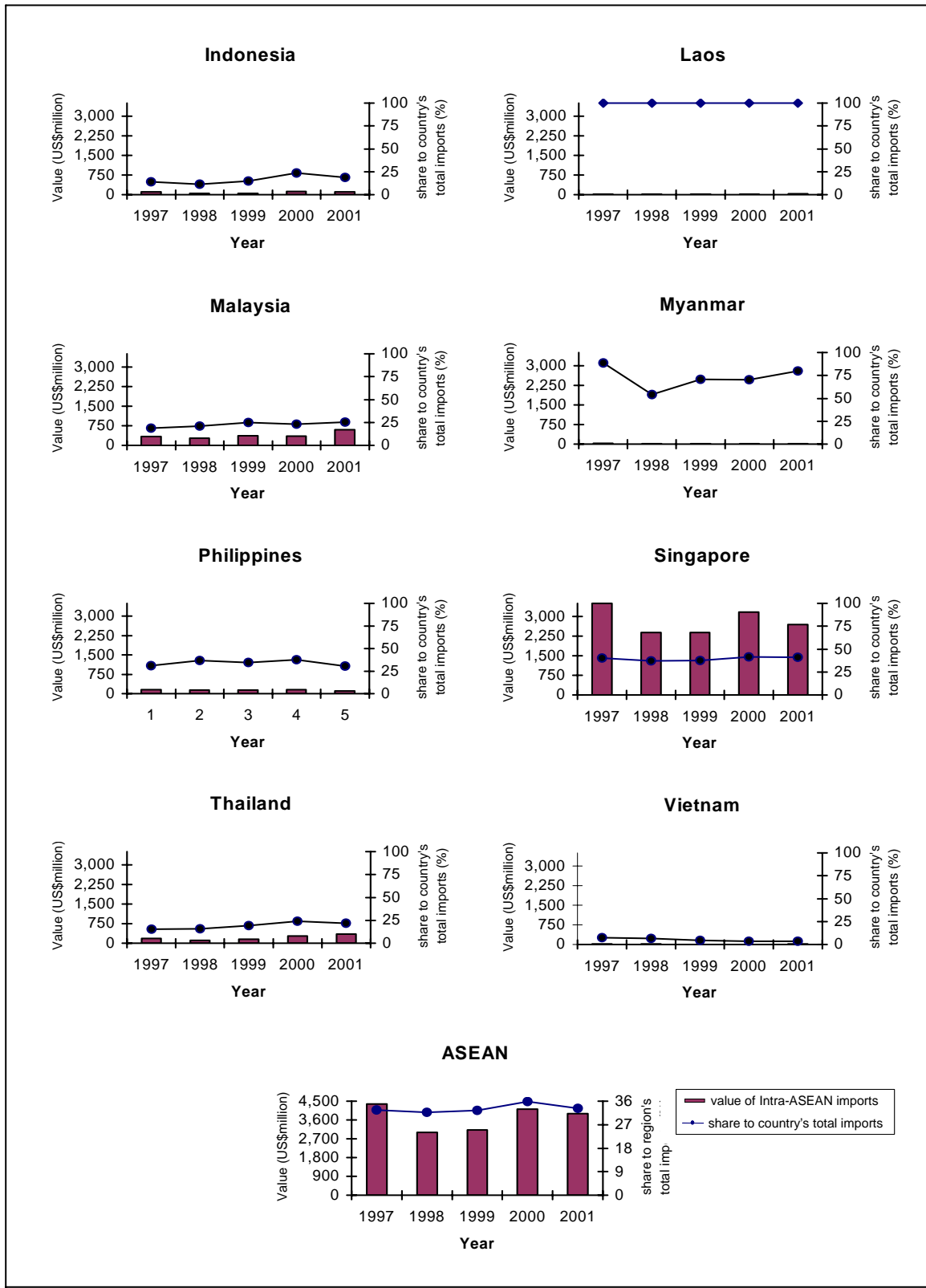
**Figure 4.7 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By Country, Electronics, 1997-2001**



- Notes:
1. Data for Brunei includes 1997 and 1998 only; and hence, Brunei is excluded from the graph.
  2. The value of Vietnam's exports are too small for the scale of the graph.
  3. No exports reported for Laos and Myanmar.
  4. PC/TAS does not include Cambodia.

Source: PC/TAS

**Figure 4.8 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Electronics, 1997-2001**

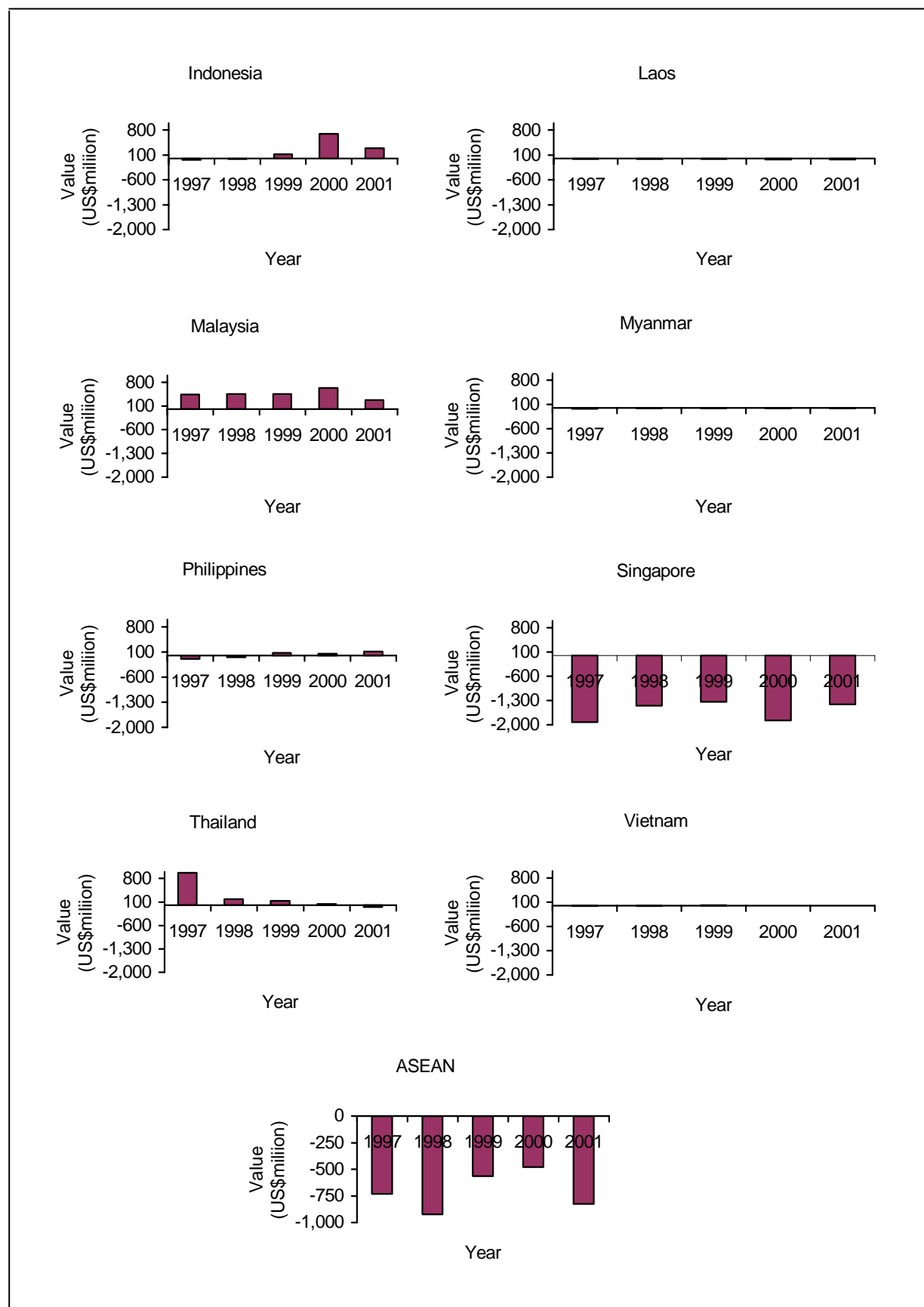


Notes: 1. Data for Brunei includes 1997 and 1998 only; and hence, Brunei is excluded from the graph.  
2. PC/TAS does not include Cambodia.

Source: PC/TAS

**Figure 4.9 Intra-ASEAN Balance of Trade, By Country, Electronics, 1997-2001.**





Source: PC/TAS

**Table 4.8 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Electronics. (Based on Average Share, 1997-2001)**

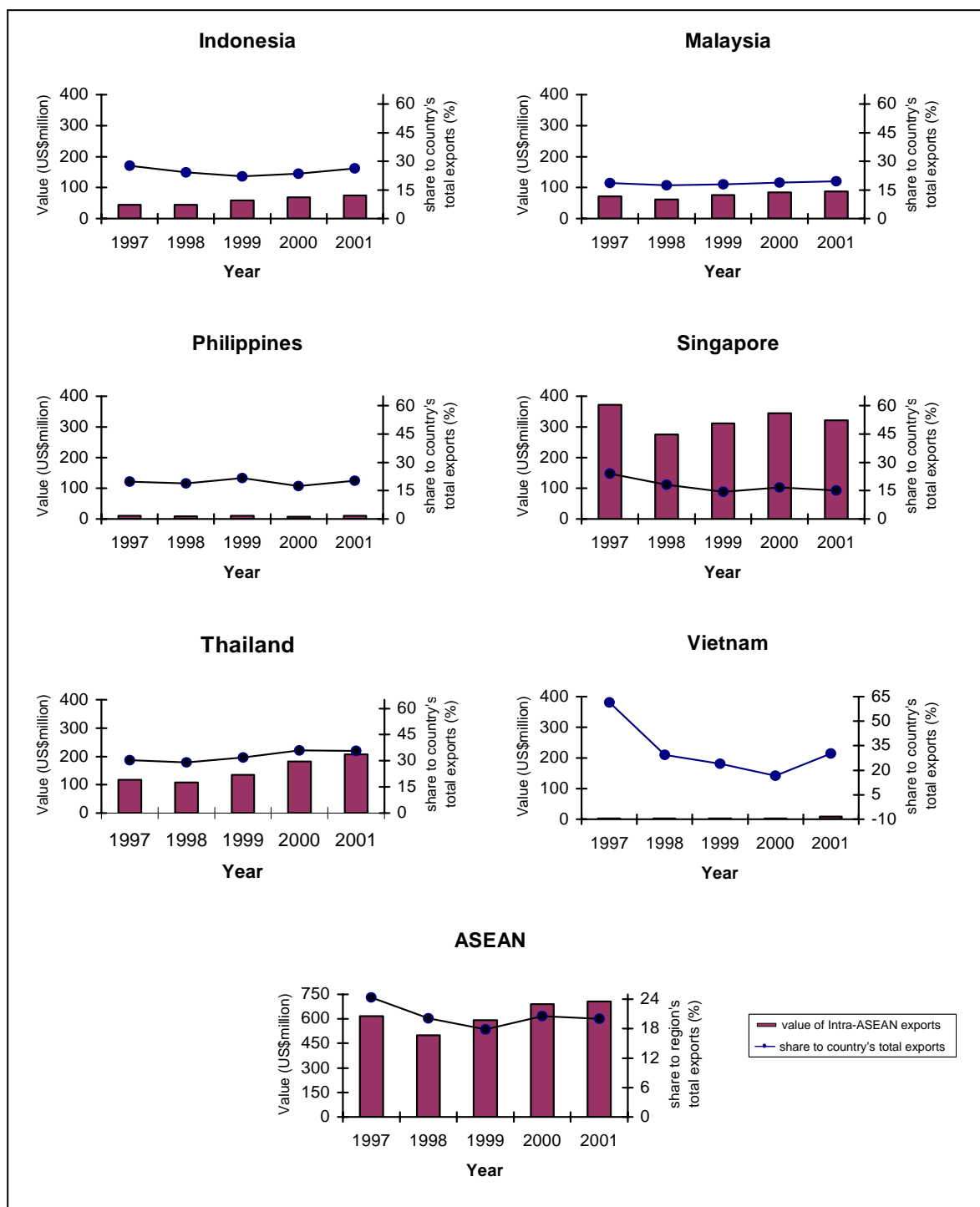
Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei					8415 8471	51.44 48.56	Singapore Malaysia	76.17 18.61
Indonesia	8471 8414 8418	81.62 6.98 5.00	Singapore Malaysia Thailand	87.81 4.56 3.99	8471 8414 8415	37.9 35.56 14.88	Singapore Malaysia Thailand	66.34 18.53 15.12
Laos					8516 8418	69.64 30.36	Thailand	100.00
Malaysia	8471 8415 8414	73.90 13.25 6.00	Singapore Thailand Philippines	82.88 6.97 3.57	8471 8414 8415	85.43 8.38 2.66	Singapore Thailand	76.42 15.38
Myanmar					8415 8418 8414	57.62 17.25 17.19	Singapore Malaysia	87.75 12.25
Philippines	8471	97.59	Singapore Malaysia Thailand	80.72 13.21 6.07	8471 8414 8415	66.51 18.41 9.18	Singapore Malaysia Thailand	64.72 18.74 8.97
Singapore	8471 8414 8415	79.10 10.58 5.86	Malaysia Thailand Philippines	54.90 21.5 12.44	8471 8415 8418	86.87 7.69 2.99	Malaysia Thailand Philippines	51.65 40.32 7.87
Thailand	8471 8415 8418	54.53 25.05 12.09	Singapore Malaysia Laos	78.25 9.39 3.82	8471 8414 8415	70.39 17.61 4.62	Singapore Malaysia Indonesia	52.62 34.40 9.47
Vietnam	8414	100.00	Singapore Malaysia	61.70 34.18	8471 8415 8418	70.34 17.03 6.67	Singapore Malaysia	83.51 11.09

Note:

- 8414 Air or vacuum pumps, compressor & fans
- 8415 Air conditioning machines
- 8416 Furnace burners; mechanical stokers etc, parts
- 8418 Refrigerators, freezers etc; heat pumps, pts
- 8471 Automatic data process machines; magnetic reader etc

Source: PC/TAS

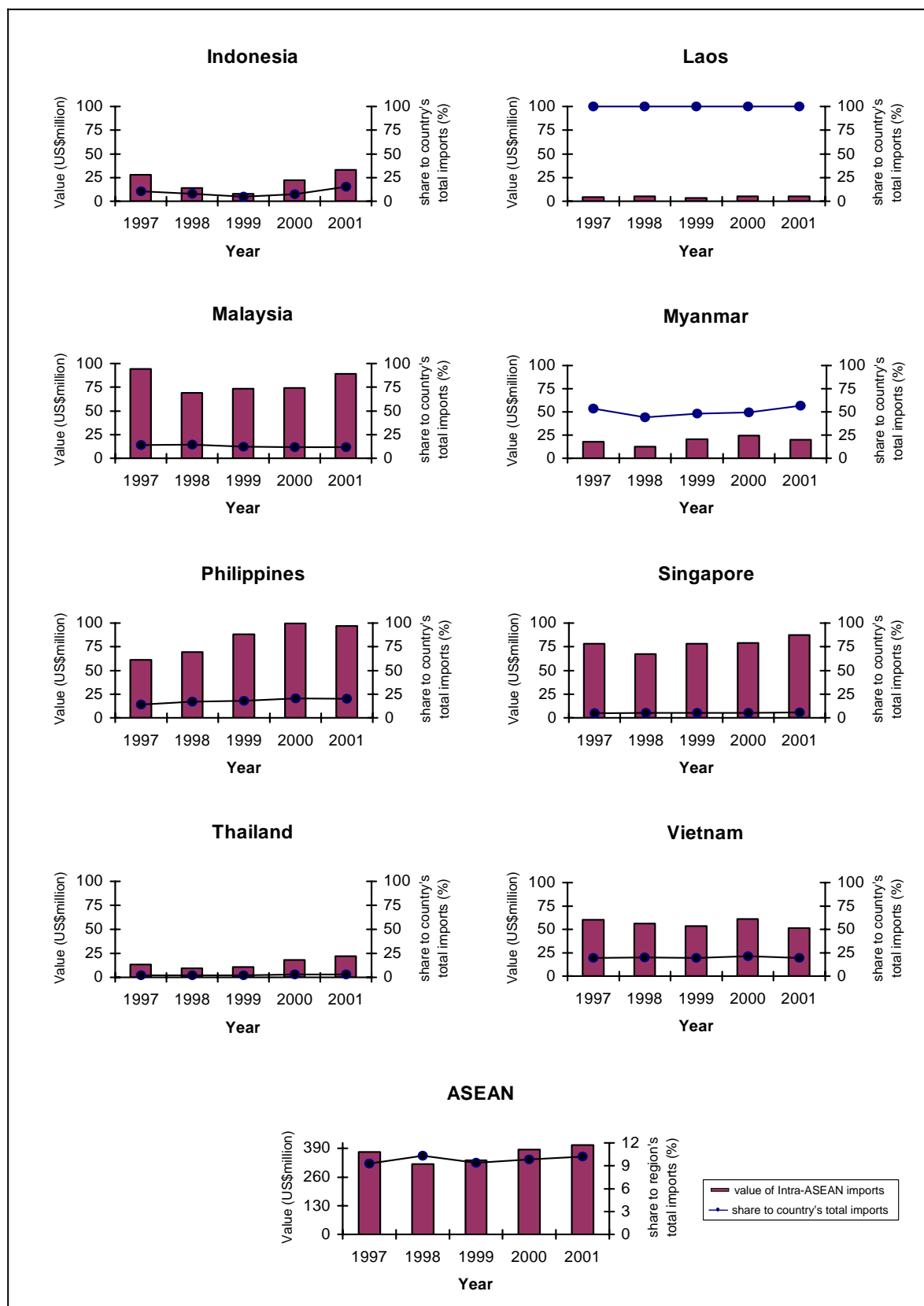
**Figure 4.10 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By Country, Healthcare Products, 1997-2001**



Notes: 1. No exports reported for Brunei; Laos and Myanmar.  
2. PC/TAS does not include Cambodia.

Source: PC/TAS

**Figure 4.11 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Healthcare Products, 1997-2001**

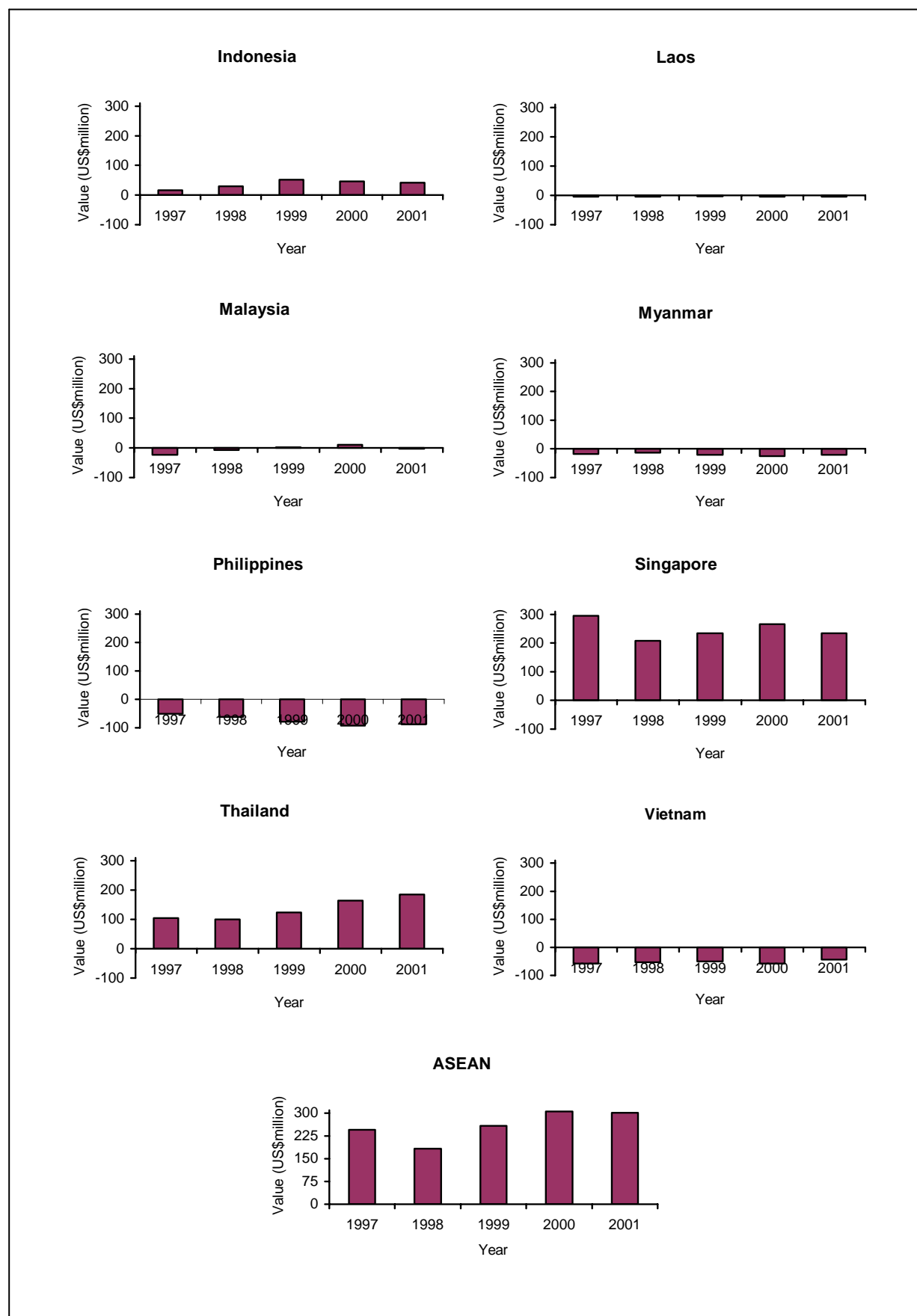


Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.

2. PC/TAS does not include Cambodia.

Source: PC/TAS

**Figure 4.12 Intra-ASEAN Balance of Trade, By Country, Healthcare Products, 1997-2001.**



Source: PC/TAS

**Table 4.9 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Healthcare Products. (Based on Average Share, 1997-2001)**

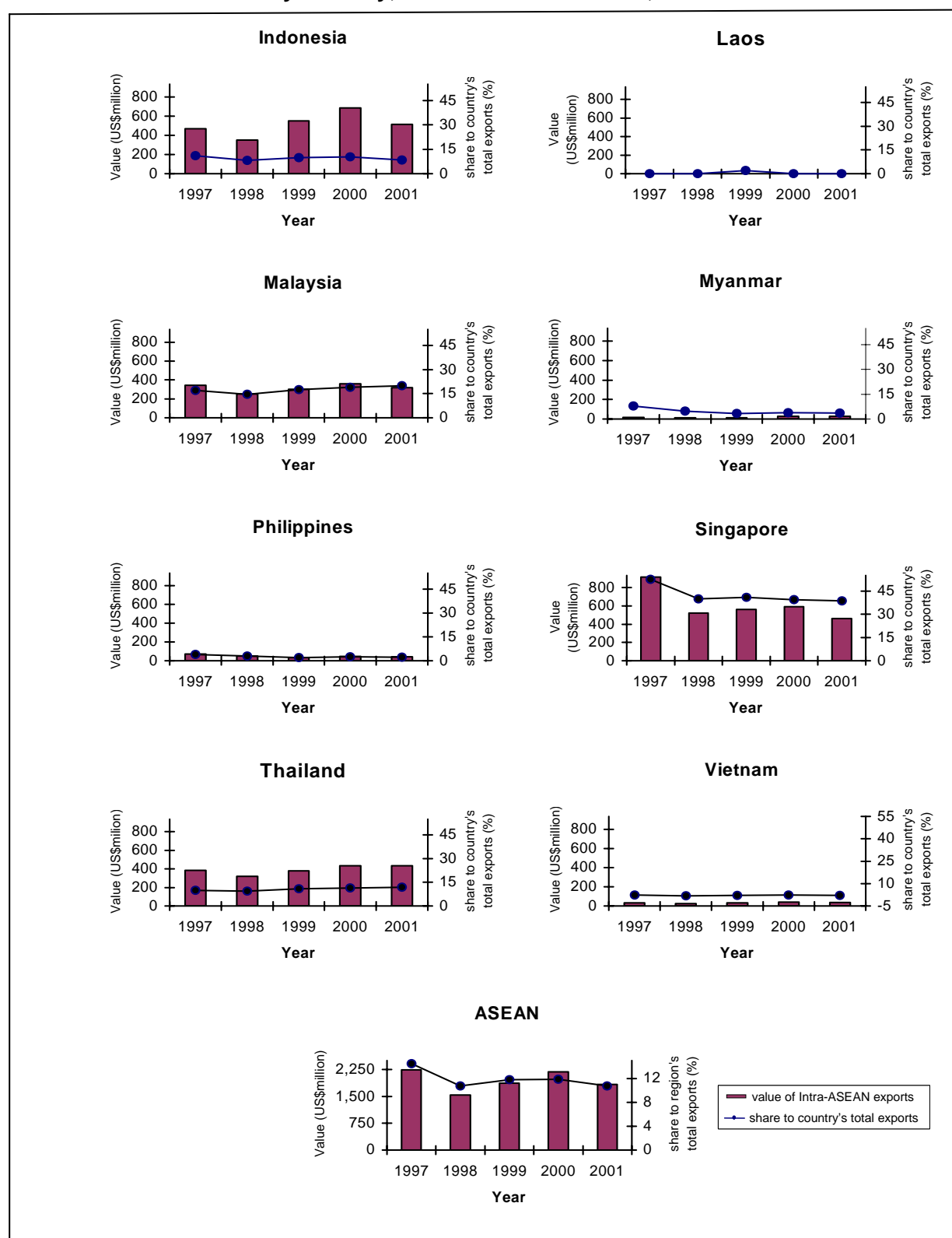
Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei					3304 3004 9018	31.36 29.18 17.99	Singapore Malaysia	57.85 42.15
Indonesia	3401 9018 3305	31.92 31.23 12.59	Singapore Malaysia Thailand	50.06 31.29 10.36	3305 2936 9018	43.33 21.31 19.44	Thailand Singapore	55.72 44.28
Laos					3306 3004 3305	41.80 29.21 28.99	Thailand	100.00
Malaysia	3401 9018 3004	30.09 14.22 12.75	Singapore Philippines Vietnam	66.88 14.94 7.53	3304 3004 3305	27.02 17.97 16.20	Singapore Thailand Indonesia	35.89 35.07 19.45
Myanmar					3004 3401 3304	35.12 21.55 19.61	Thailand Singapore Indonesia	72.40 13.50 9.25
Philippines	3304 3004	42.87 37.85	Malaysia Vietnam Indonesia	34.74 29.61 25.72	3305 3401 9018	31.47 14.45 13.24	Thailand Singapore Malaysia	50.01 26.82 15.36
Singapore	2936 9018 3004	32.79 27.47 11.26	Malaysia Thailand Philippines	36.38 35.86 17.60	3305 3304 3307	22.46 18.28 16.68	Malaysia Thailand	76.08 22.17
Thailand	3305 3304 3306	42.79 13.32 11.88	Philippines Malaysia Singapore	28.35 20.31 22.01	3004 3305 9018	19.95 17.92 17.41	Indonesia Singapore Malaysia	50.58 32.18 13.91
Vietnam	3401 3304 3307	37.09 35.14 21.04	Malaysia Philippines Singapore	63.047 18.48 18.45	3004 9018 2936	42.38 22.47 10.93	Singapore Thailand Malaysia	61.82 17.39 14.40

Note:

2936 Provitamins and Vitamins (Derivatives and Intermixes)  
3004 Medicaments  
3304 Beauty, Make-up and Skin Care Preparations  
3305 Hair Preparations  
3306 Dental Preparations  
3307 Personal Toilet (Shaving, Bath, Etc) Preparations  
3401 Soap  
9018 Medical, Surgical and Dental Instruments

Source: PC/TAS

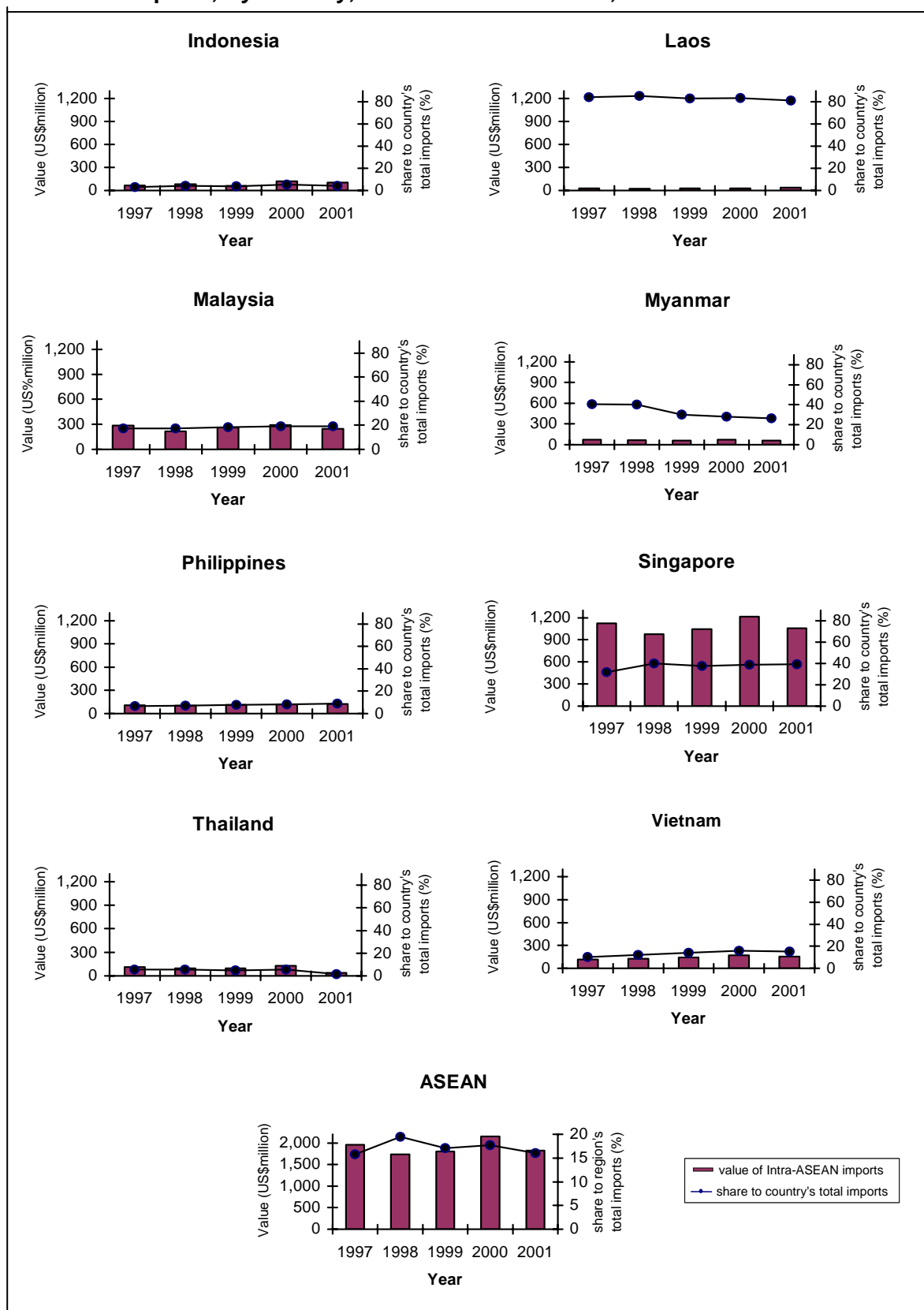
**Figure 4.13 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By Country, Textiles and Garments, 1997-2001**



Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.  
 2. The values of Intra-ASEAN exports for Laos are too small for the scale of the graph; hence, only % share is included.  
 3. PC/TAS does not include Cambodia.

