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**Working Paper**

## The expansion of intra-Asian trade: An analysis of structural patterns and determinants

Kiel Working Paper, No. 792

**Provided in Cooperation with:**

Kiel Institute for the World Economy – Leibniz Center for Research on Global Economic Challenges

*Suggested Citation:* Langhammer, Rolf J. (1997) : The expansion of intra-Asian trade: An analysis of structural patterns and determinants, Kiel Working Paper, No. 792, ISBN 3894561017, Kiel Institute of World Economics (IfW), Kiel

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**Kiel Working Paper No. 792**

**THE EXPANSION OF INTRA-ASIAN TRADE**

**AN ANALYSIS OF STRUCTURAL PATTERNS AND DETERMINANTS**

by

Rolf J. Langhammer

January 1997

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*The Expansion of Intra-Asian Trade. An Analysis of Structural Patterns and Determinants*

## ***Abstract***

*The paper analyses sectoral patterns of intra-Asian trade for selected Asian countries as well as for sub-regions within Asia. Beyond a general trend towards manufactures, it reveals remarkable differences in specialisation profiles between lagging South Asian countries still concentrating on labour-intensive products while forerunning East and Southeast Asian countries have successfully diversified their manufactured exports towards more skill-intensive products. Relative to extra-Asian trade, almost all sample countries concentrate their intra-Asian exports more on non-manufactures. Within manufactures, resource-intensive goods still play a larger role in intra-Asian trade than in trade outside Asia. This reflects both differences in factor endowments inside Asia but also differences in access conditions (trade policy). Growth in intra-Asian trade is attributed not only to overall economic growth but also to large declines in transaction costs. The latter is reflected in lower distance-oriented costs, trade liberalisation and, for sub-regions, to convergence in exchange rate changes. The paper sees no need for institutionalised regional integration but advocates continuing integration into the multilateral trading system complemented by some sort of regional co-operation concerning common rules of facilitating factor movements and enhancing policy coherence and stability.*

JEL Classification: F13, F14, F15

Keywords: Trade, Transaction Costs, Regional and Multilateral Integration

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Postscript available on: <http://www.uni-kiel.de:8080/ifw/pub/kap/kap792.html>

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## **I. Introduction\***

By the mid-nineties, about 60 per cent of world trade is accounted for by intra-regional trade. The share shows a rising trend predominantly due to the emergence of intra-Asian trade. Interestingly enough, this trade is not driven by effective institutionalised arrangements as the EU internal market. Sub-regional Asian preferential schemes such as ASEAN or APEC are either still largely redundant in terms of creating or diverting trade or still in the offing. Thus, it is the proximity of rapidly growing national markets without discrimination of partner countries which seems to have encouraged the exploitation of differences in national factor endowments. Still, however, there are notable differences in patterns of trade between countries, for instance between South Asian countries on the one hand and East and Southeast Asian countries on the other hand.

This paper tries to exhibit such differences in country-specific profiles of intra-regional trade vs extra-regional trade in more detail. Section II elaborates on region-wide results in changes in commodity composition as well as on individual countries' experiences. Section III discusses some possible facets of declining transaction costs and income growth as underlying roots of intra-Asian growth. Section IV highlights the impact of intra-Asian trade expansion on third countries while Section V contributes to a cost-benefit assessment of regional integration schemes. Section VI concludes on the findings from this assessment.

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*\*Computational assistance provided by Michaela Rank is strongly appreciated.*

## **II. Commodity Composition of Intra-Asian Trade**

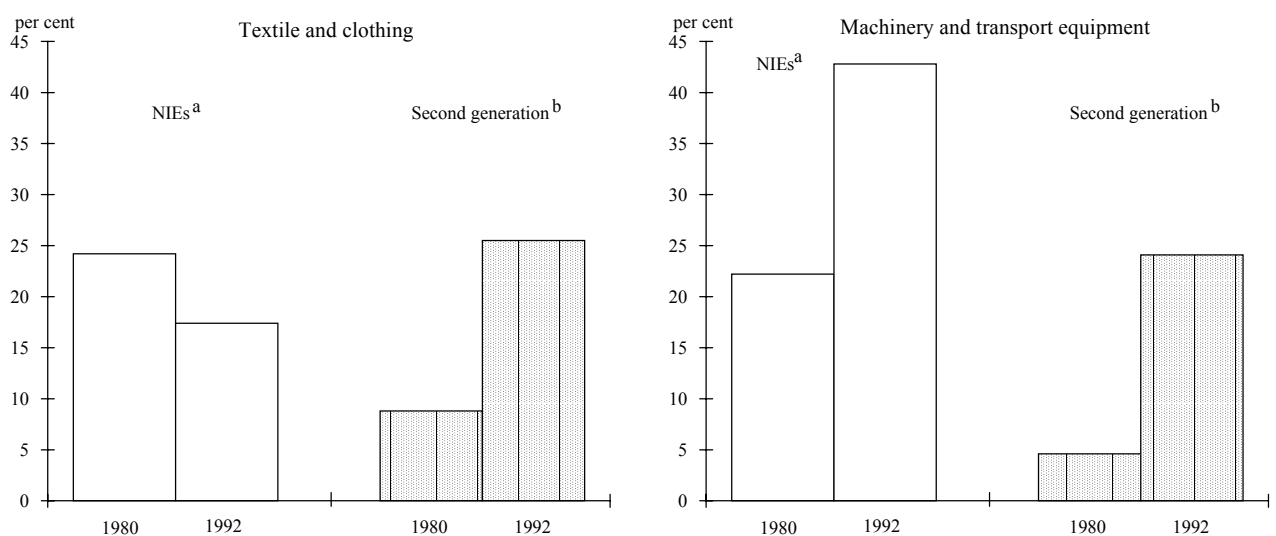
### 1. Region-Wide Results

Rapid economic growth drives structural change in production and trade. Simultaneously, growth becomes sustainable by permanently changing the production pattern toward income-elastic goods and adjusting the product mix to changing domestic relative factor prices. It is primarily the latter requirement which has been met within Asia through the "flying geese" mode of cascading capital and technology flows from high-income to low-income countries following the product life cycle during which technology becomes standardised.

As concerns intra-Asian trade, we can expect substantial shifts in the composition of intra-Asian trade following this pattern. A first impression of the direction of this sectoral shift can be gained if changes in the shares of two product groups in total exports of two Asian country groups are compared. Product groups are differentiated by factor intensity (textile and clothing being relatively labour-intensive and machinery and transport equipment being relative human capital-intensive) and country groups are differentiated by income levels (the NIEs Hong Kong, Korea, Rep., Singapore, and Taipei, China as the higher income first generation countries and China, Indonesia, Malaysia, and Thailand as the catching up second generation countries).

Figure 1 reveals the expected cascading effect. The share of clothing and textiles in total exports of the four NIEs declined from 24 per cent in 1980 to 17 per cent in 1992 while the share of machinery and transport equipment rose from 22 per cent to 43 per cent. At the same time, the second generation of successful exporters increased the share of clothing and textiles in their total exports from 9 to 26 per cent; also the latter industry gained in importance – but its share remained lower than in the NIEs (5 and 24 per cent in 1980 and 1992, respectively). Putting the exports of the two country groups together, three quarters of textile and clothing exports originated from the NIEs in 1980 and only one quarter from the second-generation exporters. This distribution changed

Figure 1 - Shares of Two Product Groups in Total Exports of Two Asian Country Groups, 1980 and 1992



<sup>a</sup>The NIEs include Hong Kong, Rep. of Korea, Singapore and Taipei, China.- <sup>b</sup>The countries of the second generation include China, Indonesia, Malaysia, Thailand.

Source: GATT, International Trade (various issues). Own calculations.

substantially until 1992 when the groups were almost at equal footing (51 to 49 per cent). For machinery and transport equipment, only 16 per cent of combined exports came from the second-generation exporters in 1980. In this industry, too, progress was made in catching up *via-à-vis* the NIEs: second-generation exporters accounted for 27 per cent of total Asian machinery exports in 1992. The comparison also demonstrates the speed in which export patterns have changed during the eighties.

Extending the period under observation to the seventies and disaggregating total trade by intra-Asian and extra-Asian trade should substantiate this change in the Asian export mix. In addition, it is useful to define different sub-regions in order to analyse how sectoral patterns change if China as well as the three Asian OECD member states are grouped as wider circles around the Asian core group of NIEs and ASEAN countries. Hence, Table 1 presents shifts in export composition since 1970 for four different sub-regions starting with the smallest region developing South, Southeast and East Asia ("Developing Other Asia") and adding to this group China, then Japan and finally Australia/New Zealand, to form the largest group.



Table 1 - Sectoral Composition of Intra- and Extra-Asian Trade by Asian Sub-Regions

Table 1 continued

Major observations are as follows:

First, between 1970 and 1993, developing other Asia more than doubled the share of manufactured products in its intra-area trade from 35 per cent to 76 per cent. For the largest sub-region (developing other Asia, China and the three Asian OECD-member states)<sup>1</sup>, the corresponding increase was slightly smaller because of the initially larger share of manufactures (about 45 per cent), but nevertheless was still impressive.

Second, in extra-area trade, total Asia's role as an exporter of the entire range of manufactures has been even more dominant. Declining world market prices for oil and other primary commodities have contributed to the result that in 1993 more than 90 per cent of Asian exports were manufactures (excluding iron and steel) compared to 60 per cent in 1970.

Third, within manufacturing, traditional industries such as textiles and clothing lost heavily ground in intra-Asian trade relative to the most dynamic industry, machinery and transport equipment. In fact, while clothing, for instance, still reached a share of 4-6 per cent (depending on the sub-region) in 1993 compared to 1-2 per cent twenty years ago, machinery and transport equipment almost skyrocketed from 9 per cent to 35 per cent in intra-developing Asian trade and for 17 to 38 per cent, respectively if trade with and among the three OECD

member states is taken into account. It should be kept in mind, however, that this product category includes both unskilled labour-intensive activities such as production of electronic components and sophisticated human capital-intensive production of state of the art machinery. It would go beyond the scope of this paper to analyse the sectoral composition of trade in this category in more detail. In doing this, it would be necessary to separate the service and know how component from the pure goods components.

Fourth, including China in the sample strengthens the traditional segment of manufactures in intra-Asian trade (SITC 6 and 8) and reduces the modern segment but the impact is not strong because China has also emerged as a host for producing components for machinery.

Fifth, food products, ores, non-mineral oils and fats have strongly declined as export industries within Asia and in exports outside Asia. So have fuels but given fluctuating world market prices, there much more volatility in the share of fuels.

Sixth, a remarkably stable role in intra-Asian trade is played by the chemical industry (including petrochemicals and pharmaceuticals). Given the strong position of the US and EU suppliers, it does not come as a surprise that

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<sup>1</sup> Korea, Rep. though already participating in the OECD framework is still included in developing other Asia.

chemicals are much less important in extra-Asian exports than within Asia. The same can be said for iron and steel, yet with a lower weight in absolute terms than chemicals.

Seventh, though the traditional export stronghold of Asia, clothing, has only underproportionately gained in extra-Asian trade, what is noteworthy is that in trade among Asian countries its share has been rising not only between developing and Asian OECD member countries but also between developing Asian countries. As clothing defined as SITC category 84 excludes trade in intermediate textiles, a rising share stands for a rising demand of Asian consumers for finished goods imported from neighbouring countries.

Eighth, Australia and New Zealand have a small weight in intra-Asian trade since their export structure focuses on the overall declining segment of food. In this respect, they are complementary trading partners to the other Asian countries. If Australia and New Zealand are included in the sample food exports maintain a higher share in intra-Asian trade compared to trade among the non-OECD Asian countries.

Overall, irrespective of whether the sample is widely or narrowly defined, the outstanding role of manufactures in intra-Asian trade remains unchallenged. This holds in particular for machinery and transport equipment while the traditional more resource-based manufactures have gained less. As a result, in 1993, transport equipment and machinery on one hand and other manufactures

(excluding chemicals) on the other hand stood almost at par in intra-area trade of all four regional clusters. Contrary to that, in 1970, the latter group of manufactures was twice to three times as important as the former. This highlights the enormous success of Asia to up-grade its export supply and by up-grading to maintain the growth momentum in trade.

## 2. Individual Countries' Results

Individual Asian countries cover a wide range of specialisation profiles in international trade, from commodity exporters to exporters of manufactures. To know whether institutionalised regionalism would impact on third countries, it is important to see to what extent specialisation profiles differ between trade within the region and trade with the rest of world (ROW). The less sectoral structures differ the more likely it is that trading patterns are not distorted by discriminatory trade policies and that intra-Asian trade is like global trade in a nutshell [see for a detailed discussion Kreinin, Plummer, 1994]. Table 2 recording the sectoral composition of intra-Asian trade<sup>2</sup> and trade with ROW for eight Asian countries at the end of eighties and early nineties (1989, 1993) allows for addressing the following questions:

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<sup>2</sup> As always in analysing intra-Asian trade in detail, data deficiencies emerge. Table 2 is based on COMTRADE data supplied by the International Trade Centre on CD-ROM. The list of partner countries excludes Australia and New Zealand and China, Taipei. Thus, there is underreporting of Asian trade volumes. However, as the bias is systematic it is assumed that the structural pattern is not distorted.

