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East Asian export growth and prospects

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Asia Pacific Press at the
AUSTRALIAN NATIONAL UNIVERSITY

<http://ncdsnet.anu.edu.au>

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The contribution of the Australian Agency for International Development (AusAID) to this series is gratefully acknowledged. The opinions contained in the series are those of the authors, and not necessarily of the National Centre for Development Studies or of AusAID.

ISSN 1442 0589

ISBN 0 7315 2397 0

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Key to symbols used in tables

- n.a. not applicable
- .. not available
- zero
- . insignificant

Abbreviations

ASEAN-4	Association of Southeast Asian Nations (Indonesia, Malaysia, the Philippines and Thailand)
FDI	foreign direct investment
GDP	gross domestic product
IT	information technology
NIE	newly industrialised economy
PRC	People's Republic of China
REER	real effective exchange rate
US	United States of America

Exports have more value to people than is commonly appreciated...Exports enhance workers' pay, benefits, skills, productivity and future prospects. Exports enhance corporate innovation, stability and endurance. Exports benefit workers and owners in small businesses, as well large.

(Richardson and Rindal
1995)

The past

Over the past three and a half decades, several developing Asian economies have performed the essential function of growth and export expansion better than most other economies. The successful economies can be divided into four groups of similar economic performance. The newly industrialised economies (NIEs) were the first, and most successful, in attempting export-led, trade-induced growth. The four Southeast Asian economies in the Association of Southeast Asian Nations (the ASEAN-4) were next, followed by the People's Republic of China (PRC). The South Asian economies were the last to embark on the path of export-led growth. This way of following the leader became known as the 'flying geese paradigm' of Asian growth.

Policy measures and macroeconomic factors that were crucial to the growth of the NIEs were also evident, at a later stage, in the ASEAN-4 countries and the PRC. As a consequence, if the GDP growth rates of these economies are plotted on a logarithmic scale, they show parallel trends. However, it must be noted that these economies began exporting from a very low level, and therefore trade statistics hide a low-base effect. The most recent and noteworthy example of this effect is the PRC. In the mid 1970s, its exports were barely US\$6.4 billion. At the time the 'open door' policy was adopted in 1979, the PRC's exports were a paltry US\$12.6 billion. Unfortunately, the economy opened up to the outside world at a bad time. The global recession of the early 1980s was followed by a weak recovery which greatly reduced the demand of developed market economies for PRC imports. Since the PRC was a latecomer to the club of successful Asian exporters, it was not accorded the same favorable treatment that the NIEs and ASEAN-4 countries enjoyed under the Generalized System of Preferences. Nevertheless, in 1997 the PRC's exports totalled US\$182.9 billion, reflecting a radical change both in the structure of the economy and its macroeconomic management. The official target for 1998 is US\$200 billion. Achieving such a dramatic increase in two decades is remarkable. However, several Asian economies—including those in South Asia—have not taken part in Asia's 'miracle'.

During 1965–97, exports from developing Asian economies grew faster on average than world exports (Table 1). In nominal terms, world export volume rose 32 times over this period. By comparison, the volume of developing Asian exports soared 86-fold. Among the various subgroups, the NIEs were far ahead of the rest, with a 193-fold increase in export volume. To see export growth in real terms, the nominal series shown in Table 1 is deflated by the export unit value indices. In real terms developing Asian exports grew much faster than world exports between 1965 and 1996, while the four NIEs achieved the fastest export growth rate in the region (Table 2). While real world exports grew sixfold during this period, developing Asian exports grew 18-fold. The NIEs, in real terms, recorded a 57-fold rise during this period. The low-base effect is evident once again.

Table 1 **Nominal exports for developing Asia, 1965–97 (US\$ billion)**

Year	World	Developing Asia ^a	NIEs	ASEAN-4	South Asia-3 ^b	PRC
1965	172.4	12.1	2.7	3.3	2.2	2.6
1966	189.0	13.1	3.2	3.4	2.6	2.7
1967	198.4	12.8	3.6	3.4	2.3	2.4
1968	221.7	13.6	4.3	3.6	2.2	2.3
1969	253.3	15.5	5.4	4.1	2.2	2.4
1970	290.1	17.1	6.3	4.5	2.4	2.3
1971	327.1	19.4	7.7	4.8	2.5	2.8
1972	390.7	24.8	10.2	5.7	3.4	3.7
1973	541.8	38.4	16.3	9.7	4.2	5.9
1974	811.3	54.6	21.8	16.8	5.4	7.1
1975	835.2	54.4	21.6	15.4	5.7	7.7
1976	942.3	68.8	30.9	19.4	7.1	6.9
1977	1,066.3	81.7	37.3	23.5	8.0	7.5
1978	1,233.6	98.0	47.0	26.5	8.7	10.0
1979	1,584.3	128.8	60.5	36.5	10.5	13.6
1980	1,910.6	164.0	76.4	47.1	12.0	18.1
1981	1,878.5	176.4	86.6	46.7	12.0	21.6
1982	1,729.4	175.6	85.7	46.2	12.5	21.9
1983	1,695.9	183.6	93.3	46.5	12.9	22.2
1984	1,809.2	210.5	112.1	51.2	13.4	25.0
1985	1,820.1	208.6	114.0	45.8	12.9	27.6
1986	2,003.1	227.1	132.3	43.5	13.7	31.4
1987	2,355.3	295.3	177.9	52.4	16.5	39.5
1988	2,693.5	363.8	223.7	63.6	19.1	47.5
1989	2,906.6	405.5	246.3	75.0	21.9	51.9
1990	3,309.9	452.0	267.1	86.2	25.2	61.3
1991	3,477.6	515.7	305.6	101.1	25.9	70.5
1992	3,731.1	585.5	341.0	116.9	29.0	84.9
1993	3,730.6	646.4	376.2	131.8	30.5	91.0
1994	4,243.4	768.6	437.1	157.2	35.1	121.0
1995	5,083.6	933.6	528.7	193.4	41.9	148.8
1996	5,277.6	976.3	551.2	204.3	45.7	151.2
1997	5,456.5	1,041.6	571.0	221.0	46.4	182.9

Notes: ^a Afghanistan; Bangladesh; Bhutan; Brunei; Cambodia; PRC; Fiji; Guam; Hong Kong, China; India; Indonesia; Kiribati; Korea; Lao PDR; Macao; Malaysia; Maldives; Mongolia; Myanmar; Nepal; Pakistan; Papua New Guinea; Philippines; Singapore; Solomon Islands; Sri Lanka; Taiwan; Thailand; Tonga; Vanuatu; Vietnam; and Western Samoa.

^b Bangladesh, India, and Pakistan.

Sources: Asian Development Bank (ADB), Various years. *Key Indicators of Developing Asian and Pacific Countries*. Oxford University Press for the Asian Development Bank, Hong Kong; International Monetary Fund (IMF). Various issues. *International Financial Statistics Yearbook*, International Monetary Fund, Washington, DC; International Monetary Fund, 1997. *World Economic Outlook, October 1997*, International Monetary Fund, Washington, DC; Council for Economic Planning and Development (CEPD), 1997. *Taiwan Statistical Data Book 1997*, Council for Economic Planning and Development, Taipei.