Source: PC/TAS

**Figure 4.14 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Textiles and Garments, 1997-2001.**

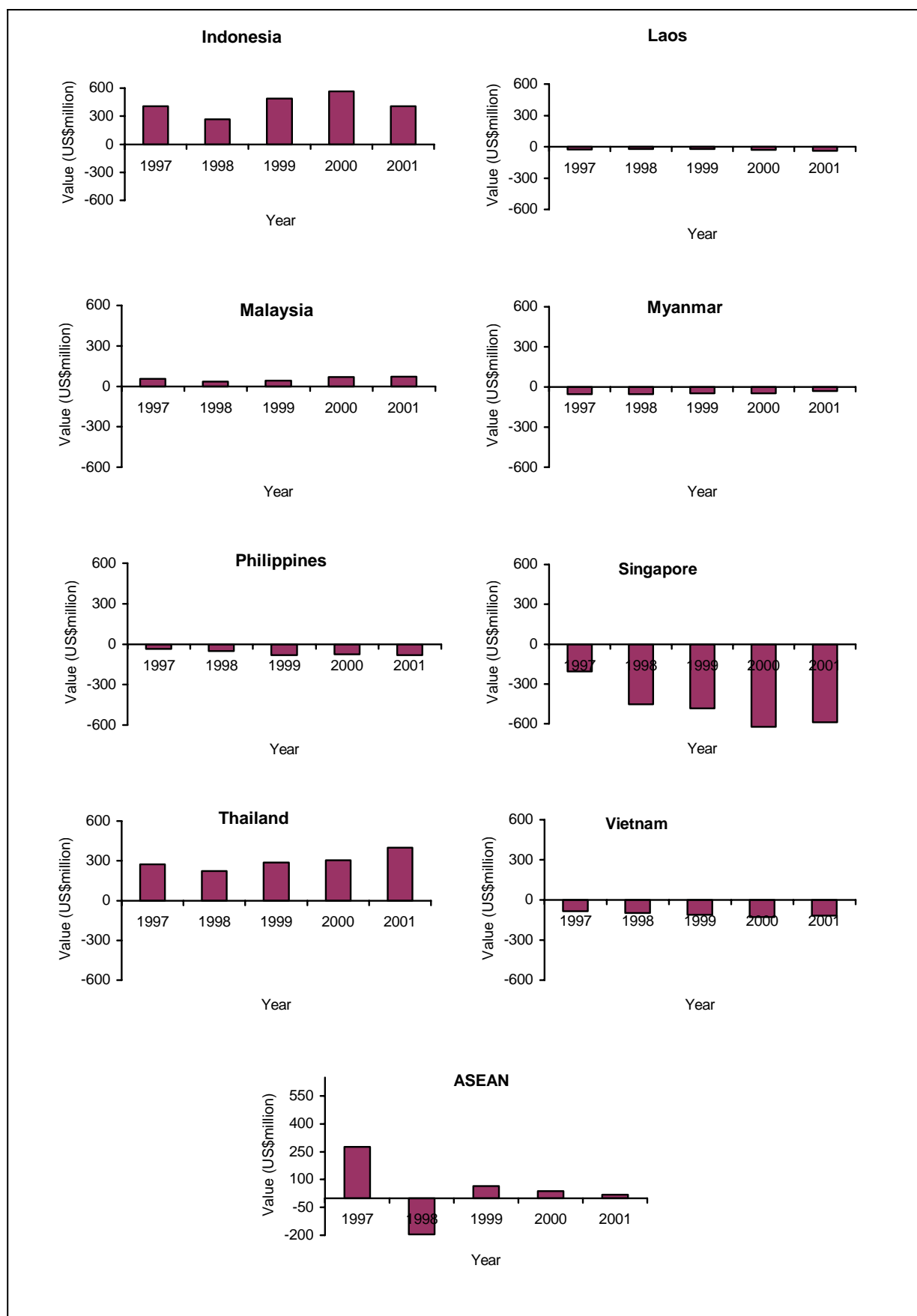


Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.  
 2. PC/TAS does not include Cambodia.

Source: PC/TAS



Figure 4.15 Intra-ASEAN Balance of Trade, By Country, Textiles and Garments, 1997-2001.



Source: PC/TAS

**Table 4.10 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Textiles and Garments. (Based on Average Share, 1997-2001)**

Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei	6104	62.85	Singapore Malaysia	73.84	5806	32.54	Singapore Malaysia Thailand	68.39
	6207	37.22		26.24	6002	28.20		28.20
					5211	13.71		3.41
Indonesia	5407	21.57	Singapore Malaysia Thailand	40.53	5504	25.97	Thailand Singapore Malaysia	60.54
	5402	14.91		28.26	5503	22.64		28.55
	5509	9.37		13.14	5402	16.65		8.74
	5513	5.78						
	5902	3.21						
Laos	6110	100.00	Singapore	100.00	6002	26.95	Thailand	100.00
					5208	22.48		
					5209	17.59		
					5407	8.74		
Malaysia	6001	24.45	Singapore Vietnam Indonesia	58.11	5407	14.38	Indonesia Thailand Singapore	51.70
	5402	17.29		17.72	5206	12.85		25.67
	6309	7.42		8.21	6002	11.88		16.96
					5513	9.30		
					5509	8.62		
Myanmar	6110	36.17	Singapore Thailand Malaysia	84.32	5208	19.50	Thailand Singapore	60.46
	6106	13.08		11.16	5608	14.73		37.69
	5201	11.16		4.52	5512	11.28		
					6002	9.94		
					6211	9.69		
Philippines	6002	29.80	Singapore Thailand Malaysia	46.84	5402	17.20	Thailand Indonesia	47.65
	6203	14.35		21.18	5902	13.60		43.12
	6212	13.02		15.51	5509	11.65		
	5601	10.71			5504	9.27		
	5806	7.74			5503	7.94		
Singapore	5512	19.62	Malaysia Thailand Brunei	79.03	6109	10.35	Malaysia Brunei Thailand	83.16
	6002	18.77		7.64	6002	9.02		9.08
	6309	6.57		6.25	6104	8.81		5.50
	5208	4.62			6105	8.14		
	5516	3.83			6110	7.41		
Thailand	5504	8.56	Singapore Indonesia Malaysia Philippines Vietnam	23.28	5402	46.35	Indonesia Malaysia Singapore	71.72
	5402	8.19		18.59	5513	15.07		14.93
	5516	7.49		17.43	5407	5.41		8.51
	5902	7.42		15.47				
	5503	6.93		10.27				
Vietnam	6203	24.84	Singapore Malaysia Thailand	52.21	5402	42.78	Malaysia Thailand Indonesia	36.71
	6103	10.11		39.73	5513	7.76		26.92
	6205	8.19		4.92	5208	4.95		22.59
	5509	8.06			5514	4.55		
	6211	7.92						

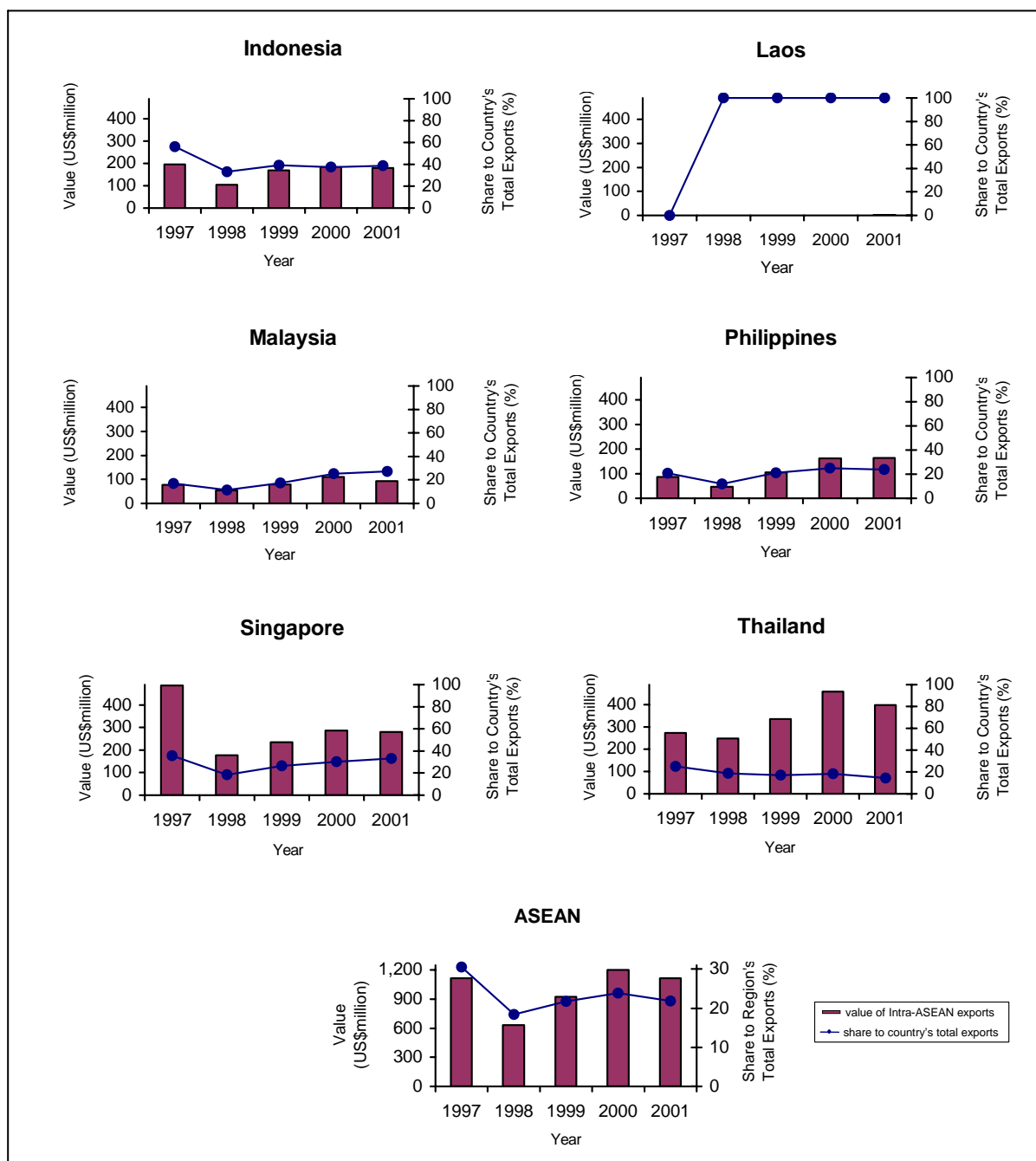
Note:

If the total share of the top 3 products is less than 50%, the top 5 products are included instead.

5201	Cotton, Not Carded or Combed	6001	Pile Fabrics, Knitted or Crocheted
5205	Cotton Yarn, NU 85% Not Retail	6002	Knitted or Crocheted Fabrics, Nesoi
5206	Cotton Yarn, UN 85% Not Retail	6103	Men's or Boy's Suits, Ensembles Etc., Knit or Croch
5208	Woven Cotton Fabrics, Weight Not Over 200g/sqm	6104	Women's or Girl's Suits, Ensembles Etc.
5209	Woven Cotton Fabrics, Weight Over 200g/sqm	6105	Men's or Boy's Shirts, Knit or Crocheted
5210	Woven Cotton Fabrics, MMFMix, Weight Not Over 200g/sqm	6106	Women's or Girl's Blouses & Shirts, Knit or Croch
5211	Woven Cotton Fabrics, MMFMix, Weight Over 200g/sqm	6109	T-Shirts, Tank Tops, Knitted or Crocheted
5402	Synthetic Filament Yarn	6110	Sweaters, Pullovers, Vests, Etc, Knit or Croch
5407	Woven Fabric, Synthetic Filament Yarn	6203	Men's or Boy's Suits, Ensembles Etc., Not Knitted
5503	Synthetic Staple Fibers	6205	Men's or Boy's Shirts, Not Knit or Crocheted
5504	Artificial Staple Fibers	6207	Men's or Boy's Undershirts, Not Knit or Crocheted
5509	Yarn, Synthetic Staple Fibers	6211	Track Suits, Ski-Suits & Swimwear, Not Knitted Etc.
5512	Woven Fabric, Synthetic Staple Fibers	6212	Bras, Girdles, Garters, Etc., Knitted or Not
5513	Woven Fabric, Synthetic Staple Fibers, Not Over 170g/sqm	6309	Worn Clothing & Other Worn Textile Articles
5516	Woven Fabrics of Artificial Staple Fibers		
5601	Text Wading and Articles		
5608	Knotted Net of Twine		
5801	Woven Pile and Chenille Fabrics		
5806	Narrow Woven Fabrics		
5902	Tire Cord Fabric		

Source: PC/TAS

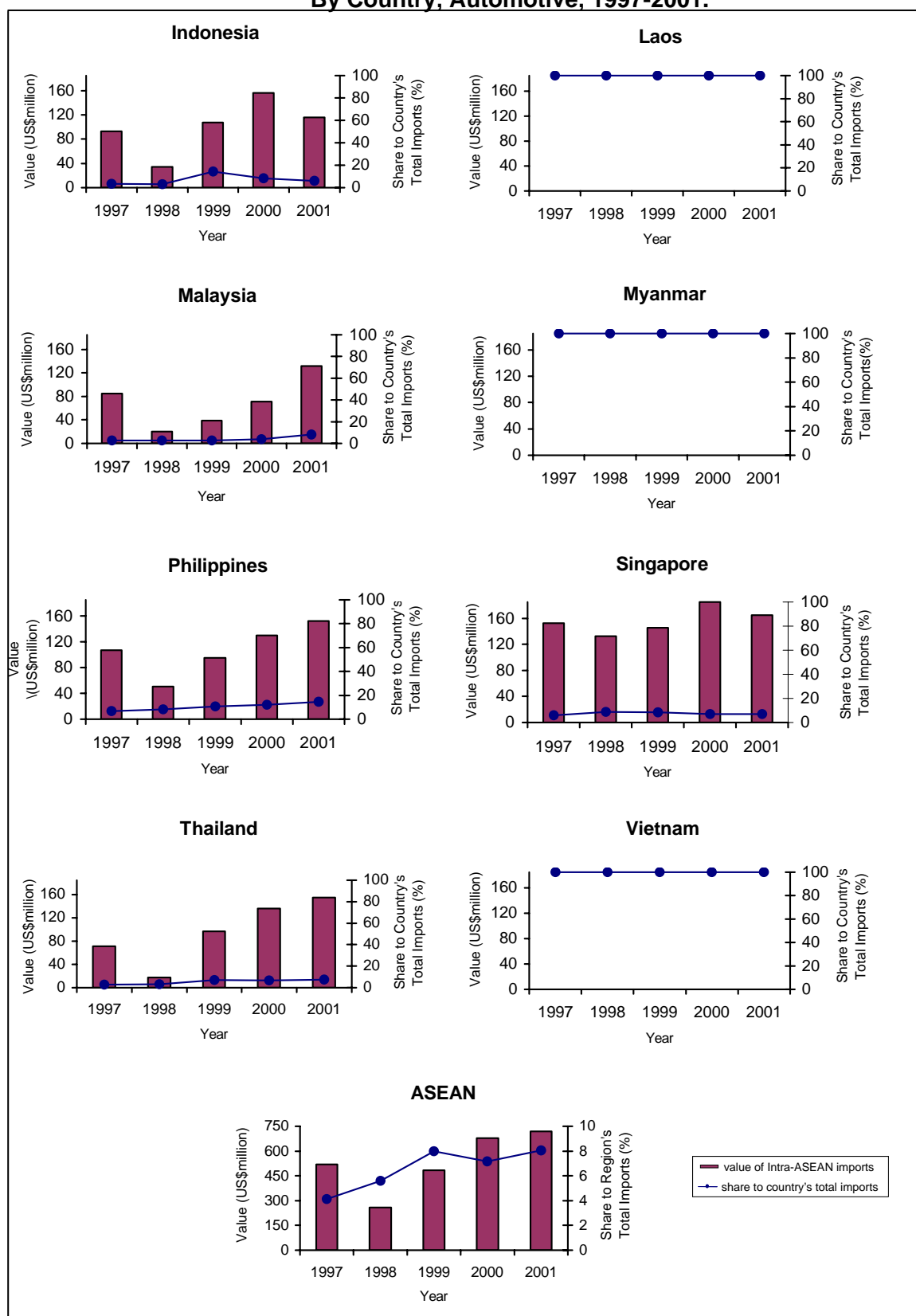
**Figure 4.16 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By Country, Automotive, 1997-2001**



Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.  
 2. PC/TAS does not include Cambodia.

Source: PC/TAS

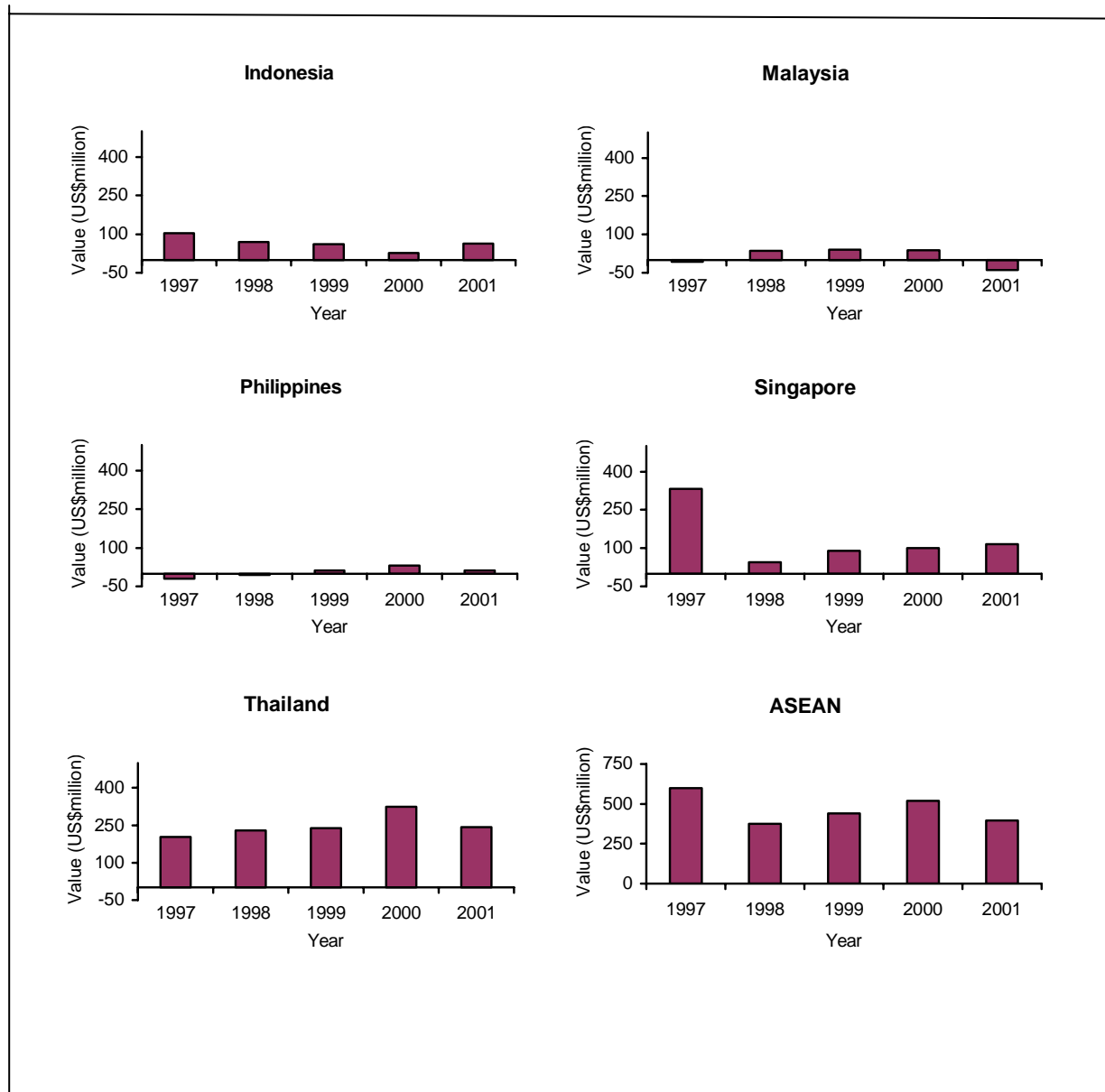
**Figure 4.17 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Automotive, 1997-2001.**



Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.  
2. PC/TAS does not include Cambodia.

Source: PC/TAS

**Figure 4.18 Intra-ASEAN Balance of Trade, By Country, Automotive, 1997-2001.**



Source: PC/TAS

**Table 4.11 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Automotives. (Based on Average Share, 1997-2001)**

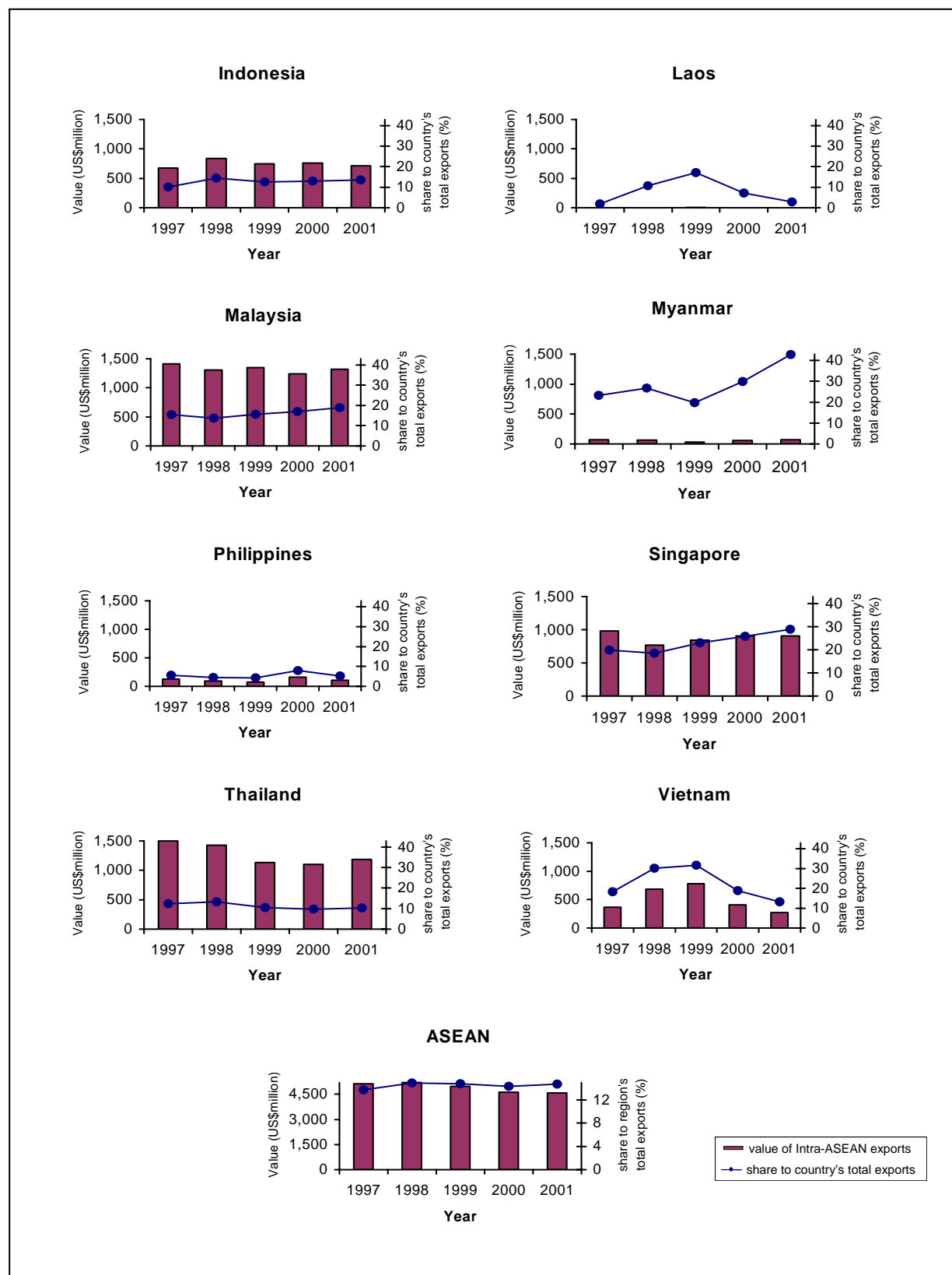
Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei	8703	100.00	Malaysia Singapore	67.19 32.81	8703	92.26	Thailand Indonesia Singapore	58.43 33.83 7.74
Indonesia	8714 8708	45.66 30.92	Singapore Philippines	46.32 22.46	8708 8704 8714	53.69 20.89 13.46	Singapore Thailand	54.88 25.36
Laos	8704	100.00	Thailand	100.00	8714 8711 8704	49.10 36.32 8.30	Thailand	100.00
Malaysia	8708 8714 8711	38.08 24.46 12.70	Singapore Thailand Indonesia	48.15 19.96 13.42	8708 8714	78.04 8.55	Thailand Indonesia	49.03 35.87
Myanmar					8708 8703 8712 8711	22.22 21.37 15.38 13.68	Thailand Singapore	56.41 43.59
Philippines	8708	98.20	Thailand Indonesia	72.16 16.34	8702 8711 8708	27.85 27.42 16.83	Thailand Indonesia	51.70 35.54
Singapore	8708 8703 8705	56.18 11.52 7.62	Malaysia Thailand	54.03 22.14	8714 8703 8708	64.68 14.00 12.49	Malaysia Thailand	82.70 17.30
Thailand	8714 8711 8708	34.35 25.45 17.31	Vietnam Laos Philippines	26.74 26.25 10.84	8708 8703	84.41 14.08	Philippines Indonesia Malaysia	65.74 18.02 15.93
Vietnam					8711 8714	45.73 43.14	Thailand Singapore	70.58 12.92

Note:

- 8702 Motor Vehicle for transport greater than ten persons including driver
- 8703 Motor cars & vehicles for transporting persons
- 8704 Motor vehicles for transport of goods
- 8708 Parts & access for motor vehicles
- 8711 Motorcycles & cycles with auxiliary motor
- 8714 Parts & accessories for cycles & invalid carriages
- 8705 Special purpose motor vehicles

Source: PC/TAS

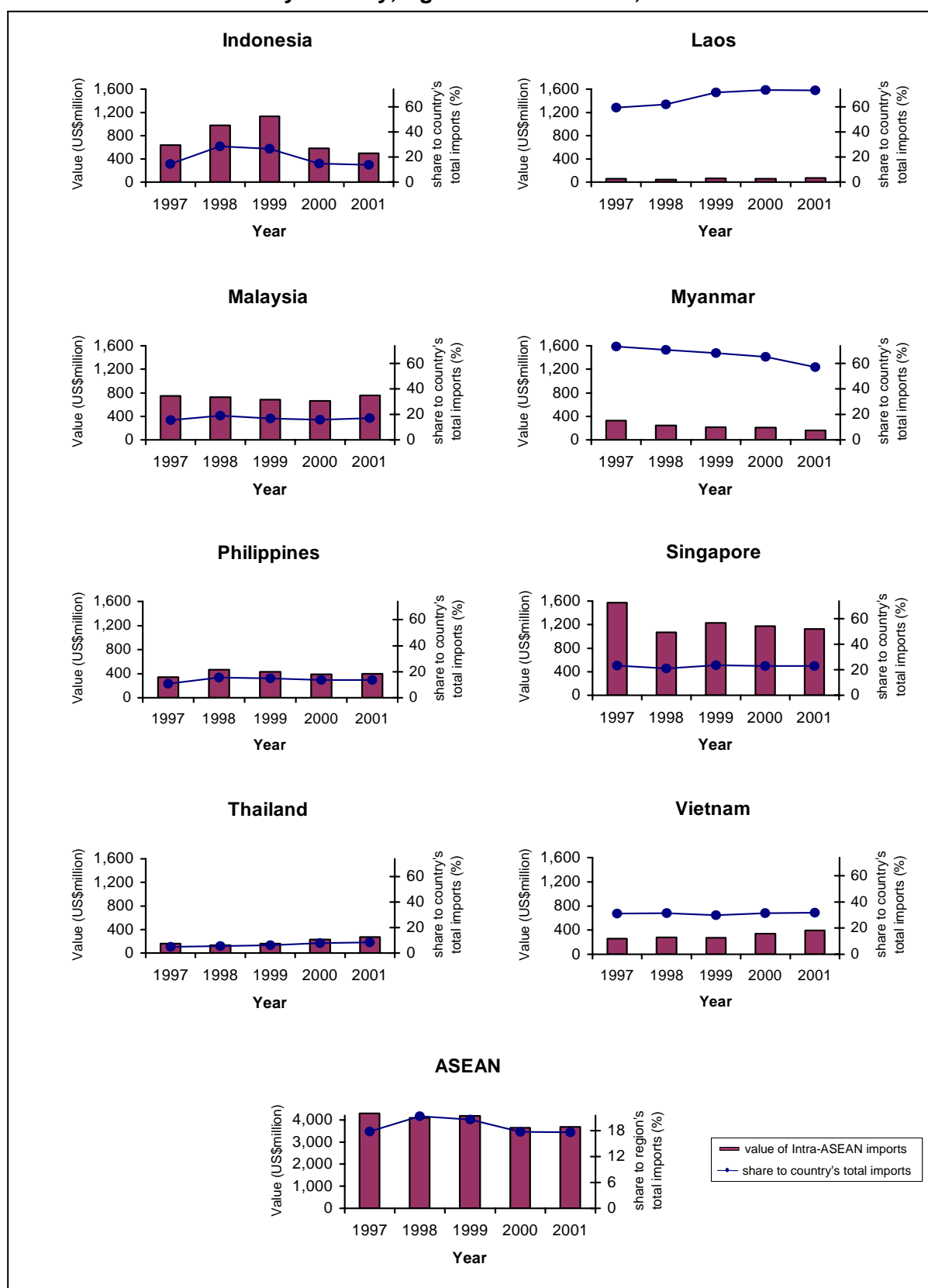
**Figure 4.19 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By Country, Agro-based Products, 1997-2001.**



Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.  
2. PC/TAS does not include Cambodia.

Source: PC/TAS

**Figure 4.20 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Agro-based Products, 1997-2001.**

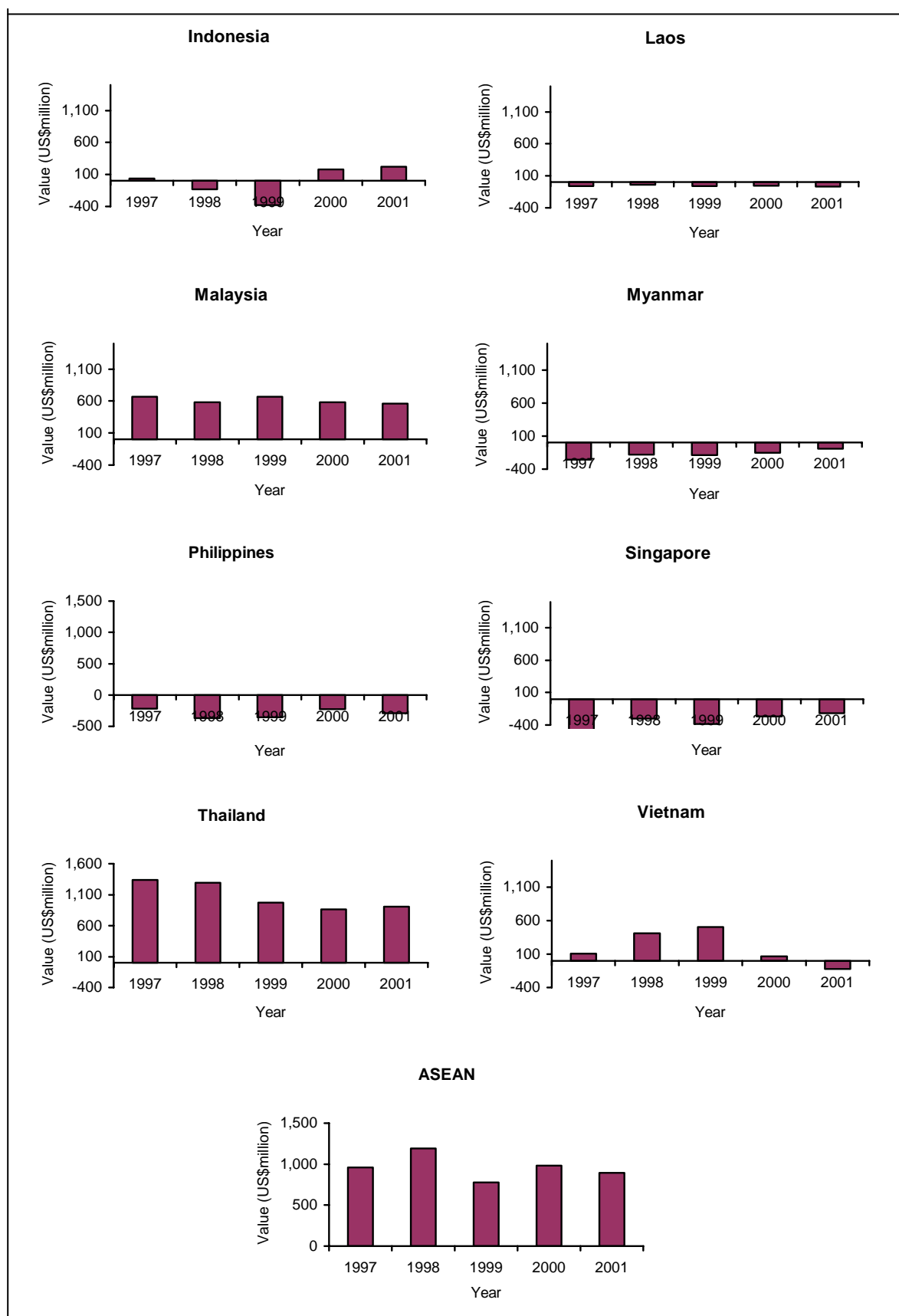


Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.  
2. PC/TAS does not include Cambodia.

Source: PC/TAS



Figure 4.21 Intra-ASEAN Balance of Trade, By Country, Agro-Based Products, 1997-2001.



