

Chapter 9

THAILAND AND ITS COOPERATIVE DEVELOPMENT STRATEGIES FOR CLMV¹

Santi Chaisrisawatsuk

“... (I)t’s important to remember the big picture: success means sustainable, equitable, and democratic development that focus on increasing living standards, not just on measured GDP. Income is, of course, an important part of living standards, but so too is health (measured, for instance, by life expectancy and infant mortality) and education.”

*Joseph Stiglitz,
Making Globalization Work (2006)*

1. INTRODUCTION: A REVIEW OF ECONOMY-WIDE DEVELOPMENT in THAILAND

Thailand, like other developing countries, searches for policies that stimulate growth, promote income distribution, reduce poverty and vulnerability, improve quality of life and social welfare, diminish depletion of the environment and natural resources, and ensure sustainability of overall economic development, and so on. With limited available resources, Thai policymakers inevitably encounter several tradeoffs and

¹ The introduction part of this paper was written in part by Dr. Anan Wattanakuljarus, Lecturer at School of Development Economics, National Institute of Development Administration (NIDA), Bangkok, Thailand. More details of the paper is given in “A Review of Economy-Wide Development Perspectives in Thailand” *Thai Journal of Development Administration*, forthcoming.

opportunity costs as a result of their decisions. Once they choose one option, they may lose on others. Once they solve one problem, others may arise. The forgone options and side effects should not be ignored but must be taken into account anytime they make critical decisions. Questions such as how choice of policies might affect various economic development objectives; how impacts may be brought to bear on the economy; how production and consumption patterns might change due to **choice** of policies; how factor returns and resource allocation might alter, among others, should be assessed thoroughly. By so doing, policymakers can optimize benefits and avoid mistakes in the Cambodia, Laos, Myanmar, and Vietnam (CLMV) subgrouping.

From the policy point of view, such impacts are interrelated and should be systematically observed and examined collectively in anticipation of the potential repercussions of specific decisions. One of standard approaches serving this requirement is the economy-wide approach. This first section aims to review some of many works that provide an economy-wide perspective on Thailand's economic development. Although these works apply a similar approach, they focus on different issues and views, and thus contribute distinct lessons.

The paper reviews literature that describes stylized facts and structural changes in the Thai economy, provides possible effects of national and international policies on Thailand's economic development, and illustrates some issues in specific sectors of the country. The final objective is to review major results, not methods, of these works. Although a number of literature reviewed here may seem insignificant and a lot of missing areas and contexts need to be reviewed further, at least it is the preliminary attempt to provide a preliminary study of gather several works on the economy-wide development of Thailand.

1.1 Thai Economy: Stylized Facts and Structural Changes

Facts or features of the Thai economy vary across studies, yet they are not totally unique. They share some common characteristics even as they differ in other areas. Some works attempt to describe and investigate ‘factors’ or ‘drivers’ for growth in Thailand; some examine a decline in agriculture and a rise in manufactures and services; still others study the possible side effects or adverse impacts of such structural changes on Thailand.

A study of Siksamat (1998) examines five contributions to the economic growth of the Thai economy during the period 1990-1995, namely, technology changes, changing preferences, trade, investment, and general macroeconomic situation. The study finds that the large and positive shift in exports and the favorable investment climate such as a decline in required rate of return on capital are major sources of growth. Although huge foreign direct investments or capital inflows strengthened growth in capital-intensive manufacturing and service sectors, technology as a whole contributed little to growth. This is a major concern for future policies.

The same study showed that primary agricultural sectors gained slightly from the abovementioned growth factors. One possible reason for this is the lack of industrial linkages, forward and backward, between agriculture and other growing sectors. (Evidence of the lack of linkages between booming tourism service sectors and agricultural sectors is also found in Wattanakuljarus (2006), which noted that only small benefits from tourism service sectors are distributed among agricultural and poor households.)

The above findings are similar to a work done by Diao et al. (2006), who, having explored a Ramsey growth model for Thailand, has found that the extended high growth

in the country is not directly associated with advanced technology or high-skill intensity. Openness and structural changes, they said, are the main sources of such growth. In particular, these are the labor-intensive export manufacturing sector, an expansion of domestic backward linkages, and a structural shift from agriculture to exportable products.

Thailand has in fact experienced a relative decline in agriculture. This is the conclusion of Martin and Warr (1994), who state that supply-side influences, e.g., capital accumulation, are the most important determinants of the decline in agriculture's share of GDP. Demand-side influences, operating through relative commodity prices, are much less important. They suggest that further research on the cause of agriculture's relative decline in the process of economic development focus on the role of supply-side influences, especially factor accumulation. Their findings also bear important implications for policies affecting on economic development and structural changes.

Although agriculture becomes relatively less important to the Thai economy in terms of GDP shares compared to manufactures and services, it has contributed to the economic growth of Thailand (Warr 2006). He examines how agriculture contributes to economic growth in Thailand and Indonesia during 1981-2002. He argues that although agricultural output growth is slower than other sectors, agriculture is actually not a stagnant sector. If agriculture had really been stagnant, economic growth would have been substantially lower, because it would not have been possible to raise productivity significantly within agriculture or to release resources massively while still maintaining moderate growth of output. Warr concludes that the major contribution of agriculture to economic growth is a reallocation of resources from agriculture to other sectors (i.e.,

industry and services) that can use these resources more productively, rather than an expansion of agricultural outputs.

Growth and structural changes in Thailand are typically associated with environmental and natural resource problems. Therefore, Thailand's economic development should be investigated within the framework of "development – environment" relationship and vis-à-vis other economic "drivers" such as export-oriented industries (EOI), import-substituting industries (ISI), domestic-oriented industries (DOI) and factor intensity.

Coxhead and Jayasuriya (2003) view Thailand as a net food exporter with EOI policies. Thailand has natural comparative advantage in food production. Growth in manufactures is based on the expansion of labor-intensive, export-oriented manufactures. Food crops are more relatively labor-intensive while tree crops are more relatively land-intensive. The loss of forest cover or deforestation, the degradation of arable land, and the pollution and emission from agriculture and manufactures are major environmental problems for policy makers. They explain that growth of manufactures generates a large increase in labor demand which is typically met by migration from agricultural sector. This structural change raises the opportunity cost of agricultural labor. The higher labor costs tend to reduce the profitability of forest clearance for upland agriculture and to increase the relative returns to the less labor-intensive plantation crops rather than labor-intensive food production. Given this occurrence, higher labor costs tend to reduce deforestation although this may be offset to some extent by the switch to relatively land-intensive plantation crops.

Empirically, Coxhead and Jayasuriya (2003) also investigate the environmental effects of investment and trade policy reform during Thailand's economic "miracle."

They find that the growth of the Thai economy from the mid-1980s through 1997 was driven by a boom in domestic and foreign investment. They assert that “rapid growth created scale effects that have placed environmental and natural resources under tremendous stress, while the composition effects of both the investment boom and trade policy reform are mixed. Both appear to have been generally favorable for the conservation of upper-watershed and forest resources, by raising labor wages and making it more costly to engage in labor-intensive farming practices at the arable margin. These environmental gains in rural areas have been offset, to an extent, by increased demands on resources and environmental services in urban and industrial areas.”

A study done by Coxhead and Plangraphan (1998) concerns trends of land use and employment in Thai agriculture during an economic boom. They conclude that land use trends have been influenced by agricultural wage growth. Wage growth has been driven by investment in the non-agricultural sectors. The economic boom stimulated a pattern of change in economic structure that induced the terms of trade against agriculture through wage growth. The boom generated incentives for agricultural mechanization and land use shifts that may in turn have created irreversible changes in agricultural technology and the resource base. Evidence shows that cultivation of erosive and nutrient-depleting crops such as corn has actually expanded in upland and highland provinces. This expansion of a relatively low value-added crop in more remote and less productive upland and highland areas is because lower labor mobility diminished the effects of the economy-wide boom on such areas.

Thailand’s economic development mentioned above is explored through structural changes and key features of Thailand. Besides, Thailand’s path toward economic

development is partially from national toward international policies. Side-effects and challenges of such policies are reviewed next.

1.2 Possible Effects of National and International Policies on Thailand's Economic Development and Issues in Particular Sectors of Thailand

Munasinghe and Cruz (1995) cite several country-specific studies related to the links between economy-wide policies and the environment. Firstly, Panayotou and Sussangkarn (1991) argue that without a clear description of property rights, incentive policies induced farmers to over-exploit fragile lands. Without adequate regulatory or economic instruments, an industrial growth in Thailand came with major environmental damages. Secondly, World Bank (1994) reports that the environmental impacts of economic growth on Thailand are not only determined by the scale of economic activity but also by the structure of the economy, the efficiency of input-use in energy and industry, and the types of production technologies used. The Bank further states that environmental concerns should be addressed earlier in the transition to growth so that the adverse environmental impacts of expanded economic activities can be controlled or prevented. Thirdly, short-term adverse effects of government cutbacks as a result of high government expenditures for other areas may lead to a budgetary cut for environmental activities. A study (Reed 1992) shows that a reduction in government expenditures for adequate infrastructure can increase air pollution.

The environmental effects of tax reforms in Thailand are examined by Coxhead (2000). Command-and-control measures such as emission regulation or specific location of new factories have a more significant role than environmental taxes. Consistent with the characteristics of protected industries in developing countries, the import-substituting industries (ISI) of Thailand are relatively emissions-intensive than

other industries. Hence, any policies inducing a reduction of ISI's outputs should gain positive environmental effects. Thailand's ISI are relatively less labor-intensive than the economy-wide average. Based on this observation, Coxhead argues that trade liberalization can generate two benefits: 1) a reduction of emissions due to a contraction of ISI; and 2) an increase in labor demand and wage as other labor-intensive industries expand. However, he suggests that even if the environmental benefits of general trade liberalization are still uncertain due to a possible increase in overall emissions as economy expands, selective reductions in trade barriers might reduce emissions.

For decades Thailand imposed rice export tax to raise government revenues and to lower the domestic price of rice so that poor households that were not surplus rice producers could purchase. Thailand's rice export tax harmed the poor in rural and urban areas (Warr 2001), as it reduced the income of unskilled workers who worked intensively in the rice industry. Reducing the producer prices of rice also lowered the real incomes of those rice farmers who either had or had no surplus to sell. It also reduced the income of unskilled laborers engaged in non-farm activities. Such effects actually dominate the gains from imposing a cheaper consumer price of rice. Warr concludes, "Cheap food policies are not necessarily in the interests of the poor--rural or urban--because in addition to lowering the prices of staple foods, these policies can also depress the equilibrium wages of unskilled labor, and the latter effect can dominate." He adds that the effects on equilibrium wages of unskilled labor become smaller as the economy develops.