Table 2 - Sectoral Structure of Selected Asian Countries' Exports and Imports to/from Asia<sup>a</sup> and Rest of World)

Table 2 continued



Table 2 continued

- a. Have Asian countries more specialised in exporting manufactures within the region than to the rest of world? If this were true, the ratio Asia/ROW in the last two columns for each reporting partner should exceed unity for total manufactures (last row: SITC 5 to 8 minus 67 and 68).

Trade theory can give some hypotheses on the expected outcome. Traditional factor proportion theory would tend to give a positive answer because the rest of the world comprises relatively capital-abundant countries OECD countries importing more resource-based goods from developing Asia (excluding Japan). Hence trade would be of inter-sectoral type. Linder type of analysis focusing on similarities in income levels would support this view, too, as such similarities are larger within Asia than vis-à-vis ROW and thus would trigger more intra-industry type of trade within Asia with higher shares of manufactures in intra-regional trade than in exports to ROW. Yet, fine-tuning by skill intensities would require to differentiate not only between manufactures and non-manufactures but also between resource-based relatively unskilled manufactures (represented mainly by SITC categories 6+8) and more sophisticated manufactures (SITC 7). The outcome could become furthermore diffuse because of developing Asia's exports to Japan which should be more similar to exports to ROW than to exports to other developing Asian countries.

To begin with, the major assumption that non-manufactures play a larger role in the countries' exports to ROW than in exports to other Asian countries is not confirmed. All sample countries have more manufactures in their export supply to the rest of the world than within Asia. The outstanding example is Indonesia whose intra-Asian exports consisted of fuels by more than 40 per cent in 1993 while the fuel share in exports to ROW halved from 24 per cent in 1989 to about 12 per cent in 1993. This is not surprising since Indonesia is the only major oil producer in the region. Its supply has led to building up of processing capacities in neighbouring countries and has influenced the export patterns of these countries (most visibly in Singapore who has become an exporter of petrochemicals). Malaysia exporting processed fuels to other Asian countries falls into the same category. Overall, resource-based goods like food products, mineral ores, natural fibres, vegetable oils and fats, as well as iron and steel (SITC 67) still play a larger role in intra-Asian trade of the sample countries than in trade with ROW.

Japan does not strongly deviate from this pattern though, as can be expected for a resource-poor economy, the differences between its export pattern inside and outside Asia are negligible. A closer look into the Japanese pattern of exports within manufactures reveals that transport equipment and machinery (especially passenger vehicles, SITC 78) account for a larger share in exports to ROW than within Asia. This interesting phenomenon does not only reflect differentials in income level and supply patterns (inter-industry

type) between Japan and the other Asian countries. It also demonstrates a substitution process between trade in goods and factor trade. Japan increasingly exports capital and technology to Asian countries (partly driven by the sharp yen appreciation) to build up own production capacities in these countries, for instance for automobiles. Thus, Asian countries' domestic production using Japanese technology substitutes for direct Japanese exports. Outside Asia this process can be observed, too, as the so-called Japanese transplants in the US and Europe show but it seems to be more advanced in Asia than outside Asia.

Within the sample countries, sectoral patterns visibly differ. India, the country with the slowest structural change in exports, displays the traditional composition of exports based on the labour-intensive processing of resource-based manufactures (SITC 6+8). This pattern is invariant with respect to the direction of trade toward Asia or ROW. Malaysia represents the other pole of the scale. It has specialised in producing components for the electronic industry (SITC 7) with strong vertical links both within Asia and – to an even larger extent – to ROW. Traditional Malaysian export industries such as vegetable oils and fats have declined in importance in both regions. A third pattern is represented by Korea, Rep. The country has not only succeeded in concentrating more than half of its ROW exports and almost one third of its intra-Asian exports on machinery and transport equipment. Next to Japan, it is also the first Asian economy which has established an internationally

competitive automobile industry exporting cars outside Asia. In 1993, the automobile sector (SITC 78) accounted already for almost 7 per cent of Korean total exports but until 1993 exports of Korean cars within Asia did not yet figure prominently. The Korean export pattern reveals another peculiarity: the relatively high share of standardised resource-based manufactures in its intra-Asian trade (SITC 6+8) basically influenced by its large heavy industries (SITC 67: iron and steel). Except for Japan, no other sample country has such a high share of iron and steel have in its exports to Asian countries (about 10 per cent). Interestingly enough, iron and steel played a much smaller role in Korean exports to ROW. It is likely that barriers to market entry in OECD countries with large domestic heavy industries are partly responsible for this discrepancy between the iron and steel share in Korean exports inside and outside Asia. Furthermore, keeping in mind that industrial policies have taken a strong influence on the Korean steel industry, the iron and steel case underlines that trade patterns in Asian countries are not only influenced by market-driven "flying geese" movements but also by deliberate industrial policy decisions.

Symmetry instead of discrepancies in the sectoral pattern of exports directed to the two regions is demonstrated by the Thai and Singaporean case. In Thailand, the food industry declined in importance as exporter to the Asian region and ROW while symmetrically both resource-based industries (for instance, textiles and clothing) and machinery (including components for the

electronic industry) experienced a parallel rise. The same parallelism can be observed in Singapore.

To summarise, it comes as no surprise that Asian countries have become strong exporters of manufactures world-wide. Beyond this general observation, however, differences emerge with respect to whether either traditional labour-intensive products still dominate (basically in South Asian countries) or sophisticated products have already gained scope (automobile production in Korea Rep., for instance). Apart from these differences, some Asian countries have specialised in exports of components of electronics (Malaysia, Thailand) or have focused on iron and steel (Korea Rep.) Differences between the export patterns inside and outside Asia can be observed basically for three product groups: fuels (Indonesia), iron and steel (Korea Rep., Japan) and automobiles. It can be assumed that for the two latter groups trade policies explain why export structures differ by destination of exports. Access to European and US markets for iron and steel, is impeded by trade measures whereas such restrictions exist in emerging Asian car markets in order to grant domestic car manufacturers infant industry protection. The fuel case is special. Strong demand in neighbouring net oil-importing countries and the availability of processing facilities in these countries are likely to be responsible for the fact that the share of oil in Indonesian exports is larger for exports to the region rather than outside Asia.

- b. To what extent do import patterns differ among Asian countries and do they differ with respect to the origin of products?

First, what all sample countries have in common is that the share of manufactures has been higher in imports from Asia than from ROW. Thus, the Asia ROW ratio for manufactures exceeds unity in all cases. Even more important, only in a single case (Korea Rep.) this ratio has been declining between 1989 and 1993. This indicates how important the region has become for all countries as a supplier of technology and services embodied in manufactures.

Second, except for Pakistan (in 1989) and Japan, the Asia/ROW ratio for machinery and transport equipment, the most sophisticated industry sub-sector, always exceeds the ratio for total manufactures. That means that the large importance of this sub-sector in imports from Asia relative to imports from ROW is even higher for total manufactured products. Again, this shows how much advanced trade in sophisticated products has become within Asia.

Third, automobiles originating from Asia play an increasingly important role in the basket of imports from Asia relative to automobiles imported from ROW. While the absolute share is still small, the mushrooming of automobiles plants all over Asian countries makes it increasingly difficult for non-Asian suppliers to defend their trade shares.

Fourth, in imports from ROW, food products have a larger weight than in imports from Asia. This segment of trade must not necessarily comprise so-called inferior products with declining income elasticities of demand or raw products which are not produced in Asia. Food products can have a high value added component including "image value" and therefore, like luxury consumer goods, may open non-Asian OECD countries such as France or Germany vast market opportunities just when per capita income levels continue to rise as fast as in the past.

Fifth, in fuels, a sharp distinction between the two South Asian countries and rest of Asian countries becomes evident. Whereas for the latter group, the shares of fuels in imports from either Asia or ROW do not differ significantly, they are strikingly different for India and Pakistan. For both countries, their extra-Asia imports are much more characterised by fuels than their intra-Asian imports. Thus, India and Pakistan import fuels from the geographically nearby Middle East region while the other Asian countries split their sourcing of fuels more equally between Asian and non-Asian sources. Whether this is only due to distance factors or whether also financial and trade policy factors play a role cannot be decided here.

Overall, the findings on the import side confirm what has been said above for exports. Non-Asian suppliers have stronger positions in raw materials and food whereas Asian suppliers dominate the import pattern in manufactures. This



difference appears to be essential especially in sophisticated goods (SITC 7). Differences between South Asian countries and other Asian countries are noteworthy. Again, this has emerged on the export side, too.

### 3. The Export Supply of Taipei, China

One of the four NIEs, Taipei, China, is not included as reporting country in the UN trade statistics (COMTRADE) which were used for the aforementioned analyses. Nor are recent national trade statistics which are recorded in the Harmonised System (HS) fully compatible with the SITC scheme. Furthermore, no official trade with China and some other Asian countries is registered. For these reasons, the sectoral composition of Taipei, China's trade with Asia and the rest of the world is separately discussed in the following. To achieve a maximum of compatibility with Table 2, HS trade statistics of 1993 were converted into the SITC scheme.

Overall, there are some distinct differences in the structure of trade with Asia and non-Asia. First, as in other Asian countries too, food items while declining in importance, play a larger role in the economy's exports to Asian than to ROW (Table 3). This result is exclusively due to the importance of food exports to

Table 3

Table 3 continued

Japan which in 1993 accounted for more than a quarter of total exports to Japan. In exports to all other Asian partners, food items were negligible.

Second, conversely, machinery items (SITC 7) which include electronics were more dominant in exports to non-Asia than to the Asian trading partners. This reflects the economy's strong specialisation in computer industries which are targeted to satisfy the lower-price segment in consumer demand of OECD countries in Europe and the US.

Third, traditionally, other manufactures (SITC 6 and 8) including textiles, clothing, footwear and other finished goods, have used to be the traditional major export base in trade with non-Asian OECD countries (about two third in 1970) as well as in trade with Asia (almost half of total exports). Over time, however, these relatively labour-intensive and unskilled goods lost their relevance for Taipei, China. In 1993, they accounted for only little more than one third in exports to both regions. This shift reflects the response to the pressure to adjust and upgrade the export supply after strong real exchange rate appreciation and the increasing competition from low-income Asian hosts (including China).

Fourth, chemical products have emerged as important export items in intra-Asian exports. They more than tripled their share from 3 per cent in 1970 to 11 per cent in 1993. Their rise in exports to non-Asian countries were less spectacular, probably as noted above for other Asian countries, too, due to

strong domestic industries in OECD countries protected by policy-induced access restrictions.

Fifth, export patterns vis-à-vis Asian trading partners do not fully overlap with each other. Given large disparities in income levels and resource endowment between these trading partners, such overlaps could not be expected. However, notwithstanding the disparities, differences are striking in some cases. Machinery exports to the Philippines, for instance, accounted for 30 per cent of total exports, compared to 10 per cent in exports to Sri Lanka and more than 60 per cent to Singapore. It goes beyond the scope of this paper to discuss causes of such differences but apart from income differentials and policy factors, microeconomic determinants such as intra-firm trade and vertical inter-country specialisation in the electronics industries should be taken into consideration.

Sixth, the import side yields less sector-specific concentration than the export side. Over the entire period, Taipei, China has imported both commodities and manufactures from Asia, increasingly focusing more on the latter than on the former. Volatility of fuel shares as demonstrated by more than one third in total imports from non-Asian countries in 1982 compared to only 9 per cent in 1993 mirrors substantial fluctuations in oil prices. Interestingly enough, unlike other Asian economies, Taipei, China has satisfied its oil demand basically from non-Asian sources. As in exports, machinery products play the largest role in the import basket, not only in imports from the Japan and the other three NIEs but

also in imports from countries like the Philippines. The latter share may again be explained by vertical specialisation between the two economies which results in exporting labour-intensive components for the electronic industry from lower income countries to Taipei, China.

Seventh, there is no such clear distinction between the sectoral pattern of imports from either Asia nor non-Asia. This may be due to the high level of aggregation but also to the advanced stage of some Asian trading partners (NIEs, Japan) exporting capital goods to the economy which match the technological standard of non-Asian suppliers.

Finally, similarities in trading patterns between intra-Asian and extra-Asian trade also exist with respect to the growth rates.<sup>3</sup> They were higher in the first sub-period and fairly equal with respect to either intra-Asian or extra-Asian trade. As a result, except for imports of fuels, Taipei, China fits well into the overall picture of NIEs with their permanent upgrading of export supply both within Asia as well as vis-à-vis non-Asian OECD countries.

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<sup>3</sup> Tables on growth rates are available from the authors upon request.

### **III. Driving Factors Behind the Expansion of Intra-Asian Trade**

#### **1. Intra-Asian Trade in a Long-Term Perspective**

In recent years, it has become widely common to call the expansion of intra-Asian trade spectacular. Principally, this label has been derived from a specific sub-segment of intra-Asian trade, i.e., growth of trade in manufactures among the non-OECD Asian countries since 1980. In fact, excluding Japan, Australia, and New Zealand, intra-Asian trade in manufactures (comprising the four NIEs, ASEAN-4, PR China, and South Asia) as share of their total manufacturing trade rapidly rose from 22 per cent in 1980 to 36 per cent in 1993 [UN, Monthly Bulletin, May 1995]. This was roughly the same absolute increase (but from a lower starting point) as intra-Western European trade during the early days of EEC/EFTA integration (from 53 per cent in 1958 to 68 per cent in 1973).