Source: PC/TAS

**Table 4.12 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Agro-Based Products. (Based on Average Share, 1997-2001)**

Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei								
Indonesia	1511 1801 2402 0904	16.18 13.62 11.50 10.47	Singapore Malaysia	46.05 39.07	1006 1701	46.04 25.58	Thailand Vietnam Malaysia	53.42 26.20 13.27
Laos	0901	100.00	Singapore Thailand Indonesia	67.82 19.72 12.45	2402 2202 2208	27.59 15.37 13.61	Thailand Singapore	59.56 40.09
Malaysia	1511 0105 1519 2402 1701	16.44 6.83 6.24 6.07 3.84	Singapore Indonesia	68.43 10.42	1006 1801 1513 1605 1511	22.44 8.16 6.82 5.57 4.90	Thailand Indonesia	45.83 34.77
Myanmar	0713 1207 0703	45.43 16.74 13.73	Singapore Malaysia Indonesia	49.97 26.80 16.54	1511 0402 2202 2402 2403	41.02 8.75 7.80 7.77 5.44	Malaysia Singapore Thailand	33.82 29.34 28.72
Philippines	1513 1904 1801 1604 0402	33.23 10.11 8.64 7.99 5.28	Indonesia Singapore Malaysia	31.38 30.78 22.16	1006 2106 1701 1511 2402	40.30 8.31 5.35 4.47 4.24	Vietnam Thailand Singapore Malaysia	33.46 24.95 18.60 13.44
Singapore	2402 2106 4105 2203 1901	40.90 3.53 3.20 3.04 2.98	Malaysia Philippines Thailand	47.43 20.47 18.62	1511 1006 0904 1905 2202	11.82 9.48 6.80 3.77 3.11	Malaysia Thailand	70.33 20.61
Thailand	1006 1701 1108	24.61 23.52 13.11	Indonesia Malaysia Singapore	37.98 26.06 22.78	2402 1516 1519 0102 1801	15.59 7.03 6.30 6.16 6.11	Malaysia Indonesia Singapore	31.89 27.41 16.06
Vietnam	1006 0904 0901 1202 1701	72.26 9.04 5.44 4.26 1.74	Indonesia Philippines Singapore	39.93 27.21 18.52	2402 1511 2403	37.27 12.22 10.80	Singapore Malaysia Thailand	48.95 24.46 19.43

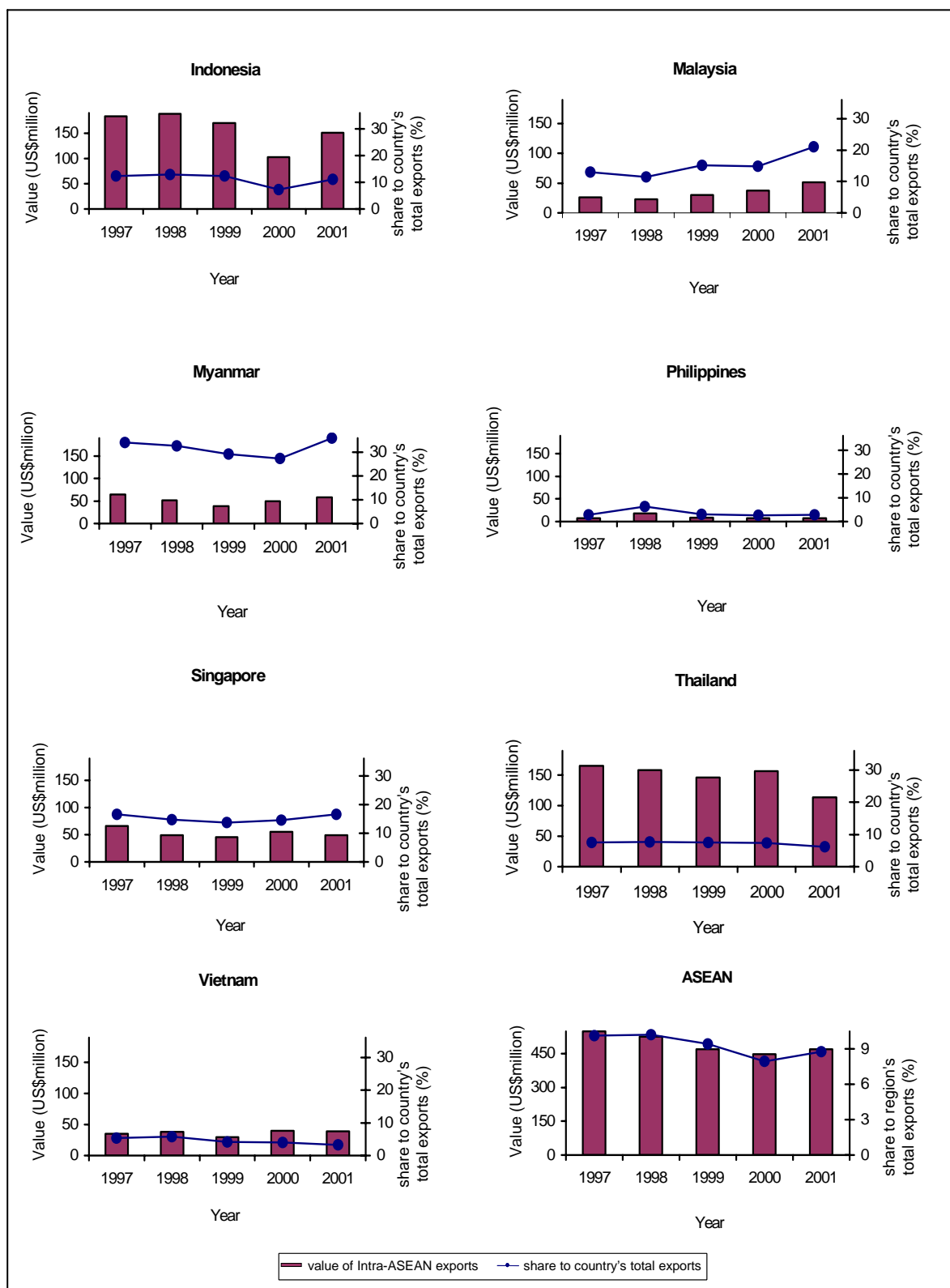
## Notes:

If the total share of the top 3 products is less than 50%, the top 5 products are included instead.

0703	Onions, shallots, garlic, leeks etc, frozen or chilled
0901	Coffee; coffee husks; substitutes with coffee
0904	Pepper; genus capsicum or pimenta
1006	Rice
1108	Starches
1207	Oil seeds & oleaginous fruits, broken or not
1511	Palm oil & its fractions, not chemically modified
1512	Coconut, palm kernel or babassu oil
1701	Cane or beet sugar & chem. Pure sucrose, solid form
1801	Cocoa beans, whole or broken, raw or roasted
1901	Malt ext; food prep of flour under 40% cocoa
1904	Foods preparation by swell cereal, grain form
2202	Waters, sweetened & others nonalcoholic beverages
2402	Cigars, cigarettes, of tobacco or substitutes
2403	Tobacco & tobacco substitute manufactures
2208	Ethyl alcohol, under 80% alcohol; spirit beverages

Source: PC/TAS

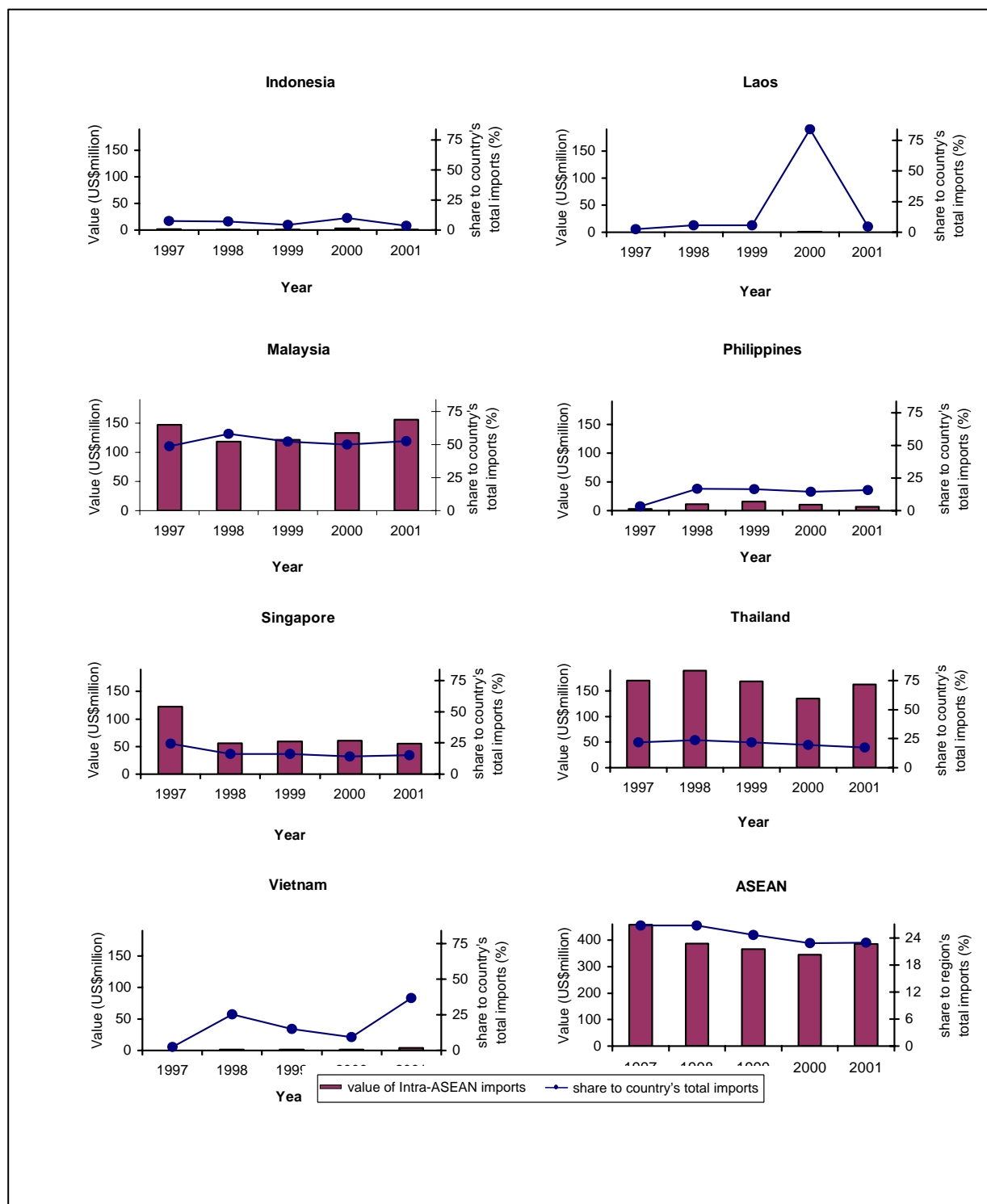
**Figure 4.22 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By country, Fisheries, 1997-2001**



**Notes:** 1. No data reported for Brunei and Laos.  
2. PC/TAS does not include Cambodia.

Source: PC/TAS

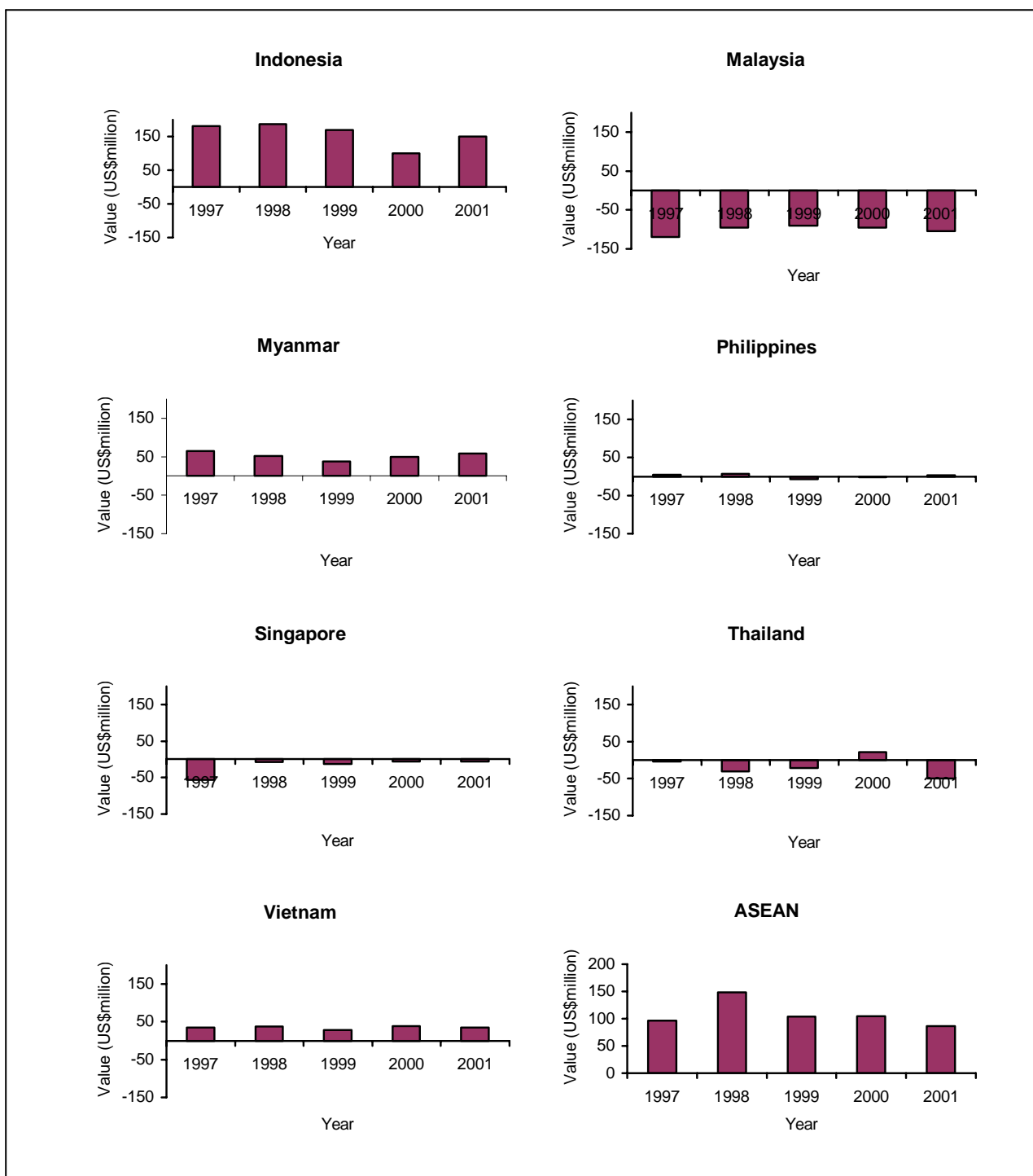
**Figure 4.23 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Fisheries, 1997-2001.**



Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.  
 2. No data was reported from Myanmar  
 3. PC/TAS does not include Cambodia

Source: PC/TAS

**Figure 4.24 Intra-ASEAN Balance of Trade, By Country, Fisheries, 1997-2001.**



Source: PC/TAS

**Table 4.13 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Fisheries. (Based on Average Share, 1997-2001)**

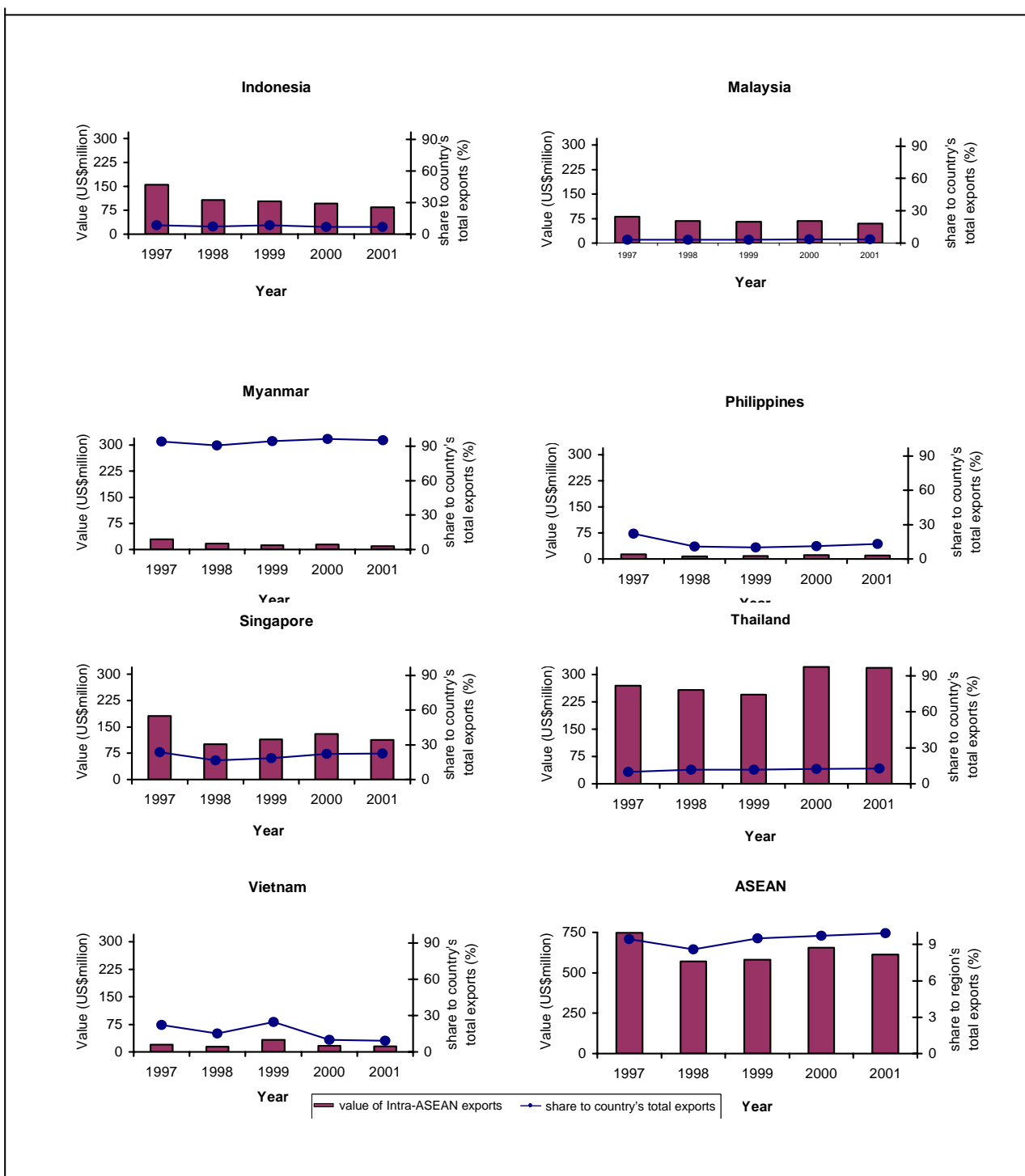
Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei					0304	100.00	Singapore	100.00
Indonesia	0302 0303 0306	40.63 36.25 16.37	Thailand Singapore	51.72 42.94	0306	100.00	Vietnam Singapore	51.23 48.77
Laos					0306	100.00	Thailand	100.00
Malaysia	0306 0301 0302	35.22 25.66 16.63	Singapore Thailand	69.84 25.88	0302 0306 0305	61.02 22.74 6.62	Thailand Indonesia	56.04 39.37
Myanmar	0306 0303 0302	66.00 16.97 11.50	Singapore Malaysia Thailand	65.84 17.59 16.27				
Philippines	0303	94.10	Thailand Indonesia Singapore	75.32 18.78 5.90	0303	100.00	Indonesia	90.92
Singapore	0303 0307 0305	30.55 25.84 14.61	Malaysia Thailand	74.01 21.62	0306 0302 0304	43.45 17.39 16.78	Thailand Vietnam Malaysia	61.35 22.53 12.98
Thailand	0306 0302 0304	83.97 8.18 5.30	Singapore Malaysia	91.54 8.32	0303 0306 0307	83.51 10.32 4.71	Indonesia Vietnam Singapore	73.30 8.45 7.47
Vietnam	0306 0304 0307	45.49 20.42 22.00	Singapore Thailand Malaysia	43.73 38.20 15.78	0306	100.00	Malaysia Indonesia	56.22 43.78

Note:

0301 Fish, Live  
0302 Fish, Fresh or Chilled  
0303 Fish, Frozen  
0304 Fish Fillet and Other Fish Meat  
0305 Fish, Dried, Salted or Smoked  
0306 Crustaceans, Live and Fresh  
0307 Mollusks and Aqua Invert

Source: PC/TAS

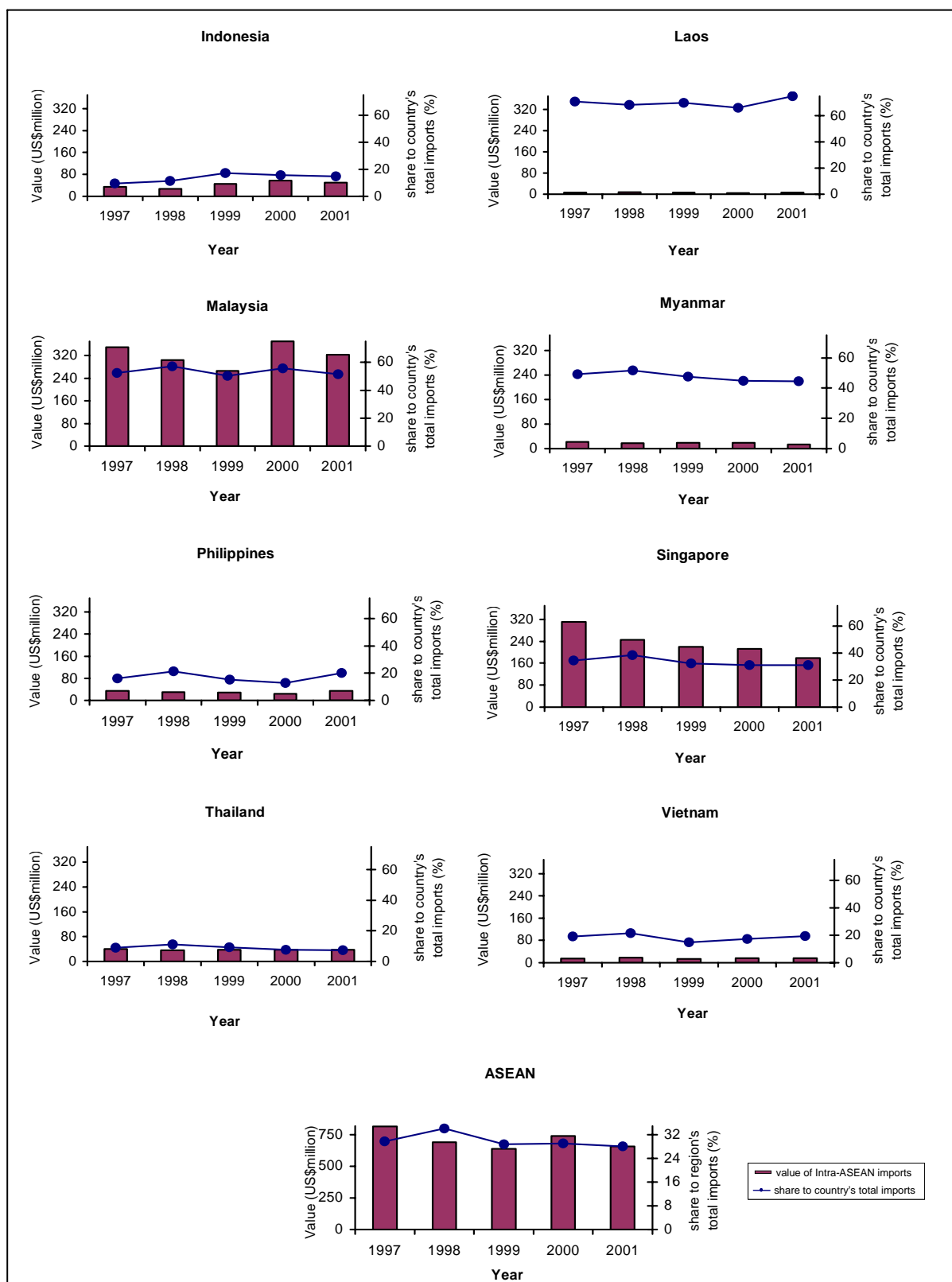
**Figure 4.25 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By Country, Rubber-based Products, 1997-2001.**



Notes: 1. No data reported for Brunei and Laos.  
2. PC/TAS does not include Cambodia.

Source: PC/TAS

**Figure 4.26 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Rubber-based Products, 1997-2001**



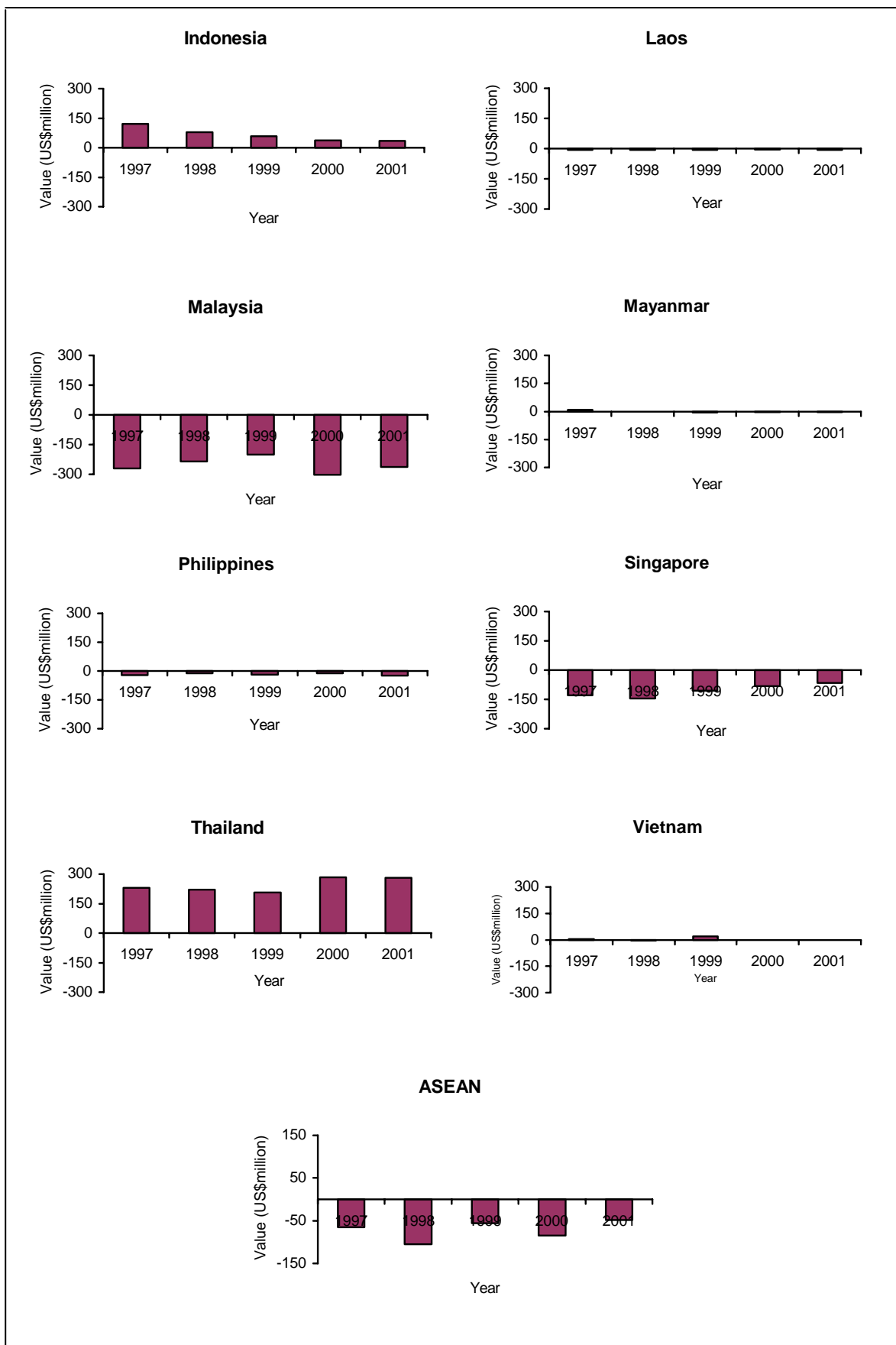
Notes: 1. Data for Brunei includes 1997 and 1998 only; hence, Brunei is excluded from the graph.

2. PC/TAS does not include Cambodia

Source: PC/TAS



Figure 4.27 Intra-ASEAN Balance of Trade, By Country, Rubber-Based Products, 1997-2001.