Trade liberalization. Thailand has entered into a series of trade liberalization agreements, which are either multilateral or bilateral in nature. Stoeckel et al. (1997) studied the benefits of the Asia Pacific Economic Cooperation (APEC) liberalization for

Thailand. They project that GDP growth in Thailand could be nearly 3.3 percent higher in 2020 than it might otherwise be, and exports nearly 25 percent higher and welfare over 6 percent up by 2020. Capital inflow – most of which comes from the United States and other Organisation for Economic Co-operation and Development (OECD) economies – allows Thailand to increase investment, production, and consumption. In sum, trade and investment liberalization generates significant gains for Thailand. The extra capital inflow makes the adjustment easier with careful management. They suggest policymakers and financial markets be clear about what is driving the changes as a result of liberalization. Also, the design of liberalization needs to be carefully crafted.

Secondly, trade liberalization between Thailand and Japan is a source of macroeconomic benefits for both countries, according to a report by the Japan-Thailand Economic Partnership Agreement (JTEPA) task force (December 2003). The dynamic impact of trade liberalization includes capital formation mechanism (i.e., an accumulation of induced income, savings and investment), international capital movements, and pro-competitive productivity growth effects. Gains in real terms could be more significant in Thailand, but gains in absolute terms may not be so different. The direction of the impacts on balance of payments is different between Japan and Thailand. Trade balance tends to deteriorates in Japan but improves in Thailand. There are international capital inflows in Japan but outflows in Thailand. The capital formation or liberalization of investment has macroeconomic effects for Thailand. However, successful structural adjustments such as trade reform, technical requirement, health and quality standards are essentially required for Thailand to gain from this trade liberalization.

Thirdly, according to *Australia-Thailand Free Trade Agreement: Economic Effects Report (2004)*, the gains to Thailand are larger than Australia's, because the former has higher barriers to trade, making it a less efficient economy than Australia. Thailand's GDP is projected to be 0.45 percent higher from 2020 onwards. The net present value of the stream of production and welfare gains over 20 years are worth US\$6.8 billion to Thailand. It also improves efficiency in the domestic sectors, and so an increase in real investment. Investment is expected to increase 0.38 percent above baseline in 2013, and then reduce to 0.22 percent above baseline in 2026. The lowering of trade barriers is associated with more efficient domestic industries, while improving access to markets of the bilateral trading partner. All sectors experience an increase in output to meet increased consumption, export, and investment demand. The largest absolute increase in output will be in the services sector (0.7 percent higher output in 2025) due to the cost reducing effect from trade liberalization.

The above results are beneficial sides of trade liberalization. Karunaratne (1998) identified the favorable effects of trade liberalization as follows: lower wage inflation, an increase in skilled and unskilled employment, gains to owners of factors used intensively in export-oriented industries (EOI), cheaper imported inputs for EOI, an increase in manufactured exports, significant improvement in industries that had been protected during an import-substituting industrialization regime, and an improvement in income distribution. The unfavorable or side effects of trade liberalization, according to him, are losses to owners of factors used in import-substituting industries, an increase in environmental pollution, a deterioration of Thai traditional culture, and greater dependence of key sectors of the economy on foreign investments. These effects could raise serious political and social threats.

Openness to world trade requires the economy as a whole and the sectoral economies to adjust properly so that gains from trade liberalization are attained. Several changes in health and quality standards and other non-tariff barriers are challenges to policymakers and entrepreneurs. A case in point is an expansion or emergence of seafood and other non-traditional export industries. The seafood industries are natural resource-based export sectors for which the world demand has been strong and increasing (Andersson et al. 2005).

The development of Thailand's seafood industry started during the import substitution period and relied on joint-ventures with foreign companies for acquiring expertise and penetrating foreign markets. Since then the industry has received public support for production and technology transfer and is increasingly becoming an active export sector. However, issues such as natural resource management, access to sustainable raw material, and non-tariff barriers in export markets (e.g., sanitary and phyto-sanitary measures) are challenges for the industry. The active involvement of industry associations in national policymaking can help design effective policy responses to these issues, such as setting up of specialized agencies to enhance quality control and certification and an awareness of standards among producers (e.g., Thailand's National Food Institute). Industry players believe that a key factor for successful adjustment has been the pro-active role of government in establishing an enabling economic and policy environment that allows local firms to operate on a level playing field and strengthen their competitive edge in international markets.

Another booming sector in Thailand is tourism. Tourism as a development strategy in developing countries has steadily gained acceptance owing to three factors: it contributes to economic growth, improves income distribution, and benefits the

environment. That the Thai economy depends on tourism could be gleaned from the fact that more than half of Thai industries benefit from tourism. Any changes in tourism could have substantial impacts on the economy. According to a study done by Wattanakuljarus (2006), a tourism boom in Thailand can stimulate real GDP. It increases imports of intermediate inputs in manufacturing, although the current account deficit declines owing to extra foreign receipts. Tourism benefits all household classes in terms of an increase in consumption, utility, and income. However, it is not pro-poor or pro-agriculture as long as the owners of primary factors in agriculture do not participate in tourism-related activities.

A tourism boom induces reallocation of primary factors toward domestic-oriented production and away from export-oriented production and import-substituting production. It widens the gap between the agriculture and non-agricultural sectors in terms of labor wages and rates of return on capital. A tourism boom stimulates demands for piped water and increases the total costs of an existing water subsidy. Wattanakuljarus finds that subsidy removal can reduce demands for piped water while causing only minimal effects on other sectors. It tends to benefit low-income and agricultural households. Hence, lifting water subsidy can be considered as a pro-poor or pro-agricultural household policy. The government can use savings from water subsidy removal to fund additional pro-poor or pro-growth projects while correcting an environmental distortion (e.g., excessive demand for water and production of wastewater). This is evidence of a double dividend.

2. THAILAND'S CONTRIBUTIONS: PAST, PRESENT, AND FUTURE

It is interesting to note what Thailand has done to narrow the development gap in the region. one of the factors that has played a significant role in this regard is trade.

Contributions through trade

Increasing trade between Thailand and its neighboring countries is seen to improve benefits from international trade, assuming trade between Thailand and its CLMV trading partners is complementary. Moreover, issues concerning GSP and the utilization rate as well as the GSP scheme, that will support sustainable economic development, will be discussed to some extent. Increasing trade through trade liberalization could lead to welfare improvement. For developing and least developed countries (LDCs), the focus of trade is to reduce poverty by increasing income level and/or better income distribution. Consideration of Thailand's contribution to narrow development gaps in CLMV will be extended to cover other aspects such as whether revenue from trade directed to the poor, supporting development process, improving conditions and creating better opportunities for economic development (import products used to build infrastructure), and promoting investment in the countries.

This section examines the nature and pattern of trade in Thailand and her LDCs trading partners, with emphasis on its CLMV neighbors, namely, Cambodia, Lao PDR, Myanmar, and Vietnam. The importance of Thailand's trade liberalization and facilitation in enhancing economic development in CLMV is also explored by examining the preferential trade agreements between Thailand and its trading partners. This includes a study on the Generalised System of Preferences (GSP) that Thailand

provides for CLMV, tariff reduction either from economic integration or preferential trade agreements, and the effects of Thailand's non-tariff barriers (NTB) imposed on LDCs.

Data on trade flows and gross domestic product for each country are obtained from the *Asian Development Bank Annual Report*. More disaggregated data are collected from the United Nations Comtrade statistic database. Specific information on Thailand's tariff structure, tariff reduction, non-tariff barriers, and preferential trade agreement is derived from relevant agencies in Thailand such as the Customs department and Ministry of Finance.

Measuring openness. Trade to GDP ratio, export to GDP ratio and import to GDP ratio are indicators used to express a country's openness to international trade. The more open the country to trade, the greater are benefits to the country in terms of welfare improvement.

To determine the significance of trade on economic development, the trade to GDP ratios for Thailand and CLMV are calculated. The higher the trade to GDP ratio, the more important trade is to the economy. The volume of international trade has been increasing not only for Thailand but also for its neighboring countries. With Thailand leading the pack, the role of international trade in improving per capita income has been significant, especially in Cambodia and Vietnam. Trade between Thailand and its neighbors has also been increasing in the last decade. Furthermore, the average export and import growths for Thailand and its CLMV neighbors, from 1995 to 2006, are in double digits, ranging from 11.11 percent to 21.43 percent. Vietnam has the highest

average export growth at 21.43 percent and import growth at 19.35 percent, followed by Cambodia with an average growth of export and import equal to 20.63 percent and 17.80 percent, respectively. Share of Thailand's regional trade has been increasing since 1990. Thailand's shares of exports and imports over the last decade, on average, are 5.44 percent and 6.02 percent, respectively. The contribution of Thailand to narrowing development gap in the region through trade is gleaned from the country's trade with its neighbors. Thailand's export to and import from her CLMV neighbors over the last decade are at 2.19 percent and 1.02 percent, on average, with a strong increasing trend. The number has been rising since 1990, changing only slightly during the Asian finance crisis. Thailand exports to CLMV accounted for 3.77 percent of the total in 2005, compared to 2.96 percent in 2000, 1.87 percent in 1995 and 0.48 percent in 1990. A similar pattern was noted in the share of Thailand's imports from CLMV; while the share of Thailand's imports from CLMV was 0.45 percent in 1990 and 2.21 percent in 2005.

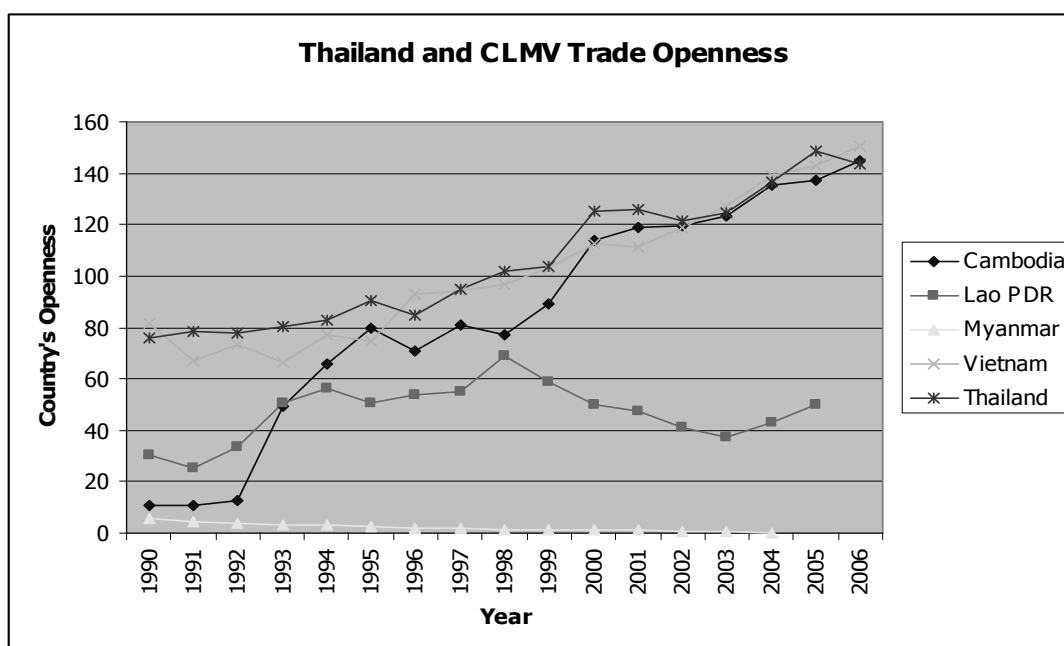
Figure 1² shows the trade to GDP ratio for Thailand and CLMV. In all four countries except Myanmar, the trade to GDP ratio had been increasing throughout the period 1990-2005. This suggests the increasingly important role that international trade plays in the development process alongside greater collaboration between Thailand and its neighboring LDCs. Furthermore, the numbers above show more liberalized trade in the countries above, thus moving toward developing an open, rule-based, predictable, non-discriminatory trading system.