Doubts about how unique recent intra-Asian trade expansion really was can be raised if a long-term view covering all Asian countries is taken. Anderson and Norheim [1993: 29] based on Norheim et al. [1993: 436 seq.] have estimated pre- and post-war shares of intra-Asian exports and imports (comprising both OECD and non-OECD countries, from 1928 onward. They reveal shares ranging between 46 per cent in 1928 and 52 per cent in 1938, declines to 39 and 37 per cent in 1948 and 1968 respectively, a rise to 47 per cent in 1963, and since the end of the seventies a continuous increase up to 50 cent in 1993 (the latter figures estimated by the WTO Secretariat [1995: 39]).

Long-term "steady-state" intra-area trade shares of 40-50 per cent for total Asia give rise to the question whether there are basically the two normal driving forces behind the increase used in gravity models, i.e. "mass" (rising absorptive capacity resulting from rapid economic growth) and "proximity" (comparative advantages of trade between countries sharing common borders and cultural affinity). Such normality can be broken by policy factors either banning neighbourhood trade entirely or indirectly impeding trade by inward-looking policies. Apart from the two gravitational factors, there is a third factor driving or impeding intra-area trade, that is built-in stabilisation and inertia toward volatility. Such stability can be based, for instance, on specific technologies established within the region which would link net importers of technology to the supplier of technology. A relatively price inelastic demand for technology embodied in capital goods would protect intra-area trade against external shocks and thus would form a solid fundament from which intra-area trade could grow further subject to improvements in absorptive capacity, shorter economic distance and policy driven trade liberalisation.

## 2. Economic Growth as an Engine to Intra-Asian Trade

Studies on reverse causality between trade and economic growth have a long tradition in international economics. In one direction, exposure to international markets triggers economic growth through productivity increases delaying depreciation periods of the existing capital stock, access to modern know how



and buoyant markets, and easing financial constraints in favour of new technology incorporated in imports of capital goods. In the other direction, growth triggers trade as both supply structures and consumer demand become more differentiated with rising per capita income thereby stimulating intra-industry trade which has been shown to be less vulnerable to protection and more income-elastic than inter-industry trade. Intra-industry trade has been observed as an important contributing factor to intra-Asian trade expansion at all levels of per capita income [Campbell, 1986; Langhammer, 1989, 1995; Fukasaku, 1992; Lloyd, 1993].

*Ceteris paribus*, neighbouring trade is expected to particularly benefit from growth impulses. This is likely to occur not only because of economic proximity but also because economic growth in one country usually has a positive spread effect on cross-border trade if there is complementarity in resource endowment or if the neighbouring country enjoys a simultaneous autonomous push to higher economic growth. In Asia, the concept of so-called growth triangles [Arndt, 1993; Tang, 1995: 199-200], for instance, has been subject to both determinants, spread effects and parallelism in growth. Hence, we would expect somewhat stable ex-post income elasticities of intra-area trade which would hold for all regions irrespective of additional policy support from regional trading arrangements.

Table 4 records estimates of such elasticities for the three major economic regions, Western Europe, Asia and the Americas, during the seventies and eighties. This period has been chosen to exclude the early push in intra-European trade coming from institutionalised integration in Western Europe between 1957 and 1968 when the free trade area and the customs union were formed simultaneously. The following period 1970-85 showed a relative standstill in European integration deepening. Overall, the estimates support the hypothesis of a stable relationship between GDP growth and intra-area trade growth for all regions, irrespective of differences in economic growth and levels of integration. Elasticities were higher for Asia in the seventies when commodity trade

Table 4 – Ex-Post Income Elasticities<sup>a</sup> of Intra-Area Trade in Asia, the Americas, and Europe, 1970-90

	1970/82	1982/90	1970-90
Asia <sup>b</sup>	1.59	1.08	1.39
Americas <sup>c</sup>	1.33	1.12	1.28
Western Europe <sup>d</sup>	1.23	1.06	1.16

<sup>a</sup>Ratio between average annual rates of growth of intra-area trade (exports and imports) and nominal GDP. – <sup>b</sup>Asia: East, Southeast and South Asia, Japan, Australia, New Zealand, China. – <sup>c</sup>Americas: US, Canada, Latin America. – <sup>d</sup>Europe: EEC and EFTA.

Source: UNCTAD Handbook of International Trade and Development Statistics, current issues. UN Monthly Bulletin of Statistics, current issues. Own calculations.

(including oil) played a large role but were roughly at par with the two regions in the eighties when trade in manufactures became much more relevant. Over the entire period, intra-Asian trade responded slightly more to economic growth

than did intra-American or intra-European trade. This might be due to the fact that in Asia "natural" costs of transactions within the region were overproportionately reduced or that trade liberalisation had a larger scope in Asia than elsewhere. It should be noted that Table 1 refers to merchandise trade only. Trade in non-factor services is not taken into consideration. This is a serious gap though some services are embodied in the sense that they are part of merchandise trade. Yet, technological innovations in telecommunication makes larger parts of formerly embodied services disembodied or separated. They are traded cross-border without movements of producers or consumers to consumers or producers. Though liberalisation of factor flows and here especially the rights of establishment for foreign investors are good proxies for the growing importance of non-factor services in intra-Asian trade it is impossible to record disembodied as well as embodied trade in such services satisfactorily. In many cases, the economic transactions underlying payments from residents to non-residents are unknown if such transactions are separated from geographical movements of goods and persons. Hence, one can only guess that trade in services within Asia grows at least as rapidly as in world trade [for the latter see GATT, International Trade, 1994a: Table 2].

### 3. Declining Transaction Costs in Asia

#### *a. Bridging geographical distances*

There is much empirical evidence that the costs of bridging geographical distance were sizeably reduced in Asia during the last two decades. The most relevant cost factor for merchandise trade in Asia, maritime transport, has not been excluded from this development. Sien and Trace [1988: 142] report the emergence of new shipping lines, especially in East and Southeast Asia, over-supply in tonnage caused by widespread subsidisation of shipbuilding in many Asian countries and concomitant declines in freight rate levels in both bulk and liner trade. Furthermore, there was ongoing containerisation and other logistical improvements especially in Asian coastal trade including massive modernisation of port services. Trade in such services has rapidly grown. Finally, with rising value added per weight unit of cargo, transport costs lost in importance anyway.

As there is no major land-locked trading partner in Asia and as relatively high costs of domestic surface transport do not appear in trade statistics, one would expect cif/fob ratios to be a proxy for the *ad valorem* incidence of transport costs. Philippine trade statistics offer access to this issue as imports are recorded both on cif and fob basis. Earlier work of the author on measuring this incidence based on cif-fob ratios of Philippine imports in 1970 and 1983 has shown, however, that transport costs of imports of manufactures from Japan, for instance, were not lower in 1983 than in 1970, except for SITC 8 products.

[Langhammer, 1987]. This finding is not surprising given the steep rise of energy prices in 1973 and 1979. Overall, follow-up estimates of cif-fob ratios for selected Philippine manufactured imports from Asian sources suggest transport costs to have slightly declined for some bilateral trade routes (imports from Japan, China Taipei, Australia, Korea), albeit with larger volatility for small volumes of trade in individual items (Table 5). In many cases, costs of loading and unloading in parts are higher than costs of moving goods through maritime transport. Usually, such port services are separately included in non-factor service if payments to non-residents are made. Thus, the ad valorem incidence of transport costs measured by cif-fob ratios does not capture the full impact of costs related to moving goods cross-border.

Next to costs of transport of goods, costs of exchanging information through telecom networks are relevant. Costs of information are expected to have declined drastically because of better hardware (Asian satellite networks), new software (facsimile, e-mail, internet), rising economies of scale, rapidly growing intra-Asian foreign direct investment in services specialised in selling information (trading houses, tourist agencies, subsidiaries of airlines, shipping lines) and, last not least, because of an increasing flow of people acting as tourists, traders or

Table 5

migrants. This is an extremely heterogeneous cluster of factors impacting upon costs of information and therefore difficult to specify numerically. Table 6 displays a specific component of information costs, that is, developments in

Table 6 – Indicators of Telecom Network Supply and Demand in Asian Countries (annual average growth rates), 1982-1991

	I n d i c a t o r s			
	1	2	3	4
Hong Kong	48.5	29.4	n.a.	5.5
Korea, Rep. of	35.3	39.1	5.3	13.9
Singapore	13.7	32.4	10.7	5.0
Taipei, China	n.a.	n.a.	n.a.	n.a.
China, P.R.	n.a.	53.5	n.a.	13.7
Indonesia	19.8 <sup>a</sup>	31.2	19.5 <sup>b</sup>	9.1
Malaysia	53.4	32.7	-22.0	9.8
Philippines	n.a.	23.9	n.a.	0.8
Thailand	11.9	36.7	21.9	13.3
India	84.7 <sup>c</sup>	31.0 <sup>d</sup>	n.a.	6.9
Pakistan	n.a.	28.8	n.a.	10.7
Sri Lanka	5.7	35.1	2.0	5.3
Japan	n.a.	27.1	n.a.	2.5
Australia	42.3 <sup>e</sup>	24.3	-10.0	2.9
New Zealand	n.a.	20.6 <sup>e</sup>	n.a.	2.0

1 = Number of private leased circuits for data transmission.  
2 = Outgoing international traffic (calls or minutes).  
3 = Income of local telecom services from data and facsimile per number of private leased circuits.  
4 = Telephone main lines per 100 inhabitants.  
a1985-91. - b1985-89. - c1982-86. - d1982-87. - e1982-90.

Source: International Telecommunication Union, Yearbook of Common Carrier Telecommunication Statistics, 1982-91. Own calculations.

telecom hardware supply and demand in Asia. Indicator 4 mirrors the expected rapid expansion of installed telecom capacity while indicators 1 and 2 show increasing demand for modern data transmission facilities and internationally orientated networks, respectively. Indicator 3 is the only monetary indicator, i.e., telecom income from user fees per leased circuit for data transmission. The proxy is difficult to interpret as it probably reflects the balance of diverging movements of declining prices (due to decreasing fixed costs) and rising prices due to improved quality of services. The latter factor seems to dominate.

*b. Lowering costs of uncertainty*

Uncertainty is frequently discussed as a major impediment against trade because hedging requires insurance premia to be paid on forward markets. The usual indicator of uncertainty is volatility of real exchange rates. Such volatility can be provoked by a number of factors including short-term capital movements and asymmetrical real external shocks, as for instance, commodity price changes affecting commodity-rich and commodity-poor countries differently. As prices for tradables on domestic markets are expected to move in the same direction (provided quantitative restrictions do not break the transmission mechanism in prices), it is the price for non-tradables or immobile resources (including differences in policies and government reputation) which causes real exchange rates to diverge. If such divergence is "path dependent" and thus follows a steady course over a longer period so that it can be anticipated by trading



partners, costs of insurance against risks of exchange rate changes will be lower than under conditions of erratic unforeseeable volatility. Nevertheless, such costs will still be higher than between trading partners who are strongly integrated with each other on goods and factor markets (including labour) and whose real exchange rates reveal a high degree of convergence. In Europe, Germany, Austria, and the Netherlands are such strongly integrated trading partners. The two latter countries peg to the German currency under a *de facto* German wage standard. Asset holders are widely indifferent in preferring one currency over the other.

Green [1994] has estimated convergence indicators (using the so-called standardised coefficient alpha based on Pearson correlation coefficients for economic variables across different pairs of countries) for both ASEAN-4 (excluding Singapore) and the four large EU countries.<sup>4</sup> He found increasing convergence in nominal and – to less extent – also real exchange rates since the seventies while within the EU such convergence did not exist. The latter finding is not surprising given sharp divergences in policies, reputation, preferences and prices for non-tradables between the UK and Italy on one side and France (vis-à-vis Germany) on the other side using the German currency as the nominal

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<sup>4</sup> Convergence is a medium-term concept and thus should not be equated to lack of short-term exchange rate volatility. To measure volatility, one should embark upon estimates of short-term fluctuations around a trend measured from monthly or quarterly exchange rate changes.

external anchor at least for the last decade. Green's proxy has been used for bilateral real effective exchange rates for the larger Asian sample (excluding the OECD countries). His findings for ASEAN-4 are strongly corroborated. Based on annual observations, real exchange rate changes of the four countries were significantly positively correlated during the 1981-94 period (Table 7). If Singapore is included to come to ASEAN-wide results, convergence ends. Singapore with its entirely different economic structure and different exchange rate targeting compared to ASEAN-4 has largely appreciated in real terms against the other four countries during the eighties. In terms of the initial target of the alpha coefficient, to assess how suitable individual country developments are for concluding on developments of the entire group, one can argue that the Singaporean exchange rate path does not allow to conclude on an "ASEAN path".

Forming other sub-groups (Table 8), yields no parallelism in real exchange rates except for South Asia where the two major countries, India and Pakistan, maintain weak trade relations only. The four NIEs have followed different paths and thus have seen changes in their competitive position in world markets against each other. So did China, Hong Kong, and China Taipei with the strongest divergence in exchange rate movements. Taken all countries together, convergence is lower than for the ASEAN-4 subgroup but higher than for the Chinese group. There is no evidence from the estimates that Asian countries have formed a currency "bloc".



