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ECONOMIC CO-OPERATION BETWEEN INDIA AND SINGAPORE: A Feasibility Study

Rajesh Mehta

RIS-DP # 41/2003

Research and Information System for the Non-Aligned and Other Developing Countries

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A Feasibility Study

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ECONOMIC CO-OPERATION BETWEEN INDIA AND SINGAPORE
A Feasibility Study*

by

Rajesh Mehta**

I. Singapore Economy

Singapore is at a level comparable to many developed economies in terms of GDP per capita; its growth of GDP is among the highest in the world. An open trade regime, well-directed economic management and its position at the centre of a dynamic regional market are factors that have contributed extensively to its rapid economic development. Political stability and a well-developed infrastructure, combined with very high rates of savings and investment and attractive investment incentives, constitutes the other supporting factors to boost Singapore's economic development.

Singapore has been following an economic policy of openness to trade as well as to foreign direct investment. Its ratio of Trade to Gross Domestic Product (GDP) has grown rapidly in the last couple of years. The amount of total trade in goods and services is more than 300 per cent of its GDP. The per capita income of Singapore is around US $ 33,000 which is almost 90 times higher than that of India.

Agriculture is of very limited significance to the Singapore economy, representing only 0.2 per cent of its GDP. Approximately 90 per cent of the food consumed in Singapore is imported. Tariffs are imposed on liquor only. With the exception of rice, there seems no quantitative restrictions on import and export, or domestic sales controls on agricultural products. However, Singapore maintains a system of strict sanitary and phyto-sanitary requirements, which are implemented through import licensing. A significant number of tariff lines of Singapore are subject to import licensing.

The manufacturing sector performed robustly in the 1990s, increasing its share in GDP to around 25 per cent, with trade growing slightly faster than production. In the face of increased labour

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costs, lower value-added activities have given way to higher value-added ones, while labour intensive operations have gradually moved overseas to lower labour cost countries. Overall industrial performance was boosted by a strong growth in electronics, with increasing intra-industry trade. The major manufactured exports are electronics, petroleum products and parts for office and telecommunication equipment. The main imports are electronic components, crude petroleum, data processing machines and telecommunication equipment. Services contribute more than 60 per cent to Singapore's GDP. Their overall growth has been underpinned by rapid expansion of finance, transport and telecommunications services. A summary of Singapore's macroeconomic indicators is given in Table 1.1.

The main objective of a bilateral free trade agreement is to promote mutually beneficial bilateral trade. It will not only lead to strengthening of bilateral and intra-regional co-operation, but will also lead to the economic development of the member economies. A trade agreement of this nature is generally carried out through progressive reductions and an elimination of obstacles to bilateral trade between the two nations. The benefits and the cost of the bilateral free trade agreement depends upon: (i) the trade policy regimes, particularly the levels of trade control measures, of member economies, and (ii) the provisions of bilateral free trade agreement.

The following section gives a brief outline of Singapore’s trade policy regime. This will help us to prepare a framework for the scope, extent and focus of a possible free trade agreement between India and Singapore.

Table 1.1: Macroeconomic Indicators of Singapore

SINGAPORE	1986	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Agriculture, value added (% of GDP)	0.77	0.36	0.28	0.22	0.20	0.20	0.19	0.21	0.22	0.19	0.15	0.14
GDP (current US$)	17857122304	36670013440	42803253248	49085083648	57619939328	69842083840	83389562880	91295604736	94602510336	82773188608	83841179648	92251914240
GDP per capita, PPP (current international $)	8417	12783	13773	14564	16744	18060	19432	20219	20560	19551	20874	23356
GDP (current US$)	17857122304	36670013440	42803253248	49085083648	57619939328	69842083840	83389562880	91295604736	94602510336	82773188608	83841179648	92251914240
GDP, PPP (current international $)	23003377664	38950076416	43192987648	47071154176	55504953344	61782835200	68516110336	74204708864	78005460992	76700114944	82492506112	93846003712
Land area (hectares)	61000	61000	61000	61000	61000	61000	61000	61000	61000	61000	61000	..
Land area (sq km)	610	610	610	610	610	610	610	610	610	610	610	610
Population, total	2733000	3047000	3136000	3232000	3315000	3421000	3526000	3670000	3794000	3923000	3952000	4018000
Industry, value added (annual % growth)	-1.91	9.39	8.27	6.04	9.31	13.40	9.57	7.16	7.75	0.64	7.12	10.20
Manufacturing, value added (annual % growth)	8.30	9.49	5.40	2.27	9.57	12.82	10.02	2.95	4.48	-0.56	13.63	15.23
Services, etc., value added (annual % growth)	4.88	8.86	6.61	6.82	14.58	10.42	7.16	7.75	9.18	-0.23	5.21	9.76
Imports of goods and services (% of GDP)	166.40	194.88	182.51	174.95	173.38	158.17	162.18	157.21	151.80	137.04	147.13	161.45
Exports of goods and services (% of GDP)	166.74	201.80	193.23	184.81	181.28	173.20	177.81	170.84	165.15	156.74	166.46	179.91
Foreign direct investment, net inflows (% of GDP)	9.58	15.20	11.42	4.49	8.13	12.24	10.54	11.36	13.71	7.63	8.58	6.93

Source: World Bank, *World Development Indicator*, 2002

II. Singapore's Trade Policy: Objectives and Initiatives

The economic structure of Singapore is generally governed by market forces. Hence, Singapore's trade policy can be said to be driven by market forces, and it is directed toward output-orientation. The main objectives of Singapore's trade policies are:

(i) to contribute towards the strengthening of a free, open and stable multilateral trading system,

(ii) to formulate bilateral free trade agreements with a number of strategic partners,

(iii) to develop Singapore into an international trading centre,

(iv) to identify new markets while maintaining the existing market,

(v) to safeguard and diversify sources of imports, and

(vi) to increase services export.

In practice, Singapore largely pursues free trade in goods. Import licensing and control provisions are maintained mainly to discharge Singapore's obligations under international commitments or on account of public health, environmental, and security considerations. Singapore does not impose any duties on exports. Export control measures are mainly used for public health, environmental and security considerations or to meet international commitments. Singapore applies the minimum possible tariffs and other trade control measures. In addition, the custom and trade documentation procedures are formulated with minimum inconvenience to traders. It does not have any sector-specific policies. Singapore is an active member of the GATT/WTO system.

In the Uruguay Round of trade negotiations, Singapore has made tariff bindings for 69 per cent of its total tariff lines. Out of 5823 tariff lines classified according to the HS system, Singapore has made tariff bindings for 4036 tariff lines, 741 lines have been bound at a tariff rate of zero per cent, 191 lines at 5.5 per cent, 598 lines at 6.5 per cent and 2506 lines at 10 per cent. The simple average of bound rates is 7.4 per cent. As a result of this commitment, Singapore's bindings on industrial products increased from 0 to 65 per cent of all lines, while its import-weighted average tariff rate would decline from a level of 12.4 per cent to 5.1 per cent. Singapore is also a member of other trade-related organisations and is signatory to a number of agreements/resolutions related to multilateral trade. It benefits from the Generalised System of Preferences (GSP), and is a member of the Generalised System of Trade Preferences (GSTP).

Singapore is also a member of different regional trading arrangements, and is party to a large number of bilateral agreements.

The APEC forum, which decided to achieve full and open trade and investment in the region by 2010/2020 as per the Bogor Declaration includes Singapore as a member. Foreign trading partners have benefited from Singapore's open and non-discretionary trade regime. Singapore is also member of ASEAN, whose members agreed to establish the ASEAN Free Trade Area (AFTA) and introduced the Common Effective Preferential Tariff (CEPT) as the core mechanism for implementing AFTA.

A large number of steps have been taken under ASEAN toward the economic integration process. In 1992, the ultimate goal of the AFTA was an attempt to eliminate import duties on all products and to create a free trade region. There are the three main elements of AFTA:

1. *Effective Preferential Tariff (CEPT) Scheme*: Tariff on a wide range of the products for intra-ASEAN trade are either lifted or limited to a maximum of 5 per cent. In 2001, around 85 per cent of the commodities/tariff lines of the inclusion list[1] of the 6 original signatories of ASEAN[2] were already in the 0 to 5 per cent range.
2. *Quantitative Barriers* will be eliminated, and
3. *Other Non-tariff Barriers*, such as outright prohibition and unnecessarily technical requirements will be removed.

Apart from the steps undertaken in the AFTA scheme, other measures have been adopted by ASEAN for economic integration. Some of these include:

1. *ASEAN Industrial Co-operation Scheme* (AICO): The scheme uses the AFTA framework and is open to those manufacturing enterprises whose companies are operating in at least two ASEAN countries. When these companies enter into strategic alliance, the products traded between them are given ‘Free’ treatment.
2. *Framework Agreement on Services*: The agreement aims to integrate the ASEAN market for services by eliminating trade restriction in services. Beyond the commitments made by the general agreement in trade in services (GATS), the final goal of the agreement is to realise a free trade area in services.

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[1] Out of the 44,447 tariff lines of ASEAN-6, 43,920 lines are in the inclusion list. For details about the CEPT-2001 package, see Section III of this study.

[2] Sometimes known as ASEAN-6 of 10 member countries of ASEAN. The 6 countries are Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand.

Box 2.1: Progress of Singapore's Select Bilateral FTA Initiatives

USA: The United States and Singapore have substantively concluded negotiations for the **United States-Singapore Free Trade Agreement** (USSFTA), including resolution of the issue on free transfers of capital. This issue was the only one left outstanding from the last round of negotiations held during November 2002 in Singapore. The US and Singapore negotiating teams are now doing the legal scrubbing of the Agreement. The USSFTA covers trade in goods, rules of origin, customs administration, technical barriers to trade, trade remedies, cross border trade in services, financial services, temporary entry, telecommunications, e-commerce, investment, competition, government procurement, intellectual property protection, transparency, general provisions, labour, environment, dispute settlement.

Japan: Negotiations for the Agreement between **Japan and the Republic of Singapore for a New-Age Economic Partnership** (JSEPA) were launched in 22 Oct 00 between the governments of Japan and the Republic of Singapore. This followed the positive recommendation by the Japan-Singapore Joint Study Group, which had been tasked to study the proposed FTA. Substantive negotiations on key issues were concluded in October 2001 after 12 rounds. Prime Minister Goh Chok Tong and Japanese Prime Minister Junichiro Koizumi signed the Japan-Singapore Economic Agreement for a New Age Partnership in a signing ceremony held on 13 January 2002 in Singapore. The JSEPA has come into force after the Agreement has undergone the necessary legislative processes in the respective parties.

New Zealand: The launch of the Singapore-New Zealand FTA negotiations was jointly announced by Singapore Prime Minister, Goh Chok Tong and New Zealand Minister Jenny Shipley at the fringe of the APEC Leaders' Summit in Auckland in September 1999. The **Agreement between New Zealand and Singapore on a Closer Economic Partnership (ANZSCEP)** was signed on 14 November 2000 after six rounds of negotiations. It came into effect in January 2001. The ANZSCEP is a comprehensive Agreement covering trade in goods and services, investment and government procurement, amongst others. It marks an important milestone in the already excellent relations between New Zealand and Singapore. The ANZSCEP also has a positive demonstrative effect on other economies and has stimulated interest in the use of FTAs to accelerate the momentum of trade liberalisation.