Tables A2 and A3 (see appendix) show exports to GDP and imports to GDP ratios for CLMV and Thailand, respectively. In these countries, both export and import to GDP

² Details of the table are provided in the appendix.

ratios are increasing. For instance, the proportion of Cambodia's export to GDP rose from 2.4 percent in 1990 to 64.2 percent in 2005 (from 9.1 percent to 19.3 percent in Lao PDR, from 36.0 percent to 69.4 percent in Vietnam, and 34.1 percent to 73.8 percent in Thailand). Export and import have played a significant role and increasingly crucial to these economies. Cambodia, Vietnam and Thailand have export and import accounted for more than 50 percent of GDP since 2000. And thus, this suggests such a significant impact of trade liberalization on the economic development of the region particularly CLMV in narrowing development gaps.

Figure 1: Countries' Openness to trade



Poverty Reduction. An increase in volume of international trade contributes to poverty reduction by raising the income level, improving living standards, and creating more and better opportunities. Exports and imports can be viewed as an engine or a catalyze in stimulating the development of the

economy. Thus, growth of exports and imports together with an increasing in GDP can be used as an indicator to signify the important of trade in reducing poverty.

Compared to developed and developing countries, LDCs' export and import growths vary widely. Generally, less fluctuation is preferable to economic development. Export and import growths for CLMV from 1995 to 2006 fluctuated to a great degree. For example, Cambodia's export growth varies from -24.6 percent to 74.3 percent despite a smoother pattern in the recent years. Thailand has experienced a more stable growth in export and import compared to its LDC neighbors. Stabilizing the growth of export and import is crucial to narrowing the development gaps in CLMV economies as well as in fostering economic stability and creating sustainable economic growth. The argument is reinforced by evidences of a more stable export and import growth in more developed economies. (Growth rates of exports and imports in Thailand and CLMV are calculated from 1995 to 2006 and expressed in Tables A4 and A5 in the appendix.)

Thailand's trade liberalization is non-discriminatory to its LDC trading partners, particularly CLMV. While a proportion of trade in regional trade is rather stable throughout the period, with an increasing international trade volume, Thailand's export and import shares with the CLMV have risen over the past decade. Table A6³ illustrates the proportion of Thailand's export and import in world trade, regional trade, and CLMV trade. The share of Thailand's export and import in the regional trade and CLMV trade is minimal but increasing. Thailand's export and import in regional trade varies from 4.75 percent to 6.06 percent and 5 percent to 7.10 percent, respectively,

³ For more details see in appendix.

during 1990-2005. Moreover, while the volume of trade has been increasing, the share of Thailand's export and import in CLMV trade also steadily increased from 0.48 percent to 3.09 percent and from 0.45 percent to 1.67 percent during the same period. This implies a rising trade volume between Thailand and its LDC neighbors.

Thailand's trade with CLMV specifically has been increasing throughout the last decade. Table A7 (see the appendix) shows the amount of CLMV's export to and import from Thailand from 1985 to 2005. Although the trends of CLMV's trade with Thailand are increasing, there are fluctuations in some periods. Thailand has been in the top ten of the CLMVs' export partners from 1985 to 2005 except for Vietnam and Cambodia in recent years, and CLMV's import partners from 1985 to 2005. The evidence suggest a close and strong trade linkages between Thailand and her neighbors. Thus, the trade connection present a crucial channel in which both sides can benefit from economic integration and narrowing economic development gap.

Tables A8.1 through A8.4 , in the appendix, demonstrate the ranking and direction of exports for Cambodia, Lao, Myanmar, and Vietnam. Although Thailand does not rank in the top ten export partners of Cambodia and Vietnam, it ranks first in Lao's and Myanmar's lists, with an export value of US\$ 454.7 million and US\$2,134.8 million, respectively in 2006. Thailand does not rank in the top ten of Vietnam's export partners. The ranking is based on an average of export for the last the period 2002-2006. On average (from 2002 to 2006), Myanmar's export to Thailand accounted for 48.95 percent of its total exports; Lao's export to Thailand is 43.10 percent of its total export.

The ranking and direction of imports for Cambodia, Lao, Myanmar, and Vietnam are shown in Tables A9.1 through A9.4 in the appendix. Thailand ranks third in Cambodia's and first in Lao's imports, with US\$ 767.4 and 1,127.6 million in 2006,

respectively. The ranking is based on an average of import from 2002 to 2006. Moreover, Thailand has also contributed as a major exporter to Myanmar and Vietnam. Myanmar's and Vietnam's 2006 imports from Thailand were valued at US\$837.4 and 3,407.7 million, respectively.

Measuring trade intensity index. Trade Intensity Index (TII) determines whether the value of trade between two countries is greater or smaller than expected by measuring the proportion of one country's exports going to a particular trade partner divided by the proportion of world's exports going to the trade partner. TII greater than one indicates that the bilateral trade flow between the two countries is larger than expected, i.e., the two countries are "natural" trade partners. If TII is less than one, the bilateral trade flow is smaller than expected, the two countries are not "natural" trade partners.

The trade intensity index between Thailand and ASEAN countries (see Table A10 in the appendix) shows that TII is greater than one in almost every cases. This indicates that the bilateral trade flow between Thailand and its ASEAN trading partners is larger than expected. Furthermore, there are greater trade intensities between Thailand and CLMV compared to the rest of the ASEAN, further suggesting that Thailand has been trading extensively with its LDC neighbors.

The study at a more disaggregated level illustrates that Thailand's import composition has changed in favor of LDCs, particularly CLMV. It has also been importing more from its neighbors, including its ASEAN partners. Although only in its

early stage, Thailand's importation from CLMV consists only of primary or intermediate goods, these products have comparative advantages for its trading partners.

In the early 90s, Thailand incurred trade deficits with some of its LDC trading partners. However, the gaps have since narrowed or eliminated in some cases. Trade balances between Thailand and CLMV have been in favor of Thailand recently. Thailand's exports to CLMV consist of products that help improve the country's living standards as well as build infrastructure for further economic development such as foods and beverages, pharmaceutical products, cement, etc.

Measuring comparative advantage. Revealed Comparative Advantage (RCA) is one of the key indicators used to measure a country's competitiveness in producing certain products. By comparing the proportion of a country's export of a specific product to the country's total export and the proportion of the world's export of the product to the world total export, the RCA index provides useful information on a country's trade potential. If the RCA index of country I for product J exceeds unity, the country is said to have a revealed comparative advantage in product J and thus there is a trade potential for product J. On the contrary, if the value of the index is less than unity, the country has a revealed comparative disadvantage and has no trade potential.

Trading according to countries' comparative advantage implies welfare improvement both to the world and the trading partners themselves. The benefits from trade are realized through more efficient allocation of resources and division of labor. Thailand has illustrated its contribution as a partner for development with its LDC

neighbors in this aspect. The RCA index for the top 20 products Thailand imported from Cambodia, Lao PDR, Myanmar, and Vietnam in 2001 are calculated and shown in Tables A11.1 through A11.4 in the appendix. Almost every one of Cambodia's top 20 products exported to Thailand in 2001 has RCA greater than unity, which indicates that Thailand imports mostly the products over which the latter has trade potentials. In particular, the top five products (HS 720429, 410130, 040299, 440799 and 010290)⁴ have RCAs equal to 43.22, 178.64, 27.91, 5.56 and 2.23, respectively. This suggests that greater benefits from trade expansion between Thailand and Cambodia can be captured by improving market access for these products. For Laos, Myanmar, and Vietnam, the RCA patterns are similar to Cambodia. The RCA index for the top 20 products exported to Thailand in 2001 are greater than one in most cases. The top five products Lao exported to Thailand, which account for the majority of total export to Thailand in terms of value, have RCA greater than unity, i.e., 174.85, 276.64, 153.76, 108.55 and 31.48, respectively.

Recently, Thailand has been importing significant amounts of natural gas and tin ores (HS 271121 and 260900) from Myanmar. The corresponding RCAs of these two products are 39.10 and 83.14. Vietnam's key exports to Thailand also have RCA values greater than one. Among the top 20 products Vietnam exported to Thailand in 2001, 17 products have trade potential, i.e., RCA greater than unity. The study of a country's comparative advantage, by determining the RCA index, suggests that trade expansion between Thailand and CLMV could pave the way for further benefits to the trading partners, thus highlighting the role of Thailand as an international partner for development.

⁴ Details on product description are provided in table A11.1. in the appendix

Over the last decade, the tariff structure in Thailand has undergone many reforms based on its trade agreements under APEC, AFTA, and other bilateral agreements. In addition, there are also reforms of applied Most Favored Nation (MFN) tariffs in Thailand. The reduction of tariff structure in Thailand has been a crucial factor for improving market access for its trading partners, which include not only developing countries and LDCs but also developed economies. A simple average of Thailand's tariff schedule from 1999 to 2003 is shown as follows.

	1999	2002	2003
Simple average applied rate	17%	15%	14.7%
Agricultural products (HS 01-24)	32.7%	26%	25.4%
Industrial products (HS 25-97)	14.6%	13.1%	12.9%

Source: WTO, Trade Policy Review: Thailand, 15 October 2003.

The simple applied MFN average declined from 17 percent in 1999 to 14.7 percent in 2003. Tariff on agricultural products was cut from 32.7 percent to 25.4 percent in 2003 while the average tariff rate on industrial products was reduced to from 14.6 percent to 12.9 percent in 1999.