Table 7

Table 8 – Standardised Alpha Coefficient for Real Exchange Rate Movements for Sub-Regional Groups of Asian Countries, 1981-1994

	Average value of bilateral correlation coefficients (r)	Standardised alpha coefficient ( $\alpha$ )
NIEs-4	0.362	0.694
ASEAN-4	0.910	0.976
ASEAN-5	0.695	0.919
India, Pakistan, Sri Lanka	0.874	0.954
China, P.R., China Taipei, Hong Kong	-0.216	-1.141
All countries	0.350	0.866

$$\alpha = \frac{kr}{1 + (k-1)r}$$

$$\text{where } r = \frac{2}{k(k-1)} \sum_{i,j} \sum_{i < j} \rho_{ij};$$

k = number of countries

$\rho_{ij}$  = Pearson correlation coefficient of real exchange rate movements between countries i and j.

Source: See Table 7.

It is important to note that exchange rate divergence seemingly did not impede trade which grew much faster within the Chinese group and among the NIEs rather than between the ASEAN-4 [Langhammer, 1995: Table 4]. This lends support to the hypothesis that costs of hedging against exchange rate divergences were relatively low because divergences were steady and could be anticipated. Large asymmetrical real shocks do not seem to have emerged in the eighties and early nineties.

*c. Lowering costs of information on markets*

Knowledge on sourcing and export markets is a scarce resource sold professionally by trading houses and other service suppliers. Such external non-party relations between sellers and buyers have a long tradition in Asia where Japanese and Chinese trading houses but also few European trading houses have started early to establish branches in all major countries. In addition, party-related intra-firm flows of information exist between parent companies of FDI and their subsidiaries or joint ventures on one side and between the latter on the other side. Hence, irrespective of intra-firm trade in goods reported by Japanese investors [Ramstetter, 1993], FDI in general helps to lower costs of information inside multinational companies. Growth of intra-Asian FDI can thus be used as a proxy for decline in transaction costs due to information gaps. A recent UNCTAD publication reports an increase of the share of nine major East and Southeast Asian countries in inward FDI stock of the same countries from 30 per cent in 1980 to 45 per cent in 1993 [UNCTAD, 1995, Table 4]. China, and the ASEAN countries became major hosts of Asian investors while Asian second generation capital exporters (following Japan) directed significantly higher amounts of their investment to Asian countries. Reportedly, by 1991, Korea, for instance, had 47 per cent of its outward FDI stock in East, South and Southeast Asia and the Pacific after only 11 per cent in 1987 [ibid: 12].

Within total FDI, investment in some service sectors directly attributes to bridge economic distance, for instance in general services, banking/insurance, commerce and transportation. In fiscal year 1993, Asia's share in world Japanese investment in these four service industries amounted to 11 per cent compared to 10 per cent in FY 1991. Although the dynamics of Japanese service investment has still been outside Asia, almost one third of the total Japanese investment stock in Asia is already in these service industries [Ministry of Finance, current issues]. As mentioned above, trade in services including consumer services (travelling, tourism) is an important driving force of merchandise trade, too. In this respect, liberalisation in trade in capital is super-additive to liberalisation in trade in goods.

*d. Dismantling trade barriers*

Tariffs and NTBs are policy-induced measures and impact upon transaction costs. Dismantling them, has a positive effect upon trade provided that there is neither "water in the tariff" nor other redundancy. Intra-area trade can be expected to benefit overproportionately if trade barriers make advantages of short economic distance ineffective. During the last decade, many Asian countries have been heralded for lowering trade barriers from an initial level which used to be higher than in Europe and the US. Two movements have to be distinguished. First, Asian countries lowered tariffs and NTBs autonomously since the UR was launched. This happened either under non-GATT-notified

international commitments (i.e., within structural adjustment programs) or even without any external commitments. Such measures were taken outside the UR negotiations [OECD, 1991] and resulted in applied tariff rates which were below the bound rates agreed upon in the previous Tokyo Round. Among the 72 countries which notified autonomous trade liberalisation measures or made such endeavours otherwise publicly known, were Australia, Bangladesh, China, India, Indonesia, Japan, Korea Rep., Macao, Malaysia, New Zealand, Pakistan, Philippines, Singapore, Sri Lanka, China Taipei and Thailand [GATT, 1993, Appendix Table 3].

Second, within the UR, Asian countries offered a large coverage of imports subject to bound tariffs and further reduction of tariff which were already bound. Table 9 lists pre- and post UR tariff rates (as weighted averages of applied and bound rates). They vary largely among the individual countries, ranging between Hong Kong as the only economy without any tariffs on industrial products and India which had the highest pre-UR tariff rate and will cut tariff by more than half. Indonesia which offered large portions of its imports to be subject to tariff binding (coverage of bound rates in the industry sector: 93 per cent of tariff lines) do not show tariff reductions. Unlike Latin American countries which has offered 100 per cent tariff binding, Asian countries will still maintain more scope for tariff



Table 9

manoeuvring as only 68 per cent of tariff lines and 70 per cent of imports are under bound rates. Yet, this is a large improvement compared to the pre-UR period when only 16 per cent of tariff lines and 32 per cent of imports were under bound rates in Asia [GATT, 1994: Table II.11]. The two economies still most reluctant to bind tariffs are Sri Lanka and Hong Kong (Table 8) but the latter is a free trader and the former has little leverage to influence neighbouring countries' trade policies.

Commenting on tariff reductions and binding only, yields an incomplete picture. As in all trading partners, NTBs are supposed to be more relevant as trade barriers. Given the myriad of different NTBs, commitments towards phasing out of specific NTBs are not reported for Asian countries. However, evidence from past dispute settlement procedures and from various trade policy reviews of the GATT for Asian countries suggest that they have been more subject to NTBs launched by non-Asian countries than initiator of own measures [GATT, 1993: Appendix Table 4: 48]. Again, it is very likely that Asian countries will continue to scrap NTBs autonomously without binding them in the WTO under reciprocity constraints. Yet, in assessing the effects of unilateral and multilateral measures, one should not assess their effects on taking the legal measures as a yardstick. Customs drawbacks and export processing zones are instruments which yield that the effectively collected tariff is much lower than the legal tariff. Due to data shortages, it is always the latter and not the former rate which

is applied as the point of departure. If the former were available, the liberalisation rate would probably be smaller.

#### 4. Technological Ties among Asian Countries: A Built-in Stabiliser?

Asia-originating technology is widely spread throughout Asia and – following empirical analyses – constitutes a strong factor of stability in intra-Asian trade. For instance, Lee [1995: 6] in an analysis of the impact of yen appreciation upon the Korean economy – based on an Korean input-output table of 1990 – has found that the elasticity of induced imports per unit of Korean exports was higher (0.33) than for domestic demand (0.18 for consumption and 0.28 for investment). Overall, the average import coefficient of total final demand in Korea was almost three times as high as in Japan (0.25 compared to 0.09). Hence, for Korea, export growth is found to trigger growth of imports. Korean imports basically encompass capital goods 40 per cent of which are from Japan. Lee argues that Korea has been "chronically and inevitably dependent upon Japanese sources" [ibid.: 7] as it has been witnessed by price inelasticity of Korean imports from Japan and, as a result, by bilateral trade deficits becoming larger with Korean Won depreciation against the Japanese Yen. It can be safely assumed that Japanese or other Asian countries' technologies have been installed in a number of neighbouring countries. Growth of finished goods exports from East Asia to intra- and extra-area destinations will therefore stimulate intra-Asian trade in industrial materials, intermediate goods and also services. Such

built-in stabiliser in intra-Asian trade can be expected to consolidate with ongoing up-grading of the Asian export supply. Sectorally, the automotive industry is likely to play a central role in intra-Asian technological ties but telecommunication industries may follow suit. With Japanese technology being present in the neighbouring markets from the very beginning, intra-Asian trade in the following years has benefited from initial conditions of strong technological ties to Asian sources which remained robust. A precondition for maintaining such ties was similarity in relative prices of tradables between Asian countries and openness of trading partners to international markets. Within East Asia, there are few "islands" only in which this precondition is not yet met. In the PR China, for instance, where state-owned enterprises (SOEs) often still rely on old Soviet energy-intensive technology and where energy prices to be paid by SOEs deviate from world market prices, exporters of energy-intensive technology have defended markets. In 1992, almost 50 per cent of Russian exports to China consisted of machinery and transport equipment probably used in SOEs while Russia's exports to OECD markets, however, were almost entirely based of commodities and near-commodities. With the ongoing opening of the Chinese market to international sourcing, energy-intensive technology is going to be wiped out thus offering market prospects for Asia-originating state of the art technology.

#### **IV. Third Country Effects of Intra-Asian Trade Expansion**

As shown above, regional income growth and non-discriminatory reduction of trade barriers have triggered import demand in many Asian countries which was increasingly satisfied by purchases of goods originating from the region. In the static view of the customs union theory, growth of intra-area imports can be either at the expense of domestic production (trade creation) or imports from third countries (trade diversion). In the absence of regional integration, however, there is no reason to argue that policy-induced preferences might have fuelled intra-Asian trade to the detriment of non-Asian suppliers.

Unilateral and multilateral trade liberalisation offered both Asian and non-Asian countries ample prospects to expand trade. This could be expected, partly because of catching up processes from low initial levels of trade, partly because Asian countries proved to be more successful to adapt their supply mix to Asian demand conditions than did suppliers from high-income non-Asian OECD countries. As a result, ex post income elasticities of demand for intra-Asian imports have not only been higher in the eighties compared to the seventies. In addition, for all major industrial products, they have also been higher than demand elasticities for extra-Asian imports. This is witnessed by estimates for the sub-region "other developing Asia" which includes the ASEAN countries, the NIEs and South Asia (Table 10). Again, it is important to note that declining demand elasticities for extra-Asian imports in the 1982-93 period compared to

the previous sub-region 1970-82 could only be interpreted as trade diversion if unlike in the seventies, the eighties had been characterised by regional integration in Asia. Such distinction, does not exist and hence such decline reflects market influences but not policy interventions in favour of intra-Asian trade.

Table 10—Ex-Post Income Elasticities of Demand of Developing Other Asia for Intra-Asian and Extra-Asian Imports, by SITC-Categories, 1970-1993<sup>a</sup>

SITC, Rev. 3	Period	Elasticities		SITC, Rev. 3	Period	Elasticities	
		Intra-Asian imports	Extra-Asian imports			Intra-Asian imports	Extra-Asian imports
0 - 9	1982-1993	2.6	1.4	6 + 8	1982-1993	3.2	1.6
	1970-1982	1.6	1.4		1970-1982	3.0	2.2
	Difference	1.0	0.0		Difference	0.2	-0.6
0 + 1	1982-1993	1.9	0.9	65	1982-1993	3.2	0.9
	1970-1982	1.0	1.0		1970-1982	1.4	0.8
	Difference	0.9	-0.1		Difference	1.8	0.1
2 + 4	1982-1993	1.4	1.2	67	1982-1993	2.6	1.8
	1970-1982	1.0	1.2		1970-1982	1.7	1.2
	Difference	0.4	0.0		Difference	0.9	0.6
4	1982-1993	1.3	0.2	68	1982-1993	2.6	1.8
	1970-1982	1.9	0.9		1970-1982	2.0	1.1
	Difference	-0.6	-0.7		Difference	0.6	0.7
3	1982-1993	0.7	-0.1	84	1982-1993	4.7	0.7
	1970-1982	2.3	2.4		1970-1982	1.5	1.4
	Difference	-1.6	-2.5		Difference	3.2	-0.7
5	1982-1993	3.4	1.6	5 + 6 + 7 + 8 - 67 - 68	1982-1993	3.5	1.8
	1970-1982	1.6	1.3		1970-1982	1.7	1.3
	Difference	1.8	0.3		Difference	1.8	0.5
7	1982-1993	3.7	2.0				
	1970-1982	2.1	1.4				
	Difference	1.6	0.6				

<sup>a</sup>Ratio between average annual rates of growth of imports and nominal GDP.

Source: See Table 4, World Bank, World Bank Tables, current issues. Own calculations.

However, there is no doubt that for non-Asian suppliers, developing Asia became the major absorptive market in the eighties and early nineties. Developing Asia's share in EU manufactured exports almost doubled from 8 to 15 per cent between 1980 and 1993 while the US starting from a higher initial base concentrated 18 per cent of its manufactured exports on developing Asia in 1993 after almost 12 per cent thirteen years ago (Table 11). Export growth to China were in similar

Table 11 – Share of Asian Countries in US and EU Exports, 1980-1993

	US				EU			
	Total trade		Manufactures		Total trade		Manufactures	
	Japan	Developin g other Asia	Japan	Developin g other Asia	Japan	Developin g other Asia	Japan	Developin g other Asia
1980	9.5	12.6	5.7	11.8	2.2	7.1	2.4	8.1
1990	12.3	15.5	9.5	15.1	5.4	11.1	5.7	11.9
1991	11.5	16.1	8.9	15.7	5.1	11.7	5.4	12.5
1992	10.8	16.5	8.2	16.4	4.7	12.5	4.8	13.3
1993	10.5	17.8	7.8	18.3	4.6	14.5	4.8	15.3

Source: UN, Monthly Bulletin of Statistics, current issues.

dimensions. Such increases cannot be observed for US and EU exports to Japan which in terms of shares rose by two percentage points at the maximum. Given the more competitive production structure of Japan and other OECD countries (relative to the structure of developing Asia and OECD countries), trade

resistance factors may have played a larger role in mitigating growth of exports to Japan.