Mexico: FTA negotiations with Mexico commenced in mid-2000. On 13 November 2000, Singapore and Mexico signed a joint declaration, setting out the scope of the bilateral FTA and intent to conclude an Agreement as soon as possible. Both sides agreed that the FTA shall be comprehensive in nature and will cover trade in goods and services, investments, government procurement, intellectual property and a dispute-settlement mechanism, amongst others. There is also potential for greater Singapore investments into Mexico, which offers a market of about 100 million people.

Canada: Singapore Minister, George Yeo and Canadian Trade Minister, Pierre Pettigrew made a joint statement at the fringe of the APEC Trade Minister's Meeting in Darwin in June 2000 to explore the possibility of negotiating a bilateral FTA. Exploratory talks between officials were held in Singapore during October 2000.

Chile: Chile has agreed to explore the possibility of a bilateral FTA with Singapore. As New Zealand has a Trade and Investment Framework Agreement (TIFA) with Chile and the ANZSCEP with Singapore, the three countries have set up a joint study group. The study group aims to undertake an examination of the benefits from and potential obstacles to a comprehensive WTO-consistent FTA between Chile, New Zealand and Singapore. The three countries also agreed that membership of the study group and the information generated by it will be open to other economies.

India: A number of steps have been initiated towards the feasibility of bilateral FTA between India and Singapore. Governments of India and Singapore have agreed to set up a task force to promote free trade and greater investment flows between the two countries.

Source: www.mti.gov.sg

3. *Other Economic Integration Measures*: A number of steps have also been taken by the ASEAN Economic Integration process in many other fields including food security, promotion of E-commerce, infrastructure development through energy, transport and communication.

Apart from being an active member of multilateral fora and regional groupings, Singapore has initiated a number of steps towards the formation of bilateral and cross-regional FTAs. Singapore believes that bilateral free trade agreements will accelerate the process of trade liberalisation. It, therefore, aims to conclude FTAs with a number of strategic partners. Singapore has recently concluded (i) *Agreement between New Zealand and Singapore on the Closer Economic Partnership* (ANZSCEP), (ii) *Agreement between Japan and the Republic of Singapore for a New-Age Economic Partnership* (JSEPA) and (iii) *Bilateral Free Trade Agreement Between the US and Singapore* (USSFTA). It has also signed a joint declaration on the Mexico-Singapore Free Trade Agreement. A summary of the progress of Singapore Bilateral FTAs is given in the Box 2.1.

III. Measures Affecting Singapore Imports

Tariff Measures

1. *Tariff and Other Surcharges*

Singapore imposes a customs duty on its imported commodities only for a very few items. Around 99.9 per cent of Singapore's tariff lines are duty free, with only four lines (out of 5843 lines at the HS 9-digit level) attracting tariffs. The import duty is levied on four items belonging to beverages. It applies only specific import duties for these items. The specific rates range from S$ 0.80 per litre for beer, to S$ 8 per litre of alcohol as shown in Table 3.1. The *ad valorem* equivalence of these tariffs is not available.

Table 3.1: Singapore's Applied MFN tariffs, 1999

HS Code (9-digit)	Description	Duty Rate
2203 00 100	Stout and porter	S$ 1.70 per litre
2203 00 200	Other beer, including ale	S$ 0.80 per litre
2208 90 310	Samsoo (medicated)	S$ 8.00 per litre of alcohol
2208 90 390	Samsoo (other)	S$ 8.00 per litre of alcohol

Source: WTO, *Singapore: Trade Policy Review*, 2000

2. *Tariff Preferences*

Singapore is a signatory to the Common Effective Preferential Tariff (CEPT) under ASEAN Free Trade Area (AFTA). Under this scheme, a wide range of products must have import duty rates within the 0 to 5 per cent range, for intra-ASEAN trade. However, in practice there is no difference in customs (and excise duties) imposed on Singapore's imports from other ASEAN countries as compared to duties imposed on imports from other countries.

Significant progress has been made under the CEPT programme. The newer area members in Cambodia, Laos, Myanmar and Vietnam, have committed themselves to the elimination of import duties. For an orderly lifting of import duties, the tariff lines have been classified into 4 categories: (1) inclusion list, (2) temporary exclusion, (3) sensitive list, and (4) general exception, as shown in Table 3.2.

Table 3.2: ASEAN CEPT Product List, 2001		
Product List	**No. of Tariff Lines of all ASEAN Countries**	**Percent**
Inclusion	55680	84.74
Temporary exclusion	8660	13.40
Sensitive	360	0.55
General exception	829	1.28
Total	**65529**	
Source: *ASEAN Secretariat*.		

Those on the *inclusion list* make up the major bloc of the ASEAN products (55,680 tariff lines out of 65,529 total tariff lines). By 2002, all quantitative restrictions will be removed and tariffs will be either eliminated or limited to a maximum of 5 per cent. Rates on at least 85 per cent of each of the ASEAN-6 inclusion list will not be more than 5 per cent. This has already been achieved. Lines on the *temporary exclusion list* are exempted from tariff preference for a temporary period. These lines will be gradually moved to the inclusion list and their import duties will eventually be reduced 0 to 5 per cent range. In 2001, 8660 tariff lines will be on this list, representing 13.4 per cent of ASEAN countries' total tariff lines. Most of these lines belong to new members of ASEAN (Table 3.2A). Items on the *sensitive list* consist of some unprocessed agriculture products, and will not be included in AFTA until 2010. These are around 360 tariff lines (of all ASEAN countries) and these constitute a small 0.6 per cent of ASEAN's total tariff lines. CEPT, however, has a list of *general exceptions*, which have been permanently excluded from AFTA coverage. The total numbers of tariff lines under this category (829) represents only 1.3 per cent of ASEAN tariff lines. The products covered in this category are selected on the basis of national security, public moral, and public health and environment protection.

Table 3.2A: CEPT Package of ASEAN Countries, List of Tariff Lines by Different Categories, 2001					
Country	**Inclusion List**	**Temporary Exclusion List**	**General Exception List**	**Sensitive List**	**Total**
Brunei Darussalam	6284	0	202	6	6492
Indonesia	7190	21	68	4	7283
Malaysia	9654	218	53	83	10008
Philippines	5622	6	16	50	5694
Singapore	5821	0	38	7	5859
Thailand	9104	0	0	7	9111

ASEAN-6					
Sub-Total	**43675**	**245**	**377**	**150**	**44447**
Percentage	**98.26**	**0.55**	**0.85**	**0.34**	**100**
Cambodia	3115	3523	134	50	6822
Lao PDR	1673	1716	74	88	3551
Myanmar	2984	2419	48	21	5472
Viet Nam	4233	757	196	51	5237
New Members					
Sub-Total	**12005**	**8415**	**452**	**210**	**21082**
Percentage	**56.94**	**39.92**	**2.14**	**1**	**100**
ASEAN					
Total	**55680**	**8660**	**829**	**360**	**65529**
Percentage	**84.74**	**13.4**	**1.28**	**0.55**	**100**
Source: *ASEAN Secretariat*					

As a part of the CEPT programme, the average tariff rate of ASEAN countries will decline from a level of 4.43 per cent[3] in 2000 to 2.9 per cent in 2003. The average tariff rates of individual member countries of ASEAN are given in Table 3.2B. One can notice from this table that most of Singapore's lines have zero tariff for intra-ASEAN trade and a large number of other countries of ASEAN-6 will also approach to the average tariff of 2 to 4.6 per cent by 2003.

Table 3.2B: Average CEPT Tariff Rates by Country, 2000-2003

Country	**2000**	**2001**	**2002**	**2003**
Brunei Darussalam	1.26	1.17	0.96	0.96
Indonesia	4.76	4.35	3.71	2.18
Malaysia	3.31	3.13	2.96	2.19
Philippines	5.18	4.68	4.55	3.81
Singapore	0	0	0	0
Thailand	6.12	6.08	5.43	4.63
ASEAN-6	**3.64**	**3.45**	**3.12**	**2.44**
Cambodia	10.39	10.39	8.89	7.93
Lao PDR	7.07	6.58	6.15	5.66
Myanmar	4.43	3.38	3.37	3.22
Viet Nam	7.25	N/A	N/A	N/A
New Members	**7.51**	**7.21**	**6.43**	**5.85**
ASEAN-10	**4.43**	**3.96**	**3.57**	**2.9**
N/A: Not Available				
Regional CEPT tariff rates are a weighted average, with the number of tariff lines on the Inclusion List for 2000 as the weights				
Source: *ASEAN Secretariat*				

[3] For intra-ASEAN trade.

Singapore does not provide any tariff preferences to those countries with which it has bilateral agreements. The Singapore-New Zealand bilateral FTA (known as Agreement between New Zealand and Singapore on a Closer Economic Partnership, or ANZSCEP) is the only exception. Under this agreement (ANZSCEP), tariffs on goods for Singapore-New Zealand trade have been eliminated. In other words, Singapore has given tariff preferences to New Zealand's products for four lines of liquor, which are currently subject to positive duty in Singapore.

As mentioned earlier, Singapore is signatory to GSTP and grants tariff concessions (for example, a ceiling binding of 5 per cent) on some items, though they are in practice imported duty free on an MFN basis.

Non-Tariff Measures

Singapore imposes different types of non-tariff measures to meet the different 'policy objectives' and to honour obligations under international agreements/resolutions. A list of different non-tariff measures imposed by Singapore are summarised in Table 3.3. Under AFTA, efforts have been made, to remove all types of quantitative restrictions and steps have been taken to harmonise non-tariff barriers. The recent Singapore-New Zealand FTA give a comprehensive treatment to NTBs, within the framework of the WTO. It includes detailed clauses relating to: (i) Rules of origin, (ii) Non-tariff measures, and (iii) Anti-dumping.

Table 3.3: Different Types of Non-Tariff Measures Imposed by Singapore

Code No.	Description
101	Automatic license
102	License (Import authorization)
103	License to protect human health
104	License to protect animal health
105	License to protect plant health
106	License to protect environment
107	Licence to protect wildlife
108	Licence to prevent drug abuse
109	Licence to ensure human safety
110	Licence to ensure national security
111	Licence n.e.s.
112	Prohibition to protect human health
113	Prohibition to protect plant health
114	Prohibition to protect environment
115	Prohibition to protect wildlife
116	Prohibition to ensure human safety
117	Prohibition to ensure national security

118	Prohibition for purposes n.e.s
119	Technical regulation to protect human health
120	Technical regulation to protect environment
121	Technical regulation to ensure human safety
122	Labelling requirements for protection of human health
123	Technical regulation n.e.s
Source: UNCTAD,*TRAINS, Spring 2000*.	