Since CLMVs have already been accepted as new ASEAN members, the tariff structure under AFTA agreement is appropriate to these countries. The average tariff rates are calculated for products under chapter 01 to 97 (HS 2 digits) using the 2001 tariff structure. Both applied MFN tariff rates and the tariff rates implemented under AFTA are considered for comparison purposes.

	Simple average tariff rate		
	Applied rate (2001)	Agricultural products (HS 01-24)	Industrial products (HS 25-97)
Applied MFN tariff	17.19%	26.26%	14.17%
AFTA	4.53%	5.42%	4.23%

Source: Calculated by author using information obtained from the Ministry of Finance.

In terms of tariff reduction, CLMV benefits greatly from being new ASEAN members. Thailand's implementation of AFTA agreement brought down the average applied MFN rate from 17.19 percent to 4.53 percent. Compared to the applied MFN tariff rate, the AFTA average tariff is 20.84 percent lower for agricultural products, and 9.94 percent lower for industrial products.

With limited resources available, Thailand has granted GSP privileges to Bangladesh and CLMV for various products. Thailand agreed, in the first phase, to reduce the tariff rate to 0 percent and 5 percent in six product groups, which consist of 128 subgroups: 1) jute and jute products, 2) leather and leather products, 3) frozen foodstuffs, 4) ceramic products, 5) pharmaceutical items, and 6) agricultural produce. In the second phase, 10 more product groups consisting of 101 subgroups were added to the list of products whose tariff rates Thailand agreed to reduce to 5 percent, namely, 1) footwear, 2) electric cables and wire, 3) cosmetics and toiletry, 4) processed foods, 5) furniture, 6) melamine and plastic products, 7) transformers, 8) specialized textiles, 9) tea, and 10) zipper. Thailand, as an ASEAN member, has agreed to grant GSP privileges to CLMV under the ASEAN Integration System of Preferences (AISP). According to a recent revision in 2003, Thailand agreed to extend the tariff preferential rates for products listed in the AISP to CLMV for another year. Moreover, 249 products

were added to the AISP list for Cambodia, 152 products for Lao, 378 products for Myanmar, and 15 products for Vietnam.

2.1 Trade and Development Index

Trade and development index in 2006 created by UNCTAD provides useful information in narrowing economic development gaps for developing countries as well as LDCs.

2.2 Input and Outcome Measure Index

A closer look at the input measure index as driving forces to simulate trade and development measured in terms of trade performance and economic and social well-being of the nation indicates similar patterns of development between Thailand and its neighbors, namely, Vietnam and Cambodia⁵.

Table 1: TDI, Input and outcome measure index for Thailand, Vietnam, and Cambodia

Country		TDI		InputMI		OutcomeMI	
		2005	2006	2005	2006	2005	2006
Thailand	Score	537	551	635	657	439	445
	Rank	31	29	38	36	35	36
Vietnam	Score	496	503	563	566	428	439
	Rank	44	44	63	70	37	38
Cambodia	Score	438	452	524	538	351	365
	Rank	75	75	96	90	64	61

Note: InputMI: Input Measures Index

OutputMI: Outcome Measures Index

Source: Developing Countries in International Trade 2007: Trade and Development Index

⁵ The indices for Lao PDR and Myanmar are not available as of 2007.

Table 2: Year 2006 Input and Outcome Measure Index

Input/Outcome measures		Thailand	Vietnam	Cambodia
Input Measures	Human Capital (HC)	20	19	14
	Physical Infrastructure (PI)	38	4	5
	Financial Intermediation (FI)	45	24	4
	Domestic Finance Resources (DF)	66	62	46
	International Finance Resources (IF)	102	133	139
	Institutional Quality (IQ)	59	41	44
	Economic Structure (ET)	60	52	44
	Macroeconomic Stability (MS)	101	82	91
	Environmental Sustainability (ES)	17	12	10
	Openness to Trade (OT)	72	67	69
	Market Access, Foreign (MA)	77	72	73
Outcome Measures	Trade Performance (TP)	124	104	66
	Economic and Social Well-being (EW)	321	335	299

Source: Developing Countries in International Trade 2007: Trade and Development Index

Of the three countries, Thailand has performed best in the overall performance index. However, scores on economic and social well-being are not too far apart. Vietnam and Cambodia have performed well in trade, thus scoring well on economic and social well-being. Input measures, however, point to the weakness of Cambodia in financial intermediation, physical infrastructure, environmental sustainability, and human capital. Vietnam's performance in these areas is also below par, albeit to a lesser degree. This highlights the need to enhance its trade and development efforts. Physical infrastructure improvement is still crucial to narrowing the development gap in Vietnam and Cambodia alongside accumulation of human capital.

2.3 Contributions through Investment

Aside from trade liberalization, it is also important to understand the role of investment liberalization and the relationship between trade and investment (inward and outward investment) in narrowing the development gap. Thailand's development path over the past three decades has shed some light on the crucial role of foreign investment in a host country's economic development. Thus far, Vietnam has successfully attracted foreign direct investment, which has hastened its economic growth. Many developing economies have either successfully channeled benefits derived from foreign investment to the development process, or not at all. In many cases, capital flows, especially foreign portfolio investments, have been cited as sources of instability and, worse, economic crisis. The Asian financial crisis in 1997 is a case in point. Still, it cannot be denied that developing countries need foreign capital to push forward their development process. Therefore, it illustrates how important the role of foreign investment is in narrowing the development gap.

Intra-ASEAN foreign investments in Thailand and CLMV are not uncommon, since the region consists primarily of developing countries (with the notable exception of Singapore). As such, the development process among ASEAN members is dependent on developed economies outside the range of ASEAN. Still, it is worthwhile to note the growing share of intra-ASEAN foreign investment in CLMV, since it represents the contribution of ASEAN in narrowing the development gap. It also indicates efficiency gains from industry restructuring, especially in CLMV. Thus, emphasis should be placed on intra-ASEAN foreign investment stimulation as a means for narrowing development gap.

Thailand, along with other ASEAN members, particularly Singapore and Malaysia, and Japan, plays an important role as an investing country in CLMV. As host countries, CLMV members benefit from income growth, increasing employment, productivity improvement through efficient use of production factors and better allocation of resources. How well the CLMV as host countries utilize these benefits will be the

Table 3: Foreign Direct Investment Net Inflow, intra- and extra-ASEAN (2004-2006)

Mil. US\$ / percent

Country	2004			2005			2006		
	Intra-	Extra-	Total	Intra-	Extra-	Total	Intra-	Extra-	Total
Thailand	688.7	5,173.3	5,862	762.2	8,194.8	8,957	2,822.1	7,933.9	10,756
Y-o-Y Change				10.7%	58.4%		270.2%	-3.2%	
Share	11.75%	88.25%		8.51%	91.49%		26.24%	73.76%	
Cambodia	31.9	99.5	131.4	129.2	252.2	381.4	155.5	327.7	483.2
Y-o-Y Change				304.8%	153.4%		20.4%	30.0%	
Share	24.28%	75.72%		33.88%	66.12%		32.18%	67.82%	
Lao, PDR	7.8	9.2	17	6.7	21.0	27.7	10.6	176.8	187.4
Y-o-Y Change				-13.8%	129.4%		58%	740.2%	
Share	45.88%	54.12%		24.19%	75.81%		5.66%	94.34%	
Myanmar	9.3	241.8	251.1	38.4	197.5	235.9	27.8	115.2	143
Y-o-Y Change				311.9%	-18.3%		-27.5%	-41.7%	
Share	3.70%	96.30%		16.28%	83.72%		19.44%	80.56%	
Vietnam	242.9	1,367.2	1,610.1	164.7	1,856.1	2020.8	181.9	2,178.1	2,360
Y-o-Y Change				-32.2%	35.8%		10.4%	17.3%	
Share	15.09%	84.91%		8.15%	91.85%		7.71%	92.29%	

Source: ASEAN Foreign Direct Investments Database (using data gathered from central banks, national statistical offices, and other relevant government agencies).

ultimate determinants of their development efforts. In this sense, domestic policies that ensure a favorable investment climate and consequently foster economic development cannot be emphasized enough. Thailand's contributions as an investing country are illustrated in the following table.

Table 4: Thailand's Share of Direct Investment in CLMV

Cambodia		Laos		Myanmar		Vietnam*	
2005		F/Y 2005		1988-May 2006 Accumulation		2005	
Country	Amount	Country	Amount	Country	Amount	Country	Amount
China	451.96	Thailand	450.91	Thailand	7,375.6	Japan	842.22
Thailand	81.29	France	370.25	UK	1,591	Luxemburg	771.88
S. Korea	55.97	China	58.12	Singapore	1,434.2	S. Korea	755
Malaysia	25.87	Vietnam	43.27	Malaysia	660.7	Samoa	747.36
Singapore	25.42	Australia	21.29	Hong Kong	504.2	Taiwan	721.25
France	7.64	S. Korea	10.22	France	470.4	Hong Kong	490.42
Taiwan	7.51	Japan	4.40	USA	243.6	USA	255.61
UK	6.40	Malaysia	3.37	Indonesia	241.5	Virgin Is.	245.20
Canada	5.48	Canada	2.93	Netherlands	238.8	Singapore	238.91
USA	4.38	Singapore	1.20	Japan	215.3	Malaysia	179.59
Others	378.35	Others	279.35	Others	840.6	Others	770.66
Total	1,050.2	Total	1,245.31	Total	13,815.9	Total	6,018.10

Note: Amounts are on an approved basis. Cambodia and Laos figures include domestic investment.

* Thailand ranks 14th as investor in Vietnam

Source: Takao TSUNEISHI (2007)

Table 5: ODA to Least Developed Countries: Thailand and Selected OECD-DAC Countries (2003)

Country	ODA as % of GNI	% of ODA to LDCs	Country	ODA to LDCs as % of GNI
Norway	0.92	39	Belgium	0.35
Sweden	0.79	34	Norway	0.35
Belgium	0.60	59	Sweden	0.29
France	0.41	41	France	0.17
United Kingdom	0.34	36	Thailand	0.12
Germany	0.28	37	United Kingdom	0.12
Australia	0.25	21	Germany	0.10
Japan	0.20	22	Italy	0.08
Italy	0.17	45	Australia	0.05
United States	0.15	28	Japan	0.04
Thailand	0.13	93	United States	0.04
OECD-DAC Average	0.25	33	OECD-DAC Average	0.08

Source: Global Partnership for Development: Thailand's Contribution to Millennium Development Goal 8, Ministry of Foreign Affairs of Thailand

2.4 Contributions through Capacity Building (Infrastructure Development)

Capacity building is just as crucial to narrowing the development gap. Efforts in this regard necessarily include infrastructure development programs such as efficient transportation systems, particularly roads and rail. Admittedly, there have been infrastructure development programs in the CLMV. Yet, infrastructure improvements are still in order such as those involving network and logistics management. Key to bringing this about is collaboration among countries that share borders. This is an important condition for cluster formation and efficient industrial restructuring.