Table 2 **Exports in real terms, 1965–95** (1990 US\$ billion)

Year	World	Developing Asia ^a	NIEs	ASEAN-4	South Asia-3 ^b
1965	805.6	51.1	8.7	10.0	..
1966	863.0	56.2	9.6	10.5	7.8
1967	905.9	55.7	27.3	10.5	7.0
1968	1,036.0	52.2	15.8	11.5	6.9
1969	1,151.4	57.0	19.1	12.7	6.7
1970	1,255.8	59.7	20.9	13.2	7.4
1971	1,329.7	67.0	24.3	14.6	7.5
1972	1,457.8	80.9	28.7	17.9	9.7
1973	1,641.8	92.6	38.1	20.5	9.7
1974	1,767.5	88.3	38.2	21.0	10.6
1975	1,677.1	91.7	40.2	20.8	10.0
1976	1,873.4	112.2	55.3	26.1	12.3
1977	1,938.7	118.2	61.3	28.5	12.6
1978	2,032.3	134.4	68.1	30.6	11.5
1979	2,188.3	145.9	76.7	31.3	13.1
1980	2,226.8	156.9	85.9	31.4	13.7
1981	2,233.7	170.6	91.7	31.9	14.3
1982	2,140.3	179.2	91.8	33.4	15.2
1983	2,205.3	196.2	100.7	36.2	15.7
1984	2,412.3	218.2	117.8	39.0	15.7
1985	2,476.3	232.6	124.4	40.8	15.0
1986	2,497.6	277.6	146.7	53.4	15.9
1987	2,646.4	338.7	191.1	58.6	18.7
1988	2,924.5	385.8	229.8	68.1	19.0
1989	3,128.7	414.2	251.9	79.2	21.7
1990	3,309.9	452.0	267.1	86.2	25.2
1991	3,523.4	517.3	301.1	101.6	22.2
1992	3,697.8	583.8	340.4	116.6	22.3
1993	3,886.0	656.9	370.8	137.0	21.1
1994	4,290.6	779.5	423.2	144.9	23.0
1995	4,663.9	870.0	481.0	150.1	27.0
1996	4,810.9	935.1	500.9	152.8	..

Notes: ^{a, b} As for Table 1. The nominal value series have been deflated by the export unit value indices (1990 = 100).

Sources: Asian Development Bank (ADB), Various years. *Key Indicators of Developing Asian and Pacific Countries*. Oxford University Press for the Asian Development Bank, Hong Kong; and International Monetary Fund (IMF), Various issues. *International Financial Statistics Yearbook*, International Monetary Fund, Washington, DC.

In terms of five-year average growth rates of exports between 1966 and 1995, the developing Asian averages were higher than world averages for all periods but 1966–70, when some Asian economies had just launched their trade-induced growth programs. During 1981–85, when the world economy was in a downswing and world trade recorded a decline, developing Asian exports grew by a healthy 5.1 per cent. A comparison of five-year export growth rates for the various subgroups reveals that the NIEs had the highest growth rates in almost all periods, except 1971–75 and 1991–95. During these periods, the export growth rates of the ASEAN-4 countries were the highest. It was an economically turbulent period for the NIEs during 1991–95. Krueger (1995) has

made the point that in the NIEs, Malaysia and Thailand; the export growth rate exceeded that of GDP growth for much of 1965–95.

Exports from developing Asia on the global scene

The direct outcome of developing Asia expanding its exports faster than the rest of the world was an increasing share in total world exports. In 1965, developing Asia accounted for 7.0 per cent of total world exports. Its share fell to 5.9 per cent in 1970, due to most developing Asian economies following inward-oriented, import-substituting policy regimes. It was not possible under these circumstances to keep pace with the rate of growth of world exports. This is evident from the declining shares of the ASEAN-4 countries, South Asia, and the PRC in world exports (Table 3). After 1970, and motivated by the strength of the NIEs' exports, the share of developing Asian exports in world exports rose monotonically. Developing Asia accounted for 11.5 per cent of world exports in 1985, 18.4 per cent in 1995, and 19.1 per cent in 1997. The NIEs recorded the highest proportional increase in exports accounting for 1.6 per cent of total world exports in 1965, and 10.5 per cent in 1997.

The proportion of ASEAN-4 exports in total world exports rose gradually after 1970, and more sharply during the 1990s (Table 3). The South Asian economies continued on the lacklustre path of inward-oriented policy for much longer than the other Asian subgroups, with the result that their export expansion did not keep pace with world export growth. Bangladesh, India, and Pakistan's share in world exports declined from 1.3 per cent in 1965 to 0.6 per cent in 1980. Since then, the share has grown marginally, because of gradual liberalisation and reform from 1991. The PRC's share of world exports did not begin to improve substantially until 1980, but thereafter recorded a dramatic rise. Between 1980 and 1990, the PRC's share of world trade more than doubled to 1.9 per cent, and almost doubled again to 3.4 per cent between 1990 and 1997.

Due to the successful export performance of a few Asian economies, the developing Asian economies as a whole have become a significant group in the international economy. The ten

Table 3 Asian exports as a proportion of world exports, 1965–97 (per cent)

Year	Developing Asia ^a	NIEs	ASEAN-4	South Asia-3 ^b	PRC
1965	7.0	1.6	1.9	1.3	1.5
1970	5.9	2.2	1.6	0.8	0.8
1975	6.5	2.6	1.8	0.7	0.9
1980	8.6	4.0	2.5	0.6	0.9
1985	11.5	6.3	2.5	0.7	1.5
1990	13.7	8.1	2.6	0.8	1.9
1995	18.4	10.4	3.8	0.8	2.9
1996	18.5	10.4	3.9	0.9	2.9
1997	19.1	10.5	4.1	0.8	3.4

Note: ^{a, b} As for Table 1.

Sources: Asian Development Bank (ADB), Various years. *Key Indicators of Developing Asian and Pacific Countries*. Oxford University Press for the Asian Development Bank, Hong Kong; and International Monetary Fund (IMF), Various issues. *International Financial Statistics Yearbook*, International Monetary Fund, Washington, DC; and Council for Economic Planning and Development (CEPD), 1997. *Taiwan Statistical Data Book 1997*, Council for Economic Planning and Development, Taipei.

Table 4 Exports of the ten largest developing Asian exporters, 1997

Country/Area	Value (US\$ million)	Share of world exports (per cent)
Hong Kong	188,063	3.45
PRC	182,877	3.35
Korea	136,164	2.50
Singapore	125,000	2.29
Taiwan	121,744	2.23
Malaysia	83,027	1.52
Thailand	57,504	1.05
Indonesia	55,393	1.02
India	33,898	0.62
Philippines	25,088	0.46
Subtotal	1,008,758	18.49
Japan	420,957	7.71
US	688,697	12.62
Germany	511,642	9.38
Subtotal	1,621,296	29.71
World	5,456,500	100.00

Source: International Monetary Fund, 1998. *International Financial Statistics Yearbook 1998*, International Monetary Fund, Washington, DC.

largest developing Asian exporters in total had a 18.49 per cent share in world trade in 1997 (Table 4). This was 47 per cent higher than the US's share (12.62 per cent), 51 per cent higher than Germany's (9.38 per cent), and more than double Japan's share (7.71 per cent). According to the World Trade Organization (1997), six Asian economies were among the 20 largest exporters in the world in 1996. Hong Kong, the largest exporter in the region, was ninth; the PRC 11th; the Republic of Korea (hereafter Korea) 12th; Singapore 13th; Taiwan 14th; and Malaysia 19th.

Table 4 also reveals the highly concentrated nature of Asian trade—the ten largest developing Asian exporters accounted for 96.8 per cent of total developing Asian exports in 1997, while the five largest accounted for 72.4 per cent of the total. Export success in Asia is not regionwide, but a result of the exceptional performance of a small number of economies.

Export growth and structural transformation

There is a body of literature in development economics which attributes brisk growth in Asia to successful export performance (see Balassa 1978; Krueger 1980; Feder 1982; Balassa and Williamson 1990; Edwards 1992). Several studies have highlighted various static and dynamic features of the Asia export industry that have contributed to success. In response to competitive pressures from abroad, these features include greater capacity utilisation, resource allocation according to comparative advantage, exploitation of economies of scale, technological improvements and efficient management. The implication is that there are substantial differences in productivity between export-oriented and non-export-oriented industries and sectors. As such, economies that have adopted export-oriented strategies have benefited from closer to optimal resource allocation and higher growth rates than those which have not.