Source: PC/TAS

**Table 4.14 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Rubber-Based Products. (Based on Average Share, 1997-2001)**

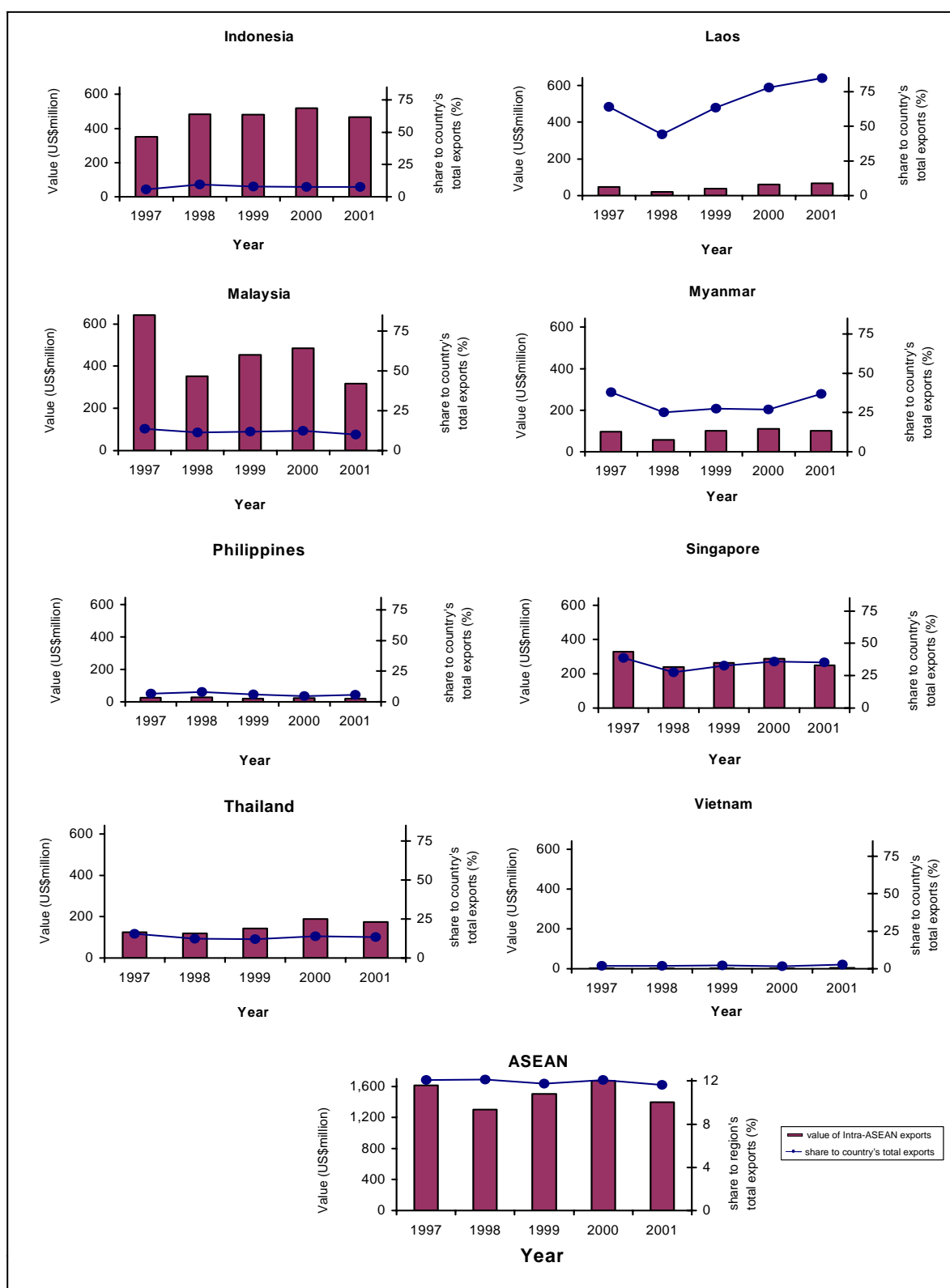
Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei					4011	100.00	Singapore	100.00
Indonesia	4001 4011 4016	69.57 17.85 6.79	Singapore Philippines Malaysia	82.49 9.34 6.54	4011 4001 4002	49.07 17.20 8.47	Singapore Thailand Malaysia	66.05 24.82 9.13
Laos					4011 4013	77.16 22.84	Thailand	100.00
Malaysia	4016 4015 4001	28.80 20.89 16.12	Singapore Thailand Philippines	68.34 13.29 8.64	4001	86.71	Thailand	82.56
Myanmar	4001	100.00	Malaysia Singapore	53.74 46.26	4011 4013	82.70 12.32	Thailand	100.00
Philippines	4001 4011	74.87 22.16	Malaysia Singapore	55.02 37.49	4011 4015 4009	66.08 10.35 7.66	Indonesia Thailand Malaysia	41.56 21.93 21.10
Singapore	4016 4011 4001	27.15 21.25 20.45	Malaysia Thailand Brunei	70.55 11.99 7.41	4001 4016 4015	59.52 13.49 12.94	Malaysia Thailand	61.49 29.64
Thailand	4001 4011	68.68 16.14	Malaysia Singapore	57.16 22.43	4016 4015 4011	62.79 21.09 6.89	Malaysia Singapore Indonesia	69.68 24.38 4.68
Vietnam	4001	98.41	Singapore Malaysia	52.28 47.72	4011 4001 4016	34.44 24.35 11.37	Thailand Singapore Malaysia	76.12 15.95 6.50

Note:

- 4001 Natural Rubber, Primary Form
- 4009 Tubes, Pipes & Hoses of Unhardened Vulcanized Rubber
- 4011 New Pneumatic Tires
- 4013 Inner Tubes for Tires
- 4015 Articles of Apparel and Accessories of Unhardened Vulcanized Rubber
- 4016 Articles of Unhardened Vulcanized Rubber

Source: PC/TAS

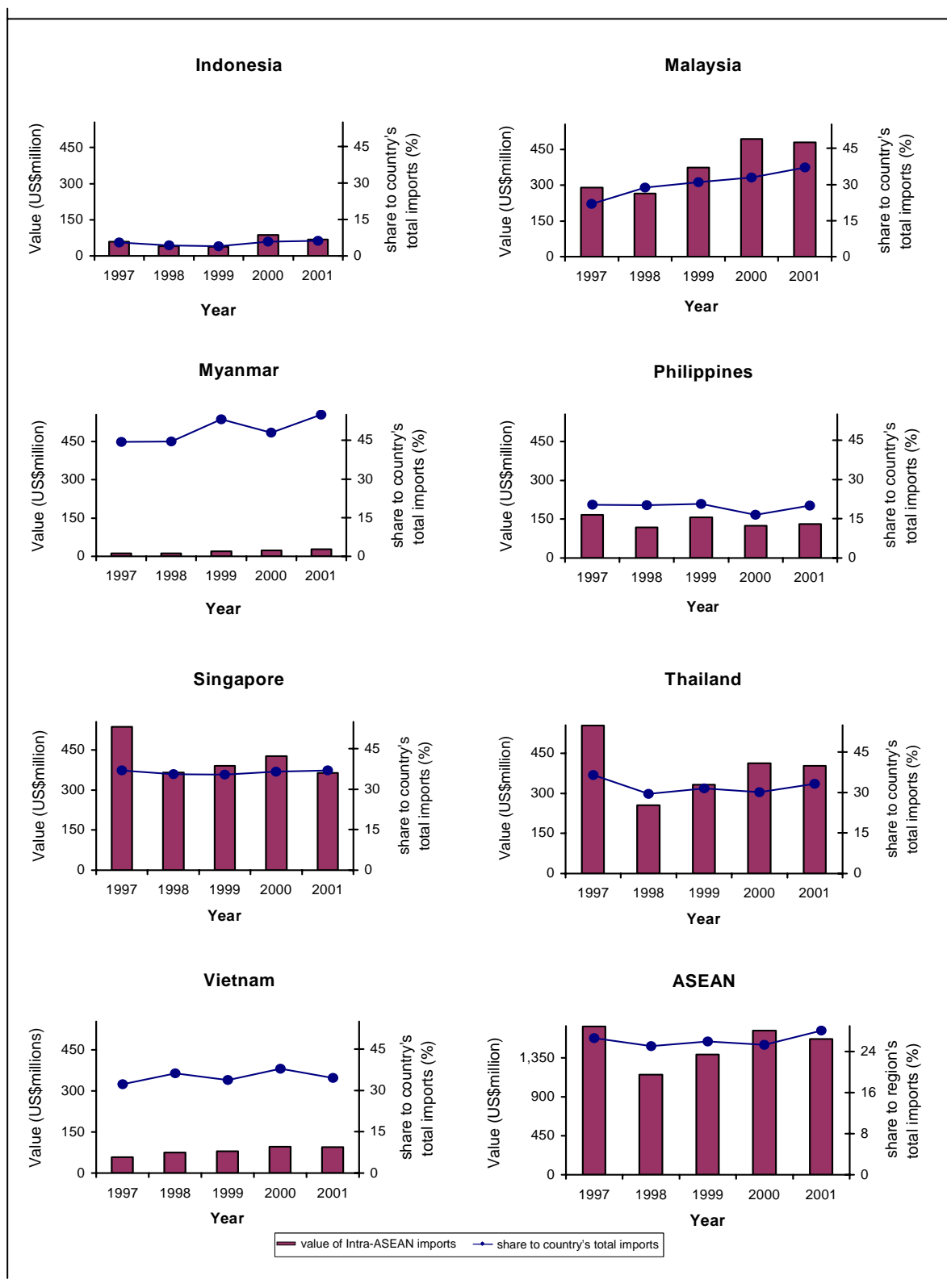
**Figure 4.28 Value of Intra-ASEAN Exports, and Its Share to Country's Total Exports, By Country, Wood-based Products, 1997-2001**



Notes: 1. No data reported for Brunei.  
2. PC/TAS does not include Cambodia

Source: PC/TAS

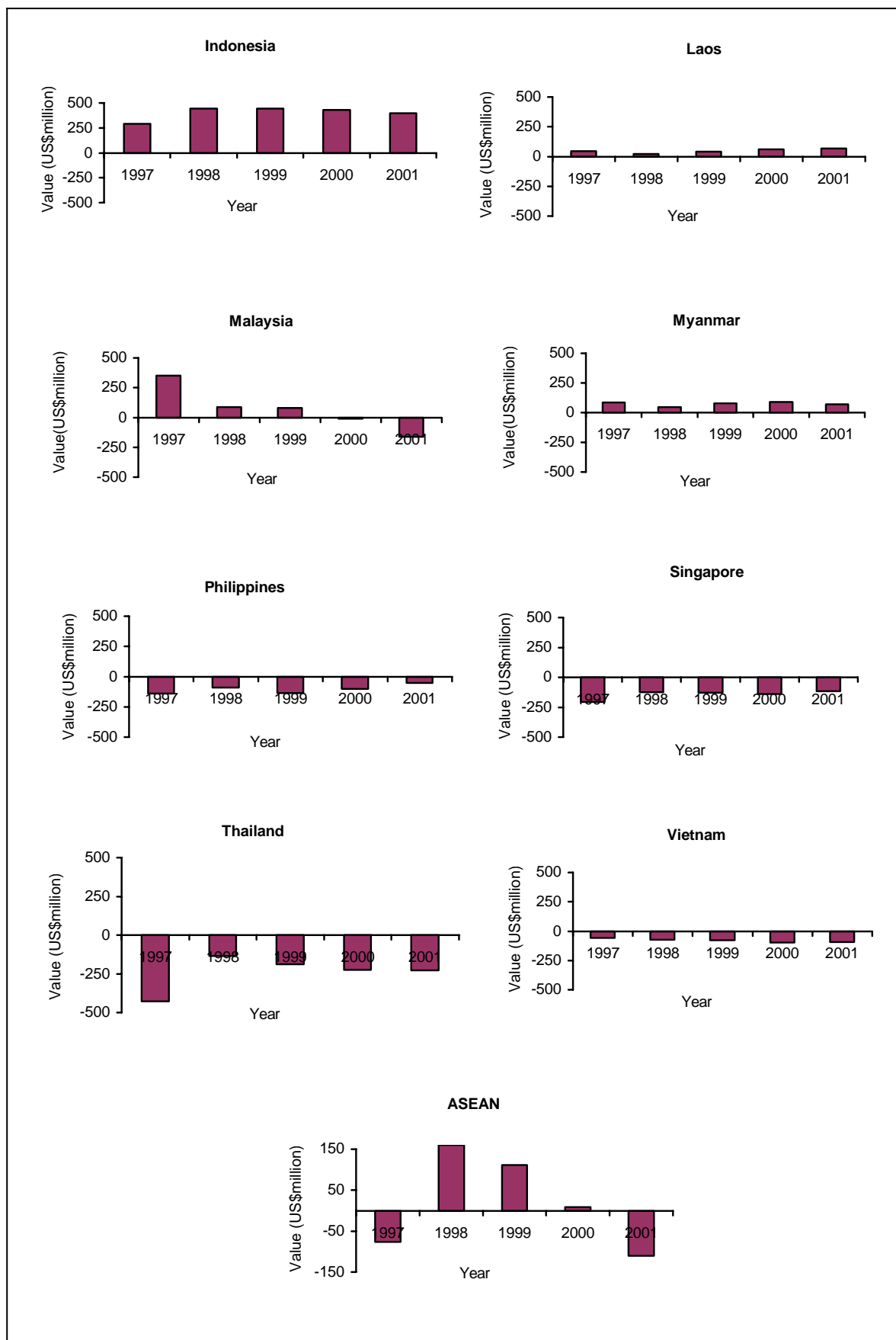
**Figure 4.29 Value of Intra-ASEAN Imports, and Its Share to Country's Total Imports, By Country, Wood-based Products, 1997-2001**



Notes: 1. No data reported for Laos.  
 2. Data for Brunei includes 1997 and 1998 only; and hence, Brunei is not included in the graph.  
 3. PC/TAS does not include Cambodia.

Source: PC/TAS

Figure 4.30 Intra-ASEAN Balance of Trade, By Country, Wood-Based Products, 1997-2001.



Source: PC/TAS

**Table 4.15 Top Three Intra-ASEAN Export and Import Products and Markets, By Country, Wood-Based Products. (Based on Average Share, 1997-2001)**

Countries	Exports				Imports			
	Product		Market		Product		Market	
	HS Code	% Share	Countries	% Share	HS Code	% Share	Countries	% Share
Brunei					4418 4407 4819	31.22 18.16 17.74	Malaysia Singapore	44.67 36.17
Indonesia	4802 4810 4412	20.87 18.92 10.10	Malaysia Singapore	47.60 31.17	4707 4703 4802 4818	39.66 14.31 10.16 10.03	Singapore Thailand Malaysia	52.19 23.75 17.48
Laos	4407 4403	66.96 26.54	Thailand	100.00				
Malaysia	4407 4412 4819	40.33 14.97 4.91	Singapore Thailand	55.09 27.09	4802 4407 4801 4403 4810	18.90 10.20 9.15 9.05 8.99	Indonesia Singapore Thailand	56.36 20.32 17.20
Myanmar	4403 4407	73.52 21.27	Thailand Singapore	61.97 22.78	4819 4801 4810	57.55 17.19 9.68	Singapore Indonesia	66.00 31.06
Philippines	4801 4407 4823	67.77 12.03 9.53	Singapore Malaysia Thailand	49.98 24.09 23.22	4407 4408 4802	23.04 14.08 13.15	Myanmar Indonesia Thailand	45.89 19.92 19.88
Singapore	4811 4819 4823	34.75 15.49 10.95	Malaysia Thailand Vietnam	54.47 24.41 9.05	4407 4412 4818	21.21 16.04 10.64	Malaysia Thailand Myanmar	83.81 8.39 5.09
Thailand	4818 4805 4804 4802	24.07 15.04 12.05 11.01	Malaysia Singapore Philippines	42.38 23.22 16.50	4407 4403 4811	47.52 21.62 14.75	Malaysia Singapore Myanmar	45.49 16.86 14.73
Vietnam	4421 4412 4819	56.88 25.07 18.05	Malaysia Singapore	56.88 43.12	4810 4819 4410 4703	18.70 14.49 9.29 9.15	Indonesia Singapore Malaysia	35.87 30.48 17.81

## Notes:

If the total share of the top 3 products is less than 50%, the top 5 products are included instead.

4403	Wood in the rough	4804	Kraft paper and paperboard
4407	Wood, sawn or chipped	4805	Paper and paperboard, uncoated
4412	Plywood	4810	Paper and paperboard, coated with kaolin
4421	Articles of Wood	4811	Paper and paperboard, wad, coat, etc.
4703	Chemical Wood pulp, soda or sulfate items	4818	Toilet paper and similar household sanitary
4707	Waste and Scrap of Paper or Paperboard	4819	Cartons, paper; Office box, files
4801	Newsprint	4823	Paper, paperboard
4802	Paper, uncoated, for writing, rolls, handmade		

Source: PC/TAS

**Table 4.16 Share of Priority Sectors to Total FDI, By Sector, By Country, 1995-2001**

Year/Sector	Brunei		Cambodia		Indonesia		Laos		Malaysia		Myanmar		Philippines		Thailand		Viet Nam		ASEAN	
	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share
<b>1995</b>																				
Agro-based	-	-	38,245.7	42.65	1,322,930.0	4.94	1,250.0	3.43	139,769.1	2.33	21,400.0	66.00	91,123.8	2.34	83,953.9	0.61	-	-	1,698,672.6	3.35
Rubber-based	4,950.9	63.33	1,310.0	1.46	829,630.0	3.10	-	-	186,433.5	3.11	-	-	11,674.1	0.30	436,763.1	3.16	-	-	1,470,761.6	2.90
Wood-based	961.0	12.29	5,286.5	5.90	2,779,370.0	10.37	1,177.8	3.23	734,886.5	12.27	3,060.0	9.44	154,995.7	3.97	1,194,343.4	8.64	-	-	4,874,080.8	9.62
Textiles & Garments	1,905.8	24.38	24,307.0	27.11	386,660.0	1.44	13,137.0	36.08	243,552.8	4.07	6,101.0	18.82	6,424.5	0.16	150,497.3	1.09	-	-	832,585.4	1.64
Electronics & ICT	-	-	725.0	-	1,080,730.0	4.03	-	-	1,109,107.7	18.52	-	-	60,544.8	1.55	1,436,135.1	10.39	-	-	3,686,517.5	7.27
Automotive	-	-	800.0	0.89	475,130.0	1.77	-	-	154,887.4	2.59	-	-	75,794.8	1.94	78,981.3	0.57	-	-	785,593.6	1.55
<b>Total - Priority Sectors</b>	<b>7,817.8</b>	<b>100.00</b>	<b>69,949.2</b>	<b>78.01</b>	<b>6,874,450.0</b>	<b>25.65</b>	<b>15,564.8</b>	<b>42.74</b>	<b>2,568,637.0</b>	<b>42.89</b>	<b>30,561.0</b>	<b>94.26</b>	<b>400,557.7</b>	<b>10.27</b>	<b>3,380,674.1</b>	<b>24.46</b>	<b>-</b>	<b>-</b>	<b>13,348,211.6</b>	<b>26.34</b>
<b>Total - All Sectors</b>	<b>7,817.8</b>		<b>89,668.9</b>		<b>26,804,660.0</b>		<b>36,415.8</b>		<b>5,989,324.3</b>		<b>32,423.0</b>		<b>3,901,598.6</b>		<b>13,820,621.7</b>		<b>-</b>		<b>50,682,530.1</b>	
<b>1996</b>																				
Agro-based	-	-	41.8	11.09	686,880.0	4.29	6,120.0	1.84	100,063.2	0.90	117,750.0	12.93	48,707.9	2.85	198,132.4	1.71	-	-	1,199,456.1	2.85
Rubber-based	-	-	14.2	3.76	418,730.0	2.62	300.0	0.09	198,965.0	1.78	-	-	65,369.5	3.83	371,739.8	3.21	-	-	1,069,281.3	2.54
Wood-based	3,751.7	34.04	190.4	50.49	2,932,580.0	18.33	22,200.0	6.67	1,751,836.7	15.70	18,125.0	1.99	60,013.2	3.51	573,308.6	4.95	-	-	5,552,175.2	13.20
Textiles & Garments	3,830.8	34.76	39.3	10.43	480,080.0	3.00	3,191.1	0.96	145,168.0	1.30	21,970.0	2.41	43,911.5	2.57	122,661.0	1.06	-	-	860,152.3	2.04
Electronics & ICT	-	-	1.0	0.27	976,790.0	6.11	1,000.0	0.30	4,751,671.6	42.58	-	-	338,530.9	19.82	2,684,604.1	23.18	-	-	8,753,596.6	20.80
Automotive	-	-	0.4	0.10	1,335,860.0	8.35	-	-	137,972.5	1.24	-	-	124,131.5	7.27	178,900.8	1.54	-	-	1,777,254.8	4.22
<b>Total - Priority Sectors</b>	<b>7,582.5</b>	<b>68.81</b>	<b>287.1</b>	<b>76.14</b>	<b>6,830,920.0</b>	<b>42.70</b>	<b>32,811.1</b>	<b>9.86</b>	<b>7,085,676.9</b>	<b>63.49</b>	<b>157,845.0</b>	<b>17.33</b>	<b>680,664.6</b>	<b>39.86</b>	<b>4,129,346.8</b>	<b>35.66</b>	<b>-</b>	<b>-</b>	<b>19,211,916.3</b>	<b>45.66</b>
<b>Total - All Sectors</b>	<b>11,020.0</b>		<b>377.0</b>		<b>15,996,810.0</b>		<b>332,811.1</b>		<b>11,160,106.7</b>		<b>910,581.0</b>		<b>1,707,629.7</b>		<b>11,580,968.9</b>		<b>-</b>		<b>42,076,952.1</b>	
<b>1997</b>																				
Agro-based	-	-	5,972.5	1.43	568,790.0	2.48	-	-	214,608.6	2.78	60,202.0	33.60	130,985.7	4.35	72,239.3	1.06	-	-	1,052,798.1	2.56
Rubber-based	-	-	6,554.3	1.57	341,570.0	1.49	-	-	240,676.4	3.12	6,820.0	3.81	53,470.7	1.77	415,336.5	6.09	-	-	1,064,427.9	2.59
Wood-based	1,422.8	5.62	55,732.9	13.35	5,376,380.0	23.46	1,946.5	22.24	397,256.7	5.15	21,635.0	12.08	8,748.2	0.29	197,769.8	2.90	-	-	6,060,891.9	14.75
Textiles & Garments	-	-	90,084.7	21.58	230,580.0	1.01	4,317.3	49.32	72,080.9	0.93	30,500.0	17.03	49,461.9	1.64	125,069.6	1.83	-	-	602,094.3	1.47
Electronics & ICT	229.6	0.91	-	-	778,880.0	3.40	990.0	11.31	1,958,875.8	25.39	8,658.0	4.83	1,682,330.1	55.83	949,051.4	13.91	-	-	5,379,014.9	13.09
Automotive	-	-	2,150.0	0.52	983,170.0	4.29	-	-	35,546.7	0.46	3,563.0	1.99	63,448.2	2.11	233,539.0	3.42	-	-	1,321,416.9	3.22
<b>Total - Priority Sectors</b>	<b>1,652.4</b>	<b>6.53</b>	<b>160,494.3</b>	<b>38.45</b>	<b>8,279,370.0</b>	<b>36.13</b>	<b>7,253.8</b>	<b>82.86</b>	<b>2,919,045.2</b>	<b>37.84</b>	<b>131,378.0</b>	<b>73.33</b>	<b>1,988,444.7</b>	<b>65.99</b>	<b>1,993,005.6</b>	<b>29.21</b>	<b>-</b>	<b>-</b>	<b>15,480,644.0</b>	<b>37.67</b>
<b>Total - All Sectors</b>	<b>25,299.1</b>		<b>417,421.9</b>		<b>22,912,770.0</b>		<b>8,753.8</b>		<b>7,714,106.2</b>		<b>179,148.0</b>		<b>3,013,078.9</b>		<b>6,823,989.7</b>		<b>-</b>		<b>41,094,567.6</b>	
<b>1998</b>																				
Agro-based	-	-	16,400.1	4.69	344,750.0	4.12	-	-	230,349.2	4.38	151,300.0	0.1	1,130.8	0.04	85,117.1	2.55	-	-	829,047.2	4.13
Rubber-based	3,404.4	29.41	1,297.3	0.37	146,850.0	1.75	-	-	128,277.0	2.44	-	0.0	833,727.6	32.88	337,624.3	10.11	-	-	1,451,180.5	7.23
Wood-based	810.6	7.00	191,981.0	54.84	97,110.0	1.16	3,933.0	34.82	346,660.5	6.60	4,514.0	0.0	1,527,933.2	60.26	626,724.0	18.76	-	-	2,799,666.4	13.95
Textiles & Garments	-	-	109,729.7	31.35	192,500.0	2.30	2,796.0	24.76	168,345.3	3.20	17,780.0	0.0	9,913.1	0.39	116,770.9	3.50	-	-	617,835.0	3.08
Electronics & ICT	7,170.6	61.96	-	-	371,970.0	4.44	-	-	541,642.2	10.31	16,131.0	0.0	56,136.6	2.21	1,379,945.4	41.31	-	-	2,372,995.7	11.82
Automotive	-	-	1,954.8	0.56	334,950.0	4.00	-	-	79,014.5	1.50	4,690.0	0.0	64,306.6	2.54	30,981.4	0.93	-	-	515,897.3	2.57
<b>Total - Priority Sectors</b>	<b>11,385.6</b>	<b>98.37</b>	<b>321,362.9</b>	<b>91.80</b>	<b>1,488,130.0</b>	<b>17.78</b>	<b>6,729.0</b>	<b>59.58</b>	<b>1,494,288.7</b>	<b>28.43</b>	<b>194,415.0</b>	<b>0.1</b>	<b>2,493,147.9</b>	<b>98.33</b>	<b>2,577,163.0</b>	<b>77.15</b>	<b>-</b>	<b>-</b>	<b>8,586,622.1</b>	<b>42.78</b>
<b>Total - All Sectors</b>	<b>11,573.7</b>		<b>350,052.9</b>		<b>8,371,530.0</b>		<b>11,294.0</b>		<b>5,255,905.2</b>		<b>196,070.0</b>	<b>0.0</b>	<b>2,535,594.2</b>		<b>3,340,439.0</b>		<b>-</b>		<b>20,072,458.9</b>	

**Table 4.16 (Cont'd) Share of Priority Sectors to Total FDI, By Sector, By Country, 1995-2001**

Year/Sector	Brunei		Cambodia		Indonesia		Laos		Malaysia		Myanmar		Philippines		Thailand		Viet Nam		ASEAN	
	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share	Value (US\$000)	% Share
<b>1999</b>																				
Agro-based	3,819.8	19.53	2,044.6	1.39	686,789.0	9.95	1,290.0	2.80	123,025.5	2.97	1,800.0	6.69	3,336.1	0.14	139,614.8	4.03	-	-	961,719.9	5.61
Rubber-based	756.8	3.87	4,285.1	2.92	88,277.0	1.28	2,400.0	5.21	38,612.3	0.93	-	-	23,183.1	0.96	265,891.4	7.67	-	-	423,405.7	2.47
Wood-based	1,262.9	6.46	-	-	1,490,335.0	21.59	130.2	0.28	306,425.8	7.40	4,782.0	17.77	55,908.4	2.32	35,759.8	1.03	-	-	1,894,604.1	11.04
Textiles & Garments	2,949.3	15.08	117,432.3	79.98	173,142.0	2.51	900.0	1.95	22,214.0	0.54	9,913.0	36.84	26,734.0	1.11	129,533.3	3.74	-	-	482,818.0	2.81
Electronics & ICT	995.4	-	-	-	454,185.0	6.58	-	-	1,801,358.6	43.51	1,446.0	5.37	866,909.1	35.97	1,455,648.8	42.02	-	-	4,579,547.5	26.69
Automotive	-	-	-	-	38,992.0	0.56	-	-	526.3	0.01	-	-	33,472.7	1.39	19,651.5	0.57	-	-	92,642.5	0.54
<b>Total - Priority Sectors</b>	<b>8,788.9</b>	<b>44.94</b>	<b>123,762.1</b>	<b>84.30</b>	<b>2,931,720.0</b>	<b>42.47</b>	<b>4,720.2</b>	<b>10.25</b>	<b>2,292,162.5</b>	<b>55.37</b>	<b>17,941.0</b>	<b>66.67</b>	<b>1,009,543.5</b>	<b>41.89</b>	<b>2,046,099.6</b>	<b>59.06</b>	<b>-</b>	<b>-</b>	<b>8,434,737.7</b>	<b>49.16</b>
<b>Total - All Sectors</b>	<b>19,555.2</b>		<b>146,819.0</b>		<b>6,903,075.0</b>		<b>46,061.7</b>		<b>4,139,652.8</b>		<b>26,910.0</b>		<b>2,409,936.7</b>		<b>3,464,507.7</b>		<b>-</b>		<b>17,156,518.0</b>	
<b>2000</b>																				
Agro-based	-	-	3,467.1	6.73	438,314.0	5.17	400.0	2.14	225,198.7	2.82	130.0	0.19	37,924.3	2.17	183,001.2	3.57	90,680.0	13.40	979,115.3	4.06
Rubber-based	347.8	14.27	2,040.1	3.96	2,861,866.0	33.76	2,136.8	11.45	328,060.0	4.11	-	-	35,715.8	2.04	565,776.0	11.04	34,203.0	5.06	3,830,145.5	15.87
Wood-based	-	-	-	-	59,763.0	0.71	2,200.0	11.79	139,275.8	1.75	7,032.0	10.49	119,950.6	6.85	75,185.0	1.47	92,055.0	13.61	495,461.4	2.05
Textiles & Garments	-	-	37,384.6	72.62	69,961.0	0.83	4,850.0	25.99	290,549.8	3.64	49,451.0	73.78	27,868.6	1.59	388,285.4	7.58	107,804.0	15.93	976,154.4	4.04
Electronics & ICT	-	-	-	-	89,134.0	1.05	-	-	3,056,966.8	38.34	2,110.0	3.15	1,276,714.1	72.94	1,726,097.3	33.68	59,340.0	8.77	6,210,362.2	25.73
Automotive	-	-	-	-	66,325.0	0.78	-	-	9,431.6	0.12	-	-	47,290.8	2.70	77,744.9	1.52	30,576.0	4.52	231,368.3	0.96
<b>Total - Priority Sectors</b>	<b>347.8</b>	<b>14.27</b>	<b>42,891.7</b>	<b>83.31</b>	<b>3,585,363.0</b>	<b>42.30</b>	<b>9,586.8</b>	<b>51.38</b>	<b>4,049,482.8</b>	<b>50.78</b>	<b>58,723.0</b>	<b>87.62</b>	<b>1,545,464.2</b>	<b>88.30</b>	<b>3,016,089.9</b>	<b>58.86</b>	<b>414,658.0</b>	<b>61.29</b>	<b>12,722,607.1</b>	<b>52.70</b>
<b>Total - All Sectors</b>	<b>2,437.4</b>		<b>51,483.0</b>		<b>8,476,306.5</b>		<b>18,660.2</b>		<b>7,974,208.3</b>		<b>67,023.0</b>		<b>1,750,310.2</b>		<b>5,124,259.8</b>		<b>676,528.0</b>		<b>24,141,216.4</b>	
<b>2001</b>																				
Agro-based	-	-	4,645.6	5.76	289,067.0	5.62	11,038.0	67.07	180,893.6	2.97	1,676.0	5.66	13,037.5	1.92	276,769.2	6.98	228,976.0	17.25	1,006,102.8	5.80
Rubber-based	-	-	2,118.1	2.62	225,011.0	4.37	-	-	241,011.0	3.95	-	-	48,967.5	7.21	247,596.0	6.24	25,486.0	1.92	790,189.7	4.56
Wood-based	611.0	11.15	3,513.4	4.35	804,174.0	15.63	2,595.0	15.77	1,378,167.1	22.61	4,530.0	15.30	17,558.1	2.59	145,244.0	3.66	121,234.0	9.14	2,477,626.4	14.28
Textiles & Garments	4,867.9	88.85	18,577.9	23.02	329,969.0	6.41	100.0	0.61	91,868.0	1.51	23,400.0	79.04	26,740.9	3.94	88,351.0	2.23	365,724.0	27.56	949,598.7	5.47
Electronics & ICT	-	-	50,000.0	61.94	425,779.0	8.28	500.0	3.04	2,555,149.8	41.92	-	-	474,110.8	69.83	1,095,706.3	27.63	137,726.0	10.38	4,738,971.9	27.32
Automotive	-	-	844.0	1.05	257,125.0	5.00	-	-	108,210.5	1.78	-	-	24,274.0	3.58	80,141.6	2.02	101,090.0	7.62	571,685.1	3.30
<b>Total - Priority Sectors</b>	<b>5,478.9</b>	<b>100.00</b>	<b>79,699.0</b>	<b>98.74</b>	<b>2,331,125.0</b>	<b>45.32</b>	<b>14,233.0</b>	<b>86.48</b>	<b>4,555,300.0</b>	<b>74.73</b>	<b>29,606.0</b>	<b>100.00</b>	<b>604,688.8</b>	<b>89.06</b>	<b>1,933,808.0</b>	<b>48.76</b>	<b>980,236.0</b>	<b>73.86</b>	<b>10,534,174.6</b>	<b>60.73</b>
<b>Total - All Sectors</b>	<b>5,478.9</b>		<b>80,719.5</b>		<b>5,143,876.0</b>		<b>16,458.0</b>		<b>6,095,976.3</b>		<b>29,606.0</b>		<b>678,975.4</b>		<b>3,966,313.9</b>		<b>1,327,088.0</b>		<b>17,344,491.9</b>	



**Table 4.17 Intra-ASEAN FDI, By Country, Electronics and Telecommunications Technology, 1995-2001****Table 4.17 Intra-ASEAN FDI, By Country, Electronics and Telecommunications Technology, 1995-2001.**

Year	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Thailand	Viet Nam	ASEAN
<b>Value of Intra-ASEAN FDI (US\$000)</b>										
1995	-	3,775.8	254,050.0	-	125,523.0	-	14,060.0	129,369.5	-	526,778.2
1996	-	-	171,610.0	-	1,266,944.6	-	50,634.6	29,183.7	-	1,518,372.9
1997	229.6	-	103,900.0	-	105,868.6	8,658.0	186,177.6	25,155.4	-	429,989.2
1998	59.8	-	82,310.0	-	48,139.2	6,380.0	-	73,093.1	-	209,982.1
1999	-	-	128,288.8	-	245,102.1	-	-	2,323.1	-	375,714.0
2000	-	-	25,749.0	-	476,976.1	-	197,061.6	155,346.5	2,660.0	857,793.2
2001	-	-	25,570.0	500.0	389,045.4	-	31,964.6	56,380.3	3,700.0	507,160.3
<b>Value of Total FDI (US\$000)</b>										
1995	-	725.0	1,080,730.0	-	1,109,107.7	-	60,544.8	1,436,135.1	-	3,687,242.5
1996	-	1,000.0	976,790.0	1,000.0	4,751,671.6	-	338,530.9	2,684,604.1	-	8,753,596.6
1997	229.6	-	778,880.0	990.0	1,958,875.8	8,658.0	1,682,330.1	949,051.4	-	5,379,014.9
1998	7,170.6	-	371,970.0	-	541,642.2	16,131.0	56,136.6	1,379,945.4	-	2,372,995.7
1999	995.4	-	454,185.0	-	1,801,358.6	1,446.0	866,909.1	1,455,648.8	-	4,580,542.9
2000	-	-	89,134.0	-	3,056,966.8	2,110.0	1,276,714.1	1,726,097.3	59,340.0	6,210,362.2
2001	-	50,000.0	425,779.0	500.0	2,555,149.8	-	474,110.8	1,095,706.3	137,726.0	4,738,971.9
<b>% Distribution of Intra-ASEAN FDI</b>										
1995	-	0.72	48.23	-	23.83	-	2.67	24.56	-	100.00
1996	-	-	11.30	-	83.44	-	3.33	1.92	-	100.00
1997	0.05	-	24.16	-	24.62	2.01	43.30	5.85	-	100.00
1998	0.03	-	39.20	-	22.93	3.04	-	34.81	-	100.00
1999	-	-	34.15	-	65.24	-	-	0.62	-	100.00
2000	-	-	3.00	-	55.61	-	22.97	18.11	0.31	100.00
2001	-	-	5.04	0.10	76.71	-	6.30	11.12	0.73	100.00
Average	0.04	0.72	23.58	0.10	50.34	2.53	15.72	13.86	0.52	100.00
<b>% Share of Intra-ASEAN to Total FDI</b>										
1995	-	-	23.51	-	11.32	-	23.22	9.01	-	14.29
1996	-	-	17.57	-	26.66	-	14.96	1.09	-	17.35
1997	100.00	-	13.34	-	5.40	100.00	11.07	2.65	-	7.99
1998	0.83	-	22.13	-	8.89	39.55	-	5.30	-	8.85
1999	-	-	28.25	-	13.61	-	-	0.16	-	8.20
2000	-	-	28.89	-	15.60	-	15.44	9.00	4.48	13.81
2001	-	-	6.01	100.00	15.23	-	6.74	5.15	2.69	10.70
Average	50.42	-	19.95	100.00	13.82	69.78	14.28	4.62	3.58	11.60

Note:

1. Data for 2000 exclude Cambodia.
2. Singapore does not collect data on approval basis. Thus, its figures for FDI are not reflected.
3. Vietnam's data submission commenced from 2000.