Official Development Assistance (ODA)

Thailand has performed considerably better in the efforts to assist least developed countries compared to OECD countries in relative terms as a percentage of gross national income (GNI), estimated at 93 percent of its total ODA, which far exceeds the OECD average.

3. DEVELOPMENT STRATEGY THROUGH ECONOMIC INTEGRATION

Economic integrations, particularly at the sub-regional level, have played a significant role in economic development as well as narrowing development gaps in the region. In relevant undertakings in this regard, the Great Mekong Subregion (GMS) economic cooperation stands out, based on its programs that simulate trade, investment, and capacity building, which in turn have created opportunities for CLMV countries to advance their development process.

Collaborative efforts toward economic integration have paved the way for infrastructure development such as those involving transportation. Infrastructure development alongside economic activities that include the creation of economic zones are supposed to follow along the path to economic integration. Tsuneishi (2007) outlines the investment and capacity building programs that have come on the heels of economic cooperation at the sub-regional level such as the North-South Economic Corridor (NSEC), the East-West Economic Corridor (EWEC), the Southern Economic Corridor (SEC), GMS economic cooperation (GMS-EC), and ACMECS. These sub-regional economic cooperation efforts have significantly improved the economic conditions of CLMV and successfully brought the countries onto the path to narrowing

their development gaps. Although more work needs to be done, the initiation of programs under sub-regional agreements together with the provision of assistance from international organizations such as the Asian Development Bank are keys to the successful development of CLMV.

4. DEVELOPING A COHERENT DEVELOPMENT STRATEGY

Following are conclusions and proposed policy measures drawn from the foregoing discussions and evaluation of key issues in narrowing the development gap in the region.

a. *Prevent development imbalance between industry and agriculture to forestall income inequality and economic instability.* Thailand's experience brings to the fore an important lesson: Its pursuit of development following a severe economic crisis failed to stave off political unrest and economic instability.

b. *Avoid economic distortions resulting from a chaotic tariff structure.* A growing number of free trade agreement (FTA)—at the bilateral, regional, and multilateral levels, could usher in trade diversion that exceeds trade creation. Pursuing a uniform tariff structure is a viable alternative in trade agreement negotiation.

c. Harmonization of tariff structure between Thailand and CLMV accordingly with AFTA.

d. To a certain degree, it seems international trade and investment have already been utilized as a significant tool in economic development and CLMV members have already benefited from increased trade liberalization in the region. The issue then becomes how we can further benefit from international trade and investment activities,

especially for CLMV, so that shrinking and finally eliminated development gaps can be achieved. In this aspect, it is crucial for the trading partners to ensure that the increasing trade activities among countries in the region are based on their comparative advantage.

e. Although physical improvement (“hardware”) is still needed in all CLMV, some are needed more than the other, a number of infrastructure development programs have been installed and now it is time to focus more on improving human capital (“software”) to better utilized the better economic environment. Building economic networking in the region will be one of the significant factors to achieve the goal of narrowing development gap.

f. Strengthening the linkages between Thailand’s regional development and Thailand economic cooperation with neighboring countries. Thus far, the existing sub-regional economic cooperation were to develop physical infrastructure needed to improve economic conditions between Thailand and CLMV particularly at the border area, i.e., building roads, bridges, and so on. However, it is lacking of regional economic development program such that better collaboration can be generated between economies in the border area. In some sense, the development programs implemented under sub-regional economic cooperation have not been fitting well with the local regional development policy. As evidences pointed out, border-trade between Thailand and CLM has increased but not being fully utilized the physical infrastructure installed up to its potential. Economic growth in the provincial area at the border has not been able to excel and catch up on development in other areas. Therefore, the objectives of narrowing development gap within the country (Thailand) need to tied up as a strategy for narrowing development gap in the region.

REFERENCES

- Andersson, J., Bonaglia, F., Fukasaku, K. and Lesser, C. 2005. Trade and Structural Adjustment Policies in Selected Developing Countries. OECD Development Center working paper 245.
- Australia-Thailand Free Trade Agreement: Economic Effects Report. 2004. Prepared for the Department of Foreign Affairs and Trade. Centre for International Economics Canberra and Sydney.
- Coxhead, I, and J. Plangraphan. 1998. Thailand's Economic Boom and Agricultural Bust: Some Economic Questions and Policy Puzzles. Staff Paper Series 419. University of Wisconsin-Madison. Department of Agricultural and Applied Economics.
- Coxhead, I. 2000. Tax Reform and the Environment in Developing Economies: Is a Double Dividend Possible? Staff paper series 431. Department of Agricultural and Applied Economics. University of Wisconsin-Madison.
- Coxhead, I. and S. Jayasuriya. 2003. The Open Economy and the Environment: Development, Trade and Resources in Asia. Edited by E. Elgar.
- Diao X., Rattso, J. and H. Stokke. 2006. Learning by Exporting and Structural change: A Ramsey Growth Model for Thailand. In *Journal of Policy Modeling* 28: 293-306.
- Japan-Thailand Economic Partnership Agreement (JTEPA) task force report. 2003.
- Karunaratne, N. D. 1998. Macroeconomic Insights on the Liberalized Trading Regime of Thailand. In *International Journal of Social Economics*, 25 (6/7/8):1142-1159
- Martin, W. and P. Warr. 1994. Determinants of Agriculture's Relative Decline: Thailand. In *Agricultural Economics* 11(1994) 219-235.
- Ministry of Foreign Affairs of Thailand and United Nation Country Team in Thailand, Global Partnership of Development: Thailand's Contribution to Millennium Development Goal 8, 2005.
- Miranda K. and T. Muzondo. 1991. Public Policy and the Environment. Finance and Development, 28(2):25-27. Paper cited in Munasinghe and Cruz "Economy wide Policies and the Environment: Lessons from Experience." 1995.
- Munasinghe, M. and W. Cruz. 1995. Economy wide Policies and the Environment: Lessons from Experience. *World Bank Environment Paper*, 10, January.
- Panayotou, T. and C. Sussangkarn. 1991. The Debt Crisis, Structural Adjustment and the Environment: The Case of Thailand. Paper prepared for the World Wildlife Fund Project on the Impact of Macroeconomic Adjustment on the Environment. cited in Munasinghe and Cruz . 1995.

- Reed, D. (ed.). (1992). *Structural Adjustment and the Environment*. Boulder, Colorado: Westview Press. cited in Munasinghe and Cruz (1995)
- Siksamat, S. 2001. A Measurement of Structural Changes in the Thai Economy (1990-1995): A Computable General Equilibrium Approach. BOT Working Paper 10/2001, Monetary Policy Group, Bank of Thailand.
- Stoeckel, A., W. McKibbin, T. Feridhanusetyawan, and K. Khatikarn. 1997. Effects of APEC Liberalization Focus on Thailand and Indonesia. Center for International Economics. Commonwealth of Australia.
- Warr, P. 2001. Welfare Effects of an Export Tax: Thailand's Rice Premium. In *American Journal of Agricultural Economics* 83(4): 903-920.
- _____. 2006. Productivity Growth in Thailand and Indonesia: How Agriculture Contributes to Economic Growth. Working Paper in Economics and Development Studies.
- Wattanakuljarus, A. 2006. The Nationwide Economic and Environmental Impacts of Tourism: A Computable General Equilibrium Approach for Thailand. A dissertation submitted for the degree of Doctor of Philosophy of the University of Wisconsin-Madison, USA, June.
- World Bank. 1994. Thailand: Mitigating Pollution and Congestion Impacts in a High-Growth Economy. Report No. 11770-TH. Cited in Munasinghe and Cruz "Economy wide Policies and the Environment: Lessons from Experience." 1995.

APPENDIX

Table A1: Trade to GDP ratio (percent)

Year	Cambodia	Lao PDR	Myanmar	Vietnam	Thailand
1990	10.84	30.5	5.58	81.32	75.78
1991	10.47	25.4	4.42	66.95	78.47
1992	12.44	33.7	3.59	73.58	77.95
1993	49.21	50.6	3.37	66.21	80.16
1994	65.61	56	2.91	77.47	82.59
1995	79.95	50.4	2.54	74.72	90.43
1996	70.66	53.7	2.18	92.71	84.78
1997	80.94	55	1.86	94.34	94.60
1998	77.36	69.2	1.47	97.00	101.87
1999	89.18	58.8	1.06	102.79	104.02
2000	113.86	50	1.08	112.53	125.08
2001	118.88	47.3	1.00	111.56	125.70
2002	119.50	40.8	0.7	118.80	121.70
2003	123.30	37.5	0.4	127.00	124.6
2004	135.10	42.9	0.3	139.00	136.5
2005	137.10	50	-	142.90	148.9
2006	144.6	-	-	150.30	143.5

Source: Estimated figures using Asian Development Bank data, culled from various annual report issues (years).

Table A2: Export to GDP ratio (percent)

Year	Cambodia	Lao PDR	Myanmar	Vietnam	Thailand
1990	2.4	9.1	1.9	36.0	34.1
1991	4.5	9.4	1.6	30.9	36.0
1992	5.0	11.2	1.4	34.7	37.0
1993	16.4	18.1	1.2	28.7	38.0
1994	26.2	19.5	1.1	34.0	38.9
1995	31.7	17.3	0.8	32.8	41.8
1996	25.9	16.9	0.7	40.9	39.3
1997	34.4	17.9	0.6	43.1	48.0
1998	32.1	26.2	0.4	44.8	58.9
1999	38.0	20.7	0.3	50.0	58.3
2000	50.9	19.1	0.5	55.0	66.9
2001	54.4	18.2	0.5	54.6	66.1
2002	55.5	16.4	0.4	56.8	64.2
2003	56.6	15.8	0.2	59.3	65.7
2004	63.9	14.5	0.2	65.7	70.7
2005	64.2	19.3	-	69.4	73.8
2006	68.8	-	-	73.5	73.7

Source: Estimated figures using Asian Development Bank data, culled from various annual report issues (years).

Table A3: Import to GDP ratio (percent)

Year	Cambodia	Lao PDR	Myanmar	Vietnam	Thailand
1990	8.4	21.4	3.6	45.3	41.7
1991	6.0	16.0	2.9	36.0	42.5
1992	7.4	22.5	2.2	38.8	41.0
1993	32.8	32.5	2.2	37.5	42.2
1994	39.4	36.5	1.8	43.5	43.7
1995	48.2	33.1	1.7	41.9	48.6
1996	44.8	36.8	1.5	51.8	45.5
1997	46.6	37.1	1.3	51.2	46.6
1998	45.3	43.0	1.0	52.2	43.0
1999	51.1	38.1	0.7	52.8	45.7
2000	63.0	30.9	0.6	57.5	58.2
2001	64.5	29.1	0.5	56.9	59.6
2002	64.0	24.4	0.3	62.0	57.5
2003	66.7	21.7	0.2	67.7	58.9
2004	71.2	28.4	0.1	73.3	65.8
2005	72.9	30.7	-	73.5	75.1
2006	75.8	-	-	76.8	69.8

Source: Estimated figures using Asian Development Bank data, culled from various annual report issues (years).