For some time these precepts were considered the new orthodoxy in economics. However, in

recent studies based on endogenous growth models, the significance of exports to economic development has been unconvincing. Several studies have found the relationship to be either insignificant or tenuous at best (Kormendi and Meguire 1985; Grossman and Helpman 1991; Young 1991; Levine and Renelt 1992). Empirical studies using cross-country data have found little correlation between per capita growth rates and export/GDP ratios in regressions including other important variables such as saving, investment in plant and equipment, and technology absorption.

The recent economic history of the NIEs, the ASEAN-4 countries, and lately the PRC would seem to provide ample evidence that these economies have benefited from the promotion of exports. Export success—both within and beyond Asia—was responsible for more rapid industrialisation in exporting countries than in other developing economies during the same period. In many of these economies, particularly the NIEs, the phenomenal growth in export earnings was equivalent to around one-third of the increase in output growth during the early phases of industrialisation. Although the timing of rapid economic growth differs for other developing Asian economies, similar evidence is available for them. The coincidence of rapid growth and booming exports is conspicuous for Malaysia and Thailand during the late 1980s and early 1990s, although it is less apparent for Indonesia and the Philippines.

The regression results of Fukuda and Toya (1995) indicate that the effect of exports on developing Asia's economic growth was positive and significant. Their rejection of previous studies' findings of a weak link between export performance and economic growth is somewhat sweeping. Data problems and inappropriate dummy variables are thought to have caused ambiguity in the results. Fukuda and Toya (1995) are convincing in their assertion that the standard endogenous growth model is not applicable to Asian economies of the 1980s and early 1990s because the post-

Table 5 **Exports of manufactures in developing Asia, 1975–96**

	Exports of manufactures (US\$ billion) ^a				Share of total exports (per cent)			
	1975	1980	1990	1996	1975	1980	1990	1996
NIEs	15.2	55.0	189.2	356.7	69.7	78.2	88.6	89.6
Hong Kong	4.5	13.2	27.5	25.8	74.3	96.0	94.9	94.2
Korea	4.1	15.8	61.0	115.9	81.6	90.2	93.8	89.4
Singapore	2.3	8.6	38.0	105.9	41.8	44.7	72.3	84.7
Taiwan	4.3	17.4	62.7	109.0	81.3	88.2	93.5	94.2
ASEAN-4	2.1	8.2	43.9	135.0	13.9	16.6	50.9	66.1
Indonesia	0.2	0.9	9.7	26.2	2.4	3.9	37.9	52.6
Malaysia	1.2	3.6	16.3	60.1	30.4	27.8	55.2	76.8
Philippines	0.4	1.4	3.4	9.0	16.3	23.5	40.9	43.6
Thailand	0.4	2.3	14.6	39.8	19.6	34.9	63.4	71.4
PRC	..	8.8	34.6	129.1	..	48.6	55.7	85.5
India	2.4	5.0	13.6	20.2 ^b	50.7	58.8	73.4	76.6 ^b

Notes:^a Comprises chemicals, basic manufactures, machines, transport equipment, and miscellaneous manufactured goods.

^b Data refer to 1994.

Source: Asian Development Bank (ADB), Various years. *Key Indicators of Developing Asian and Pacific Countries*. Oxford University Press for the Asian Development Bank, Hong Kong.

Plaza Accord currency configuration led to a dramatic increase in the demand for exports of manufactured goods from developing Asian economies. This big pull on the demand side had spillover effects in Asia's developing economies. It also contributed to rapid economic growth in developing Asia without following the sequence prescribed by endogenous growth models.

Export expansion in the successful exporting economies was accompanied by rising GDP, maturing economic systems and continual structural transformation. As these economies moved up their growth curves, the product mix of exports changed. Initially, their product mix was confined to labour-intensive, low value-added products. The majority of exports were concentrated in low-technology sectors such as textiles and clothing. Soon these economies began to step up the technological ladder. The capital/labour ratio continued to increase until some, particularly the NIEs and Malaysia, now export highly sophisticated electronics, semiconductors and other computer-related products.

According to the latest (1996) statistics, exports of manufactures from developing Asia's ten largest exporters have reached US\$641 billion (Table 5). In 1970, these exports amounted to just US\$6 billion. By 1996, manufactured products in Hong Kong and Taiwan accounted for almost 95 per cent of total exports. Even in the country with the lowest proportion of manufactured exports, the Philippines, 44 per cent of total exports were manufactures.

Direction of developing Asia's exports

In the 1960s, the vast majority of developing Asia's exports went to industrial economies. Singapore and Thailand were the only exceptions, exporting more than half their total exports to other developing economies (within and outside Asia). During the early 1970s, the NIEs successfully penetrated the markets of industrial countries in an extensive range of products. The liberalising international trade regime, under the various rounds of multilateral trade negotiations sponsored by the General Agreement on Tariffs and Trade (GATT), helped these economies enormously. By this time the NIEs had also become competitive in a wide range of skills-intensive, medium-technology products. The NIEs took advantage of liberalising international trade and increased competitiveness and found profitable niches for their exports in industrial economies, particularly the US. They penetrated industrial markets at the cost of other developing countries outside the region, and indigenous producers in the importing countries. Their exporting success was initial cause for mild trade friction between the NIEs and importing countries. While Malaysia and Thailand gradually increased their share of exports to industrial countries; India, Pakistan and the Philippines were less successful. On balance, however, the relative importance of industrial countries for developing Asian exporters increased considerably during the 1970s, while other developing countries and centrally planned economies declined in importance.

The trend during the 1980s was markedly different to that of the 1970s, due to the appearance of mild protectionist tendencies in industrial countries. This threatened to turn into stringent protectionism and it became difficult for developing Asian exporters to penetrate these markets. Gray area measures such as voluntary export restraints and orderly marketing arrangements were applied. Consequently, exports from developing Asia increasingly began to go to other developing countries, and intra-regional trade began to rise. Intra-regional exports were 22.3 per cent of total Asian exports in 1980, but rose to 31.6 per cent by 1990. According to the World Trade Organisation (1997), intra-Asian exports reached 51.6 per cent of total exports in 1996. This upward trend was influenced by growing market size, political stability, physical proximity between the trading partners, cultural similarities, membership of the Asia-Pacific Economic Cooperation

forum, and to a lesser degree, membership of ASEAN (Yu and Zietlow 1995). It should be noted that different parameters affect intra-Asian exports in different ways in different periods (Cushman 1990).

With the passage of time, transformations in comparative advantage have taken place in the rapidly growing Asian economies. Although detailed product-wise analyses are available (Singer 1993; Das 1997), a broad pattern can be observed. The NIEs had a comparative advantage in labour-intensive goods and primary products in the 1960s. Singapore was the only exception, with a comparative advantage in capital-intensive goods. India and Pakistan had a comparative advantage in low-technology manufactures, such as textiles and leather products. Other Asian economies had no comparative advantage in manufactures, and instead exported primary products.

In the 1970s, the NIEs lost their comparative advantage in primary products (although they maintained it in some labour-intensive goods) but became competitive in skills and capital-intensive manufactures. Thailand, India and the Philippines gained comparative advantage in labour-intensive manufactures, but the latter two could not exploit this due to a high degree of economic distortion and the continued inward-orientation of their trade regimes.

In the 1980s, with the help of sustained high-technology imports, the NIEs enhanced their comparative advantage in skills and capital-intensive manufactures, with Malaysia following close behind. The PRC acquired a comparative advantage in chemicals and light engineering. India made some progress, but on a much smaller scale than the NIEs and the PRC. In the 1990s, the NIEs moved into higher-technology products and became large exporters of electronics, integrated circuits, semiconductors, and other computer-related products. In 1995, Korea and Malaysia were among the largest exporters of dynamic random-access memory chips. The growth of the high-technology sector in Malaysia and the PRC was supported by heavy inflows of foreign direct investment (FDI). Most Asian economies specialised, confining their exports to a relatively narrow range of products, which rendered their export revenues vulnerable.