Source: Statistics of Foreign Direct Investment in ASEAN, 2002 Edition

Table 4.18 Intra-ASEAN FDI, By Country, Textiles and Garments, 1995-2001

Table 4.18 Intra-ASEAN FDI, By Country, Textiles and Garments,

Year	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Thailand	Viet Nam	ASEAN
<b>Value of Intra-ASEAN FDI (US \$000)</b>										
1995	1,905.8	15,927.1	11,660.0	12,540.0	16,798.7	1,101.0	-	15,653.2	-	75,585.9
1996	3,830.8	-	18,050.0	1,330.0	22,360.6	5,600.0	1,144.3	798.6	-	53,114.4
1997	-	14,463.2	5,510.0	1,468.0	4,895.3	4,000.0	1,072.2	7,811.3	-	39,220.0
1998	-	16,552.2	18,880.0	616.0	8,664.0	-	-	-	-	44,712.2
1999	2,949.3	6,003.9	12,879.0	-	11,940.6	565.0	-	4,487.9	-	38,825.7
2000	-	-	2,891.0	3,250.0	15,118.6	4,000.0	887.9	2,519.8	3,140.0	31,807.3
2001	4,138.5	1,024.6	162,566.0	-	30,628.0	3,000.0	860.5	-	8,085.0	210,302.5
<b>Value of Total FDI (US\$000)</b>										
1995	1,905.8	24,307.0	386,660.0	13,137.0	243,552.8	6,101.0	6,424.5	150,497.3	-	832,585.4
1996	3,830.8	39,339.9	480,080.0	3,191.1	145,168.0	21,970.0	43,911.5	122,661.0	-	860,152.3
1997	-	90,084.7	230,580.0	4,317.3	72,080.9	30,500.0	49,461.9	125,069.6	-	602,094.3
1998	-	109,729.7	192,500.0	2,796.0	168,345.3	17,780.0	9,913.1	116,770.9	-	617,835.0
1999	2,949.3	117,432.3	173,142.0	900.0	22,214.0	9,913.0	26,734.0	129,532.9	-	482,817.6
2000	-	37,384.6	69,961.0	4,850.0	290,549.8	49,451.0	27,868.6	388,285.4	107,804.0	976,154.4
2001	4,867.9	18,577.9	329,969.0	100.0	91,868.0	23,400.0	26,740.9	88,351.0	365,724.0	949,598.7
<b>% Distribution of Intra-ASEAN FDI</b>										
1995	2.52	21.07	15.43	16.59	22.22	1.46	-	20.71	-	100.00
1996	7.21	-	33.98	2.50	42.10	10.54	2.15	1.50	-	100.00
1997	-	36.88	14.05	3.74	12.48	10.20	2.73	19.92	-	100.00
1998	-	37.02	42.23	1.38	19.38	-	-	-	-	100.00
1999	7.60	15.46	33.17	0.00	30.75	1.46	-	11.56	-	100.00
2000	-	-	9.09	10.22	47.53	12.58	2.79	7.92	9.87	100.00
2001	1.97	0.49	77.30	-	14.56	1.43	0.41	-	3.84	100.00
Average	4.82	22.18	32.18	5.74	27.00	6.28	2.02	12.32	6.86	100.00
<b>% Share of Intra-ASEAN to Total FDI</b>										
1995	100.00	65.52	3.02	95.46	6.90	18.05	-	10.40	-	9.08
1996	100.00	-	3.76	41.68	15.40	25.49	2.61	0.65	-	6.18
1997	-	16.06	2.39	34.00	6.79	13.11	2.17	6.25	-	6.51
1998	-	15.08	9.81	22.03	5.15	-	-	-	-	7.24
1999	100.00	5.11	7.44	-	53.75	5.70	-	3.46	-	8.04
2000	-	-	4.13	67.01	5.20	8.09	3.19	0.65	2.91	3.26
2001	85.02	5.52	49.27	-	33.34	12.82	3.22	-	2.21	22.15
Average	96.25	21.46	11.40	52.04	18.08	13.88	2.79	4.28	2.56	8.92

Note:

1. Data for 2000 exclude
2. Singapore does not collect data on approval basis. Thus, its figures for FDI are not
3. Vietnam's data submission commenced from

Source: Statistics of Foreign Direct Investment in ASEAN, 2002

Table 4.19 Intra-ASEAN FDI, By Country, Automotive Products, 1995-2001

Table 4.19 Intra-ASEAN FDI, By Country, Automotive Products,

Year	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Thailand	Viet Nam	ASEAN
<b>Value of Intra-ASEAN FDI (US \$000)</b>										
1995	-	-	33,980.0	-	6,521.6	-	13,027.9	-	-	53,529.5
1996	-	-	-	-	3,577.1	-	1,468.6	-	-	5,045.7
1997	-	-	37,880.0	-	-	-	44,111.2	-	-	81,991.2
1998	-	-	16,320.0	-	9,550.2	-	-	-	-	25,870.2
1999	-	-	3,850.0	-	-	-	-	-	-	3,850.0
2000	-	-	-	-	-	-	-	5,728.5	-	5,728.5
2001	-	-	76,250.0	-	578.9	-	2,565.6	-	36,720.0	116,114.5
<b>Value of Total FDI (US\$000)</b>										
1995	-	800.0	475,130.0	-	154,887.4	-	75,794.8	78,981.3	-	785,593.6
1996	-	390.0	1,335,860.0	-	137,972.5	-	124,131.5	178,900.8	-	1,777,254.8
1997	-	2,150.0	983,170.0	-	35,546.7	3,563.0	63,448.2	233,539.0	-	1,321,416.9
1998	-	1,954.8	334,950.0	-	79,014.5	4,690.0	64,306.6	30,981.4	-	515,897.3
1999	-	-	38,992.0	-	526.3	-	33,472.7	19,651.5	-	92,642.5
2000	-	-	66,325.0	-	9,431.6	-	47,290.8	77,744.9	30,576.0	231,368.3
2001	-	844.0	257,125.0	-	108,210.5	-	24,274.0	80,141.6	101,090.0	571,685.1
<b>% Distribution of Intra-ASEAN FDI</b>										
1995	-	-	63.48	-	12.18	-	24.34	-	-	100.00
1996	-	-	-	-	70.89	-	29.11	-	-	100.00
1997	-	-	46.20	-	-	-	53.80	-	-	100.00
1998	-	-	63.08	-	36.92	-	-	-	-	100.00
1999	-	-	100.00	-	-	-	-	-	-	100.00
2000	-	-	-	-	-	-	-	100.00	-	100.00
2001	-	-	65.67	-	0.50	-	2.21	-	31.62	100.00
Average	-	-	67.69	-	30.12	-	27.36	100.00	31.62	100.00
<b>% Share of Intra-ASEAN to Total FDI</b>										
1995	-	-	7.15	-	4.21	-	17.19	-	-	6.81
1996	-	-	-	-	2.59	-	1.18	-	-	0.28
1997	-	-	3.85	-	-	-	69.52	-	-	6.20
1998	-	-	4.87	-	12.09	-	-	-	-	5.01
1999	-	-	9.87	-	-	-	-	-	-	4.16
2000	-	-	-	-	-	-	-	7.37	-	2.48
2001	-	-	29.65	-	0.54	-	10.57	-	36.32	20.31
Average	-	-	11.08	-	4.86	-	24.62	7.37	36.32	6.47

Note:

1. Data for 2000 exclude Cambodia.
2. Singapore does not collect data on approval basis. Thus, its figures for FDI are not reflected.
3. Vietnam's data submission commenced from 2000.

Source: Statistics of Foreign Direct Investment in ASEAN, 2002 Edition

Table 4.20 Intra-ASEAN FDI, By Country, Agro-based Products, 1995-2001

Table 4.20 Intra-ASEAN FDI, By Country, Agro-based

Year	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Thailand	Viet Nam	ASEAN
<b>Value of Intra-ASEAN FDI (US \$000)</b>										
1995	-	34,542.1	223,480.0	950.0	66,233.1	21,400.0	46,599.1	5,779.7	-	398,984.0
1996	-	6,700.3	133,050.0	6,000.0	12,217.8	101,100.0	38,023.0	1,365.3	-	298,456.3
1997	-	4,960.0	119,550.0	-	46,493.8	43,560.0	-	95.6	-	214,659.4
1998	-	-	132,080.0	-	92,608.9	151,300.0	-	10,038.7	-	386,027.6
1999	3,819.8	512.5	280,113.8	900.0	43,867.7	-	-	2,072.3	-	331,286.2
2000	-	-	31,777.3	400.0	94,334.3	-	-	23,287.7	18,184.0	167,983.2
2001	-	2,016.2	33,061.0	11,038.0	96,560.2	-	1.4	4,770.8	12,920.0	160,367.5
<b>Value of Total FDI (US\$000)</b>										
1995	-	38,245.7	1,322,930.0	1,250.0	139,769.1	21,400.0	91,123.8	83,953.9	-	1,698,672.6
1996	-	41,802.6	686,880.0	6,120.0	100,063.2	117,750.0	48,707.9	198,132.4	-	1,199,456.1
1997	-	5,972.5	568,790.0	-	214,608.6	60,202.0	130,985.7	72,239.3	-	1,052,798.1
1998	-	16,400.1	344,750.0	-	230,349.2	151,300.0	1,130.8	85,117.1	-	829,047.2
1999	3,819.8	2,044.6	686,789.0	1,290.0	123,025.5	1,800.0	3,336.1	139,614.8	-	961,719.9
2000	-	3,467.1	438,314.0	400.0	225,198.7	130.0	37,924.3	183,001.2	90,680.0	979,115.3
2001	-	4,645.6	289,067.0	11,038.0	180,893.6	1,676.0	13,037.5	276,769.2	228,976.0	1,006,102.8
<b>% Distribution of Intra-ASEAN FDI</b>										
1995	-	8.66	56.01	0.24	16.60	5.36	11.68	1.45	-	100.00
1996	-	2.24	44.58	2.01	4.09	33.87	12.74	0.46	-	100.00
1997	-	2.31	55.69	-	21.66	20.29	-	0.04	-	100.00
1998	-	-	34.22	-	23.99	39.19	-	2.60	-	100.00
1999	1.15	0.15	84.55	0.27	13.24	-	-	0.63	-	100.00
2000	-	-	18.92	0.24	56.16	-	-	13.86	10.82	100.00
2001	-	1.26	20.62	6.88	60.21	-	-	2.97	8.06	100.00
Average	1.15	2.93	44.94	1.93	27.99	24.68	12.21	3.14	9.44	100.00
<b>% Share of Intra-ASEAN to Total FDI</b>										
1995	-	90.32	16.89	76.00	47.39	100.00	51.14	6.88	-	23.49
1996	-	16.03	19.37	98.04	12.21	85.86	78.06	0.69	-	24.88
1997	-	83.05	21.02	-	21.66	72.36	-	0.13	-	20.39
1998	-	-	38.31	-	40.20	100.00	-	11.79	-	46.56
1999	100.00	25.07	40.79	69.77	35.66	-	-	1.48	-	34.45
2000	-	-	7.25	100.00	41.89	-	-	12.73	20.05	17.16
2001	-	43.40	11.44	100.00	53.38	-	0.01	1.72	5.64	15.94
Average	100.00	51.57	22.15	88.76	36.06	89.55	43.07	5.06	12.85	26.12

Note:

1. Data for 2000 exclude
2. Singapore does not collect data on approval basis. Thus, its figures for FDI are not
3. Vietnam's data submission commenced from

Source: Statistics of Foreign Direct Investment in ASEAN, 2002

Table 4.21 Intra-ASEAN FDI, By Country, Rubber-based Products, 1995-2001

Table 4.21 Intra-ASEAN FDI, By Country, Rubber-based Products,

Year	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Thailand	Viet Nam	ASEAN
<b>Value of Intra-ASEAN FDI (US \$000)</b>										
1995	4,950.9	-	87,140.0	-	52,736.6	-	-	26,262.1	-	171,089.6
1996	-	-	43,170.0	300.0	48,165.1	-	391.7	29,477.6	-	121,504.4
1997	-	462.6	79,400.0	-	66,468.9	3,820.0	13,301.2	44,452.7	-	207,905.4
1998	3,404.4	802.3	47,250.0	-	45,152.8	-	7,306.9	47,146.3	-	151,062.6
1999	756.8	334.6	4,965.0	2,160.0	6,879.5	-	-	40,598.7	-	55,694.6
2000	-	-	19,818.8	-	8,611.3	-	5,750.0	52,800.5	525.0	87,505.6
2001	-	1,018.1	43,428.0	-	54,501.5	-	5,240.5	40,661.0	-	144,849.1
<b>Value of Total FDI (US\$000)</b>										
1995	4,950.9	1,310.0	829,630.0	-	186,433.5	-	11,674.1	436,763.1	-	1,470,761.6
1996	-	14,176.9	418,730.0	300.0	198,965.0	-	65,369.5	371,739.8	-	1,069,281.3
1997	-	6,554.3	341,570.0	-	240,676.4	6,820.0	53,470.7	415,336.5	-	1,064,427.9
1998	3,404.4	1,297.3	146,850.0	-	128,277.0	-	833,727.6	337,624.3	-	1,451,180.5
1999	756.8	4,285.1	88,277.0	2,400.0	38,612.3	-	23,183.1	265,891.4	-	423,405.7
2000	347.8	2,040.1	2,861,866.0	2,136.8	328,060.0	-	35,715.8	565,776.0	34,203.0	3,830,145.5
2001	-	2,118.1	225,011.0	-	241,011.0	-	48,967.5	247,596.0	25,486.0	790,189.7
<b>% Distribution of Intra-ASEAN FDI</b>										
1995	2.89	-	50.93	-	30.82	-	-	15.35	-	100.00
1996	-	-	35.53	0.25	39.64	-	0.32	24.26	-	100.00
1997	-	0.22	38.19	-	31.97	1.84	6.40	21.38	-	100.00
1998	2.25	0.53	31.28	-	29.89	-	4.84	31.21	-	100.00
1999	1.36	0.60	8.91	3.88	12.35	-	-	72.90	-	100.00
2000	-	-	22.65	-	9.84	-	6.57	60.34	0.60	100.00
2001	-	0.70	29.98	-	37.63	-	3.62	28.07	-	100.00
Average	2.17	0.51	31.07	2.06	27.45	1.84	4.35	36.22	0.60	100.00
<b>% Share of Intra-ASEAN to Total FDI</b>										
1995	-	-	10.50	-	28.29	-	-	6.01	-	11.63
1996	-	-	10.31	100.00	24.21	-	0.60	7.93	-	11.36
1997	-	7.06	23.25	-	27.62	56.01	24.88	10.70	-	19.53
1998	-	61.84	32.18	-	35.20	-	0.88	13.96	-	10.41
1999	100.00	7.81	5.62	90.00	17.82	-	-	15.27	-	13.15
2000	-	-	0.69	-	2.62	-	16.10	9.33	1.53	2.28
2001	-	48.07	19.30	-	22.61	-	10.70	16.42	-	18.33
Average	100.00	31.19	14.55	95.00	22.62	56.01	10.63	11.38	1.53	12.39

Note:

1. Data for 2000 exclude
2. Singapore does not collect data on approval basis. Thus, its figures for FDI are not
3. Vietnam's data submission commenced from

Source: Statistics of Foreign Direct Investment in ASEAN, 2002

Table 4.22 Intra-ASEAN FDI, By Country, Wood-based Products, 1995-2001

Table 4.22 Intra-ASEAN FDI, By Country, Wood-based Products,

Year	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Thailand	Viet Nam	ASEAN
<b>Value of Intra-ASEAN FDI(US \$000)</b>										
1995	961.0	836.7	91,780.0	577.8	199,790.3	3,060.0	755.4	1,571.3	-	299,332.5
1996	3,751.7	119,655.6	1,604,110.0	10,200.0	1,357,066.8	7,825.0	-	-	-	3,102,609.1
1997	1,422.8	25,681.9	41,050.0	800.0	231,729.7	15,800.0	4,770.8	4,160.7	-	325,415.9
1998	810.6	107,285.0	28,030.0	2,900.0	156,516.8	-	735.9	3,336.6	-	299,615.0
1999	1,262.9	-	8,376.3	130.2	9,165.1	4,782.0	54,414.0	224.4	-	78,354.9
2000	-	-	11,156.0	953.0	46,060.9	7,032.0	55,333.0	7,650.1	4,750.0	132,934.9
2001	-	1,112.0	712,508.0	1,625.0	20,349.7	3,530.0	1,882.1	5,245.6	13,290.0	759,542.5
<b>Value of Total FDI (US\$000)</b>										
1995	961.0	5,286.5	2,779,370.0	1,177.8	734,886.5	3,060.0	154,995.7	1,194,343.4	-	4,874,080.8
1996	3,751.7	190,360.0	2,932,580.0	22,200.0	1,751,836.7	18,125.0	60,013.2	573,308.6	-	5,552,175.2
1997	1,422.8	55,732.9	5,376,380.0	1,946.5	397,256.7	21,635.0	8,748.2	197,769.8	-	6,060,891.9
1998	810.6	191,981.0	97,110.0	3,933.0	346,660.5	4,514.0	1,527,933.2	626,724.0	-	2,799,666.4
1999	1,262.9	-	1,490,335.0	130.2	306,425.8	4,782.0	55,908.4	35,759.8	-	1,894,604.1
2000	-	-	59,763.0	2,200.0	139,275.8	7,032.0	119,950.6	75,185.0	92,055.0	495,461.4
2001	611.0	3,513.4	804,174.0	2,595.0	1,378,167.1	4,530.0	17,558.1	145,244.0	121,234.0	2,477,626.4
<b>% Distribution of Intra-ASEAN FDI</b>										
1995	0.32	0.28	30.66	0.19	66.75	1.02	0.25	0.52	-	100.00
1996	0.12	3.86	51.70	0.33	43.74	0.25	0.00	-	-	100.00
1997	0.44	7.89	12.61	0.25	71.21	4.86	1.47	1.28	-	100.00
1998	0.27	35.81	9.36	0.97	52.24	-	0.25	1.11	-	100.00
1999	1.61	-	10.69	0.17	11.70	6.10	69.45	0.29	-	100.00
2000	-	-	8.39	0.72	34.65	5.29	41.62	5.75	3.57	100.00
2001	-	0.15	93.81	0.21	2.68	0.46	0.25	0.69	1.75	100.00
Average	0.55	9.60	31.03	0.40	40.42	3.00	16.18	1.61	2.66	100.00
<b>% Share of Intra-ASEAN to Total FDI</b>										
1995	-	15.83	3.30	49.06	27.19	-	0.49	0.13	-	6.14
1996	-	62.86	54.70	45.95	77.47	-	-	-	-	55.88
1997	-	46.08	0.76	-	58.33	73.03	54.53	2.10	-	5.37
1998	-	55.88	28.86	-	45.15	-	0.05	0.53	-	10.70
1999	100.00	-	0.56	100.00	2.99	-	97.33	0.63	-	4.14
2000	-	-	18.67	43.32	33.07	-	46.13	10.17	5.16	26.83
2001	-	31.65	88.60	62.62	1.48	-	10.72	3.61	10.96	30.66
Average	100.00	42.46	27.92	60.19	35.10	73.03	34.87	2.86	8.06	19.96

Note:

1. Data for 2000 exclude
2. Singapore does not collect data on approval basis. Thus, its figures for FDI are not
3. Vietnam's data submission commenced from

Source: Statistics of Foreign Direct Investment in ASEAN, 2002

## Chapter 5

### Measuring Intra-Industry Trade

This project will estimate the industry-trade index (IIT) for the priority sectors identified earlier in Chapter 1. The index is used to measure intra-industry trade. However, it is also sometimes used as a measure of deepening integration since they reflect an increase in the division of labor, combined with a reduction in transaction costs (Bora 1996; Austria 2003).

As discussed in Chapter 2, several studies have already been done to measure the degree of intra-industry trade in different countries and regions in the world. The more recent of these studies, however, are by Bano (2002), OECD (2002), Austria (2002 and 2003), Bora (1996), Kunzel (1997) and Havrylyshyn and Kunzel (1997).

There are several measures of the IIT index. The most commonly used, however, is the Grubel-Lloyd Index. All the studies mentioned above used the index, which is given by the following formula (Grimwade 2000):

$$IIT = \frac{\Sigma(X_i + M_i) - \Sigma|X_i - M_i|}{\Sigma(X_i + M_i)} \times 100$$

where:

$X_i$  = total exports of product or industry  $i$ .

$M_i$  = total imports of product or industry  $i$ .

The straight brackets around the expression  $X_i - M_i$  denotes that the sign of the trade balance is ignored.

The index measures intra-industry trade as the percentage of a country's total trade ( $X+M$ ) that was matched or balanced ( $X=M$ ). The index has a value between 0 and 100. If all trade was balanced, the index will be 100. If all trade was one-way, the index will be 0. Hence, the closer the value of the index to 100, the greater the importance of intra-industry trade.

However, the Grubel-Lloyd index is criticized for measuring intra-industry trade as a proportion of a country's total trade with all other countries, i.e. multilateral trade. It is argued that since the existence of multilateral intra-industry trade is expected, a more appropriate measure is the bilateral intra-industry trade index. Thus, this study will use the Grubel-Lloyd Index modified as follows:

$$IIT_{ij}^k = \frac{\Sigma(X_{ij}^k + M_{ij}^k) - \Sigma|X_{ij}^k - M_{ij}^k|}{\Sigma(X_{ij}^k + M_{ij}^k)} \times 100$$

where:

Subscript  $i$  refers to reporting country.

Subscript  $j$  refers to partner country.

Superscript  $k$  represent product.

$\Sigma$  refers to the sum of products/commodities at the 4-digit HS code

The index will be estimated in relation to each bilateral trade flow between pairs of ASEAN economies, and between each member and the rest of the ASEAN as a group.

The resulting IIT index will be used as an indicator of the integration going in the sectors. The degree of integration will be determined according to the following values of the IIT index:

Value of IIT index	Classification
*	No intra-ASEAN trade reported
0.00	No integration; one-way trade
0.00 > 24.99	Weak integration
25.00 – 49.99	Mild integration
50.00 – 74.99	Moderately strong integration
75.00 – 99.99	Strong integration

The above classification is a slight modification of the classification used by OECD (2002), where countries are classified as having high intra-industry trade if the IIT index is above 50, and low intra-industry trade if the IIT index is below 50.

**Product Coverage.** The study will cover the priority goods sectors, at the 4-digit HS (Harmonized System) code. HS has three levels of aggregation namely, 2-digits, 4-digits and 6-digits. The 2-digit level represents too high a level of aggregation such that intra-industry trade could be overestimated. On the other hand, the 6-digit level may represent too low a level of aggregation such that intra-industry trade could be underestimated. Thus, the 4-digit level could be taken as a good measure of an industry.

The HS chapters to be covered are the following (all 4-digits under the chapters will be covered):

- Agro-based products – HS 01-02, 04-24
- Fisheries – HS 03
- Health care products – HS 3303-3307, 3401, 9018, 2936-2937, 3001-3006.
- Rubber-based products – HS 40
- Wood-based products – HS 44-48
- Textiles and garments – HS 50-59, 60-63
- Electronics – HS 8414, 8415, 8418, 8471, 8509, 8510, 8516
- Information and Communication Technology – selected HS 84, 85 and 90; HS 3818
- Automotive – HS 87

**Period of coverage.** The indicators will be estimated for 1997 and 2001. Two years will be covered to be able to see progress of integration.

**Data Source.** The PC-TAS (Trade Analysis System on Personal Computer) database of the UNCTAD, which is available in CD-ROM, will be used for the study. The database has the level of product disaggregation required for the study. However, the database does not include Cambodia.

**Limitations.** As discussed earlier, the market-led integration occurring in the region is driven by both intra-industry trade and investment, basically by the production networks of MNCs operating in the region. Ideally, an intra-industry investment index should also be estimated to support the IIT index. However, this cannot be estimated for this study due to the absence of data on intra-FDI for all ASEAN economies that are disaggregated at the 4-digit industry level.



## Chapter 6

### Intra-Industry Trade in the Priority Goods Sectors, 1997 and 2001

#### 6.1 Overall Level of Intra-Industry Trade and Integration

In general, intra-industry trade was relatively high in the ICT and electronics sectors, as shown by the IIT index which is greater than 50 for most of the ASEAN members (Table 6.1). As discussed in Chapter 3, these are the main sectors driving integration in the region given the participation of the ASEAN-5 in the global/regional production network of these sectors. While intra-industry trade for the other priority sectors was still below the moderately strong classification, the findings show that there was an improvement in most of the member economies, given the large increase in the IIT index between 1997 and 2001 (Table 6.1). The increase in the IIT index indicates increasing integration.

In electronics, integration was high in Malaysia only. In fact, integration was deepening as shown by the increase in the IIT index from moderately strong in 1997 to strong in 2001 (Tables 6.1 & 6.2). This finding supports the leading role that Malaysia is playing in the electronics sector, at least in the region. Singapore also experienced deepening integration in electronics, given the increase in the IIT index; but intra-industry trade has remained moderately strong between 1997 and 2001. Intra-industry trade was also moderately strong in Indonesia and the Philippines in 1997 but it declined in 2001.

Intra-industry trade in the ICT sector suffered a decline, except for the Philippines and Vietnam which registered an increase (Table 6.1). Integration was already strong for Malaysia and Thailand in 1997 but it became moderately strong in 2001 (Tables 6.1 and 6.2). The increasing role of Vietnam in the production network is shown by the large increase in the country's IIT index between 1997 and 2001.

Integration was also moderately strong in healthcare products in Malaysia, fisheries in the Philippines, rubber-based in Singapore, automotive in Malaysia and Indonesia (Tables 6.1 and 6.2).

For the other member economies, either no trade or integration exists in Brunei and Laos, and weak but improving integration in Vietnam and Myanmar (Tables 6.1 and 6.2). For these economies, trade was mostly inter-industry or one-way trade.

For the other sectors, particularly agro-based, fisheries, wood-based and rubber-based, integration was at most mild for the ASEAN-5, and weak or no integration for the CLMV (Tables 6.1 and 6.2). As will be discussed in the next section, trade in most of these sectors was basically inter-industry rather than intra-industry trade. But this was not surprising considering the nature of their production. The sectors are basically agricultural and production consists of relatively simple transformation of raw materials with which the member economies are endowed; and that such transformation are not suited to division across the economies in the region.

To summarize, the above discussions show that the overall level of intra-industry trade and integration at the sectoral level was relatively high only for a few sectors, and only for some specific member economies. In general, the findings support the theory that strong integration is most likely to occur in developed economies than in less developed economies. In this study, it is a case between the more developed ASEAN-5 versus the less developed CLMV. Likewise, the findings are consistent with the theory that integration is most likely to occur in manufacturing industries than in agriculture. In this study, it is a case

of the manufacturing sectors of ICT, electronics, textiles/garments, healthcare products, and automotive on the one hand, and the agro-based, fisheries, rubber-based and wood-based products, which are basically agricultural, on the other hand.

Nonetheless, the above conclusion cannot be generalized at the product level. As will be discussed below, not all ASEAN-5 achieved high intra-industry trade in all products of the priority sectors, even for the so called manufacturing sectors. Likewise, high intra-industry trade has been achieved in some products of the priority sectors considered as agricultural.

## 6.2 Intra-Industry Trade, and Product and Country Integration

Appendix Tables 6.1.1 to 6.9.14 show the results of the IIT index for each product for: (i) each pair of member economies; and (ii) each economy and the rest of the ASEAN as a group. Numbers in the upper diagonal of the tables refer to the IIT index for 1997, with countries in the rows as reporters. On the other hand, numbers in the lower diagonal of the tables refer to the IIT index for 2001, with countries in the columns as reporters. The products are then classified in Appendix Table 6.10.1 to 6.18.2 according to their degree of integration based on the IIT index classification discussed in the methodology.

This section discusses, for each sector, the intra-industry trade between each member economy and the rest of the region as a group, highlighting the trade with bilateral partners that are driving the integration in the sector.

### (i) Indonesia

**ICT.** In 1997, intra-industry trade between Indonesia and the region as a whole was moderately strong in 3 products only: printed circuits (HS 8534), electrical apparatus for switching (HS 8536), and insulated wire, cable, etc. (HS 8544) (Table 6.3). These products combined accounted for 7 percent of Indonesia's intra-ASEAN trade in the sector, i.e. exports plus imports (Table 6.4). However, intra-industry trade in these products went down in 2001 and integration became weak (Appendix Tables 6.10.2 and Table 6.5). Increase in intra-industry trade, albeit small, occurred in only 3 products: apparatus for radio telecommunication, etc (HS 8525), reception apparatus (HS 8527) and electric capacitors (HS 8532) (Appendix Table 6.10.1).

Integration at the bilateral level was achieved with Malaysia, Singapore and Thailand. Integration with Malaysia was strong in parts for television, radio and radar apparatus (HS 8529) and electronic integrated circuits and micro-assembly (HS 8542) (Table 6.6). With Singapore, it was strong in printed circuits (HS8534) and photocopy apparatus parts (HS 9009) and moderately strong in electrical apparatus for switching (HS8536) and electric apparatus for line telephony (HS 8517) (Table 6.7). It was strong with Thailand in electronic integrated circuits and micro-assembly (HS 8542) (Table 6.8).

**Electronics.** Intra-industry trade between Indonesia and the rest of the region as a whole was moderately strong in automatic data processing machines (HS 8471) in 1997; and in air or vacuum pumps (HS 8414) and air conditioning machines parts (HS8415) in 2001 (Tables 6.3 and 6.5). The latter 2 products experienced a deepening in integration, from weak in 1997 to moderately strong in 2001 (Appendix Table 6.10.2). The products with moderately strong integration accounted for 51 percent and 18 percent of Indonesia's intra-ASEAN trade in the sector in 1997 and 2001, respectively (Table 6.4).

At the bilateral level, integration was moderately strong with Singapore in 1997 and with Malaysia in 2001, both in automatic data processing machines (HS 8471) (Tables 6.6 & 6.7).

**Healthcare products.** Intra-industry trade in most of the healthcare products was one-way, as shown by the 0 value of the IIT index (Appendix Table 6.10.1). The picture did not change in 2001. It is interesting note, however, that in 1997, intra-industry trade was strong in one product: beauty, make-up and skin-care preparations (HS 3304). These products accounted for about 7 percent of Indonesia's total intra-ASEAN trade in the sector in 1997 (Table 6.4). While trade in these products occurred bilaterally with Malaysia, Singapore and Thailand, it was in the latter where intra-industry was strong (Table 6.8). Trade with the other two countries was basically one-way trade.

**Textiles and garments.** For the majority of the textiles and garments products, either no trade was reported or trade was a one-way. Likewise, hardly was there a change between 1997 and 2001 (Appendix Tables 6.10.1 & 6.10.2). Nonetheless, strong integration was registered in one textile product, non-wovens whether or not impregnated or coated (HS 5603), both in 1997 and 2001. These products contributed 3.6 percent and 1.6 percent in Indonesia's intra-ASEAN trade in the sector (Table 6.4). Integration was driven by trade with Singapore and Thailand (Tables 6.7 & 6.8).

**Automotives.** Integration between Indonesia and the region as a whole was weak or did not exist in most of the products in the sector (Appendix Table 6.10.2). An exception was parts and access for motor vehicles (HS 8708) in 1997; and special purpose motor vehicles (HS 8705) in 2001. Integration was moderately strong in both products (Tables 6.3 & 6.5). For HS 8705, integration improved from no integration in 1997 to moderately strong in 2001. HS 8708 accounted for almost a quarter of Indonesia's intra-ASEAN trade in the sector in 1997 while HS 8705 accounted for less than 1 percent in 2001 (Table 6.4).

Bilaterally, integration was strong with Malaysia, Singapore and Thailand. Integration with Malaysia improved from moderately strong in 1997 to strong in 2001 in parts and access for cycles (HS 8714) (Table 6.6). On the other hand, integration with Singapore was moderately strong in motor cars & vehicles for transporting persons (HS 8703) in 1997; and in special purpose motor vehicles (HS 8705) in 2001 (Table 6.7). For Thailand, moderately strong integration occurred in parts and access for motor vehicles (HS 8708) in 1997; and strong integration in motor cars & vehicles for transporting persons (HS 8703) in 2001 (Table 6.8).

**Agro-based products.** Intra-industry trade between Indonesia and the region as a whole is either weak or does not exist in most of the agri-based products (Appendix Table 6.10.2). In 1997, products where integration was moderately strong include the following: corn (HS 1005), palm oil and its fractions (HS 1511); sauces and preparations, mixed condiments (HS 2103) and preparations used in animal feeding (HS 2309) (Table 6.3). These products combined accounted for 18.5 percent of Indonesia's intra-ASEAN trade of the sector (Table 6.4). Integration, however, for these products became weak in 2001 (Appendix Table 6.10.2). Instead, new products emerged to have achieved moderately strong integration: cloves – whole fruit and stems (HS 0907) and bovine or equine leather (HS 4104) (Table 6.5). These products accounted for a combined share of 3 percent in Indonesia's intra-ASEAN trade of the sector (Table 6.4).

At the bilateral level, strong integration occurred in corn (HS 1006) with Malaysia, Philippines and Thailand (Tables 6.6, 6.8 & 6.9). Moderately strong integration was also achieved with Malaysia in malt extract, food preparation of flour (HS 1901) and bread, pastry, cakes, etc (HS 1905) (Table 6.6). Moderately strong integration also existed with Singapore in cloves, whole fruit and stems (HS 0907) (Table 6.7),

**Fisheries.** No integration exists in the fisheries sector, i.e. trade is one-way (Appendix Table 6.10.2). An exception to this is crustaceans, live or fresh (HS 0306) where there was weak integration.