Merchandise trade comprises only part of non-Asian export growth to Asia. Both "disembodied" services as well as services embodied in goods exports originating from Europe and the US have found open markets in Asia, too. This holds for services embodied in large infrastructure projects such as airports or urban mass transport systems and also for financial services, funds and payments for intellectual property rights. A detailed analysis of German, Dutch and French exports of non-factor services to ASEAN countries in the eighties has revealed service exports to have even more rapidly increased than merchandise trade [Langhammer, 1991]. As services are income-elastic, further economic growth is likely to shift the structure of exports from non-Asia to Asia further to consumer and business services in addition to those services exports which help to remove infrastructural bottlenecks in Asia.

#### **V. Forming Regional Integration Schemes in Asia: Economically Meaningful for Whom and for What?**

Unlike regional **co-operation** which basically comprises joint implementation of projects of supra-national scope and is already pursued within ASEAN, APEC and Asian groupings, the concept regional **integration** has neither been unchallenged nor fully enforced in Asia. Earlier than 1990, forming a regional trading block was not popular in Asian political circles nor was it achievable



given the enormous heterogeneity of the countries in policies, size and structures of the economy, speed of growth and income levels. It was both the external threat carried through the risk of failure of the multilateral Uruguay Round and the internal pressure to sustain the momentum of earlier economic and political regional co-operation which resulted in a new perception of regional integration. The former gave rise to the idea of improving the retaliatory capacity in a scenario characterised by a possible failure of the UR and a restrictive stance of NAFTA and the European Single Market. The latter came from sub-regional co-operation schemes formed against a possible threat from centrally planned economies in Asia and Europe. With the demise of the command economies and the successful conclusion of the UR, one could have expected to see the idea of regional integration vanishing, especially because intra-Asian trade – as shown above – enjoyed an unprecedented growth momentum without trade discrimination.

Yet, meanwhile the idea has developed further and has materialised in two free trade targets, one for the ASEAN Free Trade Area AFTA in 2002 and one for the Asia-Pacific Free Trade Area APEC in 2010 (for the developed partner countries) and 2020, respectively (for the remaining member countries). APEC includes the three NAFTA member states and is thus the holding for both NAFTA and AFTA. It excludes the South Asian member states of SARC which go their own way to enforce first steps of regional co-operation. Since the APEC summits of Bogor and Osaka specifying the steps to implement APEC, the

wedge between South Asia on one hand and Southeast and East Asia on the other hand today seems deeper than between the Eastern and Western parts of the Pacific rim. It is important to note that in spite of developing the idea of regional and sub-regional integration further, Asian countries have never thought of building trading blocks. Nor would have it been within their realm to do so if they really wanted. To form a block, requires common policies taken against third countries. In trade integration, this is only possible by negotiating a customs union operating a common trade policy against non-member countries. To be successful, this way requires similar levels and structures of national tariffs. Such conditions usually hold if structures of production are as similar as income levels and if intra-area trade can be sheltered against internal protectionist forces by a large portion of intra-industry trade in total trade. Such similarities do not exist within Asia, at least not to the extent of conditions in Europe. Therefore, the only historical experience with a customs union of supra-regional scope has been the European Economic Community. The EEC finalised a common external tariff by 1968 without, however, achieving a complete customs union earlier than 1992 when the Single Market led to common trade policies for all products (including cars, textiles and agricultural products). Such policies were often criticised by Asian countries as building fortresses and against the spirit of open regionalism.

However, in spite of the Asian resistance to follow the trading block objective, it would be premature to call AFTA and APEC endeavours with parallel

approaches but with different geographical dimensions. AFTA is still influenced by the traditional view to regional trading arrangements, that is, to cut national tariffs on industrial imports exclusively for imports from member countries by following a time schedule. APEC on the other hand, pursues open regionalism by offering member countries an "à la carte" approach of voluntarily liberalising trade in areas they accept and to incorporate such liberalisation into the multilateral framework, i.e. within the WTO. Such approach of adding to UR commitments an additional regional liberalisation "accelerator" comes close to the old idea of GATT-plus and was proposed by the Third Report of the Eminent Persons Group [Third Report, 1995]. As APEC does not confine liberalisation to the narrow issue of merchandise trade but extends its focus to capital mobility and rights of establishment, it shares some similarities with the European Economic Space (or Area) comprising EU and remaining EFTA countries. The EES and APEC aim at free movements of capital and goods as well as rights of establishment but exclude a common external trade policy. In contrast to the EES, APEC excludes free mobility of labour. Overall, AFTA and APEC seem more market-driven and private-sector driven (and less driven by public sectors) than any European or North American Treaty-type of integration. Nevertheless, one may ask why there is anyway an economic rationale for still pursuing open regionalism after the conclusion of the UR if such regionalism is substantially only a regional "turbo" to multilateral trade liberalisation. To answer this question, it is useful to distinguish between three different welfare

viewpoints as the customs union theory does: the individual country point of view, the regional grouping point of view and, finally, the world welfare point of view.

## 1. The Individual Country Viewpoint

### *a. Terms of trade improvements*

Let us assume all Asian countries form a free trade area and trade diversion occurs: a low-cost non-Asian supplier C loses its market to a high-cost Asian supplier B after the removal of trade barriers to intra-Asian trade. The importing Asian country A may then collect terms of trade gains if prices of C depend on the volume of its exports. Hence, the small country assumption would not hold [Panagariya, 1993: 16]. To defend its markets in Asia, supplier C may be forced to lower its prices down to the level of country B which benefits from trade diversion. As a result, country A would enjoy lower import prices and thus improve its terms of trade. In addition, as B also removes its barriers against A, country B may collect terms of trade gains via lower import prices because supplier C is forced to charge B lower prices at the level of the supplier A. As a result, A and B gain through forming a free trade area and such gains would have not been possible through non-discriminatory treatment.

### *b. Overcoming the "principle supplier rule" dilemma*

Multilateral trade negotiations in the past have been characterised by the mercantilist behaviour of large high-income trading partners to offer concessions only to those equally large trading partners offering the maximum of counter-concessions (principal supplier rule). Before the Tokyo Round and again in the final stage of the Uruguay Round, only the Big Three achieved the breakthrough due to their mutual concessions. Under this behaviour, small lower-income Asian countries had neither the chance to gain better conditions for market access for their specific exports because they could not offer large domestic markets for products supplied by large trading partners. Nor were they inclined to make concession on a non-reciprocal basis. Instead, they behaved as free-riders enjoying the MFN principle without getting the maximum possible access to trading partner's markets for products of their export interest. Small market size was not only associated with the absolute size of markets but also with large income differentials and different supply structures of large high-income and small low-income partners. Asian countries could hope to receive a better response to their liberalisation offers from neighbouring countries at similar income levels. As a follow-up, dynamic gains of liberalisation (exploiting scale economies and specialisation gains) were thought to be easier to collect in the regional than in the multilateral context (without fully ignoring the latter, however).

*c. Stabilising access conditions*

In the past, many Asian countries have preferred unilateral trade liberalisation over binding liberalisation multilaterally. As a result, countries apply tariff rates which are lower than bound rates and have thus maintained some scope for raising tariffs temporarily. Though countries committed themselves in the Uruguay Round to more tariff binding (see Table 9 above), the possibilities of tariff manoeuvring are still given. Regional free trade arrangements could bring more stability in access conditions because the distinction between applied and binding tariff rates on intra-area trade disappears. Once a time schedule for tariff removal is agreed upon, this is binding. Stable access conditions might be of considerable interest for the small member states which cannot negotiate with the larger Asian countries at equal footing in multilateral negotiations.

*d. Stimulating trade in regionally important mobile resources*

There are goods and services which are of export interest to some Asian countries only in the context of neighbourhood trade. This comprises utilities such as water, waste, surface transport of gas through pipelines, electricity, but also telecommunication via regionally launched satellites and exploitation of marine resources. Given vast differences in resource endowment between neighbouring countries, regional trade liberalisation can mobilise a trade potential which would remain untapped under multilateral liberalisation. Laos as an exporter of secondary energy to Thailand, for instance, is a case in point.

*e. Looking beyond merchandise trade*

Asian countries may expect more from regional trade liberalisation than only freeing merchandise trade. Unlike "traditional" free trade areas such as EFTA, modern" free trade areas as NAFTA use free trade in merchandise trade only as a starting point to liberalise regulations concerning free establishment of enterprises, capital mobility and stepwise relaxation of restrictions against labour movements and mutual recognition of standards. Going beyond narrow economic targets, regional agreements serve a political target, that is to contain large individual countries' power and to tie their hands through binding regional commitments. Early European integration in heavy industries such as iron and steel was very much driven by the political target to tie Germany's hands. In Asia, the ASEAN example has shown that economic integration – regardless how modest the early efforts within the ASEAN PTA were – also aimed at sheltering countries against the perceived threat of the cold war affecting Asia in total.

## 2. The Regional Viewpoint

### *a. Level playing field*

Early integration literature influenced by UNCTAD [1967] has given much scope to the improvement of collective bargaining power of developing

countries toward OECD countries. While the disappointing results of many South-South integration schemes revealed deeper distributional conflicts among the member countries than between the member countries and OECD countries, this argument has not entirely lost its appeal. For instance, level playing field arguments are stressed in US trade policies and the formation of the Cairns Group in the Uruguay Round was motivated by the same endeavour to bundle national interests in order to achieve better bargaining results in a mercantilist world against OECD countries heavily protecting their declining industries. In Asia, ASEAN appears to have experienced some positive effects of bargaining collectively with the EU on market access in MFA-restricted textiles and clothing. ASEAN countries as a group were granted cumulative treatment under rules of origin, special ASEAN quotas and transferability of unused quotas from one ASEAN country to the other [Langhammer, 1985: 114-116]. Such measurable benefits seem to have been small in magnitude but they add to the intangible benefits from having special negotiation channels with the EU under the dialogue partner system in the Post-Ministerial Meetings of ASEAN. Overall, an individual ASEAN country would have not been able to negotiate with the EU at such terms as ASEAN as a group could. But it also very likely that without the good individual performance of ASEAN countries the group as a whole would have not the leverage to negotiate with the EU (and also with other OECD countries) at equal terms.



*b. Decoupling from weak engines of growth*

Lewis [1980] in his nobel prize lecture advocated South-South regional integration as a means to decouple from ageing OECD countries and their allegedly declining absorptive capacity. While his argument of a historical link between growth of industrial production in developed countries and growth in world trade with commodities has become widely obsolete with the emergence of manufactures in almost all developing countries' exports (except for Africa), decoupling from non-Asian OECD countries is still a topic. The argument has shifted from the trade sector to the monetary sector and focuses on decoupling from financial volatilities, business cycles and exogenous shocks. Given the declining importance of economic interactions between Asian countries and non-Asia and the reverse situation in intra-Asian interactions, Asian countries can face new problems of real shocks emerging inside Asia and hitting Asian countries asymmetrically because of differences in income and sectoral structures. Regional integration can smoothen the degree of asymmetry and lead to a more inter-country balanced distribution of the burden arising from such shocks.

3. The World Viewpoint

*a. Regional integration as a complement to multilateralism*

The recent WTO study on interlinks between regional and multilateral liberalisation comes to a generally positive assessment of regional integration. If

successful, regional integration was complementary to global integration rather than substitutive [WTO, 1995]. Regional integration was able to commit countries more strongly to liberalisation plurilaterally than was possible under the multilateral trading order. In particular, areas beyond merchandise trade were more deeply liberalised in the regional context. A good example is trade in services where the EU single market programme has led to true liberalisation unlike the multilateral approach concentrating on improving transparency and fixing MFN treatment first. On the other hand, the multilateral system was more successful in bringing these areas to a global agenda where (except for the most advanced EU integration) other regional schemes failed to include them in their programmes. TRIPS, TRIMS and dispute settlement figure prominently among these issues. Yet, there is no way to deny that a large number of South-South agreements were stuck in distributional conflicts and that serious disintegration processes could only be avoided because all member states were committed to the multilateral system.

*b. Benefits to non-Asian countries*

By definition, regional integration has always an internal efficiency effect as well as an external discrimination effect. The latter is feared by non-Asia to exclude them from the Asian markets. However, there could be room for hope that the internal efficiency effect is so strong that it spreads to non-Asian

countries and outweighs the discrimination effect. For instance, so-called net external trade creation could occur as a result of integration-induced income growth and a rising income elasticity of Asian demand for non-Asian goods and services. The growing importance of Asia as an export market for non-Asia (Table 11) bears witness to this point. Furthermore, non-Asia could enjoy terms of trade gains because of lower world market prices for capital and consumer goods due to intensified competition within Asia.