1. *Import Prohibition/Restrictions*

Under the Import and Export Act, Singapore applies import prohibition orders and import licensing measures for reasons of public safety, public health, environment, national security and other obligations under international agreements/resolutions. It publishes a list of goods whose import is prohibited, from time to time. In 1998, around 20 per cent of Singapore's tariff lines were subject to at least one type of import restriction. These restrictions were in the form of prohibited items or import licence. Table 3.3A gives the number of items subject to different types of import restrictions for 1995 and 1998. This table shows that the number of the items which are subject to hard-core NTB, i.e. non-automatic licensing, has increased over this period. Singapore has never imposed any seasonal or conditional import prohibition. Singapore has never granted any exemption from the general prohibitions and restrictions, under bilateral and regional agreements.

Table 3.3A: Number of Lines facing NTM, 1995 and 1998

Import restriction	**1995**		**1998**	
	No. of tariff lines	**Lines (% of total)**	**No. of tariff lines**	**Lines (% of total)**
Prohibited imports	38	0.7	35	0.6
Import licensing	1161	19.9	1088	18.6
Automatic	750	12.8	595	10.2
Non-Automatic	411	7.0	493	8.4

Source: WTO, *Singapore: Trade Policy Review*, 2000

2. *Standards and Other Technical Requirements*

Singapore has adopted standard setting processes on the lines of a large number of international bodies. These are maintained for safety, health and environmental protection purposes. Singapore does not distinguish between domestic and imported products on this criteria. It also applies marking, labelling and packaging regulations as set out in different laws. A number of steps have been taken under ANZSCEP to harmonise the rules relating to standards and other technical requirements.

3. *Government Procurement*

Singapore does not give specific preferences to domestic suppliers in government procurement. Singapore along with other member countries of ASEAN accords each other a preferential margin of 2.5 per cent (not exceeding US $ 40,000 worth of preferences per tender).

4. *Rule of Origin*

In the CEPT scheme of AFTA (ASEAN Free Trade Agreement), the qualifying criteria for tariff preference is a minimum of 40 per cent of ASEAN content. The rate of rule of origin under ANZSCEP is also 40 per cent. However, it is generally not applicable to Singapore's imports, because its imports are duty free.

IV. Singapore's Trade: Level, Trend and Composition

Singapore is one of the major players in world trade. Its total trade increased by three times during 1985-98; both exports as well as imports have shown a significant increase. However, the amount of exports increased at a rate, which is higher than the rate of increase in imports (Table 4.1). In this context, it should be remembered that a major part of Singapore's total exports constitutes re-exports. In 1991, the share of re-export in the total export was 35 per cent. During 1991-98 the growth in amount of re-export has been significantly higher than the domestic exports (i.e. total re-export) growth. It led to significant increase in the share of amount of re-export in total exports touching the level of 42 per cent in 1998. The total amount of Singapore imports has also shown a significant increase: from a level of S$ 216075 million in 1991 to 353627 in 1998. Singapore had a trade deficit with rest of world during the period 1990 to 1997. This trade deficit shifted to trade surplus in 1998 after the financial crisis in South East Asian economies.

Table 4.1: Singapore's Global Imports/Exports, 1985-98

(Million of Singapore $)

Year	Exports			Imports	Total Trade	Balance of Trade
	Total	Domestic Exports	Re-exports			
1985	50179	32576	17603	57818	107997	-7639
1991	101880 (7)	66031 (5.2)	35849 (10.5)	114195 (4)	216075	-12315
1992	103351 (1.4)	66337 (0.5)	37014 (3.2)	117530 (2.9)	220881	-14179
1993	119473 (15.6)	75394 (13.7)	44079 (19.1)	137603 (17.1)	257076	-18130
1994	147327 (23.3)	88533 (17.4)	58794 (33.4)	156396 (13.7)	303723	-9069
1995	167515 (13.7)	98473 (11.2)	69042 (17.4)	176314 (12.7)	343829	-8799
1996	176272 (5.2)	103589 (5.2)	72683 (5.3)	185183 (5)	361455	-8911
1997	185613 (5.3)	107535 (3.8)	78078 (7.4)	196605 (6.2)	382218	-10992
1998	183763 (-1)	105918 -(1.5)	77845 (-0.3)	169864 (-13.6)	353627	13899

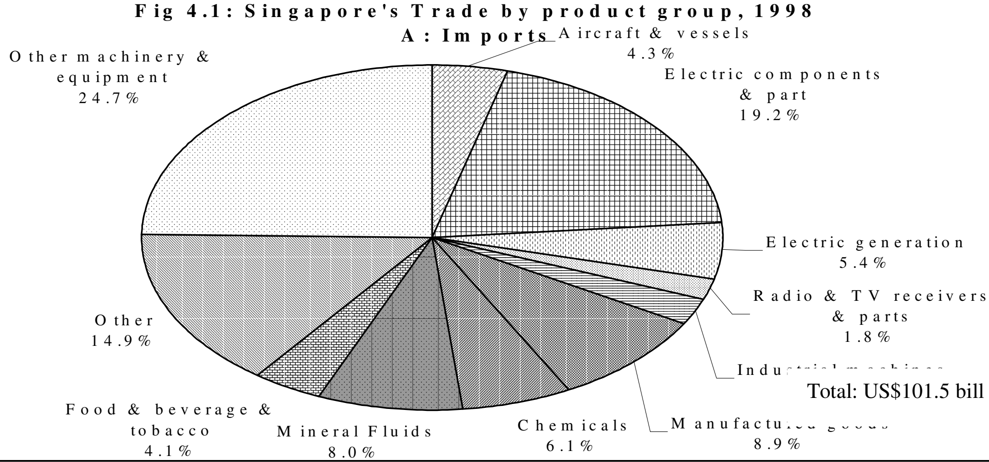
Figures in parentheses represent % change, over last year.

Note: The primary source for the above data is the Trade Development Board of Singapore.

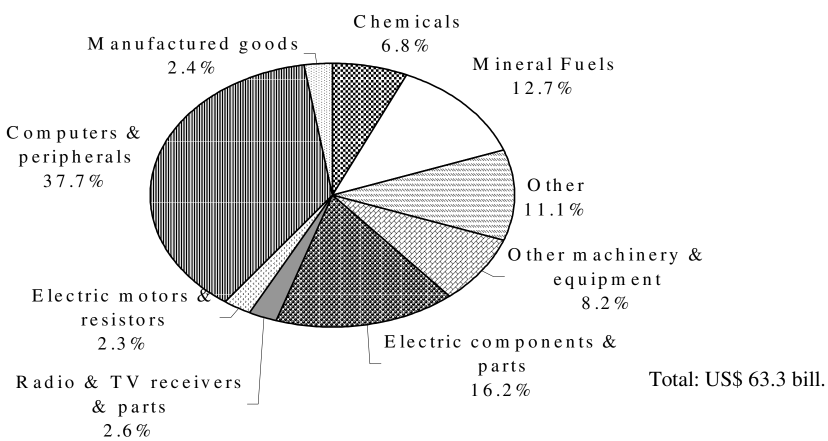
Source: Sen, R. *et al.* (1999), "India and Singapore: Emerging Trade Opportunities and Challenges" (mimeo)

Fig 4.1: Singapore's Trade by product group, 1998

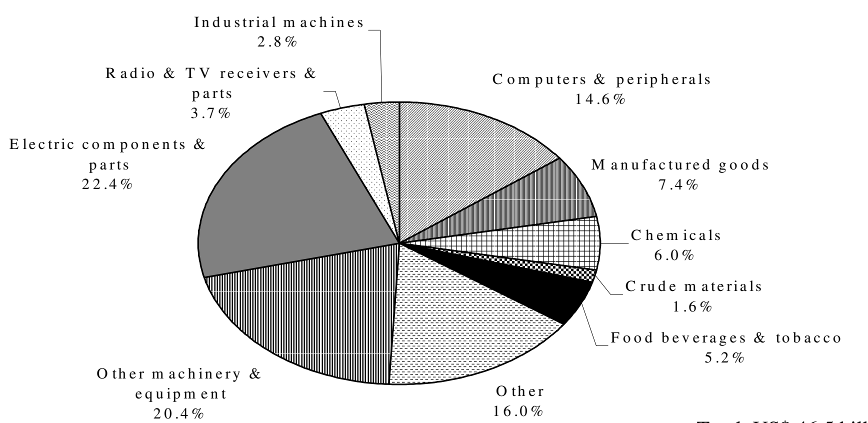
A : Imports



B: Domestic Exports, 1998



C: Singapore's re-exports, 1998



Source: WTO, *ibid*

The composition of Singapore's trade is concentrated in a few sectors, relating to machinery and equipments. Figure 4.1 gives the share of Singapore's exports/imports by different commodity groups. One can notice from this Figure that the largest category of Singapore domestic exports continues to be 'computers and peripherals', followed by 'electronic components and parts'; re-exports consist largely of 'electronic components and parts' followed by 'other machinery and equipment' and 'computer and peripherals'. Singapore's imports consist mainly of 'electronic components and parts', and 'other machinery and equipment'.

V. Indo-Singapore Trade Relations

1. *India's Trade*

India's imports from Singapore had been fluctuating since the 1990s. The share of imports from Singapore, in India's total imports, ranged between 1.59 per cent to 2.97 per cent during 1990-97. Though the value of India's imports from Singapore increased from US $ 689 million in 1990 to US $ 1,124 million in 1997, the percentage share in India's total imports increased slightly, from 2.87 per cent in 1990 to only 2.89 per cent in 1997 (Table 5.1 and Figure 5.1). There was a sudden increase in India's imports from Singapore during 1998 and 1999, touching the level of US $2764 million in 1998. The share of Singapore in India's global import, during 1999 was 6.08 per cent. The amount of India's exports to Singapore has also been showing an increasing trend since 1990-1997. The trade statistics show that India's exports to Singapore increased from US $ 308 million in 1990 to US $ 943 million in 1996, increasing its market share from 1.73 per cent to 2.92 per cent (in total India's trade). However, India's exports to Singapore have shown a significant decline after 1997, leading to huge trade deficit with Singapore. The share of India's exports/imports from/to Singapore (as proportion of India's global export/import) is given in Figure 5.1.