**Rubber-based products.** Either no trade was reported or no intra-industry trade existed in rubber-based products (Appendix Table 6.10.2). An exception was conveyor or belts of vulcanized rubber (HS 4010), where integration was moderately strong but only in 1997 (Table 6.3). Integration was basically driven by trade with Singapore (Table 6.7).

**Wood-based products.** In 1997, intra-industry trade between Indonesia and the region was moderately strong in paper, uncoat, for writing, etc (HS 4802) and paper and paperboard (HS 4811) (Table 6.3). These products accounted for a combined share of 15 percent of Indonesia's total intra-ASEAN trade in the sector (Table 6.4). In 2001, moderately strong integration was also observed in other products that include wood sawn or chipped (HS 4407), particle board (HS 4410), chemical woodpulp (HS 4703) and paper and paperboard (HS 4811) (Table 6.5). These products accounted for 7 percent of Indonesia's intra-ASEAN trade.

Strong integration also exists at the bilateral trade with Malaysia and Singapore (Tables 6.6 & 6.7).

## (ii) Malaysia

**ICT.** Intra-industry trade between Malaysia and the region as a whole was either moderately strong or strong in most of the products (Appendix Tables 6.11.1 & 6.11.2). Moderately strong integration can be found mostly in parts and components while strong integration occurs mostly in final products (Tables 6.3 and 6.5). There was also a deepening in integration as the IIT index increased in most of the products (Appendix Table 6.11.2). Furthermore, products with moderately strong and strong integration accounted for a combined share of almost 85 percent of Malaysia's intra-ASEAN trade in the sector in 1997 and 62 percent in 2001 (Table 6.4). The high percentage, together with the deepening integration, indicates that Malaysia is already highly integrated in the region's ICT sector.

At the bilateral level, moderately strong or strong integration already exist with Indonesia, Philippines, Singapore and Thailand (Tables 6.6-6.9), Nonetheless, it was with Singapore where strong integration was observed in more products compared with the other three economies.

**Electronics.** In 1997, integration between Malaysia and the region as a whole was moderately strong in automatic data processing machines (HS 8471) and strong in air or vacuum pumps, compressor and fans (HS 8414) (Table 6.3). In 2001, integration in both products was moderately strong (Table 6.5). However, although integration was found in only 2 products, these products accounted for a large percentage of Malaysia's intra-industry trade, i.e. 85 percent in 1997 and 84 in 2001 (Table 6.4). The high percentage means that in most of the products traded, integration has been achieved.

For the other products, while integration was either weak or mild, there was an improvement between 1997 and 2001 (Appendix 6.11.1).

Bilaterally, integration was moderately strong with Singapore (Table 6.10), Thailand (Table 6.11 and Indonesia (Table 6.6), all in the same products, HS 8471 and 8414.

**Healthcare products.** Intra-industry trade between Malaysia and the region as a whole was either moderately strong or strong in most healthcare products, both in 1997 and 2001 (Appendix Table 6.11.2). Products with strong and moderately strong integration were basically pharmaceutical products (HS 30) and toiletries (HS 33) (Tables 6.3 & 6.5). Together, they accounted for a combined share of 63 percent and 60 percent of Malaysia's intra-ASEAN trade in the sector (Table 6.4). Most of the products also registered an increase in intra-industry trade, signifying deepening integration (Appendix Table 6.11.1). These findings imply that Malaysia is becoming highly integrated in the region's healthcare products sector.

At the bilateral level, strong integration has been achieved with Singapore in most products (Table 6.10); and, moderately strong in a few products with the Philippines (Table 6.12) and Thailand (Table 6.11). Strong integration also exists with Vietnam in one product (Table 6.13).

**Garments and textiles.** Very few products in the garments and textiles sector registered intra-industry trade between Malaysia and the region as a whole (Appendix Tables 6.11.1 & 6.11.2). For textiles, in 1997, intra-industry trade was strong in synthetic monofil (HS 5404), non-wovens, whether or not impregnated (HS 5603), and textile products for specific technical uses (HS 5911) (Table 6.3). However, integration in these products became only moderately strong in 2001 (Table 6.5). A new product emerged with strong integration in 2001, i.e. labels, badges, etc. of textiles (HS 5807).

For the garments sector, in 2001, tracksuits, ski-suits and swimwear, not knit (HS 6211), made-up accessories, garment parts (HS 6217), and made-up articles of textile materials (HS 6307) showed strong intra-industry trade (Table 6.5). There was deepening in integration in these products given the increase in intra-industry trade from 1997.

Bilaterally, strong integration occurred with Singapore in a few textile and garment products (Table 6.10); and with Thailand and Indonesia in only 1 product (Tables 6.11 and 6.6).

**Automotive.** Integration in the sector was at best mild in most products; and did not change between 1997 and 2001 (Appendix Tables 6.11.1 & 6.11.2). This was also true for the country's bilateral partners.

**Agro-based products.** Intra-industry trade was either weak or none at all in most of the products traded (Appendix Table 6.11.2). Exception to this was a moderately strong intra-industry trade in about 10 products in 2001; and strong intra-industry trade in 2 products (Table 6.5).

Moderately strong intra-industry trade in a few products existed with Indonesia (Table 6.6), the Philippines (Table 6.12), and Thailand (Table 6.11). On the other hand, strong integration exists with Singapore in a number of products (Table 6.10).

**Fisheries.** In 2001, moderately strong intra-industry trade occurred only fish, live (HS 0301) and fish, fresh or chilled (HS 0303) (Table 6.5). Intra-industry trade in these products in fact increased from 1997. For HS 0301, trade was only one-way in 1997; and for HS 0303, intra-industry trade was only mild. On the other hand, strong intra-industry trade was registered in crustaceans, live or fresh (HS 0306).

While only 3 product categories were demonstrating integration, they nevertheless accounted for a large proportion of Malaysia's intra-industry trade for the sector, 24 percent in 1997 and 45 percent in 2001 (Table 6.4).

**Rubber-based products.** Intra-industry trade was either weak or none at all in most of the products traded (Appendix Table 6.11.2). Exceptions to this are conveyor or belts of vulcanized rubber (HS 4010) and articles of unhardened vulcanized rubber (HS 4016), where a deepening and strong intra-industry trade exists (Tables 6.3 & 6.5). Intra-industry trade in these products occurred mostly with Singapore and Thailand (Tables 6.10 & 6.11).

**Wood-based products.** Intra-industry trade was either weak or none at all in most of the products traded (Appendix Table 6.11.2). Exceptions to this are particle board (HS 4410), article of wood (HS 4421), toilet paper & similar household sanitary item (HS4818), and labels of paper or paperboard (HS 4821), where a strong integration exists in 2001 (Table 6.5). Moderately strong intra-industry trade also occurred in fuel wood (HS 4401), wood sawn or chipped (HS 4407) and paper, paperboard (HS 4823).

Products with moderately strong and strong intra-industry trade accounted for a combined share of 17 percent and 35 percent of Malaysia's intra-industry trade in 1997 and 2001, respectively (Table 6.4).

At the bilateral level, intra-industry trade was moderately strong and strong with the Philippines, Singapore and Thailand (Tables 6.10 – 6.12).

### (iii) Philippines

**ICT.** Unlike Malaysia whose intra-industry trade in most ICT products was moderately strong or strong, the case of the Philippines show that only a few products registered moderately strong and strong intra-industry trade (Appendix Table 6.12.2\_). Nevertheless, where intra-industry trade was weak or mild, increases were observed in most products from 1997 to 2001 (Appendix Table 6.12.1).

In 2001, parts for television, radio and radar apparatus (HS 8529) are the only ICT products where integration between the Philippines and the region as a whole was strong (Tables 6.5). On the other hand, products where intra-industry trade was moderately strong include office machines (8472), parts for typewriters & other office machines (HS 8473), apparatus for radio telecommunications (HS 8525), electric capacitors (HS 8532), printed circuits (HS 8534) and electrical apparatus for switching (HS 8536).

Products with moderately strong and strong integration accounted for a combined share of 63 percent and 69 percent of Philippine intra-ASEAN trade in the sector in 1997 and 2001, respectively (Table 6.4).

Bilateral trade shows strong integration with Singapore, Malaysia and Thailand in a number of products (Tables 6.14, 6.12 & 6.15).

**Electronics.** Integration with the ASEAN as a group was at most weak (Appendix Table 6.12.2). Automatic data processing machines (HS 8471) was the only product that registered moderately strong intra-industry trade in 1997 but this decreased in 2001 (Tables 6.3 & 6.5). On the other hand, intra-industry trade in air or vacuum pumps, compressors and fans (HS 8414), while still weak, registered a big increase from 1997 to 2001 (Table 6.12.1).

Among the bilateral partners, moderately strong and strong integration occurred only with Singapore (Table 6.14).

**Healthcare products.** Most of the trade that happened between the Philippines and the region as a whole was just one-way trade (Appendix Table 6.12.2. Only products for beauty, make-up and skin-care preparations (HS 3304) registered a moderately strong intra-

industry trade in 2001 (Table 6.5). A moderately strong intra-industry trade was recorded in 1997 in medicaments (HS 3004) but this deteriorated in 2001.

**Textiles and garments.** Either no trade was reported or intra-industry trade was one-way for all but 2 products whose IIT was weak (Appendix Table 6.12.2). In addition, hardly was there a change between 1997 and 2001 (Appendix Table 6.12.1).

**Automotive.** Intra-industry trade was also one-way, except for 2 products, parts and access for motor vehicles (HS 8708) and parts and access for cycles & invalid carriages (HS 8714) (Appendix Table 6.12.2). The latter product registered deepening and strong integration with Thailand (Table 6.15).

**Agro-based.** There were more products characterized by one-way trade (i.e. either exports or imports but not both) than products where intra-industry trade exists (Appendix Table 6.12.2). An exception to this are malt extract, food preparations (HS 1901), fruits, nuts, etc prepared or preserved (HS 2008), and tobacco, unmanufactured (HS 2401) (Table 6.5).

Among the bilateral partners, moderately strong integration in a few products exists with Singapore, Malaysia and Indonesia (Tables 6.14, 6.12 and 6.9). These products include corn (HS 1005) with Indonesia; fruits and nuts (HS 2008) with Singapore; and food preparations nesoi (HS 2106) and tobacco, unmanufactured (HS 2401) with Malaysia.

**Fisheries.** Either no trade was reported or where trade existed, it was a one-way trade (Appendix Table 6.12.2).

**Rubber-based products.** No trade was reported in most of the products. And where trade existed, it was either a one-way trade, or weak and mild (Appendix Table 6.12.2).

**Wood-based products.** No trade was reported in most of the products. And where trade existed, it was either a one-way trade, or weak and mild (Appendix Table 6.12.2). An exception to this occurred in toilet paper & similar household sanitary items (HS 4818) where a strong intra-industry trade occurred with Malaysia in 2001 (Table 6.12).

#### **(iv) Singapore**

Among the ASEAN members, Singapore is the most integrated with the region. The country had the most number of products that registered strong and moderately strong intra-industry trade, both for 1997 and 2001 (Appendix Tables 6.13.2). Likewise, a large proportion of the products had an increase in intra-industry trade (Appendix Tables 6.13.1).

**ICT.** Integration in most of the products was either moderately strong or strong. Moderately strong integration can be found mostly in parts and components while strong integration occurs mostly in final products (Tables 6.3 and 6.5). There was also a deepening in integration as the IIT index increased in most of the products (Appendix Table 6.13.1). The largest increase were registered by prepared unrecorded media (HS 8523), records, tapes & other recorded sound media (HS 8524) and trans apparatus for radio telecommunication, TV camera, etc. (HS 8525). However, several products also registered decreases in intra-industry trade.

Furthermore, the products with moderately strong and strong integration accounted for a combined share of almost 83 percent and 88 percent of Singapore's intra-ASEAN trade in the sector in 1997 and 2001, respectively (Table 6.4). The high percentage, together with

the deepening integration, indicates that Singapore is already highly integrated in the region's ICT sector.

At the bilateral level, integration was achieved with Thailand, Philippines, Indonesia and Malaysia, although it is with the latter economy where integration in most products has been achieved (Tables 6.16, 6.14, 6.7 & 6.6). Also, a moderately strong integration was achieved with Vietnam in printed circuits in 2001 (Table 6.17).

**Electronics.** In 2001, intra-industry trade was moderately strong in refrigerators and freezers (HS 8415), automatic data processing machines (HS 8471), electromech domestic appliances (HS 509) and electric water, space and soil heaters (HS 8516) (Table 6.5). These products accounted for almost 90 percent of Singapore's intra-ASEAN trade (Table 6.4).

Among the bilateral partners, moderately strong IIT in some products was registered with Malaysia and the Philippines (Table 6.10 & 6.14).

**Healthcare products.** Intra-industry trade was moderately strong in bandages (HS 3005) and beauty, make-up and skin-care preparations (HS 3304) (Table 6.5). Most healthcare products registered an increase in intra-industry trade between 1997 and 2001, with HS 3304 registering the largest increase (Appendix Table 6.13.1).

At the bilateral level, intra-industry trade was both moderately strong and strong with Malaysia and Thailand (Tables 6.10 & 6.16). Also, IIT was also moderately strong with Vietnam in 1 product, beauty, i.e. make-up and skin care preparations (HS 3304) (Table 6.17).

**Textiles and garments.** Intra-industry-trade in a large proportion of the textile and garment products was one-way trade and the situation hardly changed between 1997 and 2001 (Appendix Tables 6.13.1 & 6.13.2). Three products, however, showed strong integration in 2001. These include non-woven, whether or not impregnated, coated (HS 5603), labels, badges of textiles (HS 5807), and knitted or crocheted fabrics (HS 6002) (Table 6.5).

On the other hand, moderately strong integration can be found in synthetic monofil (HS 5404), woven fabrics of artificial staple fibers (HS 5516), textile products for specific technical uses (HS 5911), made-up clothing accessories (HS 6117), and made-up articles of textile materials (HS 6307) (Table 6.5).

At the bilateral level, intra-industry trade was strong with Indonesia in a few products (Table 6.7); and strong and moderately strong with Thailand and Malaysia (Tables 6.16 & 6.10).

**Automotive.** Intra-industry trade in most products was either one-way, weak or mild (Appendix Table 6.13.2). In 2001, only 1 product registered moderately strong IIT, i.e. motor cars & vehicles for transporting persons (HS 8703) (Table 6.5).

**Agro-based products.** There were more products characterized by one-way trade than products where intra-industry trade exists (Appendix Table 6.13.2). Exception to this was a moderately strong intra-industry trade in 8 products in 2001; and strong intra-industry trade in 4 products (Table 6.5). These products accounted for a combined share of almost one-fifth of Singapore's intra-industry trade in the sector (Table 6.4).

Among the bilateral partners, moderately strong and strong integration in a few products existed with Malaysia and the Philippines (Tables 6.10 & 6.14). Also, intra-industry



trade was strong with Myanmar in cigars, cigarettes etc. of tobacco or substitutes (HS 2402) (Table 6.18).

**Fisheries.** Intra-industry trade was mild in majority of the products (Appendix 6.13.2). An exception to this was fish products, dried, salted or smoked (HS 0305) where there was strong intra-industry trade (Table 6.5); and it was basically with Thailand (Table 6.16).

**Rubber-based products.** In 1997, intra-industry trade was moderately strong in compounded rubber, unvulcanized (HS 4005), conveyor belts of vulcanized rubber (HS 4010); and strong in articles of unharded vulcanized rubber (HS 4016) (Table 6.3). These products accounted for a combined share of 21 percent of Singapore's intra-ASEAN trade in the sector (Table 6.4). Except for HS 4005, these products had the same degree of intra-industry trade in 2001 (Table 6.5). But they accounted for a larger proportion (44%) of intra-ASEAN trade during the year (Table 6.4).

Bilateral intra-industry trade was moderately strong and strong with Thailand and Malaysia (Tables 6.16 & 6.10).

**Wood-based products.** Products that showed moderately strong intra-industry trade include mostly paper and paper products (HS 48), although strong IIT was also recorded in veneer sheers (HS 4408) (Tables 6.3 & 6.5). These products accounted for 22 percent and 23 percent of Singapore's intra-ASEAN trade in 1997 and 2001, respectively (Table 6.4)

At the bilateral level, intra-industry trade was moderately strong and strong with Malaysia and Thailand (Table 6.10 & 6.16).

#### **(v) Thailand**

**ICT.** Just like the Philippines, only a few products registered moderately strong and strong intra-industry trade in ICT products (Appendix Table 6.14.2). Increases in IIT were observed in some products between 1997 and 2001; however, several products also registered a decrease (Appendix Table 6.14.1).

In 1997, intra-industry trade was moderately strong in 5 products: typewriters and other office machines (HS 8473), electric apparatus for line telephony (HS8517), reception apparatus for radiotelephony (HS 8527), printed circuits (HS 8534) and insulated wire, cable, etc (HS 8544) (Table 6.3). IIT was strong, however, in parts for television, radio and radar apparatus (HS 8529) and electronic integrated circuits & micro-assembly parts (HS 8542). These products accounted for 78 percent of Thailand's intra-industry trade in the sector in 1997 (Table 6.4).

In 2001, intra-industry trade in 3 of the above products (HS 8473, 8517, 8542) was still moderately strong; and HS 8529 still recorded strong intra-industry trade (Table 6.5). These products accounted for almost 79 percent of Thailand's intra-industry trade in 2001 (Table 6.4)

Bilateral trade shows moderately strong and strong integration with Singapore and Malaysia in a few products (Tables 6.16 & 6.11). Bilateral trade with the Philippines shows strong integration in just 1 product, i.e. parts for television, radio and radar apparatus (HS 8529) (Table 6.15). Trade was also moderately strong with Vietnam in 1 product, i.e. insulated wire, cable, etc. (HS 8544) (Table 6.19).

**Electronics.** There is no strong integration yet in the electronics sector (Appendix Table 6.14.2). Nonetheless, intra-industry trade increased particularly in air or vacuum

pumps (HS 8414), refrigerators, freezers (HS 8418), automatic data processing machines (HS 8471), electromech domestic machines (HS 8509), and electric water, space and soil heaters (HS 8516) (Appendix Table 14.1).

At the bilateral level, only trade with Malaysia recorded a moderately strong integration and in only 2 products (HS 8471 & HS 8415) (Table 6.11).

**Healthcare products.** Intra-industry trade between Thailand and the region as a whole was generally either weak or one-way trade (Appendix Table 6.14.2). However, at the bilateral level, a high level of intra-industry trade was already present in certain products. In particular, intra-industry trade in beauty, make-up and skin-care products (HS 3304) was strong with Indonesia and moderately strong with Singapore (Tables 6.8 & 6.16).

**Textiles and garments.** Intra-industry trade was generally weak or trade was one-way (Appendix Table 6.14.2). Nonetheless, mild integration can be found in woven cotton fabrics (HS 5210) (Table 6.5).

**Automotive.** Trade was mostly one-way (Appendix Table 6.14.2). Nevertheless, moderately strong intra-industry trade was observed in parts and access for motor vehicles (HS 8708) (Tables 6.3 & 6.5). These products accounted for 28 percent and 46 percent of Thailand's intra-ASEAN trade in the sector in 1997 and 2001, respectively (Table 6.4).

Bilateral trade with the Philippines recorded strong intra-industry in parts and access for cycles & invalid carriages (HS 8714) (Table 6.15). Strong intra-industry trade was also recorded with Indonesia in motor cars & vehicles for transporting person (HS 8703) (Table 6.8).

**Agro-based.** There were more products characterized by one-way trade than products where intra-industry trade exists (Appendix Table 6.14.2). Exceptions to this were in sauces and mixed condiments (HS 2103) and malt extract, food preparations (HS 1901) where intra-industry trade was moderately strong; and in food preparations by swell cereal (HS 1904) where strong intra-industry trade was recorded in 2001 (Table 6.5).

**Fisheries.** Intra-industry trade was either weak or mild (Appendix Table 6.14.2). An exception was on crustaceans, live or fresh (HS 0306) where intra-industry trade was observed to be moderately strong (Table 6.5).

However, at the bilateral level, a high level of intra-industry trade was present in certain products. Strong intra-industry trade was recorded with Malaysia in fish, fresh or chilled (HS 0303) and in crustaceans, live or fresh (HS 0306) (Table 6.11). Similarly, moderately strong intra-industry trade was recorded with Singapore in fish, dried/salted/smoked (HS 0305) and in food preparations nesoi (HS 0307) (Table 6.16).

**Rubber-based products.** There were more products characterized by one-way trade than products where intra-industry trade exists (Appendix Table 6.14.2). An exception to this was in retread or used tires (HS 4012), where there was strong intra-industry trade in 1997 (Table 6.3); and in articles of unhardened vulcanized rubber (HS 4016) and in articles of apparel & access of unhard vulcanized rubber (HS 4015), where was strong intra-industry trade in 2001 (Table 6.5). Integration was basically driven by trade with Singapore and Malaysia (Tables 6.16 & 6.11).

**Wood-based products.** Intra-industry trade was either weak or non-existent at all (Appendix Table 6.14.2).

**(vi) Brunei**

No intra-ASEAN trade was reported in most of the products. For products where trade occurred, it was basically inter-industry or a one-way trade (Appendix Tables 6.15.1 & 6.15.2).

**(vii) Laos**

No intra-ASEAN trade was reported in most of the products. For products where trade occurred, it was basically inter-industry or a one-way trade (Appendix Tables 6.16.1 & 6.16.2)

**(viii) Myanmar**

No intra-ASEAN trade was reported in most of the products. For the products where trade occurred, intra-industry trade was one-way (Appendix Tables 6.17.1 & 6.17.2). As discussed earlier, however, an exception was in cigars, cigarettes (HS 2402) where strong intra-industry trade was recorded with Singapore (Table 6.18).

**(ix) Vietnam**

Trade in most of the products in the priority sectors was one-way trade (Appendix Tables 6.18.1 & 6.18.2). Nonetheless, the country is fastly becoming integrated in certain products namely, parts for typewriters and other office machines (HS 8473), insulated wire, cable, optic sheath fiber cables (HS 8544), beauty, make-up and skin-care preparations (HS 3304), and soap, organic preparation for soap use, bars, etc (HS 3401). Integration in these products was weak in 1997 but became strong in 2001 (Tables 6.3 & 6.5).

At the bilateral level, moderately strong integration was attained with Malaysia in soap, organic preparation for soap use, bars, etc (HS 3401) (Table 6.13); with Singapore in beauty, make-up and skin-care preparations (HS 3304) and printed circuits (HS 8534) (Table 6.17); and with Thailand in insulated wire, cable, optic sheath fiber cables (HS 8544) (Table 6.19).

**Table 6.1 Intra-Industry Trade Index by Sector, by Country, 1997 and 2001.**

Country	Agro-Based		Fisheries		Healthcare		Rubber-Based		Wood-Based	
	1997	2001	1997	2001	1997	2001	1997	2001	1997	2001
<b>Brunei</b>	0.00	*	0.00	*	0.00	*	0.00	*	0.00	*
<b>Indonesia</b>	11.76	10.70	1.63	2.01	35.28	23.72	29.75	49.48	14.73	11.09
<b>Laos</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Malaysia</b>	43.81	37.55	23.74	39.94	67.73	70.58	17.97	20.38	28.04	34.91
<b>Myanmar</b>	8.71	24.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Philippines</b>	21.70	21.24	52.08	64.89	27.37	18.64	0.68	16.53	21.82	1.14
<b>Singapore</b>	38.11	42.88	44.57	39.89	26.33	31.84	44.34	52.13	32.48	36.32
<b>Thailand</b>	9.54	18.98	10.19	26.34	19.14	17.22	8.67	19.05	6.15	15.52
<b>Vietnam</b>	1.09	8.90	0.68	19.09	4.66	16.64	36.91	15.93	3.46	4.65

Note: Reporter = Country; Partner = Rest of ASEAN.

**Table 6.1 (Cont'd) Intra-Industry Trade Index by Sector, by Country, 1997 and 2001.**

Country	Textiles & Garments		Information and Communication Technology		Electronics		Automotives	
	1997	2001	1997	2001	1997	2001	1997	2001
<b>Brunei</b>	0.00	*	0.00	*	0.00	*	0.00	*
<b>Indonesia</b>	11.13	14.07	20.08	5.53	55.69	41.27	30.87	65.02
<b>Laos</b>	0.00	0.00	*	*	*	*	0.00	1.17
<b>Malaysia</b>	34.25	27.99	78.34	68.30	60.34	81.41	38.74	52.13
<b>Myanmar</b>	5.34	6.65	0.00	0.00	0.00	0.00	0.00	0.00
<b>Philippines</b>	4.92	10.69	52.08	68.75	58.93	49.07	7.93	18.41
<b>Singapore</b>	31.12	29.02	74.58	68.27	54.29	60.23	17.20	34.07
<b>Thailand</b>	34.24	31.75	75.60	67.39	25.46	36.45	29.71	42.99
<b>Vietnam</b>	8.01	4.71	15.54	28.07	0.03	5.39	0.00	0.00

Source: Computed using PC/TAS Database.

**Table 6.2 Degree of Integration By Country, 1997 and 2001.**

Countries	1997						2001					
	No Trade	No Integration	Weak	Mild	Moderately Strong	Strong	No Trade	No Integration	Weak	Mild	Moderately Strong	Strong
Brunei		Agro-Based Fisheries Healthcare Rubber-Based Wood-Based Textiles and Garments ICT Electronics Automotives					Agro-Based Fisheries Healthcare Rubber-Based Wood-Based Textiles and Garments ICT Electronics Automotives					
Indonesia			Agro-Based Fisheries Wood-Based Textiles and Garments ICT	Healthcare Rubber-Based Automotives	Electronics				Agro-Based Fisheries Healthcare Wood-Based Textiles and Garments ICT	Rubber- Based Electronics	Automotives	
Laos	ICT Electronics	Agro-Based Fisheries Healthcare Rubber-Based Wood-Based Textiles and Garments Automotives					ICT Electronics	Agro-Based Fisheries Healthcare Rubber-Based Wood-Based Textiles and Garments	Automotives			
Malaysia			Fisheries Rubber- Based	Agro-Based Wood-Based Textiles and Garments Automotives	Healthcare Electronics	ICT			Rubber- Based	Agro-Based Fisheries Wood-Based Textiles and Garments	Healthcare ICT Automotives	Electronics
Myanmar		Fisheries Healthcare Rubber-Based Wood-Based ICT Electronics Automotives	Agro-Based Textiles and Garments					Fisheries Healthcare Rubber-Based Wood-Based ICT Electronics Automotives	Agro-Based Textiles and Garments			

**Table 6.2 (Cont'd) Degree of Integration By Country, 1997 and 2001.**

Countries	1997						2001					
	No Trade	No Integration	Weak	Mild	Moderately Strong	Strong	No Trade	No Integration	Weak	Mild	Moderately Strong	Strong
Philippines			Agro-Based Rubber-Based Wood-Based Textiles and Garments Automotives	Healthcare	Fisheries ICT Electronics				Agro-Based Rubber-Based Wood-Based Textiles and Garments Automotives Healthcare	Electronics	Fisheries ICT	
Singapore			Automotives	Agro-Based Fisheries Healthcare Rubber-Based Wood-Based Textiles and Garments	ICT Electronics					Agro-Based Fisheries Healthcare Wood-Based Textiles and Garments Automotives	Rubber-Based ICT Electronics	
Thailand			Agro-Based Fisheries Healthcare Rubber-Based Wood-Based	Textiles and Garments Electronics Automotives		ICT			Agro-Based Healthcare Rubber-Based Wood-Based	Fisheries Textiles and Garments Electronics Automotives	ICT	
Vietnam		Automotives	Agro-Based Fisheries Healthcare Wood-Based Textiles and Garments ICT Electronics	Rubber-Based				Automotives	Agro-Based Fisheries Healthcare Rubber-Based Wood-Based Textiles and Garments Electronics	ICT		

Source: Table 6.1

**Table 6.3 Products with Moderately Strong and Strong Integration, by Sector, by Country, 1997.****(Number Refer to IIT Index)**

HS Code	Sectors/Products	Products with Moderately Strong Integration						Products with Strong Integration					
		Indon	Malay	Phil	Sing	Thai	Viet	Indon	Malay	Phil	Sing	Thai	Viet
	<b>Agro-Based</b>												
0402	MILK AND CREAM, CONCENTRATED OR SWEETENED				53.18								
0802	NUTS, FRESH OR DRIED				59.74								
0810	APRICOTS, FRESH							88.31					
0901	COFFEE; COFFEE HUSKS ETC; SUBSTITUTES WITH COFFEE				51.14					97.82			
1005	CORN (MAIZE)	67.01								81.28			
1101	WHEAT OR MESLIN FLOUR		66.60								85.63		
1201	SOYBEANS, WHETHER OR NOT BROKEN							99.28			99.28		
1511	PALM OIL AND ITS FRACTIONS, NOT CHEMICALLY MODIFIED	53.52				61.42							
1516	ANIMAL OR VEGETABLE FATS & OILS		57.45										
1704	SUGAR CONFECTION (INCLUDING WHITE CHOCOLATE), NO COCOA										78.78		
1801	COCOA BEANS, WHOLE OR BROKEN, RAW OR ROASTED		70.77								84.11		
1901	MALT EXTRACT; FOOD PREPARATION OF FLOUR		67.65									77.49	
1904	FOODS PREPARATION BY SWELL CEREAL		54.75									89.17	
1905	BREAD, PASTRY, CAKES, ETC				57.38								
2008	FRUIT, NUTS ETC PREPARED OR PRESERVED				60.29								
2101	EXTRACTS ETC OF COFFEE, TEA OR MATE		74.07		61.36								
2103	SAUCES AND PREPARATIONS; MIXED CONDIMENTS, MUSTARD FLOUR, ETC	69.02	68.81		71.44							83.88	
2106	FOOD PREPARATIONS		60.35					91.20			97.39		
2203	BEER MADE FROM MALT										78.39		
2304	SOYBEAN OILCAKE & OTHER SOLID				61.02				96.19				
2309	PREPARATIONS USED IN ANIMAL FEEDING	62.99				52.52							
2402	<b>CIGARS, CIGARETTES ETC., OF TOBACCO OR SUBSTITUTES</b>			72.09									
4205	<b>ARTICLES OF LEATHER</b>		68.29		68.29								

**Table 6.3 (Cont'd) Products with Moderately Strong and Strong Integration, by Sector, by Country, 1997.**

HS Code	Sectors/Products	Products with Moderately Strong Integration						Products with Strong Integration					
		Indon	Malay	Phil	Sing	Thai	Viet	Indon	Malay	Phil	Sing	Thai	Viet
	<b>Fisheries</b>												
0306	CRUSTCNS LVE FRSH ETC, CKD ETC.; FLRS MLS H CNSUMP		65.89										
0307	MOLLUSCS & AQUA INVERT NESOI, LVE ETC.; FLOURS ETC				60.32								
	<b>Healthcare</b>												
3003	MEDICAMENTS NESOI OF MIXTURES, NOT DOSAGE ETC FORM								92.79				
3004	MEDICAMENTS NESOI, MIXED OR NOT, IN DOSAGE ETC FM		58.40	51.92									
3005	BANDAGES ETC COATED ETC OR IN RETAIL MEDIC ETC FM				63.91				80.73				
3303	BANDAGES ETC COATED ETC OR IN RETAIL MEDIC ETC FM								93.91				
3304	BEAUTY, MAKE-UP & SKIN-CARE PREP; MANICURE ETC PRP							97.01					
3305	PREPARATIONS FOR USE ON THE HAIR								88.34				
9018	MEDICAL, SURGICAL, DENTAL OR VET INST, NO ELEC, PT		53.97									87.31	
	<b>Rubber-Based</b>												
4005	COMPOUNDED RUBBER, UNVULCANISED, PRIMARY FORMS ETC		65.82		65.82								
4010	CONVEYOR OR TRANSMISS BELTS OF VULCANIZED RUBBER	74.42	64.85		56.93								
4012	RETREAD OR USED PNEU TIRES, SOLID TIRES ETC, RUBBR											88.84	
4016	ARTICLES NESOI OF UNHARDED VULCANIZED RUBBER		56.70				63.37				86.31		
	<b>Wood-Based</b>												
4401	FUEL WOOD IN LOGS ETC; WOOD IN CHIPS, ETC.								75.75				
4408	VENEER SHEETS ETC, NOT OVER 6 MM THICK								85.92		85.92		
4409	PAPER, CARBON, SELF-COPY ETC, ROLLS ETC				58.57								
4421	ARTICLES OF WOOD, NESOI		50.10										
4703	CHEMICAL WOODPULP, SODA OR SULFATE, NOT DISSOLY GR						62.20						



**Table 6.3 (Cont'd) Products with Moderately Strong and Strong Integration, by Sector, by Country, 1997.**

HS Code	Sectors/Products	Products with Moderately Strong Integration						Products with Strong Integration					
		Indon	Malay	Phil	Sing	Thai	Viet	Indon	Malay	Phil	Sing	Thai	Viet
4802	PAPER, UNCOAT, FOR WRITING ETC, ROLLS; HNDMD PAPER	62.34	58.24		71.70								
4805	PAPER & PAPERBOARD, UNCOAT, NESOI, ROLLS OR SHEETS		58.04										
4810	PAPER & PAPERBOARD, COATED WITH KAOLIN ETC, RL ETC				61.38								
4811	PAPER, PAPERBOARD, WAD ETC, COAT ETC NESOI, RL ETC	72.42											
4819	CARTONS ETC PAPER; OFFICE BOX FILES ETC, PAPER ETC				55.00								
4821	LABELS OF PAPER OR PAPERBOARD, PRINTED OR NOT		65.02										
4823	PAPER, PAPERBOARD, CELLUL WAD TO SIZE & ARTS NESOI				72.54				75.75				
	<b>Textiles and Garments</b>												
5404	SYN MONOFIL NOT UN 67 DEC, CR-SECT NOV1MM, STNO5MM								97.88		97.88		
5503	SYNTHETIC STAPLE FIBERS, NOT CARDED, COMBED ETC.	58.70											
5504	ARTIFICIAL STAPLE FIBERS, NOT CARDED, COMBED ETC.	65.62											
5513	WOV FABRIC, SYN ST FIB UN85%, COT MIX, NOV17OG/M2					57.14							
5603	NONWOVENS, WHETHER OR NOT IMPREGNATED, COATED ETC							84.45	98.80				
5911	TEXTILE PRODUCTS ETC. FOR SPECIFIC TECH USES NESOI								78.53				
6002	KNITTED OR CROCHETED FABRICS, NESOI				61.95								
6117	MADE-UP CLOTHING ACCESS NESOI, PARTS ETC, KNIT ETC		74.91								78.31		
6205	MEN'S OR BOYS' SHIRTS, NOT KNITTED OR CROCHETED		61.82		51.19								
6211	TRACK SUITS, SKI-SUITS & SWIMWEAR, NOT KNIT ETC		68.64										
6217	MADE-UP CL ACCESS NESOI, GARMENT ETC PARTS NESOI								88.11				
6307	MADE-UP ARTICLES OF TEXTILE MATERIALS NESOI		67.96		61.03								

Table 6.3 (Cont'd) Products with Moderately Strong and Strong Integration, by Sector, by Country, 1997.