## **VI. At the End: Is Regional Integration Recommendable for Asia?**

The positive theory of international organisation suggests that when individual countries decide on membership it is the entirely the national interest and not the interest of the region as a whole that matters in decision-making. Furthermore, it is not unlikely that small "marginal" member states act as freeriders as they can block decision-making without offering more to the region's welfare than they draw on resources from the region. Large countries act as leaders providing collective international goods for free. While they have a genuine economic interest in market expansion for their goods and services, they have to sacrifice a number of gross gains by redistribution to the "marginal" members and incurring losses because the burden of enforcing rules and compensating countries for losses rests primarily upon them. Are there such leaders in Asia and are they accepted in this position? Can regions or sub-regions be identified where conditions of natural trading partnership exist so that strong interactions would

occur anyway without institutionalised integration? And finally, is the international environment conducive for accelerating regional integration in Asia?

It seems that the latter question can be most easily answered. After the successful conclusion of the Uruguay Round, fears that outside Asia regional fortresses could be built up and threaten Asia's economic prospects have vanished. Neither has Europe emerged as a fortress nor is NAFTA such a threat after its inclusion into the wider APEC framework. The Uruguay Round will be implemented on schedule. Until now, mass unemployment in many OECD countries has not materialised in labour standards and other protectionist tendencies which could impair Asia's economic performance. Asia's world market has increasingly become equivalent with its regional market. Thus, after the Uruguay Round there seems more internal than external pressure to go regional. But are the benefits worth to bear the risks of distributional conflicts, stagnation and even failure? As Asia is at the beginning of regional integration, there is little which can be drawn from its empirical evidence. Yet, historical experience from more than one hundred integration provides some hints for groupings more or less vulnerable to failure. First, smaller groupings including bilateral "twinship" agreements such as the Australia-New Zealand type seems to have worked best. Agreements with larger numbers of members needed leadership role, resource complementarity and growth momentum from

individual member states to be successful. Mega-schemes with double-digit membership (all comprising low-income countries) were failures.

Yet, in all cases (even in Europe) the counterfactual case of relying on multilateral trade liberalisation seems to be on par with regionalism if not better. Since then, preference erosion has occurred due to ongoing liberalisation at the multilateral level and trade barriers becoming porous because of technological innovations (trade in invisibles partly substituting for merchandise trade). Such erosion has made old EFTA-type of free trade areas economically less meaningful than thirty years ago. It is therefore not surprising that computable general equilibrium models (while still estimating more favourable results for regional integration than partial equilibrium models) suggest for ASEAN that gains in total ASEAN trade with the world under unconditional MFN liberalisation were more than three times larger than under the AFTA plan [deRosa, 1995].

The new type of NAFTA and APEC comprises different elements of free trade areas, common markets and economic unions and focuses much more on liberalising capital flows, freedom of establishment, institutional harmonisation, and project-oriented co-operation than on liberalising merchandise trade discriminatorily. Therefore, the distinction between regionalism and multilateralism has become increasingly diffuse, especially in APEC. Instead of block regionalism, open regionalism is now the (braintwisting) label. The label

stands for growth triangles which are basically market-driven, concerted acceleration of UR implementation, additional voluntary unilateral liberalisation steps, and co-ordination and consultation to harmonise rules and, finally, openness to new members inside and outside Asia. Arguing against such "minilateralism" brings us to a cost comparison between the Bogor/Osaka way and the Geneva way and perhaps to the same critical stance toward the Asian way as Helen Hughes raised toward APEC: a "talking shop" [1995: 102] pampering regional bureaucracies [Hughes, 1991: 135]. One might be on the safe side to conclude: In Asia, the cost-benefit comparison leads us to advocate pro regional co-operation and pro multilateral integration.

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Table 7 – Pearson Correlation Coefficients for Real Effective Exchange Rate Movements between Pairs of Asian Countries, 1981-1994

	Hong Kong	Korea, Rep. of	Singapore	Taipei, China	Indonesia	Malaysia	Philippines	Thailand	India	Pakistan	Sri Lanka	China, P.R.
Hong Kong	<b>1.000</b>	-0.228	0.303	0.763	-0.685	-0.787	-0.508	-0.670	-0.929	-0.782	-0.604	-0.856
Korea, Rep. of	-0.228	<b>1.000</b>	0.615	0.323	0.583	0.390	0.643	0.678	0.242	0.511	0.437	0.574
Singapore	0.303	0.615	<b>1.000</b>	0.394	0.355	0.230	0.503	0.407	-0.087	0.248	0.436	0.120
Taipei, China	0.763	0.323	0.394	<b>1.000</b>	-0.503	-0.702	-0.332	-0.409	-0.822	-0.599	-0.564	-0.555
Indonesia	-0.685	0.583	0.355	-0.503	<b>1.000</b>	0.928	0.957	0.952	0.835	0.971	0.901	0.926
Malaysia	-0.787	0.390	0.230	-0.702	0.928	<b>1.000</b>	0.821	0.922	0.929	0.961	0.956	0.906
Philippines	-0.508	0.643	0.503	-0.332	0.957	0.821	<b>1.000</b>	0.881	0.679	0.889	0.815	0.837
Thailand	-0.670	0.678	0.407	-0.409	0.952	0.922	0.881	<b>1.000</b>	0.802	0.951	0.922	0.924
India	-0.929	0.242	-0.087	-0.822	0.835	0.929	0.679	0.802	<b>1.000</b>	0.907	0.804	0.899
Pakistan	-0.782	0.511	0.248	-0.599	0.971	0.961	0.889	0.951	0.907	<b>1.000</b>	0.910	0.955
Sri Lanka	-0.604	0.437	0.436	-0.564	0.901	0.956	0.815	0.922	0.804	0.910	<b>1.000</b>	0.799
China, P. R.	-0.856	0.574	0.120	-0.555	0.926	0.906	0.837	0.924	0.899	0.955	0.799	<b>1.000</b>

Source: Calculated from ADB, Economic Outlook, 1990 and 1995/96.

Table 5 – Ad Valorem Rate of Transport Costs<sup>a</sup> for Philippine Imports from Asian Countries, in Selected Manufacturing Products, 1983 -1991

SITC Code Rev. 2 1981/1987	SITC Code Rev. 3 1991	1983							1987							1991						
		Imports from							Imports from							Imports from						
		Japan	China	China Taipei	Korea Rep.	Singapore	Thailand	Australia	Japan	China	China Taipei	Korea Rep.	Singapore	Thailand	Australia	Japan	China	China Taipei	Korea Rep.	Singapore	Thailand	Australia
541.79-19	542.93-19	8.4	1.1	1.4	4.0	2.0	0.5	5.9	8.7	5.5	5.5	3.2	3.9	2.0	5.9	13.6	7.8	1.7	2.8	2.6	5.2	3.0
562.16-00	562.16-00	8.4			8.9	22.1														21.7		17.9
583.21-00	575.11-00	8.7	3.7	13.3	4.7			12.5	8.8	3.6	7.7		3.8		8.1	5.7		4.7	4.9	4.2	4.7	7.2
641.89-29	641.79-09	10.0		8.6	5.1			4.6	9.8	6.8	8.1	9.3	6.0		3.8	9.2	12.1	5.8	7.8	10.7		5.3
653.41-09	653.16-09	2.7	1.3	1.8	1.6	2.8	2.8		3.9	3.3	2.0	2.4	3.1	2.9	1.0	3.8	2.2	2.4	2.8	3.5	23.1	1.4
655.29-09	655.29-19	3.0		2.4	1.7	1.8			1.9	0.6	2.4	3.9		1.0	2.9	0.9	2.7	6.1	1.0			14.0
662.32-01	662.32-02	8.5	44.2	12.0			4.9		6.1	39.7	10.0			10.7	9.3	5.5	41.5	6.8			13.0	
665.20-02	665.23-09	23.2	17.5	19.5	24.3	21.7	0.4	58.4	18.7	28.6	44.9	34.9	22.0		49.0	14.6	15.0	41.3	3.9	50.9	10.5	30.4
672.51-01	672.09-00	5.6		9.0	4.8			29.4		10.5	5.3	7.2			14.4	12.6			4.3			13.0
678.36-00	679.49-09	8.1		8.6	8.2	22.3		7.8	6.1		3.5	8.1	3.6	7.9	4.0	9.4	1.1	4.6	9.8	1.2		14.9
691.14-00	691.19-00	3.9		50.1	6.1	2.2	6.9	45.7	5.7		23.1	8.7	7.2	6.9	15.1	5.7	6.0	3.0	8.5	5.4	3.9	8.1
711.91-00	711.91-00	2.5	27.8	0.8		8.5		10.0	1.6	9.6	5.7	39.8	0.8	10.0	8.8	2.8	18.1		11.7	4.2		4.1
741.61-01	741.89-09	5.6		8.5	0.8	0.9	13.4	4.0	2.9		3.6	5.3	7.6		7.9	3.1	6.0	2.9	2.6	3.0	4.3	4.9
744.28-09	744.89-09	3.5	6.3	8.3	2.4	4.6		2.0	9.3	0.8	5.4		7.3		1.9	5.7	9.6	2.2	0.8	4.2		3.9
749.31-00	748.10-00	3.6	29.5	3.4	6.7	3.2		4.9	3.0		2.1		3.5		2.4	2.2		3.8	2.9	5.2		14.7
773.18-00	773.14-19	3.8	4.3	2.5	6.6	2.3	3.4	6.9	12.2		2.1	4.2	3.1	7.0	13.9	3.3		2.6	8.0	4.8	4.4	30.9
784.98-00	784.39-19	7.1	50.0	9.5	4.0	25.0	2.8	7.1	6.1		9.3	9.0	9.2	35.9	7.3	10.0	6.7	6.5	5.9	4.6	5.1	4.7
847.19-20	846.99-01	5.2		6.1	5.1				2.8		2.4	5.0	4.8			3.0		2.4	1.6	1.6	11.9	
872.02-09	872.29-09	5.0	4.3	5.2	10.2	3.8		9.7	5.8	1.2	2.1	3.7	3.7	17.0	6.0	4.4	4.6	2.6	4.3	2.8	3.5	5.7
874.89-00	874.78-02	3.0	2.1	3.1		2.4	10.0	4.8	2.8	2.3	5.7	4.1	3.0	16.3	1.9	1.5		0.7	3.7	0.7		2.6
unweighted average		6.5	16.0	9.2	6.2	8.4	5.0	14.3	6.5	9.4	7.9	9.9	5.8	10.7	9.4	6.3	10.1	5.7	5.1	7.4	8.1	10.4

<sup>a</sup>[M Cif/M fob)-1]\*100

Source: Foreign Trade Statistics of the Philippines, National Statistics Office, Manila, various issues.

Table 9 – Asian Countries' Tariff Reductions<sup>a</sup> and Binding on Industrial Products under the Uruguay Round

	Trade-weighted tariff averages			Share of percentage bound			
				Pre-UR		Post-UR	
	Pre-UR	Post-UR	Rate of reduction	Share of lines	Share of imports	Share of lines	Share of imports
Hong Kong	0	0	0	1	1	24	23
Korea, Rep. of	18.0	8.3	53.9	10	24	90	89
Singapore	12.4	5.1	58.9	0	0	65	73
Indonesia	20.4	36.9	0 <sup>b</sup>	10	30	93	92
Malaysia	10.2	9.1	10.8	0	2	62	79
Philippines	23.9	22.2	7.1	6	9	59	67
Thailand	37.3	28.0	33.2	2	12	68	70
India	71.4	32.4	54.6	4	12	62	68
Sri Lanka	28.6	28.1	1.7	4	7	8	11
Japan	3.9	1.7	56.4	n.a.	89	n.a.	96
Australia	20.1	12.2	39.3	n.a.	36	n.a.	96
New Zealand	23.9	11.3	52.7	n.a.	58	n.a.	100
MEMO:							
Developed countries	6.3	3.8	39.7	n.a.	94	n.a.	99

<sup>a</sup>Weighted average of tariff rates on bound lines and applied tariff rates on unbound lines. – <sup>b</sup>Due to the significance of ceiling bindings in post-UR tariff averages, no reduction is reported.

Source: GATT [1994b: 69-78]; Hoda [1994: Table 2].

