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**THE JAPAN-SINGAPORE “NEW AGE”
ECONOMIC PARTNERSHIP AGREEMENT:
BACKGROUND, MOTIVATION AND
IMPLICATIONS**

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CONTENTS

ABSTRACT	ii
SECTIONS	
1. Introduction	1
2. Singapore's Bilateral Trade Linkages with Japan	
2.1 Trends in Merchandise Trade	6
2.2 Trade Intensity Indices	9
2.3 Commodity Composition of Merchandise Trade	11
2.4 Intra-Industry Trade (IIT)	14
3. Trade in Services and Direct Investment	
3.1 Importance of Services Trade to Japan and Singapore	22
3.2 Strategies to Develop Singapore into an International Services Hub	28
3.3 Singapore's Investment Linkages with Japan	29
4. Overview of the Japan-Singapore Free Trade Agreement	32
4.1 Trade in Goods	33
4.2 Trade in Services	34
4.3 Investment Facilitation and Movement of Natural Persons	36
4.4 Other Areas of Cooperation	37
5. Concluding Remarks	38
REFERENCES	40
ANNEXES	
1. Trade Intensity Indices	43
2. Measures of Intra-Industry Trade (IIT)	45

THE JAPAN-SINGAPORE “NEW AGE” ECONOMIC PARTNERSHIP AGREEMENT: BACKGROUND, MOTIVATION AND IMPLICATIONS

ABSTRACT

Free Trade Pacts have become an integral part of Singapore’s new commercial trade strategy which in turn is the cornerstone of the city-state’s larger international economic policy. Such trade pacts appear to be increasingly regarded by policymakers as effective and expeditious instruments for achieving trade liberalization among “like minded” trading partners. Of particular relevance is the Japan-Singapore pact which has recently been agreed to and is in the process of being implemented. The trade pact has been termed the Japan-Singapore Economic Partnership Agreement (JSEPA). This paper discusses the extent of the two countries’ bilateral economic linkages in terms of merchandise trade and trade in services and investments and examines available details of the JSEPA.

1. Introduction

The spate of financial crises that have afflicted a number of developing and emerging economies over the last decade have inevitably given fodder to critics of economic globalization. To be sure, there is clear evidence that financial markets tend to react too late and when they do react, they have a propensity to over-react (Willett, 2000). Nonetheless, it is revealing to note that in almost all crisis experiences, the economies initially and worst affected by the crises were also the ones with the worst fundamentals to begin with. On the other hand, even the strongest regional economies can be and have been affected by weaknesses in neighboring economies because of substantial trade, investment and financial interdependencies. Hence the term contagion is quite apt; like a spreading virus, agents with the weakest immune system to begin with are often the ones that are initially and most severely impacted. This point is nicely illustrated in the case of East Asia using Table 1. It is apparent that by most count, Thailand, the country first impacted by the regional crisis had the worst “fundamentals”. Indonesia, the most severely impacted by the crisis, followed it. In fact, despite being the most open economy in the region with a trade to GDP ratio of over 250 percent; Singapore was one of the few economies in East Asia to have maintained positive growth in 1998. By all indications the city-state boasted the region’s strongest economic fundamentals (Rajan et al., 2002). It therefore provides one of the most convincing rebuttals against those who argue that openness per se makes an economy especially vulnerable to sudden swings in market perceptions and capital account reversals. Rather, it is openness without the accompanying sound and stable institutions and coherent and consistent economic policies that is the source of acute economic vulnerability.

Table 1
Summary of Economic Fundamentals of Selected East Asian Economies

Fundamentals	Country Rankings ^a						
	1	2	3	4	5	6	7
<u>External</u>							
International Reserves ^b	P	I	M	T	K	H	S
Current Account/GDP ^c	T	K	M	P	I	H	S
Debt/GDP ^d	T	P	I	M	S	H	S
Export Slowdown ^e				K	H	P	I
Real Exchange Rate: Deviation from PPP ^f	T	S	M	M	T	I	P
	S	K	H				
<u>Banking Strength</u>							
Capital Adequacy ^g				M	P	H	S
Non-Performing Loans ^h	K	T	I	I	P	S	H
Bank Ratings ⁱ		T	K	P	H	M	S
	M	K	T				
<u>Liquidity Mismatches</u>							
Excess Credit Growth ^j	I			I	S	K	H
Short-term External Debt/Reserves ^k			T	P	M	H	S
Broad Money/Reserves ^l		M	T	K	M	S	H
			P				
Overall Average ^m	P	I		P	M	S	H
	K	I	K				
Overall Based on Thailand Weights ⁿ	T			P	M	S	H
		I	K				
	T						
	T						

Notes: a) I - Indonesia, H - Hong Kong, K - South Korea, M - Malaysia, P - Philippines, S - Singapore, T - Thailand. Ordinal ranking in descending order of "bad" fundamentals; b) in SDRs, June 1997; c) 1996; d) 1997; e) change (%) in 1996 less the average change (%) previous three years; f) June 1997; g) unclear from source, but probably average of 1996 and 1997; h) 1997 estimates; i) May 1996; j) growth of credit to private sector relative to nominal GDP, 1996; k) June 1997; l) June 1997; m) equal weights to all fundamentals (including two others included in original sources); n) greater weights given to fundamentals in which Thailand is weakest

Source: Goldstein and Hawkins (1998)