HS Code	Sectors/Products	Products with Moderately Strong Integration						Products with Strong Integration					
		Indon	Malay	Phil	Sing	Thai	Viet	Indon	Malay	Phil	Sing	Thai	Viet
	<b>Information and Communication Technology</b>												
3818	CHEM ELEM DOPED, USED IN ELECTRON, DISCS WAFERS ETC				70.29								
8472	OFFICE MACHINES NESOI (HECTOGRAPH, ADDRESSING ETC)										90.81		
8473	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES		72.50		70.12	54.06					83.12		
8504	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT		70.45		74.03								
8517	ELECTRIC APPARATUS FOR LINE TELEPHONY ETC, PARTS				54.24	57.63							
8525	TRANS APPAR FOR RADIOTELE ETC; TV CAMERA & REC								90.56				
8527	RECEPTION APPARATUS FOR RADIOTELEPHONY ETC				63.78	66.66							
8529	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS			56.21	64.47				77.04			78.23	
8533	ELECTRICAL RESISTORS EXCEPT HEATING RESISTORS, PTS		62.83		52.59								
8534	PRINTED CIRCUITS	67.84				58.34			94.37		98.90		
8536	ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V	58.74	60.93	64.80									
8541	SEMICONDUCTOR DEVICES; LIGHT-EMIT DIODES ETC, PTS		65.10		68.08								
8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS		67.00		71.80							81.21	
8543	ELECTRICAL MACH ETC, WITH IND FUNCTIONS NESOI, PTS				62.56								
8544	INSULATED WIRE, CABLE ETC; OPT SHEATH FIB CABLES	56.87				63.74			75.44		78.06		
9030	OSCILLOSCOPES, SPECTRUM ANALYZERS ETC, PARTS ETC		66.15										
	<b>Electronics</b>												
8414	AIR OR VAC PUMPS, COMPR & FANS; HOODS & FANS; PTS								75.91				
8418	REFRIGERATORS, FREEZERS ETC; HEAT PUMPS NESOI, PTS				70.00								
8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	56.68	63.52	60.25									

**Table 6.3 (Cont'd) Products with Moderately Strong and Strong Integration, by Sector, by Country, 1997.**

HS Code	Sectors/Products	Products with Moderately Strong Integration						Products with Strong Integration					
		Indon	Malay	Phil	Sing	Thai	Viet	Indon	Malay	Phil	Sing	Thai	Viet
8509	ELECTROMECH DOMESTIC APPLIANCES; PARTS				51.33								
8516	ELEC WATER, SPACE & SOIL HEATERS; HAIR ETC DRY, PT										75.57		
	<b>Automotives</b>												
8708	PARTS & ACCESS FOR MOTOR VEHICLES (HEAD 8701-8705)	63.02					52.86						

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.4 Percentage Share of Products with Moderately Strong and Strong Integration to Total Intra-ASEAN Trade, by Sector, by Country, 1997 and 2001.**

<b>1997</b>	<b>Indonesia</b>	<b>Malaysia</b>	<b>Myanmar</b>	<b>Philippines</b>	<b>Singapore</b>	<b>Thailand</b>	<b>Vietnam</b>
Agro-Based	18.51	13.64		3.49	18.73	4.89	
Fisheries		24.43			17.98		
Healthcare	6.55	62.77		31.24	1.32	3.30	
Rubber-Based	1.51	11.29			20.82	11.93	
Wood-Based	14.97	16.58			21.69	1.70	
Textiles and Garments	3.65	5.70			15.45	6.13	
ICT	6.98	84.57		62.53	82.71	78.11	
Electronics	51.12	79.38		76.36	3.31		
Automotives	23.46					28.10	
<b>2001</b>	<b>Indonesia</b>	<b>Malaysia</b>	<b>Myanmar</b>	<b>Philippines</b>	<b>Singapore</b>	<b>Thailand</b>	<b>Vietnam</b>
Agro-Based	3.28	15.44	4.68	9.43	19.53	3.26	
Fisheries		45.42			6.91	31.56	
Healthcare		59.81		4.09	9.60		21.48
Rubber-Based		10.89			43.72	13.77	
Wood-Based	7.38	35.23			22.58		
Textiles and Garments	1.60	5.37			16.74	1.16	
ICT		61.72		68.85	87.79	78.69	23.33
Electronics	17.58	83.77			89.63		
Automotives	0.30			1.83	17.04	45.84	

Source: Computed using PC/TAS Database.

**Table 6.5 Products with Moderately Strong and Strong Integration, by Sector, by Country, 2001.**  
(Numbers Refer to IIT Index)

HS Code	Sectors/Products	Products with Moderately Strong Integration							Products with Strong Integration						
		Indon	Malay	Myan	Phil	Sing	Thai	Viet	Indon	Malay	Myan	Phil	Sing	Thai	Viet
	Agro-Based														
0703	ONIONS, SHALLOTS, GARLIC, LEEKS ETC		53.70										76.59		
0810	FRUIT, FRESH		50.91												
0901	COFFEE; COFFEE HUSKS ETC; SUBSTITUTES WITH COFFEE		63.01			69.52									
0907	CLOVES (WHOLE FRIUT, CLOVES AND STEMS)	74.72													
1605	CRUSTACEANS, MOLLUSCS ETC. PREPARED OR PRESERVED					61.01									
1704	SUGAR CONFECTION (INCL WHITE CHOCOLATE), NO COCOA		70.24										80.48		
1801	COCOA BEANS, WHOLE OR BROKEN, RAW OR ROASTED					74.35									
1804	COCOA BUTTER, FAT AND OIL		56.85			56.85									
1901	MALT EXTRACT; FOOD PREPARATION OF FLOUR		67.22		67.04		66.44								
1904	FOODS PREPARATION BY SWELL CEREAL		62.56											76.17	
1905	BREAD, PASTRY, CAKES ETC; COMM WAFRS, EMP CAPS ETC									75.79					
2007	JAMS, FRUIT JELLIES, MARMALADES ETC, COOKED		58.13												
2008	FRUIT, NUTS ETC PREPARED OR PRESERVED				73.87	70.79									
2101	EXTRACTS ETC OF COFFEE, TEA OR MATE					64.13									
2103	SAUCES & PREP; MIXED CONDIMENTS, MUSTARD FLOUR ETC					71.92	63.44				78.15				
2106	FOOD PREPARATIONS		50.38										83.22		
2203	BEER MADE FROM MALT												96.42		
2309	PREPARATIONS USED IN ANIMAL FEEDING		73.73												
2401	TOBACCO, UNMANUFACTURED; TOBACCO REFUSE				60.63						82.90				
2402	CIGARS, CIGARETTES ETC., OF TOBACCO OR SUBSTITUTES											97.32			
4104	BOVINE OR EQUINE LEATHER	59.04													

**Table 6.5 (Cont'd) Products with Moderately Strong and Strong Integration, by Sector, by Country, 2001.**

HS Code	Sectors/Products	Products with Moderately Strong Integration							Products with Strong Integration						
		Indon	Malay	Myan	Phil	Sing	Thai	Viet	Indon	Malay	Myan	Phil	Sing	Thai	Viet
4202	TRAVEL GOODS, HANDBAGS, WALLETS, JEWELRY CASES ETC					63.81									
	<b>Fisheries</b>														
0301	FISH, LIVE		64.90												
0303	FISH, FRESH OR CHILLED (NO FILLETS OR OTHER MEAT)		50.32												
0305	FISH, DRIED, SALTED ETC, SMOKED ETC; ED FISH MEAL											75.79			
0306	CRUSTCNS LVE FRSH ETC, CKD ETC.; FLRS MLS H CNSUMP						60.71			78.19					
	<b>Healthcare</b>														
3004	MEDICAMENTS NESOI, MIXED OR NOT, IN DOSAGE ETC FM									82.99					
3005	BANDAGES ETC COATED ETC OR IN RETAIL MEDIC ETC FM					68.84				89.34					
3303	PERFUMES AND TOILET WATERS									94.28					
3304	BEAUTY, MAKE-UP & SKIN-CARE PREP; MANICURE ETC PRP		63.84		56.80	72.82									86.86
3401	SOAP; ORGANIC SURF-ACT PREP FOR SOAP USE, BARS ETC								73.72						
9018	MEDICAL, SURGICAL, DENTAL OR VET INST, NO ELEC, PT		61.21												
	<b>Rubber-Based</b>														
4010	CONVEYOR OR TRANSMISS BELTS OF VULCANIZED RUBBER					73.02				90.16					
4011	NEW PNEUMATIC TIRES, OF RUBBER					66.58									
4015	ART OF APPAREL & ACCESS OF UNHARD VULCANIZED RUBBR												75.28		
4016	ARTICLES NESOI OF UNHARDED VULCANIZED RUBBER									90.12		85.04	77.38		
	<b>Wood-Based</b>														
4401	FUEL WOOD IN LOGS ETC; WOOD IN CHIPS, ETC.		65.60												
4407	WOOD SAWN OR CHIPPED LENGTH, SLICED ETC, OV6MM	70.45	51.23												
4408	VENEER SHEETS ETC, NOT OVER 6 MM THICK					66.25									
4410	PARTICLE BOARD & SIMILAR BOARD OF WOOD ETC.	56.85								88.39					

**Table 6.5 (Cont'd) Products with Moderately Strong and Strong Integration, by Sector, by Country, 2001.**

HS Code	Sectors/Products	Products with Moderately Strong Integration							Products with Strong Integration						
		Indon	Malay	Myan	Phil	Sing	Thai	Viet	Indon	Malay	Myan	Phil	Sing	Thai	Viet
4421	ARTICLES OF WOOD, NESOI									87.84					
4703	CHEMICAL WOODPULP, SODA OR SULFATE, NOT DISSOLY GR	53.03													
4810	PAPER & PAPERBOARD, COATED WITH KAOLIN ETC, RL ETC					74.27									
4811	PAPER, PAPERBOARD, WAD ETC, COAT ETC NESOI, RL ETC	64.53													
4818	TOILET PAPER & SIMILAR HOUSEHOLD, SANITARY ITEMS									80.11					
4819	CARTONS ETC PAPER; OFFICE BOX FILES ETC, PAPER ETC					63.08									
4821	LABELS OF PAPER OR PAPERBOARD, PRINTED OR NOT									82.07					
4823	PAPER, PAPERBOARD, CELLUL WAD TO SIZE & ARTS NESOI		65.60			63.04									
	<b>Textiles and Garments</b>														
5210	WOVEN COTTON FABRICS, UN85%COT, MMFMIX, NOV200G/M2						62.48								
5404	SYN MONOFIL NOT UN 67 DEC, CR-SECT NOV1MM, STNO5MM		69.48			69.48									
5516	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS					52.72									
5603	NONWOVENS, WHETHER OR NOT IMPREGNATED, COATED ETC		57.20							87.56			76.18		
5807	LABELS, BADGES ETC OF TEXTILES IN THE PC, ETC									95.25			95.25		
5911	TEXTILE PRODUCTS ETC. FOR SPECIFIC TECH USES NESOI		62.82			53.25									
6002	KNITTED OR CROCHETED FABRICS, NESOI												87.39		
6117	MADE-UP CLOTHING ACCESS NESOI, PARTS ETC, KNIT ETC		70.75			70.75									
6211	TRACK SUITS, SKI-SUITS & SWIMWEAR, NOT KNIT ETC									76.90					
6217	MADE-UP CL ACCESS NESOI, GARMENT ETC PARTS NESOI									78.68					
6307	MADE-UP ARTICLES OF TEXTILE MATERIALS NESOI					67.79				75.09					

Table 6.5 (Cont'd) Products with Moderately Strong and Strong Integration, by Sector, by Country, 2001.

HS Code	Sectors/Products	Products with Moderately Strong Integration							Products with Strong Integration						
		Indo	Malay	Myan	Phil	Sing	Thai	Viet	Indo	Malay	Myan	Phil	Sing	Thai	Viet
	<b>Information and Communication Technology</b>														
3818	CHEM ELEM DOPED, USED IN ELECTRON, DISCS WAFERS ETC									87.38					
8472	OFFICE MACHINES NESOI (HECTOGRAPH, ADDRESSING ETC)				52.90								92.59		
8473	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES				67.66	66.69	62.30								90.48
8504	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT		61.74			70.80									
8517	ELECTRIC APPARATUS FOR LINE TELEPHONY ETC, PARTS					51.20	63.30								
8523	PREPARED UNRECORDED MEDIA (NO FILM) FOR SOUND ETC												83.64		
8524	RECORDS, TAPES & OTHER RECORDED SOUND MEDIA ETC					56.79									
8525	TRANS APPAR FOR RADIOTELE ETC; TV CAMERA & REC				69.93								84.23		
8529	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS					68.20				78.88		85.84		76.35	
8532	ELECTRIC CAPACITORS, FIXED, VAR OR ADJ (PRESET) PT		55.45		60.48										
8533	ELECTRICAL RESISTORS EXCEPT HEATING RESISTORS, PTS									80.80					
8534	PRINTED CIRCUITS				66.95					78.62			95.48		
8536	ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V		71.74		72.02		57.28								
8541	SEMICONDUCTOR DEVICES; LIGHT-EMIT DIODES ETC, PTS		64.07			71.63									
8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS					60.69	66.98			80.37					
8543	ELECTRICAL MACH ETC, WITH IND FUNCTIONS NESOI, PTS		51.41												
8544	INSULATED WIRE, CABLE ETC; OPT SHEATH FIB CABLES		60.49										84.67		80.71
9030	OSCILLOSCOPES, SPECTRUM ANALYZERS ETC, PARTS ETC		61.62												
	<b>Electronics</b>														
8414	AIR OR VAC PUMPS, COMPR & FANS; HOODS & FANS; PTS	66.58	58.39												



**Table 6.5 (Cont'd) Products with Moderately Strong and Strong Integration, by Sector, by Country, 2001.**

HS Code	Sectors/Products	Products with Moderately Strong Integration							Products with Strong Integration						
		Indon	Malay	Myan	Phil	Sing	Thai	Viet	Indon	Malay	Myan	Phil	Sing	Thai	Viet
8415	AIR CONDITIONING MACHINES (TEMP & HUM CHANGE), PTS	54.17													
8418	REFRIGERATORS, FREEZERS ETC; HEAT PUMPS NESOI, PTS					60.67									
8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC		63.52			61.15									
8509	ELECTROMECH DOMESTIC APPLIANCES; PARTS					69.80									
8516	ELEC WATER, SPACE & SOIL HEATERS; HAIR ETC DRY, PT					54.10									
	<b>Automotives</b>														
8703	MOTOR CARS & VEHICLES FOR TRANSPORTING PERSONS					58.84									
8705	SPECIAL PURPOSE MOTOR VEHICLES NESOI	70.52													
8708	PARTS & ACCESS FOR MOTOR VEHICLES (HEAD 8701-8705)						50.54								
8714	PARTS & ACCESS FOR CYCLES & INVALID CARRIAGES				71.2										

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.6 Products with Moderately Strong and Strong Integration, By Sector, By Product, Indonesia-Malaysia, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
<b>1997</b> Moderately Strong Integration	Agro-based	1901	MALT EXT; FOOD PREP OF FLOUR ETC UN 40% COCOA ETC	56.88
		1905	BREAD, PASTRY, CAKES ETC; COMM WAFRS, EMP CAPS ETC	50.66
	Textiles and Garments	5205	COTTON YARN (NOT SEWING THREAD) NU85% COT NO RETAIL	51.97
	Automotive	8714	PARTS AND ACCESS FOR CYCLES 7 INVALID CARRIAGES	70.14
	Agro-based	2106	FOOD PREPARATIONS NESOI	78.66
		2401	TOBACCO, UNMANUFACTURED; TOBACCO REFUSE	93.10
	Wood-Based	4802	PAPER, UNCOAT, FOR WRITING ETC, ROLLS; HNDMD PAPER ,	80.41
		4811	PAPER, PAPERBOARD, WAD ETC, COAT ETC NESOI, RL ETC,	91.05
	Textiles and Garments	5402	SYNTHETIC FILAMENT YARN (NO SEW THREAD), NO RETAIL	93.49
	ICT	8529	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS	96.63
8542		ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS	89.92	
Automotive	8703	MOTOR CARS & VEHICLES FOR TRANSPORTING PERSONS	90.75	
<b>2001</b> Moderately Strong Integration	Agro-Based	1901	MALT EXT; FOOD PREP OF FLOUR ETC UN 40% COCOA ETC	65.52
		1905	BREAD, PASTRY, CAKES ETC; COMM WAFRS, EMP CAPS ETC	68.15
	Textiles and Garments	5503	SYNTHETIC STAPLE FIBERS, NOT CARDED, COMBED ETC.	65.67
	Electronics	8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	66.00

**Table 6.6 (Cont'd) Products with Moderately Strong and Strong Integration, By Sector, By Product, Indonesia-Malaysia, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
<b>Strong Integration</b>	Agro-Based	1005	CORN (MAIZE)	90.80
	Wood-Based	4410	PARTICLE BOARD & SIMILAR BOARD OF WOOD ETC. PARTICLE BOARD & SIMILAR BOARD OF WOOD ETC.	80.77
		4811	PAPER, PAPERBOARD, WAD ETC, COAT ETC NESOI, RL ETC,	83.67
	Textiles and Garments	5201	COTTON, NOT CARDED OR COMBED	92.19
Automotive	8714	PARTS AND ACCESS FOR CYCLES 7 INVALID CARRIAGES	86.76	

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.7 Products with Moderately Strong and Strong Integration, By Sector, By Product, Indonesia-Singapore, 1997 and 2001**

Degree of Integration	Sector	HS Code	Product Description	IIT	
<b>1997</b> Moderately Strong Integration	Rubber-based	4010	CONVEYOR OR TRANSMISS BELTS OF VULCANIZED RUBBER ,	74.42	
	Electronics	8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	60.60	
	ICT	8517	ELECTRIC APPARATUS FOR LINE TELEPHONY ETC, PARTS	50.39	
		8536	ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V	55.32	
	Strong Integration	Textiles and Garments	5603	NONWOVENS, WHETHER OR NOT IMPREGNATED, COATED ETC	87.23
		ICT	8534	PRINTED CIRCUITS	84.90
9009			PHOTOCOPY APPARATUS & THERMOCOPY APPARATUS; PTS	87.96	
Automotive	8703	MOTOR CARS & VEHICLES FOR TRANSPORTING PERSONS	82.10		
<b>2001</b> Moderately Strong Integration	Agro-Based	0907	CLOVES (WHOLE FRUIT, CLOVES AND STEMS) CLOVES (WHOLE FRUIT, CLOVES AND STEMS)	74.72	
	Wood-Based	4407	CONVEYOR OR TRANSMISS BELTS OF VULCANIZED RUBBER ,	71.81	
		4809	VENEER SHEETS ETC, NOT OVER 6 MM THICK	69.05	
	Automotive	8705	SPECIAL PURPOSE MOTOR VEHICLES NESOI	70.52	
<b>Strong Integration</b>	Textiles and Garments	5603	NONWOVENS, WHETHER OR NOT IMPREGNATED, COATED ETC	91.46	

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.8 Products with Moderately Strong and Strong Integration, By Sector, By Product, Indonesia-Thailand, 1997 and 2001**

Degree of Integration	Sector	HS Code	Product Description	IIT	
<b>1997</b> Moderately Strong Integration	Agro-Based	1704	SUGAR CONFECTION (INCL WHITE CHOCOLATE), NO COCOA	70.98	
	Strong Integration	Agro-Based	1005	CORN (MAIZE)	86.40
		Healthcare	3304	BEAUTY, MAKE-UP & SKIN-CARE PREP; MANICURE ETC PRP	87.16
		Wood-based	4703	WOOD PULP, SODA OR SULFATE, NOT DISSOLY	87.99
		ICT	8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS	99.96
<b>2001</b> Moderately Strong Integration	Textiles and Garments	5603	NONWOVENS, WHETHER OR NOT IMPREGNATED, COATED ETC	73.26	
	Automotive	8708	PARTS & ACCESS FOR MOTOR VEHICLES (HEAD 8701-8705)	74.30	
	Strong Integration	Healthcare	3304	BEAUTY, MAKE-UP & SKIN-CARE PREP; MANICURE ETC PRP	99.98
		Automotive	8703	MOTOR CARS & VEHICLES FOR TRANSPORTING PERSONS	85.99

Source: Appendix Table 6.1.1 to 6.9.14

**Table 6.9 Products with Moderately Strong and Strong Integration, By Sector, By Product, Indonesia-Philippines, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
<b>1997 Moderately Strong Integration</b>	Agro-based	1005	CORN (MAIZE)	52.61
<b>2001 Moderately Strong Integration</b>	Agro-based	1005	CORN (MAIZE)	62.79
	Textiles and Garments	6212	BRAS, GIRDLES, GARTERS, ETC., KNITTED ETC OR NOT	63.50

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.10 Products with Moderately Strong and Strong Integration, By Sector, By Product, Malaysia-Singapore, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
<b>1997</b> Moderately Strong Integration	Agro-Based	1101	WHEAT OR MESLIN FLOUR	66.60
		1516	ANML/VEG FATS & OILS CHEM MODIFIED; INEDBL MXT ETC	57.45
		1704	SUGAR CONFECTION (INCL WHITE CHOCOLATE), NO COCOA	53.45
		1901	MALT EXT; FOOD PREP OF FLOUR ETC UN 40% COCOA ETC	62.56
		2103	SAUCES & PREP; MIXED CONDIMENTS, MUSTARD FLOUR ETC	54.44
		2203	BEER MADE FROM MALT	54.24
		4205	ARTICLES OF LEATHER, NESOI	68.29
	Healthcare	3004	MEDICAMENTS NESOI, MIXED OR NOT, IN DOSAGE ETC FM	54.35
		3305	PREPARATIONS FOR USE ON THE HAIR	51.33
		9018	MEDICAL, SURGICAL, DENTAL OR VET INST, NO ELEC, PT	64.43
	Wood-Based	4409	<b>WOOD, CONTINUOUSLY SHAPED (TONGUED, GROOVED ETC.) PAPER,</b>	64.55
		4823	<b>PAPERBOARD, CELLUL WAD TO SIZE &amp; ARTS NESOI</b>	60.77
	Rubber-Based	4005	COMPOUNDED RUBBER, UNVULCANISED, PRIMARY FORMS ETC	65.82
		4010	CONVEYOR OR TRANSMISS BELTS OF VULCANIZED RUBBER	64.85
		4016	ARTICLES NESOI OF UNHARDED VULCANIZED RUBBER	73.89
	Textiles and Garments	6117	MADE-UP CLOTHING ACCESS NESOI, PARTS ETC, KNIT ETC	74.91
		6205	MEN'S OR BOYS' SHIRTS, NOT KNITTED OR CROCHETED	61.82
		6307	MADE-UP ARTICLES OF TEXTILE MATERIALS NESOI	67.96
		6309	WORN CLOTHING AND OTHER WORN TEXTILE ARTICLES	55.71
	Electronics	8414	AIR OR VAC PUMPS, COMPR & FANS; HOODS & FANS; PTS	57.46
		8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	64.50
	ICT	8473	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES	53.10
		8504	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT	69.18
		8533	ELECTRICAL RESISTORS EXCEPT HEATING RESISTORS, PTS	63.18
		8536	ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V	61.69
		8541	SEMICONDUCTOR DEVICES; LIGHT-EMIT DIODES ETC, PTS	60.26
		8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS	62.71
	Automotive	9030	OSCILLOSCOPES, SPECTRUM ANALYZERS ETC, PARTS ETC	50.79
		8705	SPECIAL PURPOSE MOTOR VEHICLES NESOI	55.31

**Table 6.10 (Cont'd) Products with Moderately Strong and Strong Integration, By Sector, By Product, Malaysia-Singapore, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
Strong Integration	Agro-Based	1201	SOYBEANS, WHETHER OR NOT BROKEN	99.28
		1801	COCOA BEANS, WHOLE OR BROKEN, RAW OR ROASTED	96.71
		2106	FOOD PREPARATIONS NESOI	80.11
		2304	SOYBEAN OILCAKE & OTH SOLID RESIDUE, WH/NOT GROUND	91.60
		4104	BOVINE OR EQUINE LEATHER, NO HAIR NESOI	81.70
	Healthcare	3003	MEDICAMENTS NESOI OF MIXTURES, NOT DOSAGE ETC FORM	92.79
		3005	BANDAGES ETC COATED ETC OR IN RETAIL MEDIC ETC FM	80.73
		3303	PERFUMES AND TOILET WATERS	93.91
		3304	BEAUTY, MAKE-UP & SKIN-CARE PREP; MANICURE ETC PRP	86.17
	Wood-Based	4408	VENEER SHEETS ETC, NOT OVER 6 MM THICK	85.92
	Textiles and Garments	5404	SYN MONOFIL NOT UN 67 DEC, CR-SECT NOV1MM, STNO5MM	97.88
		5911	TEXTILE PRODUCTS ETC. FOR SPECIFIC TECH USES NESOI	78.53
		6217	MADE-UP CL ACCESS NESOI, GARMENT ETC PARTS NESOI	88.11
	ICT	8525	TRANS APPAR FOR RADIOTELE ETC; TV CAMERA & REC	92.29
8529		PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS	85.67	
8534		PRINTED CIRCUITS	95.65	
8544		INSULATED WIRE, CABLE ETC; OPT SHEATH FIB CABLES	75.27	
<b>2001 Moderately Strong Integration</b>	Agro-based	0901	COFFEE; COFFEE HUSKS ETC; SUBSTITUTES WITH COFFEE	63.01
		1604	PREP OR PRES FISH; CAVIAR & CAVIAR SUBSTITUTES	60.95
		1801	COCOA BEANS, WHOLE OR BROKEN, RAW OR ROASTED	74.35
		1804	COCOA BUTTER, FAT AND OIL	56.85
		1901	MALT EXT; FOOD PREP OF FLOUR ETC UN 40% COCOA ETC	63.17



**Table 6.10 (Cont'd) Products with Moderately Strong and Strong Integration, By Sector, By Product, Malaysia-Singapore, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
Strong Integration	Healthcare	3305	PREPARATIONS FOR USE ON THE HAIR	51.96
		3306	PREPARATIONS, ORAL DENTAL HYGIENE; DENTAL FLOSS	51.96
		3307	TOILET ETC PREP NESOI, SHAVING, BATH ETC.	51.55
	Wood-Based	4408	VENEER SHEETS ETC, NOT OVER 6MM THICK	66.25
		4819	CARTONS ETC PAPER; OFFICE BOX FILES ETC, PAPER ETC	56.30
		4821	PERSONAL TOILET ETC PREP NESOI, SHAVING, BATH ETC.	69.45
	Textiles and Garments	5404	SYN MONOFIL NOT UN 67 DEC, CR-SECT NOV1MM, STNO5MM	69.48
		5911	TEXTILE PRODUCTS ETC. FOR SPECIFIC TECH USES NESOI	62.82
		6002	KNITTED OR CROCHETED FABRICS, NESOI	52.41
		6117	MADE-UP CLOTHING ACCESS NESOI, PARTS ETC, KNIT ETC	70.75
		6309	WORN CLOTHING AND OTHER WORN TEXTILE ARTICLES	66.28
	Electronics	8414	AIR OR VAC PUMPS, COMPR & FANS; HOODS & FANS; PTS	58.03
		8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	64.90
	ICT	8524	RECORDS, TAPES & OTHER RECORDED SOUND MEDIA ETC	55.03
		8529	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS	63.48
		8532	<b>ELECTRIC CAPACITORS, FIXED, VAR OR ADJ (PRESET) PT</b>	54.04
		8533	ELECTRICAL RESISTORS EXCEPT HEATING RESISTORS, PTS	74.26
		8534	PRINTED CIRCUITS	68.36
		8536	ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V	72.65
		8541	SEMICONDUCTOR DEVICES; LIGHT-EMIT DIODES ETC, PTS	58.56
		8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS	65.27
		8543	ELECTRICAL MACH ETC, WITH IND FUNCTIONS NESOI,	51.73
		8544	INSULATED WIRE CABLE ETC; OPT SHEATH FIB CAB	73.16
9009		PHOTOCOPY APPARATUS & THERMOCOPY APPARATUS; PTS	55.60	
9030	OSCILLOSCOPES, SPECTRUM ANALYZERS ETC, PARTS ETC	52.01		
Agro-based	0703	ONIONS, SHALLOTS, GARLIC, LEEKS ETC, FR OR CHILLED	80.02	
	1704	SUGAR CONFECTION (INCL WHITE CHOCOLATE), NO COCOA	99.35	
	2103	SAUCES & PREP; MIXED CONDIMENTS, MUSTARD FLOUR ETC	82.65	
	2106	FOOD PREPARATIONS NESOI	83.64	
	2309	PREPARATIONS USED IN ANIMAL FEEDING	92.84	

**Table 6.10 (Cont'd) Products with Moderately Strong and Strong Integration, By Sector, By Product, Malaysia-Singapore, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
	Healthcare	3004	MEDICAMENTS NESOI, MIXED OR NOT, IN DOSAGE ETC FM	80.07
		3005	BANDAGES ETC COATED ETC OR IN RETAIL MEDIC ETC FM	89.34
		3303	PERFUMES AND TOILET WATERS	94.38
		9018	MEDICAL, SURGICAL, DENTAL OR VET INST, NO ELEC, PT	75.39
	Wood-based	4408	VENEER SHEETS ETC, NOT OVER 6 MM THICK	66.25
	Rubber-based	4010	CONVEYOR OR TRANSMISS BELTS OF VULCANIZED RUBBER	90.16
		4016	ARTICLES NESOI OF UNHARDED VULCANIZED RUBBER	77.66
	Textiles and Garments	5807	LABELS, BADGES ETC OF TEXTILES IN THE PC, ETC	95.25
		6217	MADE-UP CL ACCESS NESOI, GARMENT ETC PARTS NESOI	95.71
		6307	MADE-UP ARTICLES OF TEXTILE MATERIALS NESOI	75.71
	ICT	8504	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT	81.61
		8541	SEMICONDUCTOR DEVICES; LIGHT-EMIT DIODES ETC, PTS	56.96
		9009	PHOTOCOPY APPARATUS & THERMOCOPY APPARATUS; PTS	89.76