The agreements made at the Uruguay Round will make their mark on world trade. The final year of implementation of the Uruguay Round is 2005, and the expectation is that world trade then will be decidedly different from now. The global and Asian pattern of comparative advantage has been changing and is likely to continue. There is a strong possibility that the NIEs and ASEAN-4 will gain comparative advantage in the production of capital and technology-intensive products. Hertel et al (1996) believe that a projections-approach to analysis of the Uruguay Round inspired policy reforms capturing both the interaction between economic growth and changing comparative advantage. They suggest that the implementation of agreements inspired by the Uruguay Round will give rise to a 17 per cent increase in the welfare gains to developing Asia, the largest increase of any region.

Unique Asian exports?

Some commentators have perceived something unique about Asian exports, by way of explanation for their success. Noland (1997) and Trefler (1995) have analysed the commodity composition of exports from Asia. They investigated the concentration of Asian exports in products and sectors and tried to determine whether a unique Asian export pattern exists.

To discover whether there is a distinctive Asian export pattern, export similarity indices were

constructed. They were defined as

$$XS(a,b) = \sum_i \min(X_{ia}, X_{ib}) * 100,$$

where X_{ia} (X_{ib}) is the industry i export share in country a 's (b 's) exports which have been calculated for nine Asian economies and a sample of 21 other non-Asian countries. The index varies from 0 to 100, with 0 indicating complete export dissimilarity, and 100 complete correspondence.

Results show that Hong Kong, Korea, and Taiwan share the highest export similarity values. The indices for 1988 were higher than in 1968, implying that the export patterns of these three economies grew more similar over the two decades. There is some indication that Korea and Taiwan have followed the Japanese export pattern. When Korea's export pattern for 1988 was compared with the sample countries' export patterns in 1968, the Japanese pattern had the highest similarity value (70), although it was lower than the contemporaneous value for Taiwan. The results for Singapore were different from those of the other NIEs, reflecting its extensive investment relations with other Southeast Asian economies. In 1968, its highest export similarity pairings were with Indonesia (75), Malaysia (52), and Spain (50). In 1988 its highest values were with Malaysia (66), the United Kingdom (61), and Taiwan (58). When the non-contemporaneous pairings are calculated, Singapore's export similarity was the highest with Western European countries: Italy (60), Spain (54), Austria (51), and France (51); suggesting that Singapore may be following a Western European pattern. It should be noted that these results simply compare two points in time. If a different lag were examined, say 10 instead of 20 years, a different similarity ranking might be obtained.

In the late 1960s, Malaysia consistently exhibited a high degree of export similarity with its Southeast Asian neighbors, such as Indonesia, Philippines, Singapore, and Thailand. Between 1968–88, the export similarities of Thailand shifted from non-Asian countries such as Brazil (70) and Mexico (59) to Asian countries such as Taiwan (57), the Philippines (57), and Korea (56). Interestingly, Thailand's export pattern in 1988 was more similar to that of Taiwan in 1968 than any contemporaneous pairing, with the next highest non-contemporaneous pairing being Korea (53) and Hong Kong (51). In that sense, Thailand might be said to be following the export pattern of Hong Kong, Korea and Taiwan.

Similar results were obtained for the Philippines. In 1968 the highest export similarity pairings were with non-Asian countries such as Peru (53) and Brazil (42), but by 1988 the highest pairings were with Thailand (57) and Malaysia (53). The highest non-contemporaneous pairings were with Taiwan (56) and Korea (54), suggesting that the Philippines might also be following in the NIEs' footsteps. The export similarity indices for Indonesia exhibited the greatest change. In 1968 they were highest with Singapore (75), Malaysia (51), and Tunisia (49). In 1988, presumably due to oil exports, Indonesia's export similarity pairings were highest with Mexico (59), Norway (56) and Malaysia (52).

The export patterns of Japan and, to an extent, Singapore, are more similar to those of some Western European economies, both contemporaneously and non-contemporaneously, than to other Asian countries. There is little evidence that Asian countries are following the Japanese export pattern, with the possible exception of Korea. There is some evidence that the two export patterns of Hong Kong, Korea and Taiwan on the one hand; and Malaysia, the Philippines, and Thailand on the other, have grown more similar over time.

Export similarity indices indicate that, while some Asian countries have followed similar export paths to each other, there is no unique Asian export pattern.

International trading environment

The rapid expansion of exports in developing Asia, particularly in the NIEs and the ASEAN-4 countries, benefited substantially from rapid improvement in the international trading environment, which was the direct consequence of seven rounds of multilateral trade negotiations held under the aegis of GATT in 1947–79. Trade expansion in Asia fortuitously coincided with GATT-sponsored trade liberalisation. The multilateral trade negotiations succeeded in bringing down tariff barriers, particularly in the industrial economies which were important markets for Asian exports.

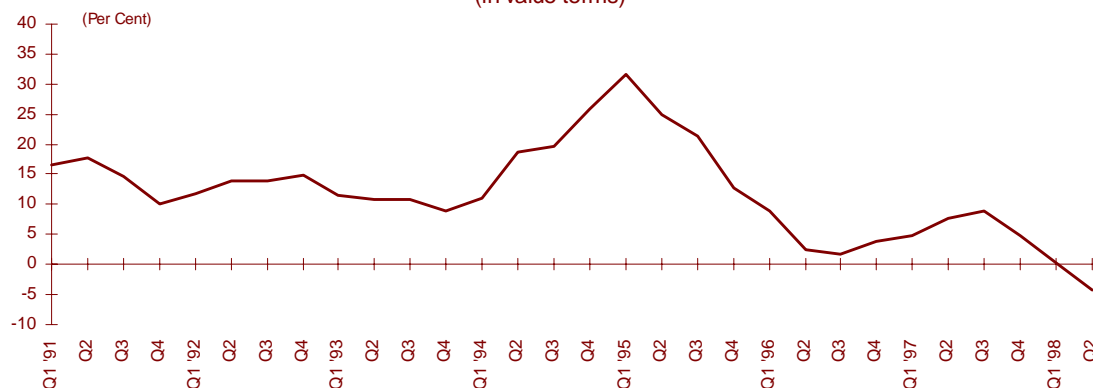
The last round of multilateral trade negotiations, the Uruguay Round, started in September 1986 and ended after seven years of protracted talks in December 1993. This was the most ambitious of the rounds and culminated in significant achievements in terms of liberalising tariffs and nontariff trade barriers. Implementation of the Uruguay Round recommendations will go a long way to improving the international trading environment. It was agreed that tariffs would be eliminated on pharmaceuticals; equipment for construction, agriculture and medicine; paper; furniture; toys; and beer. It was also agreed that tariffs would be substantially reduced on chemicals and certain electronic items such as semiconductors, electronics parts and semiconductor manufacturing equipment. In addition, tariffs on many other items would be lowered by smaller amounts. All cuts would be staged over five to ten years, depending upon the product line. At the end of the implementation of Uruguay Round recommendations, the average tariff rate for industrial countries should have declined from 5.0 per cent to 3.6 per cent.

The Uruguay Round negotiators also agreed that subsidies on agricultural exports would be reduced by 21 per cent and the ban on rice imports into Japan and Korea would be lifted, to be replaced by an import quota of 4 per cent of domestic consumption. Nontariff barriers including the variable levies of the European Union, various voluntary export restraints, and import quotas would be replaced by tariffs which would be reduced gradually. The Multifiber Arrangement, which limited trade in textiles and clothing, would be phased out over a ten year period. Many countries agreed to the comprehensive binding of reasonable tariff rates, as defined by the importing countries. Export subsidies were prohibited. A framework agreement was also reached in the area of service transactions which includes most favored nation treatment, national treatment and market access. At an organisational level, the World Trade Organisation was established in 1995, and the General Agreement on Trade in Services was signed the same year. In addition, three multilateral agreements were signed on telecommunications, information technology and financial services in 1997. Despite continued improvement in the international trading environment, the mid 1990s did not turn out to be a successful period for Asian exports.