Table A4: Growth of Exports

Countries	Export Growth											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Thailand	23.6	0.4	27.9	24.4	-1.4	25.2	4.0	1.4	13.7	16.5	14.6	11.4
Cambodia	74.3	-24.6	33.9	-6.9	40.9	23.6	12.5	12.6	17.9	24.1	12.4	26.8
Lao PDR	2.4	3.1	-1.4	7.7	-10.5	9.6	-3.3	-5.9	11.6	8.3	52.2	59.5
Myanmar	-6.7	8.8	17.5	4.8	32.4	42.3	34.5	16.5	-29.2	18.3	23.7	-
Vietnam	34.4	33.2	26.6	1.9	23.3	25.5	3.8	11.2	20.6	31.4	22.5	22.7

Source: Estimated figures using Asian Development Bank data, culled from various annual report issues (years).

Table A5: Growth of Imports

Countries	Import Growth											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Thailand	28.8	3.9	5.0	-7.8	7.5	30.8	10.4	0.8	13.1	21.1	25.1	2.5
Cambodia	59.5	-9.7	1.9	6.7	36.5	21.6	8.2	12.7	13.0	22.5	20.1	20.6
Lao PDR	4.4	17.1	-6.1	-14.7	0.3	-3.4	-4.7	-12.4	3.4	54.2	23.8	20.2
Myanmar	23.6	14.3	22.0	17.4	-3.6	-7.3	21.9	-18.9	-10.1	-15.4	1.5	-
Vietnam	40.0	36.6	4.0	-0.8	2.1	33.2	3.7	21.8	27.9	26.6	15.0	22.1

Source: Estimated figures using Asian Development Bank data, culled from various annual report issues (years).

Table A6: Share of Thailand's exports and imports in world trade, regional trade, and CLMV trade

Year	World Trade		Regional Trade		CLMV Trade	
	Exports	Imports	Exports	Imports	Exports	Imports
1990	0.67	0.97	5.10	7.10	0.48	0.45
1991	0.80	1.06	5.51	6.99	0.37	0.29
1992	0.87	1.06	5.55	6.67	0.76	0.48
1993	0.99	1.21	5.69	6.70	1.24	0.52
1994	1.06	1.27	5.88	6.78	1.70	0.58
1995	1.11	1.38	6.06	7.17	1.87	0.48
1996	1.06	1.37	5.73	7.10	2.13	0.33
1997	1.04	1.11	5.52	5.95	1.90	0.63
1998	1.00	0.77	5.52	4.89	2.26	0.92
1999	1.04	0.87	5.56	5.26	2.81	0.96
2000	1.09	0.95	5.45	5.27	2.91	1.13
2001	1.06	0.98	5.46	5.54	3.28	1.85
2002	1.07	0.97	5.29	5.32	2.90	1.78
2003	1.07	0.98	5.13	5.17	3.09	1.67
2004	1.05	1.00	4.90	5.02	3.53	1.98
2005	1.06	1.10	4.75	5.40	3.77	2.21

Source: International financial statistics (International Monetary Fund: IMF) Various issues.

Table A7: CLMV's Trade with Thailand (Mil. US\$)

Year	Cambodia		Lao PDR		Myanmar		Vietnam	
	Export to	Import from	Export to	Import from	Export to	Import from	Export to	Import from
1985	-	0.4	1.1	21.7	2.4	1.5	-	-
1986	-	-	1.2	32.9	2.3	1.7	-	-
1987	-	-	5.4	40.9	1.7	1.5	-	0.2
1988	-	0.7	20.4	56.4	1.2	1.3	-	3.8
1989	2.2	0.1	39.7	70.2	1.7	1.1	15.25	2.3
1990	8.6	0.9	40.3	72.3	48.9	19.8	52.34	17.0
1991	10.5	5.1	42.7	84.3	-	4.2	57.74	14.2
1992	84.7	72.4	37.3	133.1	-	-	71.50	41.2
1993	94.9	197.3	74.8	164.8	-	-	71.77	99.5
1994	114.7	286.4	77.2	270.3	28.8	-	97.65	225.7
1995	146	367.5	83.3	287.8	36.5	-	101.30	439.8
1996	43.4	398.9	96.7	310.0	-	-	107.36	494.5
1997	131.5	198.1	34.3	336.7	-	-	235.30	575.2
1998	77	168.5	28.8	411.3	-	-	295.39	673.5
1999	18.5	195.2	51.6	452.0	102.6	435.3	312.70	561.8
2000	22.9	221.8	68.9	419.1	233.0	554.7	372.31	810.9
2001	7.6	503.9	81.0	451.7	735.4	390.5	322.77	792.30
2002	7.94	238.38	85.0	444.0	831.2	355.9	227.25	955.24
2003	11.78	215.96	94.35	501.54	826.96	483.34	335.41	1,282.19
2004	17.14	231.35	104.28	639.55	1,230.34	665.86	515.10	1,858.60
2005	7.65	141.45	204.42	846.24	1,623.04	777.30	779.70	2,393.20

Source: Asian Development Bank Annual Report (various issues 1985-2007)

Table A8.1 Cambodia's Direction of Exports (in US\$ millions; calendar year)

Year	1	2	3	4	5	6	7	8	9	10
	U.S.	Germany	U.K.	Hong Kong	France	Canada	Viet Nam	Japan	Singapore	Malaysia
1989	20.7	0.3	0.4	0.3	-	2.0	0.1	-	4.2	0.0
1990	41.7	-	0.8	0.3	-	3.2	0.9	-	7.0	0.1
1991	57.4	-	15.2	0.2	1.1	5.0	2.6	-	4.7	-
1992	165.3	0.1	24.3	0.0	5.7	8.5	3.1	7.3	6.1	0.4
1993	267.3	0.5	26.6	1.0	0.8	78.5	0.7	18.8	6.9	1.0
1994	243.1	1.0	12.3	2.4	0.1	8.0	3.6	29.4	16.1	0.7
1995	357.3	5.1	17.6	10.8	0.5	6.7	6.8	38.4	21.4	2.5
1996	292.9	4.1	41.6	13.7	1.0	6.0	11.5	43.3	16.2	4.7
1997	625.8	85.7	17.9	12.7	0.7	6.3	9.7	73.9	156.9	0.6
1998	933.5	292.9	71.8	26.8	1.9	7.9	12.2	133.0	175.9	0.6
1999	1040.1	235.8	40.4	38.3	3.2	9.3	20.7	181.7	106.8	1.8
2000	1122.7	739.7	66.0	7.3	4.9	10.7	27.7	18.0	19.4	6.4
2001	1295.8	832.2	98.7	4.5	10.4	13.3	35.0	28.0	24.5	6.7
2002	1488.7	960.4	118.2	6.0	-	18.9	38.4	26.6	32.4	-
2003	1770.7	1126.4	154.4	4.9	-	21.7	48.8	29.1	39.2	-
2004	2187.7	1312.0	237.7	5.2	94.5	25.1	62.5	10.5	42.4	30.6
2005	1368.8	665.9	77.3	333.5	62.8	47.6	22.4	6.6	18.1	13.8
2006	3344.6	2116.6	335.4	7.3	124.8	103.2	44.1	101.0	21.2	85.9

Source: Asian Development Bank Annual Report (various issues 1985-2007)

Table A8.2: Lao's Direction of Exports (in US\$ millions; calendar year)

Year	1	2	3	4	5	6	7	8	9	10	
	Total	Thailand	Viet Nam	France	Germany	China	Belgium	U.K.	Netherlands	Malaysia	Italy
1989	95.4	39.7	2.5	0.2	0.2	11.4	...	1.9	0.0	0.3	0.4
1990	64.4	40.3	3.6	2.5	1.7	5.9	...	0.1	0.2	0.1	0.3
1991	82.1	42.7	3.0	8.1	8.6	2.0	...	0.1	1.7	0.1	0.9
1992	103.5	37.3	7.0	12.1	5.3	3.4	...	0.3	5.7	0.1	1.3
1993	240.5	74.8	23.1	12.6	9.0	25.5	...	-	3.6	-	1.9
1994	300.4	77.2	81.2	10.3	11.8	8.1	...	0.9	5.0	-	0.7
1995	311.2	83.3	87.7	11.1	12.7	8.8	...	0.9	5.4	-	0.8
1996	320.7	96.7	157.6	8.2	4.8	0.8	...	6.6	-	-	1.0
1997	192.1	34.3	0.2	20.0	16.2	0.3	17.9	14.9	0.1	-	9.3
1998	370.8	28.8	119.5	23.3	21.4	7.2	12.7	7.7	5.4	0.0	9.5
1999	462.5	51.6	179.4	18.2	27.0	8.7	13.5	12.5	8.9	0.0	5.9
2000	391.1	68.9	96.1	27.1	20.8	5.8	13.6	7.2	10.0	0.1	9.2
2001	375.5	81.0	61.8	33.7	25.5	6.8	10.4	9.3	9.6	0.3	10.8
2002	385.9	85.0	56.9	33.8	22.0	8.8	13.6	13.4	10.6	0.4	10.1
2003	437.4	94.3	55.2	33.6	23.6	10.2	18.0	14.1	10.4	0.2	10.3
2004	535.4	104.3	67.5	43.4	28.7	11.4	13.4	26.8	10.9	0.1	11.8
2005	694.6	204.4	86.7	41.9	31.6	23.2	15.6	8.3	13.4	11.8	8.9
2006	1055.0	454.7	101.8	27.9	34.6	45.1	16.5	1.4	12.8	44.6	6.6

Source: Asian Development Bank Annual Report (various issues 1985-2007)

Table A8.3: Myanmar's Direction of Exports (in US\$ millions; calendar year)

Year	1	2	3	4	5	6	7	8	9	10	
	Total										
1989	214.5	1.7	4.9	2.6	18.0	1.6	8.0	4.7	3.7	20.8	2.3
1990	408.7	48.9	44.2	33.3	28.4	9.4	8.7	8.6	4.7	46.2	3.3
1991	527.0	-	46.6	96.3	44.9	26.6	7.2	15.6	4.4	81.0	2.9
1992	683.6	-	94.6	119.3	43.0	37.8	9.9	17.1	8.0	98.4	3.9
1993	864.4	-	106.5	149.7	65.0	45.5	12.9	52.4	12.4	101.3	2.4
1994	939.8	28.8	109.5	129.8	68.8	66.0	16.9	25.0	19.3	127.5	4.6
1995	1197.9	36.5	145.9	136.0	85.5	79.0	24.2	37.6	13.3	192.0	7.3
1996	1183.1	-	134.9	125.0	93.9	105.6	28.2	36.3	19.5	190.7	17.2
1997	1132.1	-	168.6	66.7	90.0	112.2	34.2	51.0	29.0	157.2	33.5
1998	1138.6	-	169.4	56.0	81.3	158.9	45.0	52.1	26.3	109.1	39.3
1999	1393.3	102.6	156.5	92.3	92.2	222.2	54.4	52.2	35.0	90.3	56.3
2000	1979.3	233.0	162.9	113.5	108.4	442.7	77.8	63.2	67.3	99.8	71.3
2001	2624.7	735.4	179.8	122.0	92.8	456.2	100.3	71.1	87.4	102.1	72.1
2002	2752.5	831.2	314.2	124.5	100.3	345.4	73.1	69.8	87.8	97.3	79.5
2003	2767.3	827.0	355.2	154.1	126.9	268.6	94.0	72.6	92.6	76.2	56.7
2004	3158.8	1230.3	363.7	187.7	163.5	-	118.3	97.1	122.6	64.5	71.2
2005	3701.5	1623.0	449.1	249.5	184.8	-	102.2	121.5	58.0	98.5	39.7
2006	4361.0	2134.8	526.9	229.7	223.3	-	114.8	113.5	44.6	63.2	33.5

Source: Asian Development Bank annual report various issues.