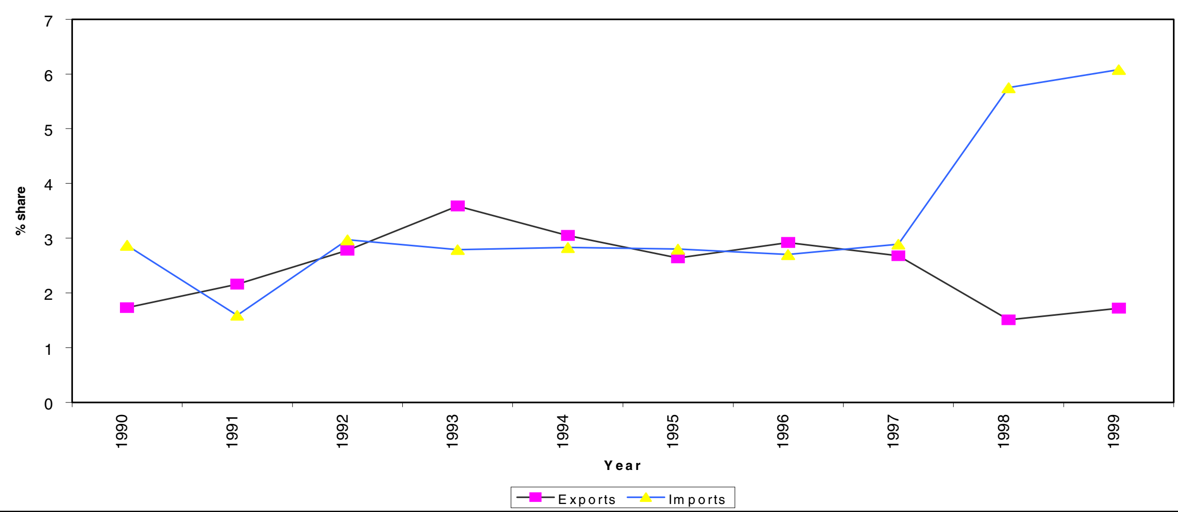
Table 5.1: India's Exports, Imports and Trade Balance: Global and Singapore, 1990-99

(Mill. US$)

	Singapore			Global		
Year	**Export**	**Import**	**Trade Balance**	**Export**	**Import**	**Trade Balance**
1990	308 (1.73)	689 (2.87)	-389	17813	23990	-6177
1991	386 (2.16)	311 (1.59)	75	17873	19509	-1636
1992	515 (2.78)	689 (2.97)	-174	18500	23227	-4727
1993	727 (3.59)	593 (2.79)	134	20259	21225	-966
1994	738 (3.05)	720 (2.83)	18	24196	25477	-1281
1995	807 (2.64)	966 (2.8)	-159	30537	34484	-3947
1996	943 (2.92)	974 (2.7)	-31	32325	36055	-3730
1997	892 (2.68)	1124 (2.89)	-232	33289	38911	-5622
1998	553 (1.51)	2496 (5.75)	-1943	36674	43409	-6735
1999	672 (1.72)	2764 (6.08)	-2092	39077	45423	-6346

Growth Rate						
1990-95	21.24	6.99		11.38	7.35	
1995-99	-4.47	30.06		6.36	7.13	
* for 1991-95						
Note: Figures in parentheses represent per cent share of corresponding global import/export.						
Source: IMF, Direction of Trade Statistics						

Fig 5.1: India's Exports & Imports with Singapore, 1990-1999
(% share of India's total Exports and Imports)



2. *Singapore's Trade*

Tables 5.2 - 5.5 give the level, trend and composition of Singapore's exports/imports from/to India, in US \$ and S \$. Figure 5.2 gives the share of Singapore exports and imports from India as a proportion of Singapore's global exports and imports respectively, while Figure 5.3 gives the amount of Singapore's exports to India in the form of re-export. Based on these tables and figures, the following observations can be made about Singapore's trade with India:

a. India is one of the important destinations for Singapore's exports, India's shares being more than 2 per cent in recent years. In fact, the amount of total Singapore's exports to India has increased from US $ 1.1 billion in 1990 to 2.5 billion in 1999. On the other hand, the amount of Singapore's imports from India has shown a dismisal picture. The share of Singapore imports (from India) is approximately one-third of Singapore's exports (Table 6.2).

b. India share in Singapore's export basket is not insignificant; in fact, it declined from the level of 2 per cent in 1990 to around 1.4 per cent in 1994. However, it has been showing a significant increasing trend from 1995 onwards. On the other hand, India's share in Singapore's total basket of imports is not very significant, remaining less than 1 per cent during all the years of 1990s (Figure 5.2).

c. It is interesting to note that a major share of Singapore's exports to India is in the form of re-exports. This share has remained at around 40 per cent during early 1990s. However, this share has shown an increasing trend during 1990s. In 1997, around 60 per cent of Singapore's exports to India were in the form of re-exports. In other words, the share of Singapore's domestic export (as proportion of total export) to India is declining over time (Table 5.3 and Figure 5.3).

d. Machinery and transport equipment constitute a major share of Singapore's exports to India. In 1998, this sector constituted 44 per cent of Singapore's exports to India, followed by mineral fuels, manufactured materials and chemicals. A major proportion of Singapore's exports of machinery and transport equipment was in the form of re-exports, the share being around 70 per cent. On the other hand, 41 per cent of mineral oil exported by Singapore to India originated from domestic sources (Table 5.4).

Table 5.2: Singapore's Exports, Imports and Trade Balance: Global and India, 1990-99

(Mill. US $)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Singapore										
Global Export	52573	59219	63475	74071	96911	118187	125126	125302	109886	114723
Export to India	1103 (2.09)	1004 (1.70)	935 (1.47)	955 (1.29)	1261 (1.30)	1877 (1.59)	2075 (1.66)	2284 (1.82)	2438 (2.22)	2513 (2.19)
Global Import	60954	66271	72181	85393	102642	124393	131693	132540	101606	111071
Import from India	374 (0.61)	421 (0.64)	533 (0.74)	676 (0.79)	790 (0.77)	921 (0.74)	1012 (0.77)	1047 (0.79)	606 (0.60)	739 (0.67)
Trade Balance with India	-729	-583	-402	-279	-471	-956	-1063	-1237	-1832	-1774

Note: Figures in parentheses represent percent share of corresponding global export/import.

Source: IMF, *Direction of Trade Statistics Yearbook* 1997-98, & *Quarterly* March 2000 & June 2000.

Fig 5.2 Singapore's Exports and Imports with India, 1990-1999 (% share of Singapore's total Exports and Imports)

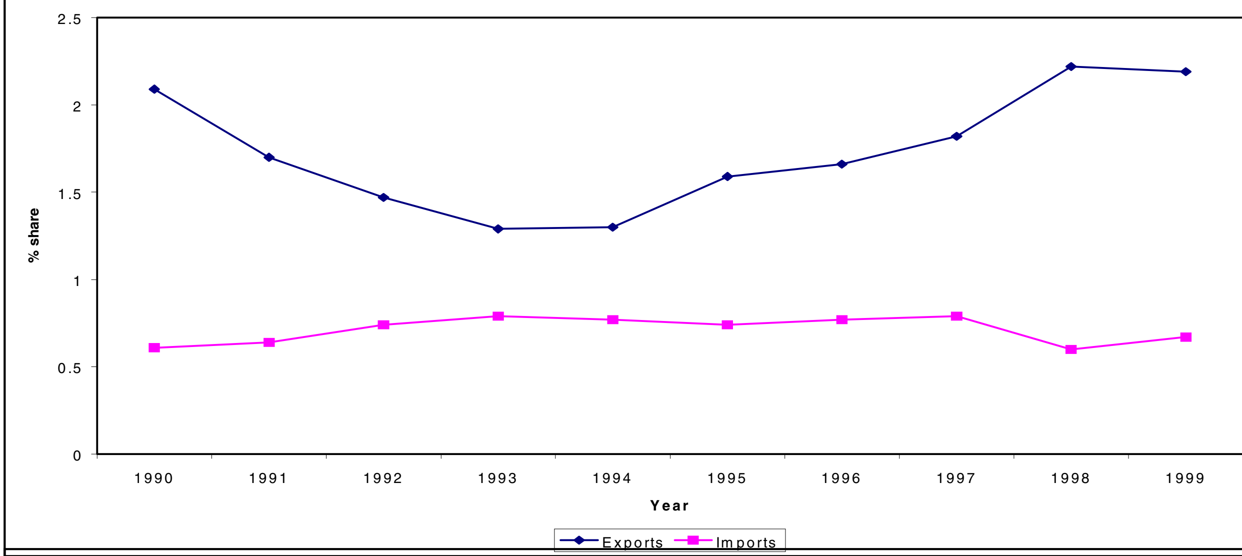


Fig 5.3: Singapore's Domestic Exports to India, 1986-1998 (as % of total Exports to India)

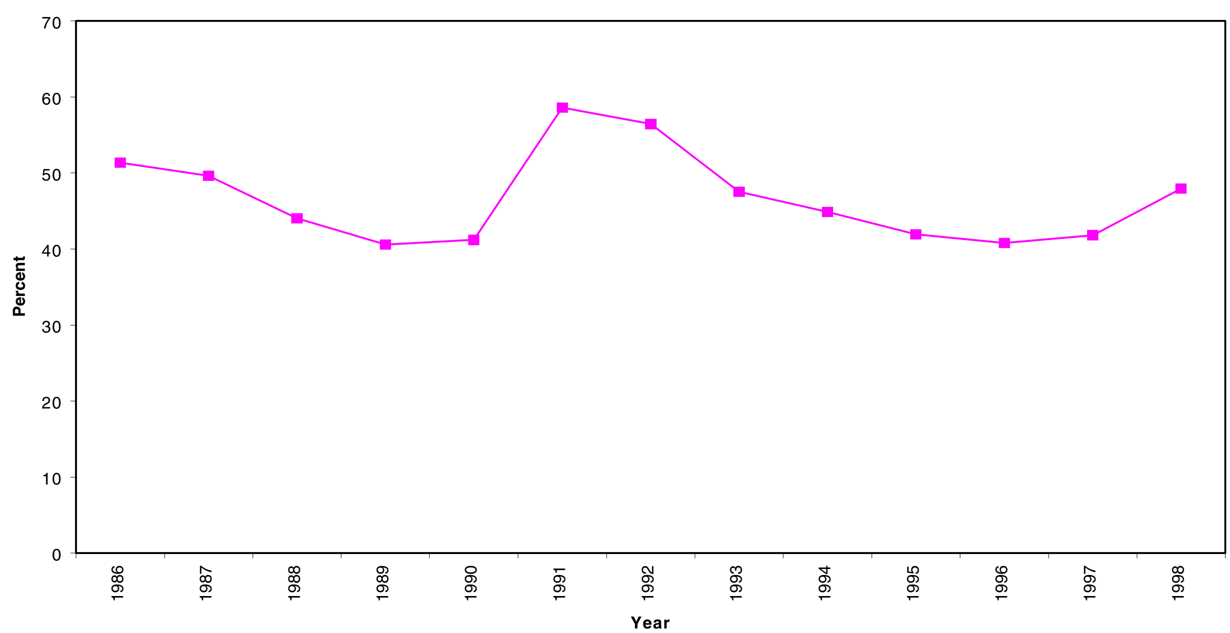


Table 5.3: Singapore's Trade with India, 1985-98

(Million of Singapore $)

Year	Exports							Imports		Total Trade		Balance Of Trade Amount
	Total		Domestic Exports			Re-exports		Amount	Share in Global	Amount	Share in Global	
	Amount	Share in Global	Amount	Share in Global	Share in total exports	Amount	Share in Global					
1985	1069	2.13	668	2.05	62.49	401	2.28	489	0.85	1558	1.44	580
1991	1727 (-13.2)	1.7	1012 (23.4)	1.53	58.6	715 (-38.9)	1.99	723 (6.8)	0.63	2450 (-8.1)	1.13	1004
1992	1524 (-11.8)	1.47	860 (-15)	1.3	56.43	664 (-7.1)	1.79	867 (19.9)	0.74	2391 (-2.4)	1.08	657
1993	1533 (0.6)	1.28	729 (-15.2)	0.97	47.55	804 (21.1)	1.82	1080 (24.6)	0.78	2613 (9.3)	1.02	453
1994	1928 (25.8)	1.31	865 (18.7)	0.98	44.87	1063 (32.2)	1.81	1208 (11.9)	0.77	3136 (20)	1.03	720
1995	2661 (38)	1.59	1116 (29)	1.13	41.94	1545 (45.3)	2.24	1306 (8.1)	0.74	3967 (26.5)	1.15	1355
1996	2927 (10)	1.66	1194 (7)	1.15	40.79	1733 (12.2)	2.38	1427 (9.3)	0.77	4354 (9.8)	1.2	1500
1997	3297 (12.6)	1.78	1379 (15.5)	1.28	41.83	1918 (10.7)	2.46	1548 (8.5)	0.79	4845 (11.3)	1.27	1749
1998	4073 (23.5)	2.22	1954 (41.7)	1.84	47.97	2119 (10.5)	2.72	1012 (-34.6)	0.6	5085 (5)	1.44	3061

Figures in parentheses represent %change, over last year.