The past is no guide to the future

The picture of Asian exports that has emerged from the foregoing discussion is positive and favorable—it sounds like an Asian success story. However, successful performance in the past need not guarantee the same in the future. The healthy long-term trend came to an end in 1996, when export growth rates began to decelerate. The deceleration was not only extreme but also struck all the high-performance economies of the region. For example, the average export growth rate of the ten largest developing Asian exporters in 1995 was 22.6 per cent, a figure that fell to 4.3 per cent growth in 1996. In 1997, their average growth rate rose to 7.2 per cent, which signalled an

Figure 1 Quarterly growth rates of Asian exports
(in value terms)



Source: International Monetary Fund, various years. *International Financial Statistics*, International Monetary Fund, Washington, DC.

improvement, but hardly a recovery. The performance of two Asian economies in 1996–97 was noteworthy. First, the export growth rate of the Philippines did not decelerate. Second, exports from the PRC were the fastest to pick up after a decline during the first two quarters of 1996.

Judging by their quarterly growth rates in 1996, the magnitude of deceleration in the two traditionally successful country groups; the NIEs and the ASEAN-4 countries, was of a similar magnitude (Figure 1). Economies that recorded the steepest deceleration in their export growth rates were the PRC, Hong Kong and Thailand. The deceleration occurred due to a combination of cyclical, structural, and country-specific factors. Among the NIEs, Hong Kong suffered from country-specific factors, and Korea, Singapore, and Taiwan suffered from cyclical and structural factors. Among the ASEAN-4 countries, export deceleration was largely caused by country-specific factors in Indonesia, by cyclical and country-specific factors in Malaysia, and by structural factors in Thailand. In the PRC, India, and Pakistan, country-specific factors were the main causes of export deceleration.

Although the export performance of the ASEAN-4 countries improved in the first quarter of 1997, the NIEs recorded a negative growth rate, largely due to the poor performance of Korea and Singapore. Export growth in the PRC was relatively strong in the first three quarters of 1997, though it was affected by the economic and financial crisis of the region in the fourth quarter and thereafter suffered a decline.

The financial and currency crisis that struck Thailand in July 1997 and rapidly spread to other Asian economies caused sharp currency depreciations. Between July 1997 and March 1998, the Korean won depreciated by 46.4 per cent, the New Taiwan dollar by 12.7 per cent, and the Singapore dollar by 11.4 per cent against the US dollar. (The Hong Kong dollar did not depreciate.) The Indonesian rupiah depreciated by 72.6 per cent over the same period, the Malaysian ringgit by 31.4 per cent, and the Philippine peso by 33.9 per cent. The Chinese yuan resisted all pressures to depreciate through the crisis period, which was a respite to the other regional currencies. The

currencies of India and Pakistan, countries that were not involved in the East Asian crisis, recorded minor depreciations.

Exports after the East Asian crisis

When East Asia's financial and currency crisis followed close behind the export deceleration of 1996, the general expectation was that large currency depreciations would lead to a spurt in exports, which in turn would act as a vehicle of recovery. The regional rescue programs of the International Monetary Fund were partly based on this assumption. Currency depreciation implies that products exported from the stricken East Asian economies should be less expensive in their export markets and so more price-competitive. Though export volumes have grown in some Asian economies by the third quarter of 1998, any expectations of a dramatic export revival have proved to be ill-founded. It is increasingly felt that the post-depreciation export optimism was exaggerated. Imports recorded sharp declines in all East Asia's crisis economies, falling by as much as half in Indonesia and Thailand.

To equate a depreciating currency directly with potential export gains is unrealistic because a currency's value is only one of the variables affecting export volume growth. The other variables include import content of exports, labour-market conditions, liquidity in the domestic financial market, and export demand. Thus, both supply and demand-side factors affect export performance. If we base our entire calculation of export demand on currency valuations, then we ignore the whole supply side. In addition, while a depreciating currency makes exports cheaper, the extent to which this occurs depends on the degree by which exporters' prices have fallen, the price elasticity of demand in importing countries, and how much of the price decline is passed on to importers by exporters.

Several supply-side factors are retarding exports in Asia. Many export products, such as electronics or shoes, have a significant import content. Currency depreciation raises their input costs which offsets any advantage that low wages provide. In Indonesia, Malaysia and Thailand, exporters import over 30 per cent of the raw materials and equipment used in their production processes on average. In the electronics and automobile assembly sectors, 60–90 per cent of export value is derived from imported parts. By increasing input costs, currency depreciation contributes to a decline in export competitiveness.

Given such reliance on imports by exports, access to finance is vital to the prospects for an export-led economic recovery. This includes working capital, import finance, and trade (or export) finance. However, banks in the East Asian crisis economies cannot lend because many are still struggling to meet the 8 per cent capital-adequacy ratio required by the International Monetary Fund. If they fail to meet the requirement, they will be forced to shut down. Another problem is the magnitude of bad debts carried by banks in several Asian economies. As a consequence, there is a severe credit shortage and bank finance has virtually dried up. This is hampering the ability of Asian firms to take advantage of the steep currency depreciations. When export orders are received, there is no liquidity to purchase the necessary inputs. Since many banks are in a poor state, their letters of credit are not acceptable to foreign banks. In addition, financial costs have soared with interest rates in some countries around 30 per cent, a level considered by central banks and the International Monetary Fund necessary to stabilise the stricken currencies. In Indonesia particularly, inflation has started to climb and is threatening export competitiveness.

Large importers are aware of depreciating currencies, and are demanding price cuts in US

dollars of 35–60 per cent. However, exporters' costs have not fallen by that much. They can barely afford 10 per cent reductions. A small fall in price will not substantially raise export volumes, unless the price elasticity of demand is extremely high. Unfortunately for Asian exporters, the price elasticity of demand is low for some major export items such as electronics.

Intra-regional and Japanese demand was weak in the latter half of 1997 and early 1998, and all the demand vigor had to come from the European Union and the US. Monthly trade statistics show that export volumes increased for a few affected economies during December 1997 and the early months of 1998. The US was a large market for these exports, earning the sobriquet 'market of last resort' as its trade deficit continued to swell. Thriving US firms were forced to keep growing more competitive, as was Japanese industry in response to an appreciating yen in the early 1990s.

Large currency depreciations are having a distorting effect over comparative advantage in the crisis-stricken economies. Low-technology products which had lost their comparative advantage have begun to reappear. This is undesirable for the economic structures of these economies, as it amounts to economic and technological regression. In Korea, the textiles, garments, and footwear industries have begun to revive after virtually disappearing a decade ago.

Causes of export deceleration

There were innumerable causes behind the export deceleration of 1996. Some causes were direct, such as the changes in exchange rate configuration; others were indirect, such as rising real wages or the missing technological edge of export products. The indirect factors combined to make a bad situation worse. Several structural problems existed in the successful Asian economies, rapid growth and industrialisation had spawned new development problems prior to the export deceleration. One important weakness was that rapid growth in the absence of sophisticated financial and capital markets along with a strong government presence, left the corporate and financial sectors unusually reliant on financing long-term investment with short-term debt capital.

Global or regional factors

The fall in world export growth from its cyclical peak in 1995 was the largest in the last 15 years. In dollar terms, world export growth fell from 20 per cent in 1995 to 4 per cent in 1996. In 1996, the import demand of industrial countries was at its weakest in a decade. The growth rate of import volumes in the G7 economies (US, Japan, Germany, France, Italy, the United Kingdom and Canada) decelerated from 10.8 per cent in 1994 to 8.3 per cent in 1995 and 5.7 per cent in 1996. This fall in world export growth adversely affected the export performance of the NIEs and the ASEAN-4 countries.