Table A8.4: Vietnam's Direction of Exports (in US\$ millions; calendar year)

Year	1	2	3	4	5	6	7	8	9	10	
	Total	U.S.	Japan	China	Australia	Singapore	Germany	U.K.	Malaysia	France	Philippines
1989	2472.2	-	261.0	0.3	0.8	70.7	8.7	1.5	2.5	79.7	-
1990	2524.6	0.0	340.3	7.8	7.7	194.5	41.2	1.9	5.0	115.7	57.0
1991	2188.9	0.0	719.3	19.3	5.2	425.0	6.7	2.4	14.5	83.1	0.7
1992	2917.7	0.1	833.9	95.6	21.4	401.7	34.4	27.5	68.4	132.3	1.0
1993	2985.2	0.1	936.9	135.8	54.7	380.3	50.1	23.0	55.8	95.1	1.6
1994	4054.3	94.9	1179.3	295.7	46.0	593.5	115.2	55.7	64.8	116.8	3.6
1995	5621.4	169.7	1461.0	361.9	55.4	689.8	218.0	74.7	110.6	169.1	41.5
1996	7463.2	204.2	1546.4	340.2	64.8	1290.0	228.0	125.1	77.7	145.0	132.0
1997	9484.3	286.8	1675.4	474.1	230.4	1215.9	411.4	265.2	141.6	238.1	240.6
1998	9307.0	468.9	1514.5	440.1	471.5	740.9	552.5	335.8	115.2	297.3	401.1
1999	11541.4	504.1	1786.2	746.4	814.6	876.4	654.3	421.2	256.5	354.9	393.2
2000	14482.5	733.0	2575.2	1536.4	1272.5	885.9	730.3	479.4	413.9	382.7	478.4
2001	15019.7	1065.7	2509.8	1417.4	1041.8	1043.7	721.8	511.6	337.2	468.9	368.4
2002	16704.7	2453.2	2437.0	1518.3	1328.3	961.1	729.0	571.6	347.8	439.1	315.2
2003	20143.8	3939.6	2908.6	1883.1	1420.9	1024.7	854.7	754.8	453.8	497.2	340.0
2004	26485.0	5024.8	3542.1	2899.1	1884.7	1485.3	1064.7	1010.3	624.3	555.1	498.6
2005	32441.9	5930.6	4411.2	2916.0	2570.2	1808.5	1086.7	1015.8	949.3	652.7	829.0
2006	40202.5	8422.7	4927.5	2259.9	3656.5	1499.9	1789.9	1356.8	1286.8	872.3	959.6

Source: Asian Development Bank annual report various issues.

Table A9.1: Cambodia's Direction of Imports (Mil. US\$; calendar year)

Year	1	2	3	4	5	6	7	8	9	10
	Hong Kong	China	Thailand	Viet Nam	Singapore	Korea	France	Indonesia	Japan	Malaysia
1989	51.9	0.1	1.6	1.4	-	12.0	-	0.6	2.1	3.9
1990	56.0	0.9	1.8	3.3	-	10.0	-	0.1	2.9	5.0
1991	61.9	5.1	5.9	2.4	-	6.9	-	2.0	4.7	7.4
1992	751.2	72.4	24.8	14.0	276.2	7.1	-	9.4	14.8	251.7
1993	981.4	197.3	33.9	22.4	405.8	105.8	-	13.6	22.2	54.8
1994	1151.5	286.4	35.4	38.8	421.3	85.0	-	51.5	46.9	71.0
1995	1573.5	367.5	43.0	56.8	550.2	104.1	-	85.3	67.0	84.4
1996	1632.0	398.9	49.4	69.7	567.0	108.9	-	57.8	53.0	62.1
1997	1116.4	198.1	67.1	56.6	6.2	107.8	114.9	0.6	41.4	83.7
1998	1128.9	168.5	129.8	95.7	3.3	90.7	95.8	1.2	40.5	71.1
1999	1243.0	195.2	185.7	85.9	99.0	85.6	79.9	49.9	41.9	73.9
2000	1424.4	221.8	254.3	112.9	106.0	91.5	76.8	64.2	39.3	58.4
2001	1455.6	503.9	116.9	86.9	399.5	109.5	49.6	19.3	12.6	19.7
2002	1674.7	238.4	371.7	197.8	122.5	98.4	94.8	58.5	52.0	63.9
2003	1732.3	216.0	408.9	223.4	119.7	119.2	80.7	77.8	38.2	74.8
2004	2074.6	231.4	413.1	341.8	144.5	168.7	99.6	77.7	47.7	83.7
2005	1268.3	141.4	204.2	172.3	62.5	90.1	95.1	42.0	154.0	52.6
2006	4235.5	1378.1	612.1	767.4	505.6	105.7	111.6	119.2	70.2	83.1

Source: Asian Development Bank annual report various issues.

Table A9.2: Lao's Direction of Imports (in US\$ millions; calendar year)

Year	1	2	3	4	5	6	7	8	9	10	
	Total	Thailand	China	Viet Nam	Singapore	Japan	Australia	Germany	Korea	France	Hong Kong
1989	128.7	70.2	4.9	3.0	-	26.8	0.5	1.9	-	1.8	0.6
1990	148.6	72.3	15.9	17.6	-	21.6	1.2	1.0	-	3.1	1.3
1991	154.3	84.3	12.3	3.9	-	23.5	0.4	0.9	-	3.3	3.6
1992	258.4	133.1	30.6	17.6	4.7	30.8	15.8	1.4	-	3.3	4.1
1993	431.9	164.8	18.1	19.7	19.2	56.1	3.4	-	2.3	6.6	4.3
1994	564.1	270.3	20.2	22.5	14.7	45.8	0.4	-	2.2	5.9	7.0
1995	588.8	287.8	21.5	23.9	15.7	48.8	0.4	-	2.3	6.2	7.5
1996	689.6	310.0	23.2	25.8	16.9	52.5	0.5	-	2.5	6.7	8.1
1997	408.5	336.7	4.9	25.1	0.6	10.4	0.3	0.9	3.3	1.7	9.5
1998	644.6	411.3	19.6	80.7	22.1	21.0	2.3	15.4	5.3	6.2	8.7
1999	808.9	452.0	24.4	181.8	37.0	24.9	2.5	9.5	11.9	7.6	11.0
2000	689.8	419.0	37.9	77.7	32.9	23.6	4.2	3.6	4.9	27.5	7.9
2001	719.5	451.7	59.9	70.8	28.9	13.0	8.3	7.4	6.9	8.5	10.1
2002	722.2	444.0	59.7	71.2	29.1	19.6	12.6	4.1	4.9	8.9	6.1
2003	808.8	501.5	108.1	57.0	22.4	15.0	7.9	7.5	8.7	11.8	8.1
2004	1055.7	639.5	108.8	75.2	42.3	15.4	18.3	28.0	9.9	10.5	8.0
2005	1267.3	846.2	115.9	73.5	44.1	21.3	19.9	11.3	15.3	13.5	8.3
2006	1632.7	1127.6	185.6	86.2	45.2	22.7	20.5	12.0	18.0	11.3	15.5

Source: Asian Development Bank annual report various issues.

Table A9.3: Myanmar's Direction of Imports (in US\$ millions; calendar year)

Year	1	2	3	4	5	6	7	8	9	10	
	Total	China	Singapore	Thailand	Malaysia	Korea	Japan	India	Indonesia	Hong Kong	Korea
1989	194.3	6.1	11.3	1.1	5.0	0.1	75.8	0.9	0.0	1.2	3.3
1990	667.7	137.7	119.2	19.8	31.6	23.3	110.8	1.4	3.2	8.6	4.0
1991	1067.9	314.8	295.8	4.2	73.7	31.7	90.8	4.2	7.3	14.7	4.4
1992	1045.8	284.9	288.6	-	98.6	34.3	106.1	4.6	15.6	16.6	4.8
1993	1280.1	357.2	368.0	-	114.3	46.2	110.0	15.9	43.7	44.7	5.8
1994	1538.2	406.0	430.3	-	243.5	62.0	74.6	26.4	38.7	48.8	6.9
1995	2341.6	679.6	701.2	-	252.3	95.0	173.4	23.4	66.5	69.2	8.4
1996	2677.8	573.2	794.1	-	242.8	143.9	279.4	50.5	85.8	100.8	9.9
1997	2861.5	626.7	777.3	-	407.5	150.5	232.2	50.2	164.7	77.7	10.9
1998	2358.5	586.2	501.3	-	322.6	163.7	205.5	38.4	184.1	51.1	12.4
1999	2527.7	447.2	460.2	435.3	257.7	205.9	203.5	36.4	81.8	70.7	13.1
2000	3039.2	546.0	479.7	554.7	254.1	318.2	215.6	52.9	71.2	97.9	15.0
2001	2662.8	547.3	465.6	390.5	216.7	255.3	205.3	58.4	75.9	70.1	16.6
2002	2968.0	797.3	576.6	355.9	263.1	157.8	126.9	78.7	59.8	69.9	18.0
2003	3225.9	998.7	716.0	483.3	154.3	202.4	137.0	94.6	50.2	48.4	22.8
2004	3451.8	1029.2	717.1	665.9	164.3	178.2	115.8	115.2	66.3	48.7	30.0
2005	3569.1	1028.4	656.1	777.3	270.3	132.0	101.0	121.8	85.8	39.4	34.2
2006	3909.6	1328.0	619.6	837.4	181.5	154.9	105.7	142.9	107.9	44.2	40.2

Source: Asian Development Bank annual report various issues.