Note: The primary source for the above data is the Trade Development Board of Singapore.

Source: Sen, R. *et al*. (1999).

Table 5.4: Singapore-India Merchandise Exports by Commodity Groups (SITC 1 digit Commodity Classification), 1995 and 1998

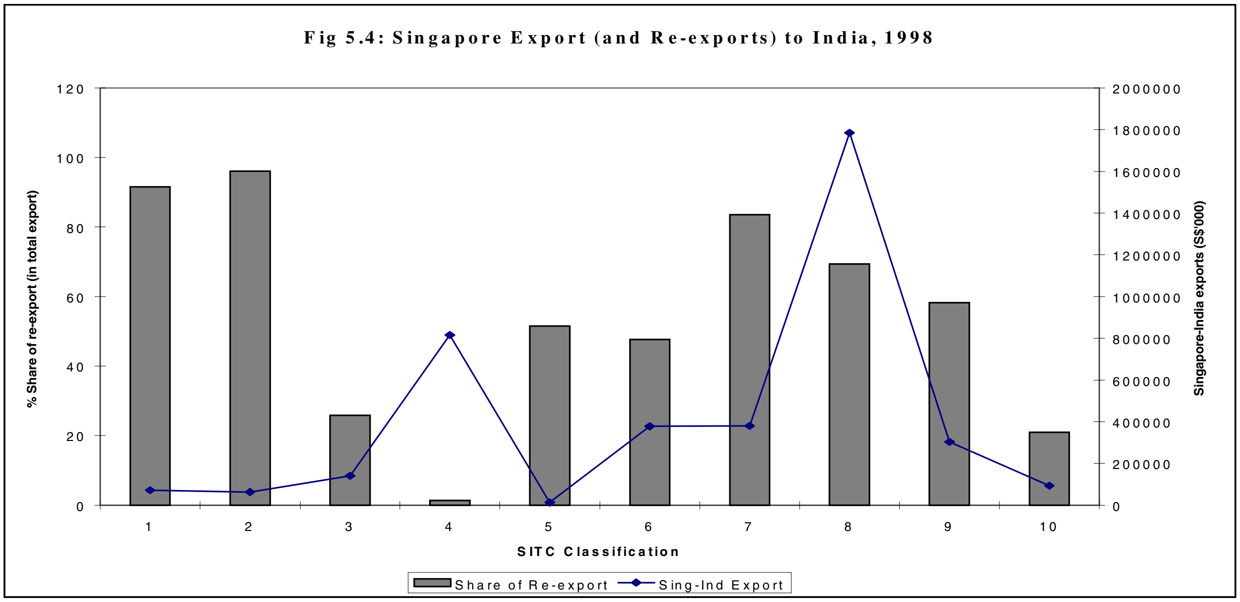
A. Singapore's total Exports to India

(Thousands of S $)

	1995		1998	
SITC Classification	**Amount**	**Share in total (%)**	**Amount**	**Share in total (%)**
0 Food	27047	1.0	71591	1.8
1 Beverages and Tobacco	31340	1.2	62962	1.5
2 Crude Materials	142188	5.3	171108	4.2
3 Mineral Fuels	361255	13.6	815372	20.0
4 Animal & Vegetable oils	9682	0.4	12829	0.3
5 Chemicals	259973	9.8	378098	9.3
6 Manufactured goods by material	364971	13.7	379848	9.3
7 Machinery and transport equipment	1162336	43.7	1785434	43.8
8 Misc. Manufactured	221679	8.3	302736	7.4
9. Misc Transactions	80523	3.0	93062	2.3
Total	**2660994**		**4073041**	

B: Singapore's Re-exports to India						
						(Thousands of S $)
	1995			**1998**		
SITC Classification	**Amount**	**Share in Exports of the Commodity**	**Share in total (%)**	**Amount**	**Share in Exports of the Commodity**	**Share in total (%)**
0 Food	24158	89.32	1.56	65520	91.52	3.09
1 Beverages and Tobacco	30139	96.71	1.95	60472	96.05	2.85
2 Crude Materials	72729	51.15	4.71	44183	25.82	2.09
3 Mineral Fuels	4239	1.17	0.27	11207	1.37	0.53
4 Animal & Vegetable oils	8037	83.01	0.52	6600	51.45	0.31
5 Chemicals	106701	41.04	6.91	179883	47.58	8.49
6 Manufactured goods by material	315002	86.31	20.39	317178	83.5	14.97
7 Machinery and transport equipment	793535	68.27	51.37	1238210	69.35	58.43
8 Misc. Manufactured	172683	77.9	11.18	176287	58.23	8.32
9. Misc Transactions	17478	21.71	1.13	19488	20.94	0.92
Total	**15544701**	**58.05**		**2119028**	**52.03**	
C: Singapore's Domestic Exports to India						
						(Thousands of S$)
	1995			**1998**		
SITC Classification	**Amount**	**Share in Exports of the Commodity**	**Share in total (%)**	**Amount**	**Share in Exports of the Commodity**	**Share in total (%)**
0 Food	2889	10.68	0.26	6071	8.48	0.31
1 Beverages and Tobacco	1201	3.83	0.11	2490	3.95	0.13
2 Crude Materials	69459	48.85	6.22	126925	74.18	6.5
3 Mineral Fuels	357016	98.83	31.98	804165	98.63	41.15
4 Animal & Vegetable oils	1645	16.99	0.15	6229	48.55	0.32
5 Chemicals	153272	58.96	13.73	198215	52.42	10.14
6 Manufactured goods by material	49969	13.69	4.48	62670	16.5	3.21
7 Machinery and transport equipment	368801	31.73	33.04	547224	30.65	28.01
8 Misc. Manufactured	48996	22.1	4.39	126449	41.77	6.47
9. Misc Transactions	63045	78.29	5.65	73574	79.06	3.77
Total	**1116293**	**41.95**		**1954013**	**47.97**	
Source: Sen, R. *et al.* (1999).						

Figure 5.4 gives the amount of Singapore's exports to India in S $. It also gives the proportionate share of the exports, which were in the form of Singapore's re-exports. One can notice from this Figure that the relationship between the amount of Singapore exports to India and percentage share of re-exports in total exports has negative relation. In other words, a major share of incremental exports does not originate from a domestic source.



The distribution of Singapore's imports from India (by commodity groups) is not as skewed as the distribution of Singapore's exports to India (Table 5.5). The most important items of Singapore's imports from India belong to commodity groups like manufactured goods, machinery and transport equipment, other manufactures, etc.

Table 5.5: Singapore's Imports from India by Different Commodity Groups (SITC 1 digit Classification): 1995 and 1998

(S$ '000)

	1995		1998	
Commodities	**Amount**	**Share in total (%)**	**Amount**	**Share in total (%)**
0 Food	133316	10.2	106206	10.5
1 Beverages and Tobacco	2035	0.2	7087	0.7
2 Crude Materials	57150	4.4	34340	3.4
3 Mineral Fuels	24091	1.8	44828	4.4
4 Animal & Vegetable oils	3907	0.3	668	0.1
5 Chemicals	119284	9.1	148293	14.6
6 Manufactured goods by material	493950	37.8	283300	28
7 Machinery and transport equipment	314311	24.1	230925	22.8
8 Misc. Manufactured	154332	11.8	151436	15
9. Misc Transactions	3583	0.3	5278	0.5
Total	**1305958**	**100**	**1012362**	**100**

Source: Sen, R. *et al.* (1999).

In short the following two important observations can be made from the above:

(i) Singapore's total trade with India has increased significantly in the last couple of years. The increase in trade has largely been the result of a sharp increase in Singapore's exports to India. It is, therefore, not surprising that Singapore's bilateral trade surplus has increased from around S$ 600 million in 1985, to S$ 3000 million in 1998. The share of Singapore's domestic exports in bilateral trade with India is of greater importance to Singapore than the trade volume may reflect. The share of the domestic exports in total exports has not exceeded 50 per cent in last few years.

(ii) It seems that India's trade reforms since 1991 has led to an increase in India-Singapore trade links. Singapore's total trade growth, total exports growth, domestic exports growth, and re-export growth with India have been higher than the corresponding growth rates with the world as a whole. In contrast, Singapore's imports from India have not shown an increasing trend.

VI. Foreign Direct Investment Flows: India and Singapore

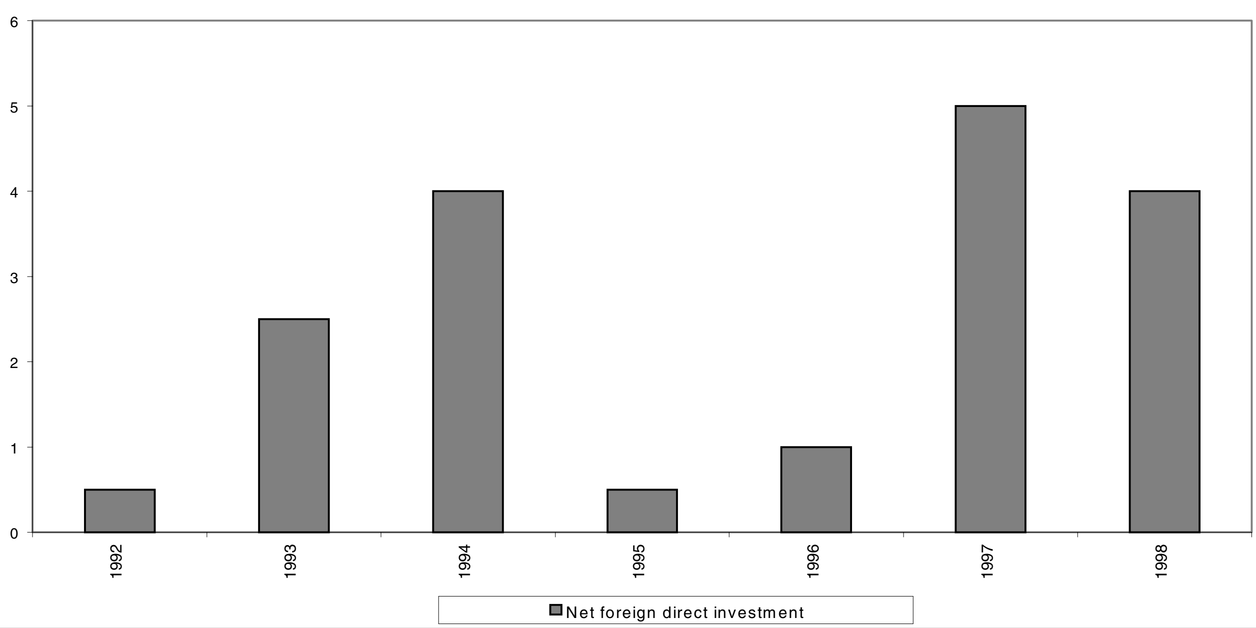
1. *India's FDI*

India's FDI inflow from Singapore had been consistently increasing till 1995: accounting for 3.09 per cent of India's total FDI inflow (approved) in 1995. But 1996 registered a sudden fall, and the FDI inflow (approved) from Singapore declined from Rs. 9910 million in 1995 to Rs. 3197 million in 1996, which was 0.88 per cent of India's total FDI inflows in 1996. However, it registered an increasing trend after that (Table 6.1). Thus, Singapore is poised to play an important role in the FDI scenario of India.