Intra-regional trade within Asia has increasingly contributed to export growth. In 1996, the share of intra-regional trade accounted for about 40 per cent of total exports, up from 32 per cent in 1990. If Japan is included, the share of intra-regional trade rises to 52 per cent. This concentration of trade within Asia reflects an ongoing process of specialisation among countries in the region. The country with the lowest dependence on trade with other Asian countries—the Philippines—sent just 25 per cent of its total exports to other Asian countries in 1996. This may help to explain the Philippines' stronger export performance after the Asian crisis hit in mid 1997. The PRC has the largest dependence on the region (56 per cent of exports in 1996) and substantial dependence on Japan (19 per cent). Hong Kong, Indonesia, Malaysia and Singapore all depend greatly on intra-regional trade (40–50 per cent of exports). Japan is a major market for Korea and Taiwan. The magnitude and interdependency of these trade links was considered one of the laudable features of the Asian economies. But after the 1996 export deceleration started and the 1997 currency crisis

began, these links became a liability because they provided a perfect channel for the contagion to spread swiftly throughout Asia. These very links hold the potential to become an asset again as they can also spread economic recovery.

Massive investment in Asia's electronics industry contributed to conditions of oversupply and inventory buildups. Hindsight reveals that several Asian economies, in particular Korea, Taiwan and Malaysia, overinvested in this sector. The precipitous fall in prices and downturn in global demand for electronics also impacted on the export of electronics, information technology (IT) goods, and other computer-related products. Exports of semiconductors were seriously affected. For several regional economies this product category was one of the principal revenue earners.

Changing exchange rate configurations

Two developments on the exchange rate front worsened the competitiveness of Asian exports during the mid 1990s. First, the Chinese yuan was devalued by almost 50 per cent against the dollar in 1994, which led to a loss of competitiveness for several export sectors in other Asian economies, particularly low-technology sectors. Exports from the PRC displaced these economies' exports of low value-added products. Second, as the dollar appreciated in the mid 1990s, the real effective exchange rate (REER) began to rise in several Asian economies because their currencies were in fact linked to the US dollar. In Korea, Pakistan and Thailand, currencies had been appreciating since 1995, and in Malaysia the ringgit had gradually started appreciating since April 1992. Climbing REERs made the export sectors less competitive in these countries. Although the reasons behind rising REERs were country-specific, there was a common factor of prolonged and massive capital inflows that fuelled boom conditions. At the same time, these capital inflows encouraged regional currencies to appreciate and created a situation similar to the 'Dutch disease'.

Korean exports, and to a limited extent those from Taiwan, had an additional problem. Export performance in Korea was closely related to the won/yen exchange rate because Korea and Japan compete in a large number of product markets. The yen had begun depreciating in mid 1995, and by mid 1996, it had depreciated by 50 per cent against the US dollar. The depreciating yen greatly deteriorated the competitiveness of Korea's exports (and to a lesser extent, those from Taiwan), particularly in the high-technology and high value-added sectors.

Infrastructure bottlenecks

Infrastructure development has not kept pace with economic and industrial development in most of the high-performing Asian economies. Energy supply was insufficient, roads and ports were congested, and telecommunications circuits overloaded. Korea had the highest cost of transport in the region (16.5 per cent of export revenues) which adversely affected the price competitiveness of its exports. Some economies, such as Malaysia, Taiwan and Thailand, had made large investments in infrastructure in the past yet weaknesses in this sector persisted. Countries such as Pakistan suffered from additional weaknesses, particularly in the banking and finance sector. Although infrastructure bottlenecks did not cause the 1996 deceleration, they contributed to gradual decline in the competitiveness of several export sectors in international markets.

Rising wages

A significant domestic supply constraint came from upward pressure on wages. High rates of GDP growth had led to rising wages in several Asian economies during the 1990s. As these economies grew, their need for skilled labour also increased. Due to poor human resource planning, this increased need could not be met locally. Skills shortages were more pronounced in the ASEAN-4

countries than in the NIEs (apart from Korea). This led to a further upward pressure on wages in general, and on wages of skilled workers in particular.

Real wages rose faster in Korea, Malaysia, and Thailand than in other Asian economies. Faster wage growth implies faster growth than that of productivity. During the early 1990s, Korea had a 5–15 per cent price advantage in steel, which was gradually eroded by rising labour costs. In 1990–96, wages in the manufacturing sector increased at an annual rate of 17.6 per cent, which was much higher than in competing economies. Several Asian economies lost comparative advantage in labour-intensive products because of rising wages. In Thailand, real wages rose by 75 per cent over 1991–95 and led to loss of competitiveness in textiles and garments, shoes, and frozen shrimp.

Rising wages and skills shortages did not cause the 1996 deceleration—they effectively eroded the competitiveness of exports. In the medium term, they had a cumulative impact on export performance.

Missing technological edge

Due to rising real wages, by the mid 1990s several Asian economies had lost comparative advantage in low value-added, low-technology exports to countries such as the PRC and Vietnam. There was a pressing need for these economies to shift their exports to higher technology, capital and knowledge-intensive exports. They were slow to respond to this need partly because of difficulties in recruiting skilled and technically trained personnel.

The lack of human resource development, resulting in a shortage of technically trained personnel, was a binding constraint in the ASEAN-4 countries and affected technological development in the NIEs. For instance, steel was consistently a successful export for Korea during the 1980s and early 1990s. However, by the mid 1990s Korea began to face a severe competitive disadvantage, particularly in high-tensile steel. Domestic steel technology had failed to keep abreast of current technology in the 1990s. As a consequence, not only Korea, but also Malaysia and Taiwan lagged behind in the production of (higher-value) non-memory chips by the mid 1990s.

A related problem was the failure to upgrade the quality of exports, due to lack of investment in state-of-the-art technology. In many successful exporting economies, where products were price competitive, non-price competitiveness was low. Korea was price competitive in machines, engines and turbines but lacked the quality required by international markets. Slow technological progress also caused rigidities in the export expansion of Malaysia and Thailand. Similarly, manufactured exports—especially textiles—from India and Pakistan have long suffered due to low technology.

High degree of export concentration

A common weakness of the export sectors of many Asian economies was the high degree of concentration in a handful of industries, making them vulnerable to changes in global market conditions. Heavy concentration in a small number of products particularly affected the export performance of Korea, Malaysia, Pakistan, Taiwan and Thailand. One of the more striking aspects of Asia's changing export structure and increased specialisation evolved between 1990 and 1995. This period is known for dramatic growth in the electronics industries of several Asian economies. The PRC, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan and Thailand recorded a significant jump in the share of electronics exports in total exports during this period. In 1995, over 50 per cent of total exports from Malaysia originated in the electronics sector. The corresponding proportion was over 45 per cent for the Philippines, 40 per cent for Korea, and 33 per cent for Thailand. The PRC and Indonesia had relatively small shares of exports originating from the

electronics sector, but the rapid rise in their shares were impressive. Globalisation of production, which meant reducing the value chain to discrete and specialised steps, was the principal factor behind Asia's rapid rise in electronic exports. The 1996 downswing in the demand cycle of electronics caused massive inventory buildups in Asian economies, enormous idle capacity and large losses.

Monetary policy

To rein in inflation, India, Pakistan, and Thailand adopted stringent monetary policies in 1995. Banks in India and Pakistan suffered from a high ratio of defaults to total loans in their portfolios and therefore restricted lending. As a result, a severe credit crunch was created, which contributed directly to the export slowdown.

Country-specific factors

Country-specific factors did play a role in the leadup to the 1996 export deceleration. In the PRC, some of the most important contributing factors were three policy changes to export incentives. First, the value-added tax rebate that exporters were entitled to was lowered twice. Second, the exemption of foreign-invested enterprises from tariffs on imports of machinery and equipment was rescinded. Foreign-invested enterprises accounted for almost one-third of the country's exports in 1995. The third policy change was the introduction of the 'duty security account' for processing trade. This policy was found to be cumbersome by the exporters because reimbursements were made after repeated reminders, inordinate bureaucratic foot-dragging and long delays. It increased transactions costs and adversely affected exports.