Table 1 – Sectoral Composition of Intra- and Extra Asian Exports by Asian Sub-Regions, 1970-1993 (in per cent)

Product categories (SITV, Rev.3)		0 + 1	2 + 4	4	3	5	7	78	6 + 8	65	67	68	84	5+6+7+8- 67-68
<b>I n t r a - A s i a</b>														
Developing	1970	21.1	26.3	1.6	12.3	4.6	8.9	0.0	25.5	10.8	2.7	1.0	1.1	35.3
Other Asia	1980	15.6	16.8	3.0	18.2	5.1	15.1	0.8	27.6	10.6	2.4	1.3	1.7	44.1
	1982	9.6	10.9	2.3	30.2	4.9	17.1	0.0	25.2	7.8	3.0	1.6	0.9	42.6
	1990	7.0	6.0	1.1	9.5	7.8	29.8	0.4	39.1	13.3	2.2	1.7	4.3	72.8
	1993	5.7	4.6	0.9	7.4	8.4	34.8	1.8	37.8	11.9	3.1	1.6	3.7	76.3
Developing	1970	24.8	23.3	1.3	11.3	4.6	7.5	0.0	27.6	11.8	2.3	0.8	1.8	36.5
Other Asia +	1980	18.4	16.5	2.6	15.7	5.0	14.0	0.6	29.0	11.5	2.2	1.2	2.3	44.5
China	1982	12.3	10.6	1.8	25.3	5.1	15.5	0.0	29.5	9.9	3.0	1.4	2.4	45.7
	1990	7.4	5.6	0.9	8.6	7.3	29.0	0.3	41.4	13.2	2.2	1.6	6.2	74.0
	1993	6.3	4.5	0.8	7.1	8.0	32.7	1.6	40.2	12.1	2.9	1.5	5.4	76.5
Developing	1970	13.8	20.1	0.5	6.7	7.1	18.2	1.1	33.3	10.5	7.9	2.1	1.6	48.6
Other Asia +	1980	10.3	11.7	1.1	21.4	5.9	20.9	1.3	28.4	7.3	7.1	1.6	1.9	46.5
China+Japan	1982	8.4	8.5	0.8	25.9	5.6	21.6	1.0	28.6	6.7	6.8	1.5	2.2	47.4
	1990	7.0	5.0	0.5	10.1	7.1	32.9	1.0	36.2	8.8	4.0	1.2	5.5	71.0
	1993	6.4	3.7	0.5	6.7	7.2	37.4	2.1	36.5	8.2	4.2	1.0	5.7	75.9
Developing	1970	15.1	21.7	0.4	7.0	6.4	16.8	1.3	31.7	9.6	7.4	2.5	1.4	45.1
Other Asia +	1980	11.8	12.6	1.0	20.5	5.5	20.4	1.6	27.9	6.9	6.7	1.8	1.8	45.3
China+Japan+	1982	9.8	9.8	0.7	24.8	5.1	21.3	1.5	27.7	6.1	6.3	1.7	2.1	46.1
ANZ	1990	8.2	4.8	0.5	9.9	7.0	33.7	1.5	36.1	8.7	3.9	1.2	5.4	71.6
	1993	7.2	3.6	0.5	6.6	7.1	37.9	2.5	36.5	8.1	4.1	1.0	5.7	76.4

to be continued...

...Table 1 continued

Product categories (SITV, Rev. 3)		0 + 1	2 + 4	4	3	5	7	78	6 + 8	65	67	68	84	5+6+7+8- 67-68
<b>Extra - Asia</b>														
Developing	1970	17.0	27.9	2.3	5.7	1.2	5.5	0.0	42.0	9.7	1.4	3.8	10.5	43.6
Other Asia <sup>a</sup>	1980	10.8	11.9	1.5	21.2	1.9	12.1	0.2	40.0	6.4	1.5	2.4	11.4	50.1
	1982	10.1	8.3	1.4	21.0	1.5	16.2	0.0	40.5	5.7	1.8	1.4	12.5	55.0
	1990	7.8	5.1	0.7	7.5	2.8	28.0	1.9	47.4	5.5	1.5	0.6	15.0	76.1
	1993	7.0	3.9	0.7	4.4	2.6	32.1	1.3	48.4	5.4	1.1	0.5	15.1	81.6
Developing	1970	17.6	27.6	2.1	4.5	1.6	5.2	0.0	42.6	10.1	1.8	3.8	10.2	43.8
Other Asia +	1980	11.3	11.6	1.3	21.6	2.3	11.1	0.2	40.2	6.8	1.5	2.3	11.6	49.8
China	1982	10.2	8.4	1.2	23.2	1.8	14.6	0.0	40.9	6.0	4.1	1.4	12.5	51.8
	1990	8.4	5.3	0.7	8.0	3.1	26.3	1.7	47.2	5.9	1.6	0.6	15.2	74.5
	1993	7.3	3.9	0.6	4.5	2.9	30.1	1.2	50.0	5.6	1.0	0.5	16.0	81.4
Developing	1970	9.2	9.8	1.0	1.1	3.2	27.7	5.2	48.2	9.3	9.3	2.1	6.8	67.7
Other Asia +	1980	6.6	5.5	0.9	5.3	2.5	38.5	9.9	39.9	5.7	5.2	1.9	7.9	73.9
China+Japan	1982	5.3	3.6	0.7	6.1	2.3	43.5	9.9	38.3	4.9	7.3	0.9	7.7	75.8
	1990	3.7	2.4	0.5	1.6	3.3	50.4	10.4	36.4	4.3	1.7	0.2	9.5	88.2
	1993	3.3	1.9	0.4	1.0	3.2	50.6	8.6	38.1	4.1	1.1	0.2	10.2	90.6
Developing	1970	14.2	12.7	0.9	0.9	3.3	24.8	4.5	43.4	7.6	8.3	2.7	6.1	60.6
Other Asia +	1980	9.2	7.4	0.8	4.7	2.4	36.1	9.2	37.9	5.0	4.9	2.2	7.5	69.3
China+Japan+	1982	7.8	5.5	0.7	5.8	2.2	41.0	9.3	36.6	4.4	7.0	1.3	7.4	71.6
ANZ	1990	5.2	2.4	0.5	1.4	3.3	50.4	10.3	36.5	4.2	1.7	0.2	9.7	88.3
	1993	4.4	2.0	0.4	0.9	3.2	50.6	8.4	38.2	4.1	1.0	0.2	10.4	90.7

<sup>a</sup>Developing other Asia comprises East and Southeast Asian countries and South Asian countries. Taipei, China is not included.

Source: UN, Monthly Bulletin of Statistics, various issues. Own calculations.

Table 3 – Sectoral Composition of Trade of Taipei, China with Asia and Rest of World (ROW), 1970, 1982, 1993 (in per cent)

SITC	HK	India	Indonesia	Japan	Australia	New Zealand	Korea	Malaysia	Pakistan	Philippines	Singapore	Sri Lanka	Thailand	Total Asia	ROW
<b>Exports 1970</b>															
0+1	10.5	3.2	0.0	43.3	5.8	n.a.	77.1	10.3	n.a.	5.3	16.2	n.a.	4.4	26.8	13.9
2+4	3.2	3.9	0.2	17.4	0.7	n.a.	9.4	1.9	n.a.	5.4	2.2	n.a.	6.8	9.3	1.0
3	0.4	40.3	3.7	1.3	0.0	n.a.	2.2	3.4	n.a.	8.5	1.7	n.a.	1.0	1.5	0.1
5	3.6	31.4	6.5	1.4	0.7	n.a.	0.5	4.1	n.a.	6.7	5.2	n.a.	12.5	3.3	1.9
6+8	68.6	60.2	75.7	28.4	89.8	n.a.	10.2	60.1	n.a.	45.4	60.8	n.a.	51.1	47.7	63.2
67	7.4	0.6	34.8	0.8	1.8	n.a.	5.9	21.6	n.a.	16.8	10.1	n.a.	5.9	6.8	1.6
68	2.2	0.0	1.0	0.8	0.1	n.a.	0.1	4.2	n.a.	0.4	1.3	n.a.	1.1	1.2	0.3
7	13.6	1.4	13.9	8.0	0.0	n.a.	0.6	20.1	n.a.	26.2	13.9	n.a.	24.2	11.1	20.0
<b>Imports 1970</b>															
0+1	1.2	0.2	2.6	2.1	36.9	n.a.	22.0	2.6	n.a.	4.1	8.2	n.a.	92.5	8.8	9.4
2+4	31.9	41.0	95.5	6.6	41.7	n.a.	15.9	83.9	n.a.	84.4	68.2	n.a.	6.0	15.9	25.1
3	0.2	0.1	1.7	0.5	2.3	n.a.	0.0	4.7	n.a.	0.1	0.2	n.a.	0.0	0.7	15.4
5	3.6	0.0	0.0	11.0	2.4	n.a.	1.6	0.7	n.a.	3.2	1.0	n.a.	0.2	8.8	11.1
6+8	45.7	0.0	0.3	33.8	13.5	n.a.	14.3	5.8	n.a.	5.5	2.5	n.a.	0.3	28.6	8.3
67	1.2	0.0	0.0	14.0	6.6	n.a.	11.9	0.0	n.a.	4.7	0.0	n.a.	0.0	11.4	0.9
68	1.4	0.0	0.0	2.3	5.1	n.a.	0.0	5.6	n.a.	0.0	0.1	n.a.	0.0	2.3	1.6
7	17.0	0.0	0.0	45.7	3.3	n.a.	46.1	2.3	n.a.	2.7	19.8	n.a.	1.1	36.7	30.8
<b>Exports 1982</b>															
0+1	3.4	0.1	7.9	30.7	3.6	2.9	20.4	5.3	0.9	2.5	9.6	31.6	2.1	13.5	3.7
2+4	2.4	5.8	1.4	3.8	0.2	0.0	2.5	6.0	0.1	0.2	4.7	0.4	0.4	2.6	0.3
3	0.5	0.0	1.2	1.0	0.0	0.0	3.0	0.5	3.8	3.8	0.3	0.0	2.8	0.8	2.4
5	6.2	10.1	16.6	6.1	6.7	9.3	6.3	8.3	8.0	11.1	7.0	2.7	13.3	7.4	3.5
6+8	59.4	54.0	28.5	41.0	62.3	58.8	38.0	27.1	69.0	43.8	40.7	50.5	32.5	47.9	58.9
67	4.7	20.5	8.3	3.7	4.5	4.7	16.3	26.3	2.5	16.5	6.5	4.9	21.3	6.7	3.2
68	1.4	1.9	1.2	1.0	0.8	0.7	3.0	2.9	0.3	2.2	2.6	0.5	2.2	1.4	0.7
7	22.1	7.6	34.8	17.0	21.9	23.5	10.4	23.6	15.6	19.9	28.7	9.6	25.3	21.1	26.6
<b>Imports 1982</b>															
0+1	3.0	21.3	3.7	2.0	27.8	45.5	8.0	0.1	0.0	19.6	2.2	11.0	67.5	8.3	6.6
2+4	24.2	30.3	15.2	0.8	14.6	8.3	18.2	1.2	11.7	26.8	5.4	77.2	17.5	5.8	4.1
3	0.0	0.0	27.6	0.7	27.1	0.0	0.9	17.6	0.0	0.2	23.1	0.0	0.0	7.4	36.5
5	3.5	14.1	1.6	12.2	4.6	2.0	11.1	0.2	0.0	1.8	8.3	0.8	0.4	9.0	11.5
6+8	30.8	23.5	51.8	20.1	15.8	42.7	14.9	74.3	88.3	26.5	24.3	10.8	13.7	24.5	14.2
67	6.2	0.0	0.0	12.3	3.2	0.1	27.5	0.0	0.0	0.3	0.6	0.0	0.1	9.1	2.0
68	4.4	0.0	0.0	3.0	5.7	0.3	3.0	1.6	0.0	0.4	3.1	0.0	0.1	3.2	1.9
7	27.8	10.9	0.1	48.8	1.3	1.1	16.4	5.0	0.0	24.5	32.9	0.2	0.8	32.7	23.2

to be continued ...

... Table 3 continued

SITC	HK	India	Indonesia	Japan	Australia	New Zealand	Korea	Malaysia	Pakistan	Philippines	Singapore	Sri Lanka	Thailand	Total Asia	ROW
<b>Exports 1993</b>															
0+1	0.8	1.0	0.7	26.5	1.5	0.2	0.8	1.8	0.3	1.0	1.9	0.7	3.1	6.6	0.9
2+4	0.2	0.2	0.5	2.5	0.2	0.3	1.3	0.2	0.1	0.6	0.5	0.0	0.3	0.8	0.1
3	0.2	0.1	0.5	0.2	0.4	0.0	2.4	0.4	0.0	1.1	1.2	0.0	0.3	0.4	1.0
5	13.1	11.4	15.8	7.1	10.3	13.3	9.0	13.4	25.3	11.1	6.5	5.0	13.2	11.1	5.4
6+8	44.4	39.7	43.6	33.5	34.9	34.2	38.0	24.6	37.7	53.0	22.8	83.1	27.0	38.3	37.1
67	1.5	0.7	1.7	1.8	5.0	3.7	0.7	2.1	0.9	1.8	1.9	0.7	2.3	1.9	4.0
68	2.3	3.0	1.2	2.6	1.2	3.2	3.3	2.9	0.4	1.7	3.8	0.6	2.6	2.4	0.9
7	37.5	43.8	36.0	25.7	46.6	45.1	44.6	54.7	35.4	29.7	61.5	9.9	51.2	38.6	50.6
<b>Imports 1993</b>															
0+1	2.1	13.1	3.6	0.7	15.1	54.6	1.1	0.7	1.4	7.6	2.6	55.8	16.7	4.0	5.5
2+4	2.0	13.2	1.7	1.3	9.5	3.7	2.4	4.1	0.8	4.1	0.9	6.0	5.8	2.7	2.8
3	0.1	4.1	47.0	1.1	24.3	0.0	1.7	3.8	0.0	1.5	13.9	0.0	0.0	6.2	8.7
5	3.6	22.4	6.5	12.8	3.3	4.7	17.6	3.5	0.0	5.1	8.7	5.8	7.2	10.5	14.4
6+8	38.5	39.2	37.4	23.5	26.6	33.1	32.6	47.0	97.6	11.8	11.4	32.2	47.9	27.4	29.9
67	0.2	1.2	0.4	1.6	0.4	0.1	1.9	0.7	0.0	0.4	0.3	0.0	2.6	1.2	0.6
68	1.1	2.5	1.2	2.5	17.2	2.6	3.8	2.0	0.2	13.9	0.7	0.1	0.9	4.0	3.5
7	52.4	4.3	2.1	56.4	3.5	1.1	38.9	38.2	0.1	55.5	61.6	0.1	19.0	44.1	34.6

Source: Commodity Trade Statistics of the Republic of China 1954-1974, Research, Development, and Evaluation Commission Executive Yuan, August 1976.– The Trade of China (Taiwan District), compiled and published by the Statistical Department, Inspectorate General of Customs, Taipei, Taiwan, May 1983.– Monthly Statistics of Imports, The Republic of China (Taiwan District), Statistical Department Directorate General of Customs, Ministry of Finance, December 1993.– Monthly Statistics of Exports, The Republic of China (Taiwan District), Statistical Department Directorate General of Customs, Ministry of Finance, December 1993.