2. *Singapore's FDI*

The inflow of foreign direct investment in Singapore is quite substantial. The total stock of FDI in Singapore has increased from the level of S$ 60.28 billion in 1993 to 112.1 billion in 1997. Figure 6.1 gives the amount of Singapore's net FDI from 1992to1998. It shows that net FDI has

Fig 6.1: Singapore's Net FDI, 1992-8
(US $ Billion)



consistently increased since 1995. Most of the Singapore's inward FDI originates from the European Union (20 per cent in 1997), the US (18 per cent), and Japan (18 per cent). A major share of FDI in Singapore is destinated towards sectors like financial and insurance services (41 per cent), followed by manufacturing (35 per cent) and commerce (13 per cent).

Table 6.1: Amount of FDI (approved) to India, 1991-2000

(Rs. in Mill.)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000*
Total	5341.1	38875.4	88593.3	141871.9	320717.2	361468.0	548913.4	308135.0	283665.3	146400.6
Singapore	13.7 (0.26)	602.1 (1.55)	667.4 (0.75)	2655 (1.87)	9910.4 (3.09)	3197.72 (0.88)	8619.01 (1.57)	7673.39 (2.49)	8258.94 (2.91)	1270.95 (0.87)

* upto 30/6/2000

Note: Figures in parentheses represent percentage of total.

Source: *SIA Newsletter*, Vol. IX (3), July 2000

The outward foreign direct investment by Singapore in other countries is also significant, amounting S$ 147 billion in 1997. A major share of this investment has gone to the Asian region (Figure 6.2A), particularly to ASEAN countries. Till 1997, Malaysia was the top recipient of Singapore's outward investment, followed by China, Hong Kong, Indonesia, etc. It can also be noticed from Figure 6.2B that most of Singapore's outward investment is concentrated in financial services (60.4 per cent), followed by manufacturing (18.6 per cent). The other important sector are commerce, real estate and business services.

As far as investment policy is concerned, Singapore gives importance to foreign investment, which accounts for almost 70 per cent of the net investment in Singapore's manufacturing sector. There is almost no restriction on inward foreign investment in most sectors. Apart from providing a stable environment, Singapore gives a number of incentives to foreign investors. These incentives are given in the form of tax-holidays, concessional tariff rate, exemption of taxable income on new fixed investment, etc. Some restrictions have been imposed for select service and utility sectors for inward FDI. They are generally in the form of foreign ownership, and this restriction has been noticed particularly in electricity services, water services, residential property, etc.

There is almost no restriction on outward foreign investment. In fact, Singapore promotes outward foreign investment through tax exemption, and non-tax incentives such as finance programme.

Fig. 6.2A: FDI by Singapore to Different Countries, 1997

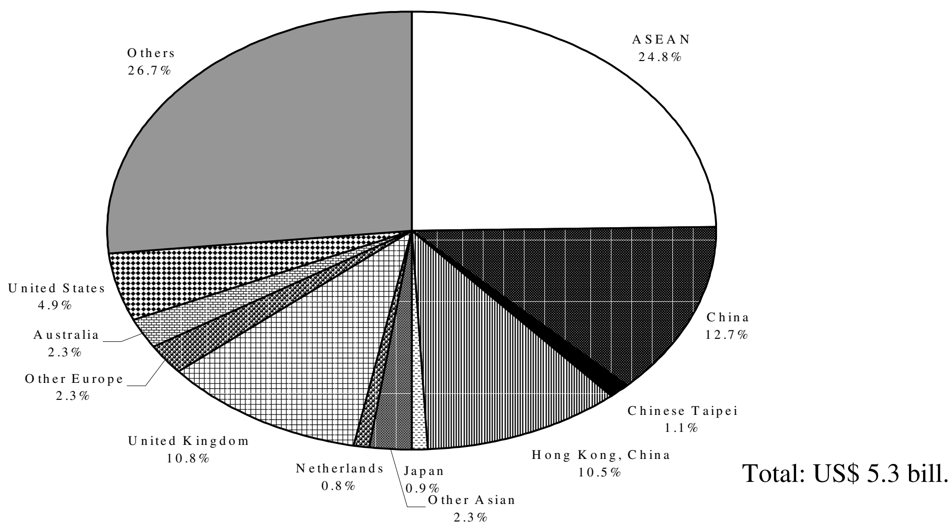
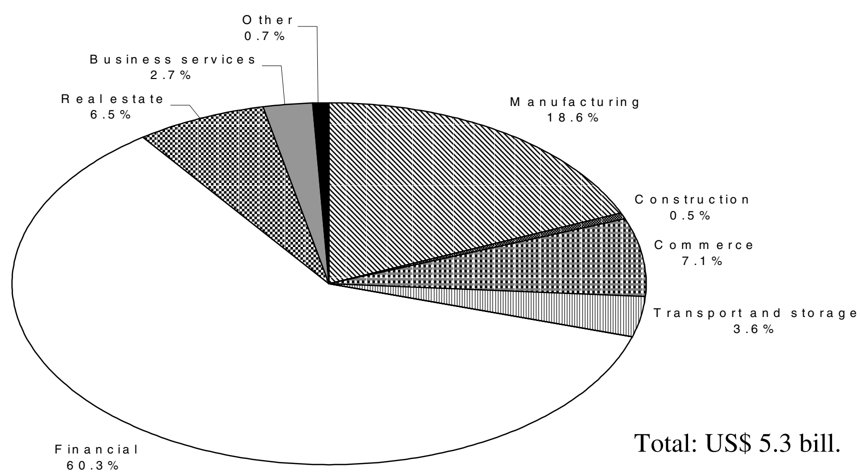


Fig. 6.2B: FDI Abroad by Singapore by Different Sectors, 1997



Source: WTO.

Singapore is a member of the multilateral investment guarantee agency, and it has signed an investment guarantee agreement with a number of countries. Under such agreements, foreign investments are generally protected against unforeseen risks like war, etc. Singapore has also concluded double taxation treaties with many countries, including India.

Singapore is also signatory to the ASEAN Investment Area (AIA), and the Agreement between New Zealand and Singapore on a Closer Economic Partnership (ANZSCEP) with different provisions relating to investment. The provisions of AIA may lead to enhanced intra-ASEAN and inter-ASEAN investment by providing 'national treatment' to member countries in the manufacturing sector, and it is expected that this liberalisation will be extended to services. In the ANZSCEP, each member (Singapore or New Zealand) will accord 'most favoured nation' and 'national treatment' status to investors of the other member country. In other words, the agreement ensures that each party (of a member country) shall accord to investor and investment of other party (of other member country) a treatment that is no less favourable than it accords in like situations: (i) to investors and investment from any other country or custom territory which is not a part of ANZSCEP, and (ii) to its own investors and investment. In other words, the agreement has provided the maximum incentive, which its members have given to other countries, or given to domestic investors.

VII. Electronic Industry

Manufacturing is one of the most important sectors in Singapore. Although its share in GDP has been declining in recent years, a number of concerted efforts are being made to maintain the share of manufacturing in total GDP to the level of 25 per cent. As a part of the government development policy, support and incentives are being given to high-value activities and information technology.

The composition of Singapore's output (by sector) shows that there has been a shift from labour-intensive production to more capital-intensive and higher value-added activities. In manufacturing, 'electronics' accounts for around half of the manufacturing value-added, followed by chemical and chemical products, transport equipment and 'machinery and equipment'.

Table 7.1 gives the amount of production of different components of Singapore's electronic industry. One can notice from this table that the main products are 'computer and data-processing equipments' and 'semi-conductor devices'. A phenomenal growth of semi-conductor devices has been noticed in only recent years. In this context, we should remember that Singapore is one of the world's largest producers of 'computer hard disk devices'. Figure 7.1A and B give the export and import baskets of Singapore's Electronic Industry by different commodities like data processing machines, electronic valves, 'parts of office and data processing machines', telecommunication equipment and others, etc.

Table 7.1: The Electronics Industry in Singapore, 1995-98

(S$ million)

	1995	**1996**	**1997**	**1998**
Production (S$ million)	57872.7	60912.8	62905.2	61200.5
(Annual percentage change)	(18.8)	(5.3)	(3.3)	(-3.0)
Production by sector (value)				
Computer and data processing equipment	9477	9112	9090	-
Consumer electronicsa	6406	6082	5261	-
Semiconductor devices	48	10982	10895	-
Capacitors and resistors	619	516	551	-
Printed circuit boards	3786	3841	3976	-

- Not available

Note; Including communication equipment, television sets, other audio and video equipment.

Source: WTO, *Singapore: Trade Policy Review*, 2000

Government policies have played an important role in the growth of Singapore's electronic industry. These policies encouraged investment in the sector. The sector is open to foreign investment, and imports can also be carried out without any restrictions. The package of incentives to high value-added activities, has also benefited the electronic industry.