Table A9.4: Vietnam's Direction of Imports (in US\$ millions; calendar year)

Year	Total	1	2	3	4	5	6	7	8	9	10
		China	Singapore	Japan	Korea	Thailand	Malaysia	Hong Kong	U.S.	Germany	Indonesia
1989	3032.1	-	41.3	105.6	15.6	2.3	0.9	102.6	-	5.2	0.5
1990	2842.1	4.6	497.0	169.0	53.1	17.0	0.8	196.9	0.6	118.6	9.8
1991	2482.9	18.4	722.2	157.7	152.1	14.2	6.2	194.8	1.1	101.2	49.4
1992	3027.3	31.8	821.6	239.4	211.2	41.2	35.9	142.9	2.0	40.6	39.8
1993	3924.0	85.5	1058.3	452.3	481.5	99.5	24.8	145.4	3.8	72.0	84.5
1994	5825.8	144.2	1145.9	585.7	720.5	225.7	66.1	318.6	44.3	149.1	116.3
1995	8358.5	329.7	1425.2	915.7	1253.6	439.8	190.5	419.0	130.4	175.5	190.0
1996	11284.9	329.0	2032.6	1260.3	1781.4	494.5	200.3	759.4	245.9	288.2	149.0
1997	11875.1	404.4	2128.0	1509.3	1564.5	575.2	226.8	598.9	251.5	280.8	200.0
1998	11309.8	515.0	1964.0	1481.7	1420.9	673.5	249.0	557.3	326.4	359.9	256.5
1999	11742.1	673.1	1878.5	1618.3	1485.8	561.8	305.0	504.7	323.1	268.7	286.8
2000	15636.5	1401.1	2694.3	2301.0	1753.6	810.9	388.9	598.1	364.0	295.2	345.5
2001	16217.1	1606.2	2478.3	2183.1	1886.8	792.3	464.4	537.6	411.3	396.7	289.0
2002	19744.8	2158.8	2533.5	2504.7	2279.6	955.2	683.3	804.8	458.6	558.1	362.7
2003	25255.1	3138.6	2875.8	2982.1	2625.4	1282.2	925.0	990.9	1144.1	614.6	551.5
2004	31968.8	4595.1	3618.4	3552.6	3359.4	1858.6	1215.3	1074.3	1133.9	694.3	663.3
2005	36978.0	5778.9	4597.6	4093.0	3600.5	2393.2	1258.6	1235.8	864.4	662.5	702.4
2006	47161.8	8215.2	6004.5	4480.9	4224.3	3407.7	1933.8	1661.4	1210.2	978.4	883.0

Source: Asian Development Bank annual report various issues.

Table A10: Trade Intensity Index Among ASEAN (TII)

	1997	1998	1999	2000	2001
TII (TH-CAM)	22.30	23.77	24.10	17.48	22.58
TII (CAM-TH)	6.11	2.88	1.40	0.50	0.72
TII (TH-LAO)	46.64	56.75	59.20	53.80	60.69
TII (LAO-TH)	13.23	10.00	17.34	19.10	23.30
TII (TH-MM)	13.93	11.94	13.30	18.14	11.13
TII (MM-TH)	5.99	6.05	7.71	12.07	26.22
TII (TH-VN)	3.72	4.36	3.89	4.06	3.81
TII (VN-TH)	1.49	2.68	1.84	1.93	1.76
TII (TH-BN)	2.58	2.77	-	-	-
TII (BN-TH)	2.36	1.11	-	-	-
TII (TH-IN)	2.36	3.14	3.23	3.00	3.40
TII (IN-TH)	1.22	1.94	2.11	1.75	1.96
TII (TH-MA)	2.52	2.61	2.61	2.61	2.88
TII (MA-TH)	2.78	3.20	2.76	2.87	2.84
TII (TH-PH)	1.42	2.03	2.27	2.41	2.85
TII (PH-TH)	1.61	2.25	2.16	2.46	2.84
TII (TH-SG)	3.81	3.93	3.65	3.37	3.52
TII (SG-TH)	1.85	2.33	2.41	2.08	1.90

Note: CAM = Cambodia, LAO = Lao PDR, MM = Myanmar, VN = Vietnam, BN = Brunei, IN = Indonesia, MA = Malaysia, PH = the Philippines, SG = Singapore, and TH = Thailand.

Source: Calculated using PC-TAS database.

Table A11.1: Cambodia's Top 20 exports to Thailand and its RCAs

Product Code (HS 6 digits)	Product Description	RCA (2001)
720429	Waste and scrap, of alloy steel, other than stainless	43.22
410130	Bovine hides, raw, nes	178.64
040299	Milk and cream nes sweetened	27.91
440799	Lumber, non-coniferous nes	5.56
010290	Bovine, live except pure-bred breeding	2.23
901090	Parts & accessories for apparatus & equipment for photographic laboratories	2.34
731010	Tanks, casks, drums, cans, boxes & sim contr,i or s,capac >/=50L but <300L	4.78
870422	Diesel powered trucks w a GVW exc five tones but not exc twenty tones	0.28
9999AA	National Chapter 99 data	0.09
140120	Rattans used primarily for plaiting	27.77
440722	Lumber, Okoume, Obeche, Sapelli, Sipo, Acajou d'Afrique, Makore, etc	3.67
870130	Track-laying tractors (crawlers)	2.70
470730	Waste and scrap of paper/paperboard made mainly of mechanical pulp, nes	1.08
121190	Plants & parts of plants (including seed & fruit) used in pharm, perf, insect etc nes	1.73
440690	Ties, railway/tramway, wood nes	12.18
030623	Shrimps & prawns, not frozen, in shell or not, including boiled in shell	2.53
890120	Tankers	0.27
030569	Fish nes, salted and in brine, but not dried or smoked	4.62
140110	Bamboos used primarily for plaiting	7.57
890200	Fishing vessels and factory ships	39.96

Table A11.2: Lao's Top 20 exports to Thailand and its RCAs

Product Code (HS 6 digits)	Product Description	RCA (2001)
440799	Lumber, non-coniferous nes	174.85
440722	Lumber, okoume, Obeche, sapelli, sipo, acajou d'Afrique, makore etc	276.64
440333	Logs, keruing, ramin, kapur, teak, jongkong, merbau, etc.	153.76
440399	Logs, non-coniferous nes	108.55
010290	Bovine, live except pure-bred breeding	31.48
260900	Tin ores and concentrates	259.94
440710	Lumber, coniferous (softwood) 6 mm and thicker	4.92
260800	Zinc ores and concentrates	20.55
270119	Coal nes, whether or not pulverized but not agglomerated	9.00
9999AA	National Chapter 99 data	0.28
870410	Dump trucks designed for off-highway use	14.04
440920	Wood (lumber) continuously shaped non-coniferous (hardwood)	51.07
130190	Natural gums, resins, gum-resins and balsam, except Arabic gum	265.35
441299	Panels, 1 outer ply coniferous wood nes	27.63
440110	Fuel wood	207.60
410422	Bovine leather, otherwise pre-tanned, nes	3.29
710239	Diamonds non-industrial nes excluding mounted or set diamonds	0.54
850450	Inductors, electric	1.79
121190	Plants & pts of plants(incl seed & fruit) used in pharm, perf, insect etc nes	31.13
870590	Special purpose motor vehicles nes	5.02

Table A11.3: Myanmar's Top 20 exports to Thailand and its RCAs

Product Code (HS 6 digits)	Product Description	RCA (2001)
271121	Natural gas in gaseous state	39.10
440333	Logs, Keruing, Ramin, Kapur, Teak, Jongkong, Merbau, etc	210.41
740311	Copper cathodes and sections of cathodes unwrought	11.92
270119	Coal nes, whether or not pulverised but not agglomerated	12.60
010290	Bovine, live except pure-bred breeding	12.97
440799	Lumber, non-coniferous nes	19.93
270900	Petroleum oils and oils obtained from bituminous minerals, crude	0.32
030269	Fish nes, fresh or chilled excl heading No 03.04, livers and roes	10.44
440399	Logs, non-coniferous nes	86.54
030613	Shrimps and prawns, frozen, in shell or not, including boiled in shell	36.62
410129	Hide sections, bovine, nes, fresh or wet-salted	30.18
441890	Builder's joinery and carpentry of wood nes	4.16
440722	Lumber, Okoume, Obeche, Sapelli, Sipo, Acajou d'Afrique, Makore etc	113.23
940390	Furniture parts nes	1.61
030623	Shrimps & prawns, not frozen, in shell or not, including boiled in shell	31.96
940360	Furniture, wooden, nes	1.85
260900	Tin ores and concentrates	83.14
030624	Crabs, not frozen, in shell or not, including boiled in shell	6.55
090420	Fruits of the genus Capsicum or Pimenta, dried, crushed or ground	5.29
442010	Statuettes and other ornaments of wood	5.69

Table A11.4: Vietnam's Top 20 exports to Thailand and its RCAs

Product Code (HS 6 digits)	Product Description	RCA (2001)
853710	Boards, panels, including numerical control panels, for a voltage ≤ 1000 V	7.09
270900	Petroleum oils and oils obtained from bituminous minerals, crude	4.38
270119	Coal nes, whether or not pulverized but not agglomerated	2.14
120220	Ground-nuts shelled, whether or not broken, not roasted or otherwise cooked	13.91
410129	Hide sections, bovine, nes, fresh or wet-salted	13.99
030749	Cuttlefish and squid, shelled or not, frozen, dried, salted or in brine	31.86
270111	Anthracite, whether or not pulverised but not agglomerated	55.54
030613	Shrimps and prawns, frozen, in shell or not, including boiled in shell	33.76
391990	Self-adhesive plates, sheets, film etc, of plastic nes	0.70
850110	Electric motors of an output not exceeding 37.5 W	2.80
160510	Crab, prepared or preserved	13.97
854449	Electric conductors, for a voltage not exceeding 80 V, nes	0.51
260800	Zinc ores and concentrates	1.33
420212	Trunks, suit-cases & sim container w/outer surface of plastics/textiles	7.44
550953	Yarn of polyester staple fibers mixed with cotton, not put up, nes	14.28
730890	Structures & parts of structures, i/s (ex prefab bldgs. of head'g no.9406)	0.35
701339	Table/kitchenware (excluding drinking glasses) other than glass-ceramics nes	1.27
853400	Printed circuits	4.00
030420	Fish fillets frozen	8.62
030759	Octopus, frozen, dried, salted or in brine	17.56