Table 2 – Sectoral Structure of Selected Asian Countries' Exports and Imports to (from) Asia<sup>a</sup> and Rest of World (ROW), 1989 and 1993

SITC, Rev. 3	Exports						Imports					
	Asia		ROW		Asia/ROW		Asia		ROW		Asia/ROW	
	(per cent of total trade) <sup>b</sup>						(per cent of total trade) <sup>b</sup>					
	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992	1989	1992
<b>INDIA</b>												
0+1	13.0	20.9	16.1	14.2	0.8	1.5	2.3	1.5	2.9	3.6	0.8	0.4
3	0.2	0.4	3.2	3.5	0.1	0.1	2.9	9.7	22.5	32.7	0.1	0.3
2+4	21.4	13.4	6.4	3.5	3.3	3.8	15.3	14.1	9.0	8.2	1.7	1.7
5	5.1	6.5	7.8	6.8	0.7	1.0	11.2	15.1	14.9	14.0	0.8	1.1
7	4.8	6.0	8.0	7.3	0.6	0.8	36.0	29.9	16.3	11.6	2.2	2.6
78	0.4	0.6	0.4	1.0	0.8	0.6	0.1	0.1	0.0	0.0	4.5	4.0
6+8	54.9	52.3	56.7	62.8	1.0	0.8	26.6	22.5	29.3	22.7	0.9	1.0
67	2.9	4.4	1.2	1.7	2.4	2.6	9.8	6.2	5.6	2.9	1.7	2.2
68	1.0	3.2	0.4	0.4	2.2	7.6	2.7	2.0	3.7	1.8	0.7	1.1
5+6+7+8-(67+68)	60.9	57.3	70.8	74.7	0.9	0.8	61.4	59.2	51.1	43.7	1.2	1.4
SITC, Rev. 3	Asia		ROW		Asia/ROW		Asia		ROW		Asia/ROW	
	(per cent of total trade) <sup>b</sup>						(per cent of total trade) <sup>b</sup>					
	1989	1993	1989	1993	1989	1993	1989	1993	1989	1993	1989	1993
<b>INDONESIA</b>												
0+1	7.8	8.3	13.2	8.6	0.6	1.0	4.6	3.3	6.6	6.6	0.7	0.5
3	48.9	41.2	24.3	11.8	2.0	3.5	7.4	6.9	7.8	8.2	1.0	0.8
2+4	12.3	7.4	18.7	11.5	0.7	0.6	7.9	5.9	13.6	11.3	0.6	0.5
5	2.4	2.1	2.0	2.4	1.2	0.9	14.9	13.6	19.5	14.8	0.8	0.9
7	0.8	4.4	1.1	8.0	0.7	0.6	42.9	44.4	34.0	41.8	1.3	1.1
78	0.1	0.3	0.1	0.6	0.8	0.6	1.9	1.1	0.5	0.3	3.8	3.2
6+8	26.0	35.6	40.6	57.6	0.6	0.6	22.1	25.9	18.4	17.3	1.2	1.5
67	2.1	0.9	1.4	0.5	1.5	2.0	8.1	7.7	4.4	3.8	1.9	2.0
68	4.5	1.3	0.7	0.1	6.4	10.2	0.9	1.0	2.7	2.5	0.3	0.4
5+6+7+8-(67+68)	22.6	40.0	41.7	67.4	0.5	0.6	70.9	75.1	64.9	67.5	1.1	1.1
SITC, Rev. 3	Asia		ROW		Asia/ROW		Asia		ROW		Asia/ROW	
	(per cent of total trade) <sup>b</sup>						(per cent of total trade) <sup>b</sup>					
	1989	1993	1989	1993	1989	1993	1989	1993	1989	1993	1989	1993
<b>JAPAN</b>												
0+1	0.9	0.8	0.5	0.4	1.7	1.9	13.1	14.0	15.2	17.2	0.9	0.8
3	0.8	1.3	0.2	0.2	4.1	5.7	23.6	18.6	19.8	21.3	1.2	0.9
2+4	1.6	1.3	0.5	0.4	3.2	3.5	15.1	10.1	15.2	12.8	1.0	0.8
5	9.2	7.7	4.1	4.6	2.2	1.7	3.2	3.0	8.5	9.1	0.4	0.3
7	56.2	62.3	74.8	76.4	0.8	0.8	7.5	14.0	15.3	18.2	0.5	0.8
78	3.1	5.1	18.8	18.5	0.2	0.3	0.0	0.1	2.6	3.1	0.0	0.0
6+8	29.8	25.0	18.4	16.3	1.6	1.5	36.0	38.9	22.8	19.1	1.6	2.0
67	10.8	7.3	3.5	2.4	3.1	3.0	4.0	2.7	1.8	1.2	2.2	2.2
68	1.4	1.3	0.5	0.4	2.7	2.9	2.0	0.9	5.6	3.5	0.4	0.2
5+6+7+8-(67+68)	82.9	86.4	93.4	94.4	0.9	0.9	40.7	52.3	39.2	41.7	1.0	1.3

to be continued...

...Table 2 continued

SITC, Rev. 3	Asia		ROW		Asia/ROW		Asia		ROW		Asia/ROW	
	(per cent of total trade) <sup>b</sup>						(per cent of total trade) <sup>b</sup>					
	1989	1993	1989	1993	1989	1993	1989	1993	1989	1993	1989	1993
<b>KOREA, REP.</b>												
0+1	8.0	4.8	1.4	1.0	5.5	4.9	1.9	4.7	7.2	5.3	0.3	0.9
3	2.5	4.1	0.4	0.9	6.5	4.7	6.3	10.9	15.9	22.5	0.4	0.5
2+4	3.1	2.5	0.6	0.6	5.4	4.2	7.7	6.7	18.4	13.5	0.4	0.5
5	5.5	9.1	2.1	3.7	2.6	2.4	11.4	10.5	11.8	9.4	1.0	1.1
7	26.6	31.5	43.8	54.9	0.6	0.6	46.8	41.5	27.2	29.1	1.7	1.4
78	0.2	2.4	5.2	6.7	0.0	0.4	0.0	0.0	0.3	0.1	0.1	0.2
6+8	54.1	47.3	51.6	38.9	1.0	1.2	25.8	25.7	19.1	19.2	1.4	1.3
67	10.2	9.8	3.0	2.7	3.4	3.6	7.3	4.1	3.8	3.1	1.9	1.3
68	1.6	0.9	0.4	0.3	4.2	3.0	2.0	1.8	3.6	3.2	0.6	0.6
5+6+7+8-(67+68)	74.4	77.2	94.2	94.4	0.8	0.8	74.7	71.8	50.6	51.4	1.5	1.4
<b>MALAYSIA</b>												
0+1	4.8	4.3	4.7	3.3	1.0	1.3	7.5	4.6	8.5	7.2	0.9	0.6
3	26.9	22.2	3.9	2.2	6.9	10.1	7.3	6.5	2.2	1.4	3.4	4.7
2+4	29.2	18.5	26.2	15.9	1.1	1.2	2.9	2.1	6.2	3.9	0.5	0.5
5	2.2	2.8	1.4	1.2	1.6	2.4	7.5	6.8	10.4	9.6	0.7	0.7
7	24.1	35.9	42.1	53.0	0.6	0.7	49.1	55.8	46.9	53.8	1.0	1.0
78	0.1	0.1	0.5	0.8	0.1	0.1	4.6	2.7	0.7	0.7	6.5	4.1
6+8	12.6	16.0	21.4	23.9	0.6	0.7	23.6	23.0	19.6	20.4	1.2	1.1
67	0.9	1.0	0.4	0.5	2.4	1.9	6.2	4.9	3.6	3.5	1.7	1.4
68	2.2	1.1	2.4	1.1	0.9	1.0	1.8	1.7	2.8	2.7	0.6	0.6
5+6+7+8-(67+68)	35.9	52.6	62.0	76.5	0.6	0.7	72.2	79.0	70.5	77.6	1.0	1.0
<b>PAKISTAN</b>												
0+1	6.3	10.7	9.8	8.9	0.7	1.2	11.9	4.0	10.3	9.9	1.0	0.4
3	3.6	3.7	0.5	0.2	6.6	17.6	5.6	0.3	27.0	26.1	1.2	0.0
2+4	20.4	12.5	7.8	2.6	2.6	4.9	16.7	19.6	11.0	7.5	0.2	2.6
5	0.5	0.4	0.4	0.5	1.6	0.8	9.8	11.2	19.2	18.7	1.5	0.6
7	0.1	0.1	0.4	0.5	0.3	0.3	38.4	52.7	20.3	26.2	0.5	2.0
78	0.0	0.0	0.0	0.0	7.7	3.8	8.2	12.3	0.5	0.6	1.9	19.7
6+8	68.9	72.5	80.9	87.0	0.9	0.8	17.5	12.2	12.0	11.5	16.7	1.1
67	0.0	0.0	0.0	0.0	0.0	0.0	4.3	3.4	3.3	3.7	0.7	0.9
68	0.0	0.0	0.0	0.0	-	-	1.1	0.6	1.6	1.5	1.5	0.4
5+6+7+8-(67+68)	69.5	73.0	81.7	88.0	0.9	0.8	60.3	72.1	46.6	51.2	1.3	1.4

to be continued...

...Table 2 continued

SITC, Rev. 3	Asia		ROW		Asia/ROW		Asia		ROW		Asia/ROW	
	(per cent of total trade) <sup>b</sup>						(per cent of total trade) <sup>b</sup>					
	1989	1993	1989	1993	1989	1993	1989	1993	1989	1993	1989	1993
<b>SINGAPORE</b>												
0+1	5.1	6.1	4.0	3.0	1.3	2.0	5.4	4.5	5.9	5.9	0.9	0.8
3	25.4	19.3	7.9	6.4	3.2	3.0	6.9	4.0	20.2	18.6	0.3	0.2
2+4	6.0	2.0	5.0	2.5	1.2	0.8	6.0	2.7	1.6	1.3	3.8	2.0
5	10.3	8.9	3.8	4.4	2.7	2.0	4.6	4.0	10.4	10.4	0.4	0.4
7	35.0	46.5	60.6	68.0	0.6	0.7	50.8	61.6	38.3	41.6	1.3	1.5
78	0.1	0.0	0.2	0.3	0.2	0.1	0.3	0.3	0.1	0.1	3.4	2.5
6+8	17.0	15.5	17.2	14.0	1.0	1.1	25.1	22.1	21.7	20.6	1.2	1.1
67	1.4	1.2	0.7	0.5	2.1	2.6	3.9	2.5	2.4	2.3	1.6	1.1
68	3.1	1.9	1.1	0.4	2.7	5.4	1.9	1.4	2.2	2.2	0.9	0.6
5+6+7+8-(67+68)	57.7	67.7	79.8	85.6	0.7	0.8	74.8	83.8	65.7	68.1	1.1	1.2
<b>THAILAND</b>												
0+1	38.4	22.0	31.3	21.6	1.2	1.0	3.1	2.4	7.7	6.7	0.4	0.4
3	0.0	1.3	1.1	0.9	0.0	1.4	8.8	7.9	9.4	7.0	0.9	1.1
2+4	14.2	7.2	2.9	2.5	5.0	2.9	5.3	3.4	8.5	7.8	0.6	0.4
5	3.0	4.5	0.9	1.7	3.3	2.6	9.3	9.1	13.8	11.4	0.7	0.8
7	18.0	36.6	17.2	24.8	1.0	1.5	45.3	50.4	28.9	39.4	1.6	1.3
78	0.0	0.0	0.6	0.7	0.1	0.1	6.8	6.3	1.1	2.8	6.4	2.2
6+8	25.0	26.3	45.4	47.4	0.6	0.6	26.4	25.0	25.3	23.4	1.0	1.1
67	0.7	0.9	0.8	0.4	0.9	2.2	10.0	7.5	6.1	5.9	1.6	1.3
68	1.5	0.2	0.3	0.1	5.3	2.7	1.6	1.1	3.4	2.8	0.5	0.4
5+6+7+8-(67+68)	43.7	66.1	62.5	73.5	0.7	0.9	69.5	76.0	58.4	65.4	1.2	1.2

<sup>a</sup>Asian partner countries: China P.R., Hong Kong, India, Indonesia, Japan, Korea Rep., Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, Thailand. - <sup>b</sup>Difference between the sum of shares in one-digit items and 100 are due to unrecorded trade in SITC 9.

Source: International Trade Centre UNCTAD/GATT: PCTAS: Trade analysis system on personal Computer; five year times series of international trade statistics with market share and trend analysis by country and product. Own calculations.