Fig. 7.1A: Singapore's Exports in Electronics, 1995-98 (US$ billion)

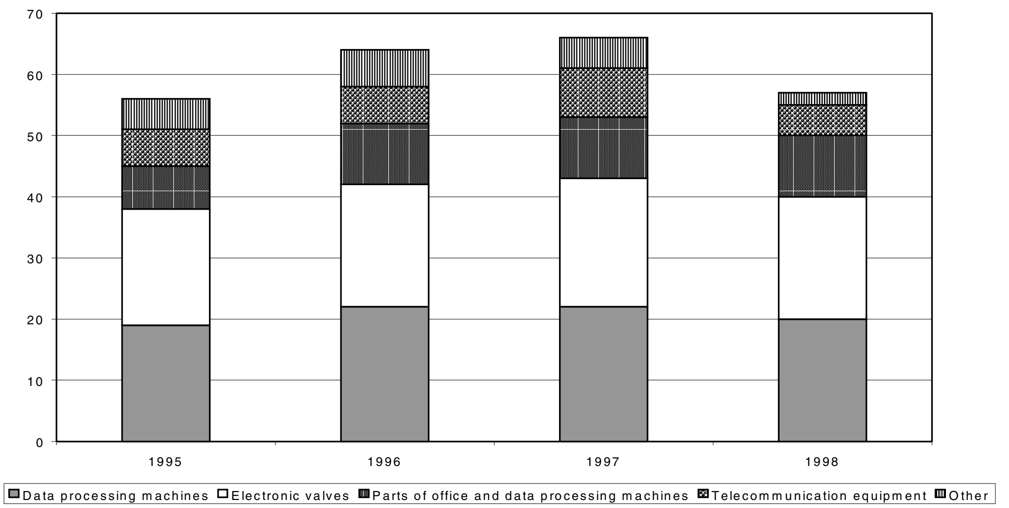
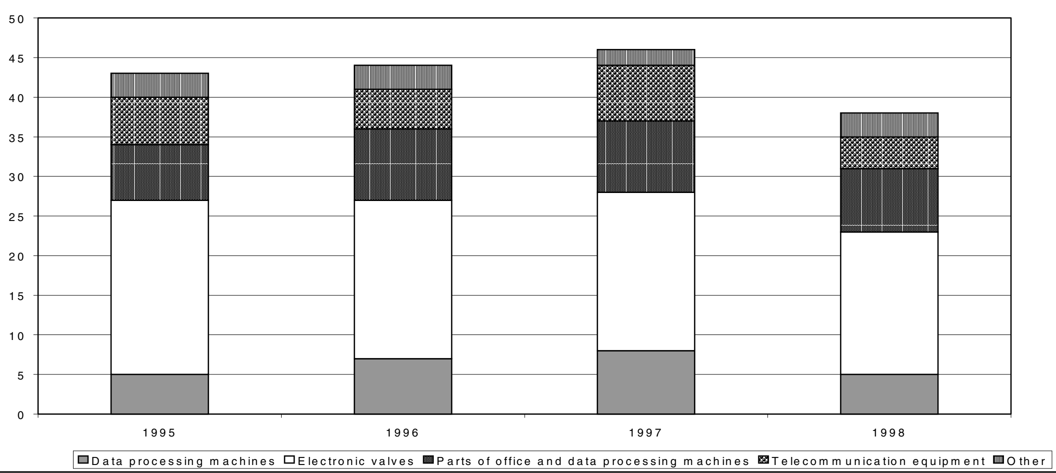


Fig. 7.1B: Singapore's Imports in Electronics (US$ billion)



Source: WTO, *Singapore: Trade Policy Review*, 2000.

The Government of Singapore has also encouraged its own companies to expand the electronic sector in neighbouring countries through different schemes like "growth triangle". It is sometimes said that the growth triangle has expanded due to the technology provided by Singapore, while the land and labour (with lower cost) is provided by other countries. Singapore has also developed technology parks in other countries, such as India, China, and Vietnam to diversify production and export markets.

In 1998, Singapore exported manufacturing commodities worth US $92.9 billion. 'Office machines (including electronic products) and telecommunication equipment' constitute about 62 per cent of Singapore's manufactures exports, followed by 'chemicals' (8 per cent). The major manufacturing sectors of Singapore's imports in 1998 were 'office machines (including electronic products) and telecommunication equipments' (42 per cent), 'non-electric machinery' (12 per cent), 'other electric machinery' (9 per cent), and 'transport equipment' (8 per cent).

Section V has shown[4] that a major share of the India-Singapore merchandise trade is concentrated in the electronic sector. Sen *et al.* (1999) etc. have estimated an index of intra-industry trade between India and Singapore. Their results show that the trade composition of India and Singapore shows a high index of intra-industry trade for a broad commodity group, i.e. 'machinery and transport equipment'. This index was very high for a particular sub-group in this group, i.e. "data processing machines". Sen *et al.* notices that most of this increase in the IIT index is due to an increase in Singapore's imports from India. Since the 'electronic sector' particularly 'data processing machines', constitutes a significant proportion of the imports and exports (domestic) of Singapore, the high level of IIT suggests a significant prospect for India-Singapore trade in this sector. In the view of significant growth in India's Information Technology with a large number of MNCs operating from India, the possibility of intra-firm and intra-industry tie-ups is likely to occur.

The study by Sen *et al.* proves that there exist ample opportunities for intra-industrial and intra-firm trade between India and Singapore. The study concludes that:

> "MNCs, particularly in the electronics industry, account for the bulk of intra-industry trade. Thus, the primary avenue for an expansion of such trade would be integrated in the division of production and distribution activities across locations by the MNCs. Too great a dependence on such a division however may create vulnerabilities and instability. It is therefore desirable to participate in such a division in a number of activities. In addition, encouraging domestic firms to venture abroad could provide an avenue for fuller participation in intra-industry trade. Besides Singapore, firms from India have such capabilities".

[4] See also Sen *et al*. (1999).

Rules or origin (ROO) is an important component of any free trade agreement, which may be designed to limit the benefits of the bilateral free trade only for the products from the 'originating territories'. Since Singapore is a very open economy with a lot of its exports in the form of re-exports, the share of domestic value addition (DVA) of Singapore's output, will be very low as compared to India's corresponding ratio. To protect the Indian domestic industry for imports through Singapore with preferential areas, we have to work out an appropriate level of ROO. This level of ROO of a PTA/FTA should be designed in such a way that the exports accruing to India should be maximised. In other words, the level of ROO should be such that: (i) Indian products should get benefits of bilateral free trade agreement (i.e. preferential tariff or other benefits from Singapore, if any) to capture Singapore's markets, and (ii) Indian should not give market access to non-member countries (other than India and Singapore) for imports via Singapore. Keeping this factor in view, we have estimated the domestic value addition ratio for India's production in the electronics sector. In fact, the import to output ratio (=1-DVA/output) has been calculated on the basis of data available for 75 major firms in India. A summary of this ratio is given in Table 7.2. The table clearly shows that the average level of import content of Indian electronic companies' output is around 15.2 per cent. The import content of a large number of Indian electronic firms (82 per cent) was less that 40 per cent of output. This table also shows that 5 per cent of the Indian electronic firms had their *import to output* ratio in the range of 40 to 50 per cent, while 12 per cent of the firms had a more than 50 per cent import content. Most of these firms belong to computer software, 1 firm to television receiver and another firm to processes control equipment; the level of their output was small to medium.

Table 7.2: Import Content of Output, Indian Electronic and Software Companies

Import to Output Ratio (%)	Electronic*	Computer Software*
Average	15.21	29.8
Range	**Number of Sample Firms (%)**	
0-40	82.70	84.8
0-50	5.30	2.20
>50	12.00	13.0

Notes: * Based on data of 75 firms
** Based on data of 46 firms

Source: *PROWESS - Centre for Monitoring Indian Economy* (CMIE), 2001.

In case 50 per cent is used as Rules of Origin (i.e. domestic value addition), a substantial portion of India's export will get preferential treatment in Singapore; while a very small proportion[5] of Singapore's exports will get preferential treatment in India. However, it should be remembered that this conclusion is based on domestic value addition, and not on the basis of value addition from both partner countries, i.e. India and Singapore.

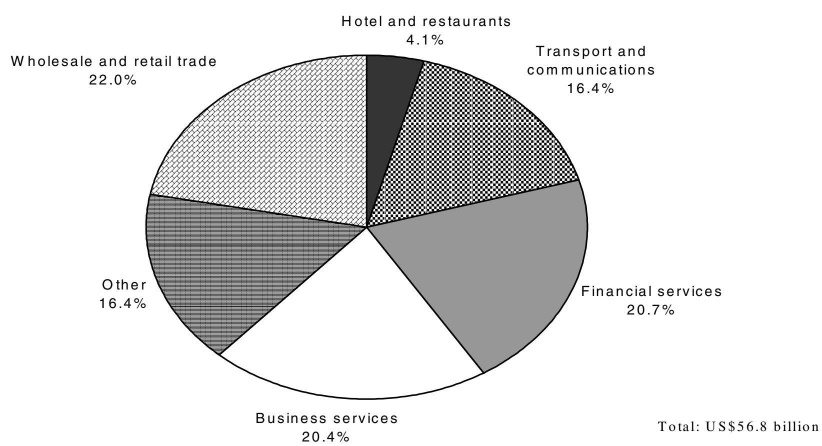
The most important question is what preferential treatment can Singapore give to India. Frankly, Singapore cannot give any preferential tariff. It can, at most, give some tax holidays or tax exemptions. However, as is discussed in the next section if India-Singapore agree to an economic co-operation programme in the IT sector linking electronic industry, particularly with computer hardware, the Indian IT industry can grow at a faster pace while the India-Singapore bilateral trade and investment may get a boost.

[5] Assuming import content of Singapore's production is very high as compared to that of India's production.

VIII. Information Technology

The Government of Singapore has launched an Information Technology 21 Programme linking electronics with overall IT including key services such as telecommunications and e-commerce. However, IT does not constitute a major part of Singapore's services sector. Figure 8.1 gives the output of Singapore's services sector by different types of services. One can notice from this table that 'wholesale and retail trade services', 'financial services', 'business services' constitute

Fig. 8.1: Structure of Singapore Services Output, 1998



a major part of Singapore services output. The composition of Singapore's exports and imports of services is also diversified as shown in Table 8.1. The largest category among Singapore's services exports in 1998 was 'traveller' followed by 'transportation', etc. Imports were mainly concentrated in transportation and travels. 'Other services' which include 'royalty', 'business services' and financial services also account for a major share of exports (48 per cent of total service sector exports) and of imports (34 per cent of total service sector imports).

Singapore has also taken a number of steps towards the promotion of its IT industry in various ways. In the international fora at the Seattle meeting, Singapore suggested a moratorium on custom duties on electronic-commerce, as well the creation of a working group on electronic-commerce

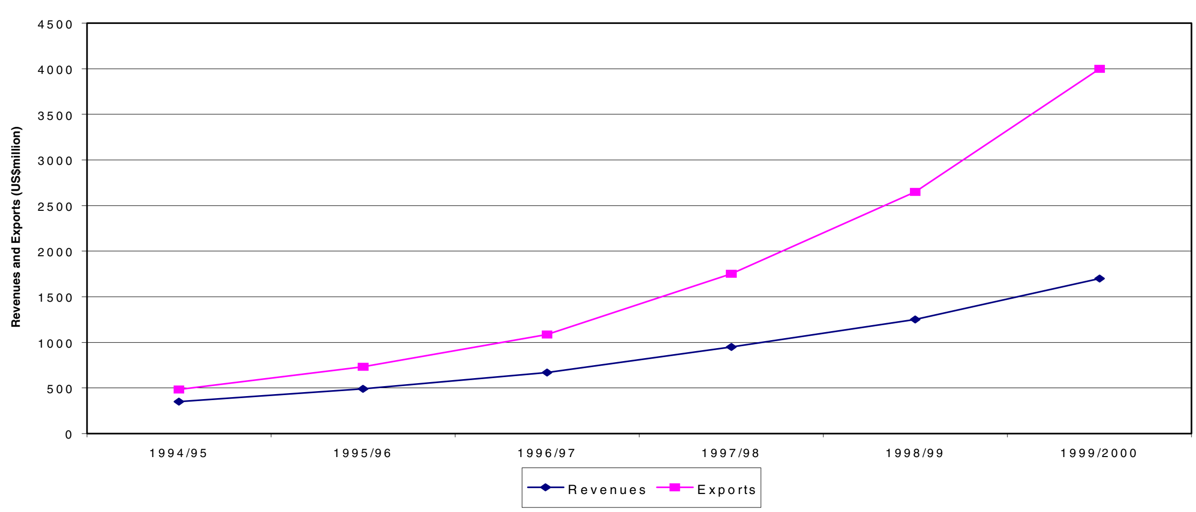
Table 8.1: Singapore Trade in Services, 1998	
	(S$ million)
	1998
Services Balance	553
Exports	30673
Transportation	7449
Travel	7682
Insurance	699
Government Services	141
Other	14702
Imports	30120
Transportation	10011
Travel	8427
Insurance	1227
Government Services	188
Other	10267
Source: WTO, *Singapore: Trade Policy Review*, 2000.	