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.11 Products with Moderately Strong and Strong Integration, By Sector, By Product, Malaysia-Thailand, 1997-2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT	
<b>1997</b> <b>Moderately Strong Integration</b>	Agro-Based	1511	PALM Oil AND ITS FRACTIONS, NOT CHEM MODIFIED	61.42	
	Fisheries	0303	FISH, FRESH OR CHILLED (NO FILLETS OR OTHER MEAT)	59.53	
	Healthcare	3401	SOAP; ORGANIC SURF-ACT PREP FOR SOAP USE, BARS ETC	68.68	
	Wood-Based	4801	NEWSPRINT, IN ROLLS OR SHEETS	51.16	
	Rubber-Based	4011	NEW PNEUMATIC TIRES, OF RUBBER	61.14	
	Textiles and Garments	6211	TRACK SUITS, SKI-SUITS & SWIMWEAR, NOT KNIT ETC	70.03	
	Electronics	8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	52.80	
	ICT		8517	ELECTRIC APPARATUS FOR LINE TELEPHONY ETC, PARTS	53.80
			8529	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS	58.31
			8534	PRINTED CIRCUITS	55.07
			8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS	64.86
			8543	ELECTRICAL MACH ETC, WITH IND FUNCTIONS NESOI, PTS	54.03
			8544	INSULATED WIRE, CABLE ETC; OPT SHEATH FIB CABLES	71.31
Strong Integration	Agro-Based	1605	CRUSTACEANS, MOLLUSCS ETC. PREPARED OR PRESERVED	98.02	
	Healthcare	3003	MEDICAMENTS NESOI OF MIXTURES, NOT DOSAGE ETC FORM	92.79	
	ICT	8473	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES	96.59	
<b>2001</b> <b>Moderately Strong Integration</b>	Agro-Based	1704	SUGAR CONFECTION (INCL WHITE CHOCOLATE), NO COCOA	72.91	
		2007	JAMS, FRUIT JELLIES, MARMALADES ETC, COOKED	58.13	
		2106	OD PREPARATIONS NESOI	57.41	
		4104	BOVINE OR EQUINE LEATHER, NO HAIR NESOI	61.14	

**Table 6.11 (Cont'd) Products with Moderately Strong and Strong Integration, By Sector, By Product, Malaysia-Thailand, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
Strong Integration	Wood-Based	4811	PAPER, PAPERBOARD, WAD ETC, COAT ETC NESOI, RL ETC	56.40
	Textiles and Garments	6211	TRACK SUITS, SKI-SUITS & SWIMWEAR, NOT KNIT ETC	72.91
	Electronics	8415	AIR CONDITIONING MACHINES (TEMP & HUM CHANGE), PTS	57.74
		8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	50.70
	ICT	8473	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES	55.81
		8504	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT	52.51
		8517	ELECTRIC APPARATUS FOR LINE TELEPHONY ETC, PARTS	53.21
		8533	ELECTRICAL RESISTORS EXCEPT HEATING RESISTORS, PTS	51.91
		8536	ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V	58.24
		8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS	69.26
	Agro-Based	1901	MALT EXT; FOOD PREP OF FLOUR ETC UN 40% COCOA ETC	87.53
	Fisheries	0303	FISH, FRESH OR CHILLED (NO FILLETS OR OTHER MEAT) ,	79.63
		0306	CRUSTCNS LVE FRSH ETC, CKD ETC.; FLRS MLS H CNSUMP,	84.77
	Rubber-Based	4016	ARTICLES NESOI OF UNHARDED VULCANIZED RUBBER	76.44
	Textiles and Garments	5603	NONWOVENS, WHETHER OR NOT IMPREGNATED, COATED ETC	85.56
ICT	8529	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS	93.15	

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.12 Products with Moderately Strong and Strong Integration, By Sector, By Product, Malaysia-Philippines, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT	
<b>1997</b> Moderately Strong Integration	Agro-based	2106	FOOD PREPARATIONS NESOI CIGARS, CIGARETTES ETC., OF TOBACCO OR SUBSTITUTES	61.95	
		2402		54.74	
	ICT	3818	CHEM ELEM DOPED, USED IN ELECTRON, DISCS WAFERS ETC SEMICONDUCTOR DEVICES; LIGHT-EMIT DIODES ETC, PTS	67.69	
		8541		50.65	
	Strong Integration	Healthcare	3004	MEDICAMENTS NESOI, MIXED OR NOT, IN DOSAGE ETC FM	82.23
ICT		8529 8534	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS PRINTED CIRCUITS	83.04 78.45	
<b>2001</b> Moderately Strong Integration	Agro-Based	0402	MILK AND CREAM, CONCENTRATED OR SWEETENED	68.96	
	ICT	8504	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V	52.68	
		8529		55.92	
		8536		58.33	
	Strong Integration	Agro-Based	2106	FOOD PREPARATIONS NESOI TOBACCO, UNMANUFACTURED	93.28
			2401		82.90
		Wood-Based	4818	TOILET PAPER & SIMILAR HOUSEHOLD, SANITARY ITEMS	89.46
ICT		8473 8534	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES PRINTED CIRCUITS	91.53 78.13	

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.13 Products with Moderately Strong and Strong Integration, By Sector, By Product, Malaysia-Vietnam, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
2001 Strong Integration	Healthcare	3401	SOAP; ORGANIC SURF-ACT PREP FOR SOAP USE, BARS ETC	93.13

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.14 Products with Moderately Strong and Strong Integration, By Sector, By Product, Philippines-Singapore, 1997 and 2001.**

<b>Degree of Integration</b>	<b>Sector</b>	<b>HS Code</b>	<b>Product Description</b>	<b>IIT</b>
<b>1997</b> Moderately Strong Integration	Agro-Based	2008	FRUIT, NUTS ETC PREPARED OR PRESERVED	55.12
		2106	FOOD PREPARATIONS NESOI	51.38
	Electronics	8471	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	64.40
	ICT	8473	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES	64.51
		8529	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS	54.09
		8533 8536	ELECTRICAL RESISTORS EXCEPT HEATING RESISTORS, PTS ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V	52.85 54.91
Strong Integration	Agro-Based	0901 2402	COFFEE; COFFEE HUSKS ETC; SUBSTITUTES WITH COFFEE CIGARS, CIGARETTES ETC., OF TOBACCO OR SUBS	97.82 83.94
<b>2001</b> Moderately Strong Integration	Agro-Based	2008	FRUIT, NUTS ETC PREPARED OR PRESERVED NESOI	73.87
	Electronics	8414	AIR OR VAC PUMPS, COMPR & FANS; HOODS & FANS; PTS	50.68
	ICT	8472	OFFICE MACHINES NESOI (HECTOGRAPH, ADDRESSING ETC)	52.90
		8525	TRANS APPAR FOR RADIOTELE ETC; TV CAMERA & REC	74.99
		8536	ELECTRICAL APPARATUS FOR SWITCHING ETC, NOV 1000 V	58.42
		9009	PHOTOCOPY APPARATUS & THERMOCOPY	67.59
Strong Integration	ICT	8473 8529 8534	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHI PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS PRINTED CIRCUITS	84.88 77.97 88.60

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.15 Products with Moderately Strong and Strong Integration, By Sector, By Product, Philippines-Thailand, 1997 and 2001.**

<b>Degree of Integration</b>	<b>Sector</b>	<b>HS Code</b>	<b>Product Description</b>	<b>IIT</b>
<b>1997</b> <b>Moderately Strong Integration</b>	Automotive	8714	PARTS & ACCESS FOR CYCLES & INVALID CARRIAGES	70.34
<b>Strong Integration</b>	ICT	8529	PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS	90.37
<b>2001</b> Moderately Strong Integration	ICT	8529	<b>PARTS FOR TELEVISION, RADIO AND RADAR APPARATUS</b>	60.44
<b>Strong Integration</b>	Automotive	8714	<b>PARTS &amp; ACCESS FOR CYCLES &amp; INVALID CARRIAGES</b>	97.28

Source: Appendix Tables 6.1.1 to 6.9.14



**Table 6.16 Products with Moderately Strong and Strong Integration, By Sector, By Product, Singapore-Thailand, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
<b>1997</b> Moderately Strong Integration	Agro-based	1605	CRUSTACEANS, MOLLUSCS ETC. PREPARED OR PRESERVED	67.48
		2106	FOOD PREPARATIONS NESOI	71.04
	Healthcare	3004	MEDICAMENTS NESOI, MIXED OR NOT, IN DOSAGE ETC FM	67.53
	Rubber-Based	4010	CONVEYOR OR TRANSMISS BELTS OF VULCANIZED RUBBER	71.28
		4011	NEW PNEUMATIC TIRES, OF RUBBER	55.07
		4016	ARTICLES NESOI OF UNHARDED VULCANIZED RUBBER	50.57
	ICT	8473	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES	53.77
		8517	ELECTRIC APPARATUS FOR LINE TELEPHONY ETC, PARTS	55.05
		8525	TRANS APPAR FOR RADIOTELE ETC; TV CAMERA & REC	66.78
		8531	ELECTRIC SOUND OR VISUAL SIGNALING APPARATUS, PTS	53.76
		8534	PRINTED CIRCUITS	68.21
		8541	SEMICONDUCTOR DEVICES; LIGHT-EMIT DIODES ETC, PTS	54.82
		8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS	73.09
		8543	ELECTRICAL MACH ETC, WITH IND FUNCTIONS NESOI, PTS	71.39
8544	INSULATED WIRE, CABLE ETC; OPT SHEATH FIB CABLES	53.76		
Strong Integration	Fisheries	0305	FISH, DRIED, SALTED ETC, SMOKED ETC; ED FISH MEAL	83.61
	Healthcare	3304	BEAUTY, MAKE-UP & SKIN-CARE PREP; MANICURE ETC PRP	80.19
	Rubber-Based	4012	RETREAD OR USED PNEU TIRES, SOLID TIRES ETC, RUBBR	88.84
	Garments and Textiles	5512	WOV FABRIC, SYNTH STAPLE FIB NU 85% SYNTH ST FIBER	80.12
<b>2001</b> Moderately Strong Integration	Agro-Based	2101	EXTRACTS ETC OF COFFEE, TEA OR MATE; ROAST CHICORY	64.01
		2106	FOOD PREPARATIONS NESOI	63.58
	Fisheries	0305	FISH, DRIED, SALTED ETC, SMOKED ETC; ED FISH MEAL	73.36
		0307	MOLLUSCS & AQUA INVERT NESOI, LVE ETC.; FLOURS ETC	51.44

**Table 6.16 (Cont'd) Products with Moderately Strong and Strong Integration, By Sector, By Product, Singapore-Thailand, 1997 and 2001.**

Degree of Integration	Sector	HS Code	Product Description	IIT
Strong Integration	Healthcare	3004	MEDICAMENTS NESOI, MIXED OR NOT, IN DOSAGE ETC FM	67.02
		3304	BEAUTY, MAKE-UP & SKIN-CARE PREP; MANICURE ETC PRP	73.83
	Rubber-Based	4010	CONVEYOR OR TRANSMISS BELTS OF VULCANIZED RUBBER	68.79
		4011	NEW PNEUMATIC TIRES, OF RUBBER	65.57
		4016	ARTICLES NESOI OF UNHARDED VULCANIZED RUBBER	53.86
	Garments and Textiles	5512	WOV FABRIC, SYNTH STAPLE FIB NU 85% SYNTH ST FIBER	67.02
	ICT	8473	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES	55.30
		8504	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT	65.50
		8517	ELECTRIC APPARATUS FOR LINE TELEPHONY ETC, PARTS	58.10
		8534	PRINTED CIRCUITS	54.79
		8541	SEMICONDUCTOR DEVICES; LIGHT-EMIT DIODES ETC, PTS	56.87
		8542	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBL, PTS	63.53
			8544	INSULATED WIRE, CABLE ETC; OPT SHEATH FIB CABLES
	Rubber-Based	4015	ART OF APPAREL & ACCESS OF UNHARD VULCANIZED RUBBR	75.28

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.17 Products with Moderately Strong and Strong Integration, By Sector, By Product, Singapore-Vietnam, 1997 and 2001.**

<b>Degree of Integration</b>	<b>Sector</b>	<b>HS Code</b>	<b>Product Description</b>	<b>IIT</b>
<b>2001</b> Moderately Strong Integration	Healthcare	3304	BEAUTY, MAKE-UP & SKIN-CARE PREP; MANICURE ETC PRP	73.70
	ICT	8534	PRINTED CIRCUITS	70.73

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.18 Products with Moderately Strong and Strong Integration, By Sector, By Product, Myanmar-Singapore, 1997 and 2001.**

<b>Degree of Integration</b>	<b>Sector</b>	<b>HS Code</b>	<b>Product Description</b>	<b>IIT</b>
<b>2001</b> Strong Integration	Agro-Based	2402	CIGARS, CIGARETTES ETC., OF TOBACCO OR SUBSTITUTES	93.79

Source: Appendix Tables 6.1.1 to 6.9.14

**Table 6.19 Products with Moderately Strong and Strong Integration, By Sector, By Product, Thailand-Vietnam, 1997 and 2001.**

<b>Degree of Integration</b>	<b>Sector</b>	<b>HS Code</b>	<b>Product Description</b>	<b>IIT</b>
<b>2001</b> Moderately Strong Integration	ICT	8544	INSULATED WIRE, CABLE ETC; OPT SHEATH FIB CABLES	67.22

Source: Appendix Tables 6.1.1 to 6.9.14



## Chapter 7

### Policy Implications and Recommendations

#### 7.1 The Challenge of Achieving Economic Integration

The findings in Chapter 4 and Chapter 6 show that the overall level of intra-industry trade and integration at the sectoral level was relatively strong only for semiconductors and ICT, and only for the ASEAN-5. The findings at the product level are mixed, however. Apart from the products of ICT and electronics, products belonging to the other priority sectors, particularly healthcare and automotive, also registered strong intra-industry trade and integration. Nonetheless, integration in most of the products in the priority sectors is still weak.

The findings pose a big challenge of achieving economic integration in the priority sectors, given that they account for close to 50 percent each of intra-ASEAN exports and imports. As discussed in Chapter 3, economic integration is driven primarily by the global and regional production networks of multinational companies who are constantly on the look-out for new markets, low-cost assembly points, as well as parts and component suppliers that would strengthen their competitive position in the world market. MNCs are particularly concerned about systemic efficiencies in their entire global production chain, where a given location is judged by how cost-efficiently it performs a given function in coordination with other functions located elsewhere (UNCTAD 2002). The challenge therefore is how make the entire set of ASEAN membership cost efficient and more attractive as investment destinations and export markets. In other words, there must be no weak link in the entire chain if the region were to function as a production base for the MNCs.

The ASEAN, however, will have to work towards deeper economic integration amidst a much more challenging environment, both internal and external. Internally, the stark differences in the levels of development between the democratic prosperous original members versus the partly socialist and poor new members of CLMV could hamper and delay economic integration. The CLMV and Brunei are the weakest link in the chain and this lessens the attractiveness of the region to the FDI-driven production networks. Likewise, moving towards an ASEAN Economic Community is like running a race, which is more difficult if the team members are running at different speeds.

Externally, the rapid emergence of China as an economic power and the growing attraction of India to FDI present a huge challenge to the ASEAN. The high economic growth of China is disruptive to some sectors in the ASEAN, especially in the labor-intensive industries. The rising wages and costs in the ASEAN is causing the decline in their comparative advantage under the current industrial structure and shifting the balance to China and India. The ASEAN therefore needs to seriously consider how to strategize its position as an economically integrated region so as to make it an attractive alternative to China and India (Austria 2003).

Discussed below are policy measures and strategies for achieving economic integration in the priority sectors. Section 7.2 includes policy measures that are more general in nature as they cut across the priority sectors while Section 7.3 includes policy measures specific to each priority sector.

## 7.2 Policy Measures Across Priority Sectors

The key strategy for the sectors to be economically integrated is for the ASEAN to improve its position and remain competitive in the international production chain. This in turn could be achieved by lowering the costs of cross-border transactions. Member economies should be constantly aware of their relative cost competitiveness vis-à-vis other economies and regions. This calls for policies that go beyond trade and investment, and for policies that are geared towards strengthening the locational advantages of the region in the international production chain.

**Industrial upgrading.** There are risks with continuing the existing pattern of production and trade, i.e. reliance on the low-skill, labor-intensive segment of the international production chain. It involves the type of FDI that is highly mobile, i.e. footloose. Hence, cost advantages can be easily eroded and lost due to wage increases and the emergence of more attractive locations.

Learning from the experience of the NIEs, the ASEAN-5 should therefore undergo industrial upgrading. Industrial upgrading will require moving up the ladder of the value chain from the low value-added, labor-intensive manufactures to high value-added original equipment manufacturing (OEM) and eventually, to original brand manufacturing (OBM). This is crucial as the impact of member economies' participation in the international production chain to their economic growth depends largely on how much of the production and trade is linked to domestic economic activity.

Industrial upgrading will accomplish two things. First, it will open opportunities for the CLMV and Brunei to join and be integrated in the production chain, first by undertaking the low value added, labor intensive stages and then learning how to move up the value chain. Unless the ASEAN-5 achieved the required shift in production, there will be no room for the CLMV and Brunei, given that their current comparative advantage lies in labor-intensive industries. Second, it will increase the competitiveness of the ASEAN-5 vis-à-vis China. The latter has already overtaken ASEAN as a low cost production base and attractor to FDI; and hence, has become a competitor both in their domestic and export markets (Wilson, etc. 2003).

Furthermore, given the low cost structure of China, its increasingly skilled workforce and the influx of technology and management skills associated with the large FDI inflows in the country in the 1990s, the country is better placed than the ASEAN-5 in finding complementarities in the value chain with the NIEs. China is integrating more successfully with the NIEs, as can be shown by the presence of companies from the NIEs in China.

Hence, the key strategy for the ASEAN-5 is not to compete with China but to find niches which are complementary to China in the value chain. With industrial upgrading, MNCs can locate their labor-intensive activities in China while maintaining their high-value production segment in the ASEAN-5.

**Trade liberalization.** Tariffs on sensitive agricultural products have yet to fall to 0-5 percent under AFTA. Also, the tariff rates for a number of products in the priority sectors are still above 20 percent (McKinsey & Company 2003). Such tariff peaks should be eliminated so as to eliminate the distortions they create. Also, the delay in the tariff reduction for automobile in Malaysia continues to be an issue raised against AFTA.

However, the global environment requires ASEAN to move faster towards its zero-ending tariff rate target. The growing proliferation of regional trading arrangements is accelerating trade liberalization around the globe. The ASEAN as a region can meet this head on by accelerating the target date of a zero tariff rate for the priority sectors, i.e. earlier than the current date of 2010 for the original members and 2020 for the CLMV.

**Investment liberalization.** While liberalization in investment has been accelerated in 2002, the current program under the AIA includes only manufacturing. What is needed, however, is a liberalization of the presently closed sectors (services, agriculture, fisheries, etc.) so as to show foreign investors about ASEAN's seriousness in maintaining its strength. This would require the removal of restrictions and impediments to foreign direct investment, and strengthening the efficiency of investment administration. To this end, a study on the remaining impediments to FDI in the region should be done.

**Services liberalization.** Similarly, the liberalization of services has not kept pace with the liberalization efforts on goods and investment. Since services (transportation, power, telecommunication, banking, etc.) are also inputs to the production of industries, their inefficiency weakens the competitiveness of the manufacturing sector and hence, can be costly to each member economy as a whole. In short, the efficiency of the services sector is crucial to the efficiency of the manufacturing sector. Hence, unless the services sector is competitive, the manufacturing sector cannot be internationally competitive.

Efficiency and competitiveness of the services sector requires the elimination of regulations that restricts competition. A study on existing regulations in the services sector as they affect competition is therefore in order.

**Elimination of non-tariff barriers to trade.** Different technical regulations for product specifications as well as testing and certification procedures across member economies are common for the priority sectors, particularly for electronics, ICT, healthcare products and agro-based products (McKinsey and Company 2003). This does not only hamper smooth flow of goods across the region but also increases the cost of doing business in the region as companies have to comply with different regulations. The ASEAN therefore needs to harmonize standards and develop mutual recognition agreements (MRAs) to cover all priority sectors. For existing MRAs, as discussed in Chapter 2, there is a need to accelerate their implementation.

**Trade and investment facilitation** – In a world of modern business environment of global sourcing and just-in-time delivery and production, traders and suppliers need fast and predictable release of goods. At the same time, a hassle-free mobility of business people is crucial to increasing investment in the region. As discussed in Chapter 3, a number of initiatives are already in place to facilitate the cross-border movement of goods in the region, particularly in the area of customs.

However, following the events of 11 September 2001, businesses in the Asia-Pacific are facing new costs associated with the need to achieve higher levels of security in the trading system. In particular, a number of mandatory and voluntary measures have been introduced to improve the security of the maritime trade to counter possible terrorist acts. For example, a 24-hour advance cargo information is now required prior to loading at ports of origin for cargo bound for the United States. This will greatly affect the ASEAN as the US is the major destination of the region's exports. The business community is aware that there are

associated costs in implementing and complying with these new security measures; and such costs will add to the cost of doing business.

The ASEAN government should cooperate with each other and in partnership with the business sector to provide technical assistance and to exchange information on best practices associated with the adoption of new security measures. While adapting to new customs reporting requirements, ASEAN governments should consider measures that would serve to expedite clearance procedures without compromising security.

**Mobility of Labor.** As discussed in Section 2.4, when trade expansion leads to intra-industry trade, resources move within industries and not between industries; thus, economic adjustment to increased trade is easier than in inter-industry trade. Theoretically, this means that with economic integration and product specialization in trade, factors of production, like skilled labor, can move freely within industries across the region.

However, impediments to the mobility of labor across national borders in the region exist. Differences in qualification standards due to differences in educational standards across member economies hamper the free flow of labor, particularly skilled labor. The problem is also compounded by differences in regulations in the labor market across the region.

The ASEAN therefore needs to formulate mutual recognition agreements on labor qualification standards so as to facilitate mobility of labor across national borders. A study on existing regulations that hinder the movement of labor within the region must be undertaken.

**Infrastructure and Logistics.** With tariffs going down globally, the state of the region's infrastructure and logistics will become even more critical in determining the region's attractiveness as an investment site in this part of the globe. Poor infrastructure and logistics increase production costs and hence, lowers the competitiveness of industries in the world market. Given the regional and global orientation of the operations of MNCs, a good infrastructure and logistics oriented to the world-wide management of the value chain is crucial. This means reducing power and communication costs, providing adequate port systems, cutting travel time, and offering travel and shipment options. As the experience of Singapore shows, the availability of electronic systems for simplified customs, both at airports and seaports, is a key factor for the efficiency and stability of international transport and distribution, which is critical to the global production network strategy of MNCs.

For member economies which are experiencing huge budget deficits, like the Philippines, opening up infrastructure and services to private sector investment is a necessary step, as budget deficits limit the ability of governments to invest in physical infrastructures and utilities. However, the regulatory and legal environment in each member economy must be aimed at reinforcing the longer-term stability of investment agreements in private-infrastructure projects so as to strengthen the credibility of the policy environment and increase the confidence of foreign investors in the economies (Austria 2004).

**Rising regionalism.** The ASEAN needs to formulate a common framework for bilateralism and regionalism. During the past 2-3 years, individual members have pursued bilateral trading arrangements; and the ASEAN as a group has pursued ASEAN+X agreements, both without a common framework. The approach is potentially dangerous given its possible impact on the stability of trade rules in the region. Overlapping arrangements can increase the risk of inconsistencies in trading rules, leading to implementation problems. Furthermore, if each arrangement differs in scope, tariff reduction schedules, rules of origin,



etc., the cost of doing business rises. Without a common framework, bilateral initiatives can weaken ASEAN integration.

### 7.3 Sectoral Policy Measures

Based on the findings in Chapter 6, only ICT, electronics, automotive and healthcare products succeeded in achieving some degree of economic integration, although not in all products of the sectors. Again, this was due primarily to the strategy of multinational companies to locate different stages of their production process to different economies based on the latter's comparative advantage. Given that this production strategy will likely continue in the future because it is cost efficient, the ASEAN should give priority to strengthening its efforts at deepening integration in these sectors. These were the sectors that showed great potential for economic integration.

On the other hand, economic integration in the other sectors will not be forthcoming unless there is industrial upgrading in garments and textiles, and further industrial processing in agro-based, fisheries, rubber-based and wood-based products.

Specific recommendations for each sector are discussed below.

**ICT and electronics.** Industrial upgrading is most critical to the ICT and electronics sectors of the region. Because the sectors are highly sensitive to assembly costs, China has emerged to be the principal gainer in the export market for electronic products, particularly in telecommunication equipment, computers and disk drives (Wilson, et. al. 2003), while the ASEAN is slowly losing its comparative advantage in this segment of the production chain.

The ASEAN therefore needs to graduate to the high-value, skill-intensive segment of the production chain. But industrial upgrading is largely dependent on the availability of local suppliers who can provide the intermediate inputs. Local supplier industries in the region, however, are few and still immature and this serves as a main constraint to the growth of the ICT and electronics sectors in the ASEAN. It also explains why the region is tied to the labor-intensive segment of the production chain. MNCs have to rely on imported intermediate inputs. This practice makes MNCs more vulnerable to import price changes induced by exchange rate volatility and thus, can make production costs higher. At the same time, it limits the channel by which technology could spillover within the economies.

The ASEAN economies therefore need to develop their local supplier industries so as to increase the domestic content of the operations of MNCs. This will require a package of technical assistance and specialized training to develop skills of local suppliers as well as ensuring the availability of and access to finance.

**Automotive.** The national car program of the ASEAN-4, implemented through local content requirements, high import tariffs and investment restriction resulted in a fragmented automobile industry in the region (Tham 2004 & 2003; Tecson 2004; Terdudomtham 2004). In particular, the policy on local content requirement has constrained FDI in the region as supplier firms were close to non-existent in most of the member economies. It has also constrained the transfer of technology and hence, the ASEAN economies were limited to assembly operations for the MNCs.

Thus, a more openly competitive trade and investment environment is crucial to achieving an economically integrated automobile industry in the region. This will involve an acceleration of the implementation of the TRIMs Agreement of the WTO, which requires the

removal of local content requirement. More specifically, an acceleration of the full implementation of CEPT by Malaysia is crucial, as it will open the Malaysian automobile market to intra-ASEAN trade.

Considering that production of MNCs operating in the region is geared towards the regional market, harmonization of standards and technical regulations on engineering, safety and emission is crucial to the cross-border movement of automobile products within the region. Mutual recognition arrangement on test devices and procedures and certification must be in place in order to reduce cost, as well as to ensure that exports are accepted at the border.

**Textiles and garments.** Industrial upgrading requires intra-regional division of labor of the production chain. The ASEAN-5 should develop their capacity for high-value ends of the production chain like design, quality assurance, distribution, and production of products requiring specialized skills; and outsource the lower-value ends to the CLMV. The approach will result to an economically integrated textile and garment industry, with ASEAN as the production base for the world export market.

Crucial here, however, is the ability of the ASEAN-5 to be linked to the retailers and marketers in developed economies. As the sector has to respond to the frequently changing fashion and diversified need for special clothing, more and more pressure is put on producers for reducing the lead time, being flexible in meeting both large and small orders, and reducing costs.

Also critical to the future of the sector is the ability of the region to compete in the world market with the termination of the Agreement on Textiles and Garments in 2005. By 2005, quota allocation will be abolished and the ASEAN economies will no longer be assured of the markets they originally enjoyed because of quota allocation. The global market will be up for the taking by the best suppliers who can provide quality and reasonably priced clothing.

**Healthcare products.** Given that each member economy is aiming to be a regional production and distribution center for a particular healthcare product, harmonization of standards and regulations is crucial for the smooth flow of healthcare products across the region. Currently, a mutual recognition agreement on cosmetics is in place. MRAs for other healthcare products should be developed.

**Agro-based, fisheries, rubber-based and wood-based products.** As pointed out in Section 6.1, the weak integration in most of the products in these sectors can be explained by the fact that current production and technology entails simple transformation of raw materials that are not suited to division across economies in the region. Deeper integration can be achieved if member economies will increase the value-added of these sectors through further industrial processing. The approach could be similar to healthcare products. Each economy can specialize in the production of a particular manufacturing product for exports to the rest of the region. The Philippines, for example, can specialize in the production of canned fish, like tuna. Malaysia or Indonesia can also specialize in the manufacture of rubber products. Specialization can lead to economies of scale in production and hence, lower cost. Specialization will be driven by each economy's comparative advantage in these sectors; and this is an area that will require further studies.

## Chapter 8

### Summary and Conclusions

This study examined the pattern of intra-ASEAN trade in the goods sectors which were considered by the ASEAN Leaders as priority for acceleration in integration. The sectors include: agro-based products, fisheries, healthcare products, rubber-based products, wood-based products, textiles and garments, electronics, information and communication technology, and automotive. The study, in particular, examined the forces driving economic integration in the region and established the degree of integration by measuring the level of intra-industry trade in the priority sectors.

Several forces are driving economic integration in the region. These include the international production sharing of MNCs, where the labor-intensive segment of the production chain is located in developing economies like the ASEAN; ASEAN's own initiatives at free trade and investment agreements, where barriers to intra-ASEAN trade and investment are gradually reduced and eliminated; and the sub-regional economic zones where economic complementarities among geographically contiguous areas in the region are promoted.

The integration of the priority goods sectors, however, is also determined by the members' domestic policies, which vary across sectors. There is relatively liberal and trade and investment policies in the ICT and electronics sectors. In contrast, protectionism is high in the textiles and garments sector and this led to competition among the members and a highly fragmented industry. On the other hand, the development of the automotive sector is largely policy-determined, where each member economy promoted its national car program. The restrictive trade and investment regulation that supported the program hampered the development of a regionally integrated automobile industry. The other priority sectors (agro-based, fisheries, rubber-based, and wood-based) are still relatively highly protected.

To a large extent, the domestic policies of the member economies shaped the pattern of intra-ASEAN trade while the sectoral policies determined the model of integration for each sector. For example, the findings of the study show that intra-ASEAN trade in the electronics and ICT sectors is highly concentrated to a few products, as shown by the large percentage shares of the top three exports and imports of each member economy. The high concentration implies specialization in production. Furthermore, the ASEAN-5 are exporting and importing the same products, and they are exporting to and importing from the same economy or economies. This implies that each economy is specializing on a particular stage of the production chain. This pattern of trade was the result of the liberal policy environment in the sectors. The market-determined environment enabled the MNCs to spread their operations across the region.

On the other hand, the pattern of intra-ASEAN trade in healthcare products differs from the ICT and electronics. The pattern of trade shows that each economy differs in their product niches; and that each economy's export niche differs from its import niche. The analysis shows that each economy serves as the regional production center for a particular healthcare product, which is ultimately distributed and exported to the rest of the region.

A different pattern of trade also characterized the automotive industry. Production strategies of MNCs in the region are largely dictated by their headquarters, which are located in developed economies. Production is basically for the regional market. And because the individual markets of member economies are small, the pattern of trade shows that production of specific automotive parts and products is centralized in a particular economy to achieve economies of scale; but are geared for distribution and exports to the rest of the region.

For the textiles and garments sector, there was no product specialization as each economy produces a wide range of products, as shown by small percentage share of the top three export and import products of each economy. The same pattern holds true for agro-based products and fisheries.

For rubber-based products, the trade pattern shows that the less developed members (Indonesia, Myanmar, Philippines, Thailand and Vietnam) exported natural rubber to the more developed member (Malaysia and Singapore), who in turn supplies them with rubber-based products. On the other hand, the pattern of trade for wood-based products divides the members into two groups. One group, composed of Laos Myanmar and Malaysia, exported products of lower value added; while another group, composed of Indonesia, Philippines, Singapore and Thailand, export products of higher value added.

The above pattern of intra-ASEAN trade is also supported by the degree of integration in each sector as measured by the level of intra-industry trade, defined as the export and import of products belonging to the same industry. The findings show that the overall level of intra-industry trade and integration at the sectoral level was relatively high only for a few sectors, and only for some specific member economies. In particular, intra-industry trade and integration was relatively strong in the ICT and electronics sectors for most of the ASEAN members. Integration is moderately strong in healthcare products in Malaysia, fisheries in the Philippines, rubber-based products in Singapore, and automotive in Malaysia and Indonesia.

For the other members, either no trade or integration exists in Brunei and Laos; and weak but improving integration in Vietnam and Myanmar. For the other sectors, particularly agro-based, fisheries, wood-based and rubber-based, integration was at most mild for the ASEAN-5, and weak or no integration for Brunei and the CLMV.

Nonetheless, while intra-industry trade for most of the priority sectors is still below the moderately strong classification, the findings show a large increase in intra-industry trade between 1997 and 2001. The increase indicates increasing integration.

The findings on intra-industry trade at the product level are mixed, however. Apart from the products of ICT and electronics, products belonging to the other priority sectors, particularly healthcare and automotive, also registered strong intra-industry trade and integration. Nonetheless, integration in most of the products in the priority sectors is still weak.

The above findings pose a big challenge to the ASEAN on how to achieve economic integration in all the priority sectors. Given the significant role of FDI in the economic integration of the region, the key strategy is for the ASEAN-5 to remain competitive in the international production chain and for Brunei and the CLMV to be integrated in the same. This calls for policies that go beyond trade and investment liberalization. The key is to enhance the locational advantages of the region by lowering the costs of cross-border transactions in order to make the entire set of ASEAN membership more attractive as investment destination and export markets. Among others, this requires industrial upgrading, acceleration of trade and investment liberalization in the priority sectors, elimination of non-tariff barriers, trade and investment facilitation, enhancement of the mobility of labor across national borders, improvement of infrastructure and logistics, and adoption of a common framework for bilateralism and regionalism by the member economies.

The ASEAN should give priority to strengthening its efforts at deepening integration in ICT, electronics, automotive and healthcare products as these were the sectors that show great potential for economic integration. On the other hand, economic integration will not be forthcoming unless there is industrial upgrading in garments and textiles, and further industrial processing in agro-based, fisheries, rubber-based and wood-based products.

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