An important country-specific factor for Malaysia was the weak performance of most primary commodity exports, due to weak demand in import markets. Malaysia also had extremely tight labour market conditions, which resulted in the steepest deceleration in labour-intensive exports in the region, particularly textiles. Korean steel exports were adversely affected by a glut in the international steel market, and domestic banking problems in 1996.

In Thailand, exporters inflated 1994 and 1995 export data to claim value-added tax rebates under a new scheme. According to one estimate, as much as 100 billion baht of claimed exports were fictitious during these two years. If this estimate is correct, the true 1995 base on which the 1996 export growth rate was calculated was higher than recorded, and part of the 1996 deceleration in Thailand was a statistical artifact.

In Pakistan, economic activity decelerated sharply during the 1990s, particularly during 1995–96. The agriculture sector performed poorly and the industry sector stagnated. Besides this, the country suffered from a great deal of macroeconomic instability. Taiwan was hit by a devastating typhoon. Cross-strait tensions with the PRC also affected its economic and trade performance. In the Kyrgyz Republic exports fluctuated from year to year, but they did so because the economy, particularly the trade sector, was far from stabilised. The Kyrgyz Republic is still in the process of reforming.

Value and volume growth

Professor Ito (1999) decomposed export value growth into export volume and prices from the second quarter of 1995 to the fourth quarter of 1996. He reported that for Korea, export value declined while volume increased. This implies a steep price decline and poorer terms of trade, suggesting a structural, sector-based problem. In Hong Kong and Singapore, both value and

volume declines were parallel in this period. In Taiwan volume growth declined to almost zero, while prices increased. Malaysia and Thailand had similar declines in volume, reflecting a general loss of export competitiveness. The deceleration in export value came essentially from volume declines. (Indonesia's data are hard to interpret because volumes and values are highly variable.) Except for Korea, these decelerations in export volume growth are an indication of a loss of export competitiveness.

The list of causes of the export deceleration is exhaustive and covers both major and minor factors. It is obvious that not all of these factors can be called cyclical. They fall under the wide rubric of structural, cyclical and country-specific. Structural causes include changes in the exchange rate configuration, infrastructure bottlenecks, rising wages, technological obsolescence of processes and products, a high degree of concentration of exports in a few product lines, and loss of comparative advantage in certain products. The cyclical causes include flagging import demand in major markets and a global slump in electronics, IT goods, and other computer-related products. Country-specific factors include stringent monetary policy, withdrawal of export incentives, stagnation of industry, geopolitical factors, rudimentary trade sectors, weakness in the demand for some primary commodities, a glut in the international steel market and manipulation of export statistics.

Short-term prospects

Neither the external nor domestic economic environment is conducive to export expansion in the short term. The crisis scenario has made it impossible for Asian economies to expand their manufacturing activities and promote exports. Estimates of GDP growth rates for 1998 suggest stagnation for several Asian economies and contraction for others. Given the importance of intra-Asian trade, this recessionary environment will have an adverse income effect on regional export performance. During 1998, the recessionary tendencies in the Japanese economy were strong and the nominal value of world trade was growing at a sluggish rate. Under the prevailing circumstances, short-term rejuvenation of Asian exports will be difficult. The short-term prospects have been worsened by the apprehension of depreciation of the yuan and the Hong Kong dollar.

The banking and finance sectors of several Asian economies are in dire straits. Although interest rates declined substantially by mid 1998, they were still high in some Asian economies. Indonesia had the highest interest rates at 26 per cent, the Philippines following at 18 per cent, Korea 17 per cent, Thailand 16 per cent, and India had interest rates close to 15 per cent. High interest rates will make investment difficult and exacerbate the problems of export industries.

Several Asian currencies have recorded steep depreciations. Between June 1997 and August 1998, the Indonesian rupiah depreciated by 83 per cent, the Malaysian ringgit by 41 per cent, the Thai baht by 40 per cent and the Philippine peso by 39 per cent. The Korean won depreciated by 33 per cent, the NT dollar by 20 per cent, the Singapore dollar by 18 per cent, the Indian rupee by 16 per cent, and the Pakistan rupee by 9 per cent. The export industries were not able to benefit from steep currency depreciations. The dollar value of their exports did not rise in 1998.

In many Asian economies the production of exports was highly dependent on imports. Steep currency depreciations made imported raw materials very expensive. The high interest rates in domestic financial markets made borrowing from local banks difficult—and provided an additional deterrent to export expansion. Bad assets weighed down the banking and finance sector. The financial sector was neither able to provide working capital loans to exporters nor take care of their

export financing needs. Enterprises with orders for exports were not able to open letters of credit, and therefore could not execute their export orders. Finance became a binding constraint on export performance. For whatever they could export, Asian countries competed against each other. Intense competition led to falling unit export prices and declining terms of trade.

The two Asian economies that defied the downward trend were the PRC and the Philippines, where exports picked up after a short-lived decline in 1996. However, since PRC exports have a high regional dependence, they are going to be adversely affected by the East Asian crisis.

Large changes in currency valuation are known to affect the comparative advantage of economies. The East Asian currency crisis, and the accompanying currency depreciations, is sure to cause a reversal of comparative advantage to labour-intensive, low-technology exports and primary sectors in several Asian economies in the near future. This could be termed economic and technological retrogression. In countries such as Korea and Thailand the currency depreciation is restoring comparative advantage in garments and footwear. These two economies had lost comparative advantage in these and similar products. Such changes in comparative advantage will in turn change the direction of trade. In the new post-depreciation scenario, the exports from Korea, Thailand and the PRC will compete in third-country markets. With new values of the won and baht, higher quality Korean and Thai products will begin to cost less in dollar terms, making the PRC's exports less price-competitive. This is a different situation from that of the late 1980s and early 1990s, when exports from Korea and the PRC were largely complementary and the two countries rarely competed in third-country markets. For the same reason, investors from Korea and Taiwan will either close down their export-oriented plants in other Asian economies or reduce production in these plants.

Exports from the NIEs and ASEAN-4 countries did not expand in dollar terms, though the short-term possibility of a rise in volume exists. This rise will not be reflected in the dollar value of exports because of the sharp drop in the dollar value and falling prices. At the macroeconomic level, rising export volume will help raise employment and output in the crisis-stricken East Asian economies, which in turn will underpin GDP growth in the immediate future.

Medium-term prospects

While realistic prospects for export expansion are discouraging in the short term, they are much better in the medium term. Korea, Indonesia, Malaysia, and Thailand were restructuring their banking and finance sectors during 1997 and 1998. After sufficient progress has been made, the rapid currency depreciation will have a price effect on exports and improve regional export performance.

The new post-depreciation currency configuration is not the only element likely to influence export performance. Large investments have been made in infrastructure by several Asian economies. Some of these infrastructure projects will soon be on stream and the bottleneck on exports will be eased. In addition, export deceleration and the financial and currency crisis have focused the attention of policymakers on human resource development—particularly on the development of skilled labour. It has become apparent that middle-level skills in general, and managerial and financial skills in particular, are in short supply in the ASEAN-4 economies. During the mid 1990s, Malaysia and Thailand started taking measures to redress this imbalance in their economic structures. However, managing these skills shortages in the short term is difficult; they can only be resolved in the medium term.

The composition of Asian exports and the division of labour are likely to change in the medium term. The distortions caused to comparative advantage by steep currency depreciations will work themselves out and currency values will return to levels close to their purchasing power parities. The low-technology industries will again move to countries such as PRC, India, and Vietnam. The sectors that suffered due to overinvestment will have time to adjust to changed price and demand conditions. Some disinvestment or readjustment will take place in electronics, IT and telecommunications. The technological and industrial upgrading required in the NIEs and ASEAN-4 countries will have made headway, resulting in improvements in these economies' export performance. None of these measures results in short-term gains; as with skills upgrading, their impact on export performance can only be expected over the medium term.