To turn to India, the Indian IT software industry has been progressing remarkably in recent past. The revenue of the industry has been growing at the rate of more than 50 per cent during the last seven years, touching a level of US $ 5.7 billion in 1999-2000. A major share of the total revenue originates from export market. Figure 8.2 gives the level and growth of revenue and exports of Indian IT software services. Some salient features of this industry[6] are given below:

1. India accounts for around 1 to 1.5 per cent of the total world output of IT software industry.
2. India accounts for around 19 per cent of the global market for customized software.
3. The exports of the Indian IT software industry are being carried out in two ways: (i) at clients site abroad, sometimes known as 'on-site', and (ii) at 'vendor's site' in India commonly known as 'off-shore'. Almost 50 per cent of India's exports originate from 'off-shore'. The development at 'off-shore' has significantly progressed in recent years. In 1989, only 10 per cent of India's exports originated from 'off-shores'. The significant progress at 'off-shore' has been noticed due to the mushrooming of Indian companies, which have demonstrated their technological and project management skills. It has also been facilitated by the development of communication links in information technology parks. These parks have facilitated in the shift of Indian exports from 'on-shore' to 'off-shore'.

4. There has not been a significant progress in the IT software demand in the domestic sector.
5. There has been tremendous development in the Indian IT software industry and its exports have been significantly increasing in the last couple of years.
6. A large number of multinational companies have established bases in India. Almost all the major MNCs dealing in the industry have set-up their bases in India. Although the share of these foreign subsidiaries in Indian software industry is small (around 14 per cent), they have higher degree of export orientation (94 per cent). This higher orientation may be due to supply of these subsidiaries output to their respective parent companies.
7. A large number of Indian based companies have obtained certificates of merit, and are also members of the International Standard Organisation (ISO-9000).
8. The major areas of specialisation of Indian software companies are (i) web-technology's including Internet, E-commerce, etc., (ii) software product development, (iii) software maintenance and migration, (iv) data base management, etc.

Fig.8.2: Revenues and Exports of Indian IT Software Industry



Source: Kumar (2001).

The importance of the IT industry in both Singapore and India, may lead to economic and technical co-operation between India and Singapore:

1. Singapore has a well-developed IT infrastructure and capital surplus while India has trained human capital. There are ample opportunities for co-operation in production.

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[6] Based on Kumar (2000).

2. A large number of opportunities exist for designing, manufacturing, distribution and trading of commodities in which software is an important input. The major commodities/sectors in which Indian software companies have a proved specialisation are: (a) financial services; (b) manufacture, marketing and distribution; (c) infrastructure sector like railway, transport, port, etc.; (d) electronic, engineering; (e) tele-communication, and (f) education, health and medical services. Singapore's has been dealing in these sectors in prominent way. Hence, there exists a complementarity in supply of IT software to these sectors.
3. Singapore has links with producers in a number of other countries who can use Indian software capabilities for producing these commodities. The Indian software industry can use these Singapore-based countries for export.

IX. Economic Co-operation between India and Singapore: Some Select Issues

This section raises select issues relating to economic co-operation between India and Singapore.

Additional Market Access for India

1. Keeping in view the trade policy regime of Singapore, the question arises how much additional market access can Singapore provide to India through tariff concessions or preferences in bilateral trading arrangement? From the discussion in the earlier sections, it seems that Singapore can provide very little tariff preference (or concession) to India, because it applies tariff rates on only 4 commodity lines of the beverages industry. The tariff rates of all other commodities tariff lines (i.e. 5690) is zero. India does not have export competitiveness in the four lines where Singapore can probably give some preferential tariff.
2. It should be remembered that although Singapore has a very low level of tariff rates, it has not bound a large number of industrial products in the WTO. Singapore has given tariff binding for only 65 per cent of industrial products/lines. Further, a large number of lines (2506) are bound at 10 per cent.
3. A large share of Singapore's trade is subject to non-tariff barriers. The import prohibitions are imposed under various orders and licence measures for considerations of public safety, health, environment, etc. It is very difficult, almost impossible, for Singapore to give preference to the Indian market by removing these barriers.
4. Singapore has signed bilateral FTAs with a large number of countries including the US and Japan. Singapore is probably interested in FTAs with them because it is highly dependent upon the markets, investments and technology of high-income large economies. Singapore has already concluded an agreement with New Zealand.
5. A large share of Singapore's exports is in the form of re-exports. So any value addition norms would be difficult to apply. So some of the trade is in paper transactions only. One can have value addition for custom purposes. It is very difficult to believe that this will lead to an enhancement of India's exports, if an FTA with some value addition criteria is agreed upon between India and Singapore. At present 40 per cent is rule of origin under ASEAN Free Trade Agreement and Singapore-New Zealand Free Trading Arrangement.

Gateway to South East Asian Economies

6. It is generally said that bilateral agreement with Singapore can provide gateway to market of South East Asian countries. As far as India's exports are concerned, it can even export now to East and South East Asian countries via Singapore without much hindrance. It is very difficult to understand how the FTA will help in increasing India's market access to these countries. In this context, we should explore the possibility of India's Free Trade Agreements with other countries of the region, viz. Indonesia, Malaysia, Thailand or even Vietnam .

7. It should be remembered that a large number of products/lines for Intra-ASEAN trade will be subject to negligible tariff (0-5 per cent) by 2002. Hence one can say that India can enter the markets of other ASEAN countries (other than Singapore) through Singapore. However, it is not simple because the clause on rule of origin is very high. Hence, it very difficult to believe that the Indo-Singapore bilateral free trade agreement will provide an early entrance to ASEAN market via Singapore. In this context one should remember that Singapore is an important 'trading hub' in the region, and India can penetrate into other countries via Singapore. However, it is very difficult to understand the advantages of bilateral free trade agreement to India.

Spokesmen in Other Regional Foras like APEC

8. Singapore is a strong member of ASEAN, IOR-ARC and APEC. A number of Indian experts believe say that Singapore can be instrumental for pushing India's membership in ASEAN. To the best of our knowledge, the membership for ASEAN will not go beyond Myanmar, so it almost impossible that India can become a full member of ASEAN in near future. In this context, it is worth mentioning that ASEAN is encouraging economic relations with other countries of Asia, namely, China, Japan and Korea (commonly known as ASEAN+III). India was also invited in last summit of ASEAN+III. In this summit China and ASEAN announced FTA by 2010.

9. Singapore can be a reliable strategic partner in IOR-ARC. In case, IOR-ARC opts for Free/Preferential Trading Agreement, India-Singapore Bilateral Free Trading arrangement may lead to accelerating that process.

   Singapore can certainly help India in putting its case in APEC for membership. In this context, it should be remembered that India had applied for membership of APEC a couple of years ago. Some countries were inducted as the members of APEC, however, India could not become a member of APEC.

Enhancement of Investment and Financial Flows

10. These days, FTAs are not restricted to only bilateral trade, but include number of other provisions, which may enhance the co-operation in the field of investment, joint ventures and other areas. The differential treatment given to domestic and foreign investors (and other related measures) can tell us the extent of economic co-operation in other fields. However, it seems that Singapore will not be able to provide the latest technology along with FDI. Before putting up the investment and financial flows in the agenda of the Indo-Singapore FTA, a detailed analysis is required. A brief analysis of investment flows of Singapore and India is given in Section V. This section revert that Singapore provides some preferential treatment to inward and outward FDI, but most of this treatment is given on MFN basis.

11. Singapore gives a number of incentives in the forms of tax holidays, exemption, concessional tax rates, exemption on taxable income and non-tax incentives. India could ask for more concessions as a part of bilateral free trade agreement.

Strategic Partnership

12. Bilateral FTAs may lead to gains in political stabilities through economic diplomacies. Since 1990s, India has been following the policy of 'Look-East'. Singapore can take the mantle of advancing India's interest in the world, particularly Asia. It has been advancing China's interest, even as it has maintained close military, intelligence and economic contacts with the US (a difficult balancing act, so far made possible by the US' desire to engage China and to maintain presence in South East Asia). In the case of Singapore, one is dealing with an authoritarian state. Singapore (apart from the MNCs) has no real private sector. The State is present everywhere. In short, there are very few purely commercial transactions with Singapore firms. One has to examine, in detail, the benefits and the cost of FTAs in this context of strategic partnership.

Lessons from economic growth/liberalisation process of Singapore

13. The Singapore economy has shown consistent growth in output, and has not been subject to any type of serious crisis. The growth process of Singapore economy is unique. It has huge re-export; around one-fourth of its output originate from industrial sector, and there is almost no private sector (apart from MNCs). Singapore is a very open economy and it has been operating at a zero per cent tariff rate. On the other hand India's economic reform/liberalisation process started in early 1990s. India has to go a long way. India can learn may lessons from Singapore, particularly about sequencing and schedule of different steps of liberalisation process.

Economic Co-operation in Select Sectors

14. It seems that a better strategy would be to deepen co-operation in select sector like information technology, electronics, etc. Electronic industry is the most important manufacturing sector of Singapore's economy. Singapore produces, imports and exports different components of electronic industry. The main products are computer and data processing equipment, telecommunication equipment, electronic valves, etc. A major share of India-Singapore merchandise trade is concentrated in this sector, particularly in data processing machines. On the other hand, India has shown a remarkable growth in IT software industry, with large number of MNCs operating from India. This shows that there are significant prospects for the India-Singapore trade in overall IT including software, electronics, telecommunications and e-commerce. Under the bilateral free trade agreement, India can give preferential tariff to Singapore for this sector. The preferential tariff to Singapore will not affect significantly the volume of India's imports, because India has planned to eliminate tariffs on IT products by 2005, as per IT programme of the WTO. Further, the appropriate rule of origin (ROO) can take care of significant increase in India's import based on preferential tariff. On the other hand, India can ask for incentives like tax-holidays, tax reduction, tax exemptions and non-tax incentives like financing through Singapore's financial sector.

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