At the beginning of this chapter, the question of whether deceleration in Asian exports is a permanent ground shift or a passing phase was posed. It is now possible to answer this question. The present deceleration is not a permanent ground shift. It has been caused by the structural, cyclical, and country-specific problems and subsequently exacerbated by the financial and currency crisis. With the passage of time, and as financial sector restructuring, structural adjustments, and skills development proceed; Asian export growth is likely to resume. As for growth rates, those achieved during the initial stages of export expansion in Asian economies are unlikely to be repeated. However, there is little doubt that there will be a return to robust export growth over the medium term, provided that the policy measures needed to restore competitiveness are earnestly implemented.

Policy measures needed to restore export competitiveness

New strategies, or modifications to old ones, are needed to restore Asia's export competitiveness. The principal policy measures are in the following areas.

Macroeconomic stability and reforms

Broad maintenance of macroeconomic stability is an essential element of a successful outward-oriented policy regime. Policymakers trying to rejuvenate export performance in their economies need to keep a strict rein on the inflation rate, current account deficit, and budget deficit. In addition, the impact of monetary policy on industrial activity needs to be watched carefully. Adopting an overly stringent monetary policy, for whatever reason, stifles export performance. The emphasis must be on a neutral incentive package.

Banking and finance sector reforms

One of the important lessons of the Asian financial and currency crisis is that the strong performance of the banking and finance sector is not to be ignored by policymakers. All the affected Asian economies need to restructure and consolidate their banking and finance sectors, write off capital losses, and recapitalise their financial institutions. In addition, regulatory and prudential norms need to be strengthened so that the excesses of the 1990s are not repeated in future. Commercial banks should periodically assess the quality of their assets. An independent financial supervisory agency should be established to carry out supervisory responsibilities. Consolidation and restructuring will entail closures and mergers. To that end, bankruptcy laws should be made more flexible than they currently are. In some economies, consolidation cannot be achieved without foreign participation. Export performance is sure to respond favourably to strengthening the banking and finance sector.

Real effective exchange rate

An important lesson learned from the experiences of the mid 1990s concerns the significance of maintaining a competitive real effective exchange rate (REER). An abrupt rise in the REER can be detrimental to the tradable sectors. If the REER is not carefully managed, resources will be diverted to nontradable sectors and the competitiveness of exports will be eroded. Changes in the REER should be such that they respond to domestic and external factors in a flexible manner and keep the tradable sectors competitive. Domestic price movements, and changes in the real wage and competitors' exchange rates should be fully and swiftly reflected in the REER. Delays in adjustment of the REER can potentially lead to high costs in terms of lost export markets.

Changes in comparative advantage

Comparative advantage is a dynamic concept. It keeps on changing as the economy moves up its growth path. A successful exporting strategy requires that a close eye be kept on the sunset and sunrise sectors. A study of revealed comparative advantage is of enormous benefit in this regard. Computing domestic resource costs is another useful analytical tool and, as such, revealed comparative advantage and domestic resource costs should be calculated periodically by the responsible government agency. Generally, Asian economies did a fairly good job of keeping up with the changes in their comparative advantage. However, some conspicuous mistakes were made in this regard.

Technological and industrial upgrading

In some traditionally successful export sectors such as textiles and apparel, the machinery plant and equipment are more than two decades old. Obsolete technology needs to be replaced by modern equipment. Asian economies also need to develop productive capacity in skills and capital-intensive sectors, something that cannot be achieved without moving up the technological curve. The ratio of high-technology exports to total exports needs to rise in these economies.

A higher technology content leads to higher value-adding, which in turn means a more profitable export sector. As the technology level of the manufacturing sector rises, exports become more competitive on the international market. The movement to a higher technological level allows industries to adopt higher-level processes that in turn help them differentiate their products and perform better in export markets. Upgrading technology is essential for Asia's economies to move out of their present morass and enhance their future competitiveness.

Asian economies also need to learn from their past in this regard. Foreign direct investment helped transform their technological scenario. FDI-related technology transfer succeeded in giving an impetus to exports in many Asian economies, as was the case in the export of electronics, IT goods, and other computer-related products. The same tried and tested strategy, with further refinements, can be made good use of in the future. Malaysia provides an excellent example of FDI bringing in state-of-the-art technology and improving technological standards in the process.

Human capital

Since technological improvement is sorely needed, there is also a critical need for the development of technological education in Asian economies. The education systems of many Asian economies have failed to meet the demand for personnel with advanced and intermediate technical training as well as personnel with financial and managerial skills. These bottlenecks affected export performance in many Asian economies, particularly the ASEAN-4 countries. Asian economies must formulate plans for demand-based skills development. The rewards of such plans cannot be reaped

in the short term, as it takes time for skills to develop. Therefore, in the short term there will be a dependence on importing skilled labour. Asian economies should try to make their labour markets more flexible to increase competition, and pay greater attention to automation and robotics.

Infrastructure bottlenecks

Although there are exceptions like Hong Kong and Singapore, infrastructure bottlenecks are an endemic frailty of the export sector in Asia. Inadequate infrastructure has led to high transportation costs and consequent loss of competitiveness. Measures must be taken to ease the road and port congestion and bring about a balance in the demand and supply of power. This has been under discussion for some time, and some Asian economies have already made large investments in infrastructure development. Others need to invest without delay. Governments should avoid all competition-restricting regulations, such as entry barriers, so that the private sector may also be involved in infrastructure development.

Export support services such as insurance, business services, and market research are also needed. They enhance the efficiency of capital invested in export sectors and lead to productivity gains. Semi-government bodies, designed on the lines of the Japan External Trade Organization, can be of enormous help in these areas. Their creation and expansion is essential for rejuvenating exports.

Diversification

A small number of products accounting for a large proportion of export revenue is characteristic for several Asian economies. A two-pronged diversification strategy must be attempted. First, more sectors or product lines should be developed. Second, in each product line firms should develop greater product diversity. This will enable them to retain their export markets for longer periods. Greater product diversity will also allow firms to penetrate niche markets and improve their profit performance. To this end, firms need to collect more information on customer tastes. They also need to improve their design capabilities.

Corporate governance

Reckless expansion and unrelated diversification through excessive borrowing caused a great deal of problems for many large firms, particularly in Korea. Firms need to concentrate on a small number of competitive sectors rather than a large number of uncompetitive ones. Firms should pursue diversification strategies but only various levels of goods within the same line should be targeted.

Electronics, information technology and telecommunications

Electronics, IT and telecommunications were the most dynamic export sectors in the PRC, Hong Kong, Korea, Malaysia and Taiwan during the 1990s. Since they suffered from both overinvestment and a demand slump in the mid 1990s, an adjustment process is currently underway. The malaise of this sector has been characterized as cyclical, which is considered to be self-correcting. Once the correction has taken place, the cycle will move on to an upswing. In some Asian countries these sectors need technological upgrading, which is largely done through FDI. A vertical division of labour across national boundaries needs to be strengthened. Marketing skills also need to be built up in this area.

Foreign direct investment

Domestic policies should try to attract FDI back into export sectors, not only for immediate capital

investment but also to reduce risk and increase confidence in operating in the new global production climate. Several successful exporting economies of Asia succeeded in the past in attracting FDI by having a stable political environment and maintaining a competitive business environment. Attention was paid to exchange rate policies and wage rates, financial and banking sectors were strengthened, there was investment in communications and infrastructure, and reasonable ownership laws were maintained. The Asian economies need once again to call on their acumen in attracting FDI.

The future

Realistic prospects of a short-term recovery of Asian exports are bleak, but they are much better for the medium term. It bears repeating that the present deceleration in Asian export growth is not a permanent ground shift. It has been caused by structural, cyclical, and country-specific problems. The financial and currency crisis that followed exacerbated the situation and made it impossible for exports to recover. With the passage of time, and as banking and finance sector restructuring, structural adjustments and skills development proceed, along with the other necessary measures, Asian export growth is sure to resume. As for growth rates, those achieved during the initial stages of export expansion in Asian economies are not likely to be repeated. However, there is little cause for concern regarding a return to robust export expansion over the medium term in Asia.

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