Despite having survived the regional crisis relatively unscathed, Singapore is faced with a number of challenges. The regional crisis has fundamentally altered the external economic equations that confront the city-state. The crisis and ongoing reforms in Southeast Asia, which remains rather sluggish in some countries (Rajan and Bird, 2001), appear to have slowed down the pace at which some of Singapore's neighbors are willing or able to undertake trade and investment liberalization. This is a far cry from the period of the mid 1980s to mid

1990s when there was an inherent regional dynamic towards more rapid - almost competitive - liberalization. While the term “contagion” has gained prominence - notoriety in fact - following recent financial crises, it should be recalled that it was used in a positive sense pre-crisis to describe the spread of trade and investment liberalization and economic prosperity in East Asia. Specifically, a positive externality of being associated with dynamic open economies involves the transformation of the conventional prisoner's dilemma - which suggests that protectionist policies are the “dominant strategy” for each country acting in isolation - to one of prisoner's delight, whereby trade liberalization is the dominant strategy for a country in a region in which some other countries are already reaping the benefits of a liberal trade regime (Garnaut, 1994)¹. There are genuine concerns that Southeast Asia has lost its economic vitality and is viewed by extra regional foreign investors as the “less attractive cousin” of Northeast Asia (Business Times, Singapore, December 11, 2000). Singapore is keen to ensure that investors not perceive it as being in the same boat as the rest of the region, i.e. Singapore needs to remain on the radar screen of world investors even if Southeast Asia as a whole may not be. Singapore also sees the need to diversify its economic linkages beyond Southeast Asia. This is especially so as the recent financial crisis appears to have depleted the collective strength and prominence of the Association of Southeast Asian Nations (ASEAN)².

In view of the foregoing, as well as in recognition of the fact that it has limited influence in the multilateral arena, where recent progress on many

¹ Of course, an infinitely played prisoner's dilemma game predicts that a cooperative strategy could be supported if agents have high enough rates of time preference (so called “Folk Theorem”).

² As reportedly noted by Singapore Deputy Prime Minister, Lee Hsien Loong:
the crisis caused some ASEAN countries to hold back from pushing ahead with the ASEAN Free Trade Area (AFTA) and the ASEAN Investment Area (AIA), to give struggling domestic industries some breathing space...ASEAN members who were doing relatively better -- such as Thailand, Malaysia, Singapore and Brunei -- should take the lead and work to put ASEAN cooperation on track again (Business Times, Singapore December 1, 2000).

important issues relating to trade and investment liberalization is perceived to have been disappointingly slow and negotiations protracted and cumbersome (Sager, 1997), Singapore has actively looked for alternative paths to trade and investment liberalization and facilitation to complement its strong advocacy for multilateral liberalization. It is against this backdrop that Singapore has recently shifted its attention to cross-regional trading pacts. Such pacts, or Free Trade Arrangements (FTAs) as they have come to be known in common parlance, have become an integral part of Singapore's new commercial trade strategy which in turn is the cornerstone of the city-state's larger international economic policy³.

FTAs appear to be increasingly regarded by policymakers as effective and expeditious instruments for achieving trade liberalization among "like minded" trading partners (Schiff et al., 2000). Formation of bilateral FTAs among such partners is also seen as a way to overcome the so-called "convoy problem" whereby the "least willing member" ("foot-dragger") holds the pace of trade integration back⁴. While the argument that regional trade pacts are easier to conclude and can be negotiated at a faster pace than global agreements may not hold true as a general rule (Baldwin, 1997 and Bhagwati, 1995), it does seem to be relevant in the case of Singapore which sets strict deadlines for completion of discussions (though this may come with its own problems; see Rajan and Sen, 2002)⁵.

³ Given the definition of FTAs, Jagdish Bhagwati notes that the term "preferential trade arrangements" (PTAs) is a more apt description. As he declares of such trade arrangements (Bhagwati, 1995), they are "two-faced: they embody both free trade and protection. Economists interested in the quality of public policy discourse should perhaps take a pledge henceforth to rename free trade areas as 'preferential' trade areas" (p.2). While sympathetic to this point of view, we use the terms free or preferential trade "agreements", "arrangements", "pacts" and "accords" interchangeably in this paper.

⁴ Or, as is sometimes said, "those who can run faster should run faster and ought not to be held back by those who choose not to run or do so at a snail's pace".

⁵ Singapore's drive towards FTAs is not solely economic by any means. FTAs could also serve as a conduit by which Singapore draws attention to itself and enhances the city-state's political recognition and profile with the integrating partners, and carves out for itself a pivotal role in regional and multilateral trade fora. Singapore's Ambassador-at-Large, Tommy Koh (2000) makes this point convincingly in the context of the proposed US-Singapore FTA.

Singapore's choice of trading partners to form FTAs can be broadly divided into two groups. The first group includes Australia, New Zealand, the EFTA countries, and the like. Individually, these countries do not account for more than 3 percent of Singapore's total exports, domestic exports, or total imports (Rajan and Sen, 2002). The aim here is to seek out new markets in view of the seeming loss of growth momentum in Singapore's immediate neighbors as well as to diversify the city-state's external economic linkages. The second group of countries which includes the US and Japan, are major established trading partners. Proposed bilateral trade accords by Singapore with these two economies are best seen as a formalization of the *de facto* extensive and deep linkages that are already in existence.

While the *proposed* US-Singapore bilateral trade pact is certainly not without significance (being the first that the US may sign with an Asian economy), of particular relevance is the Japan-Singapore pact which has recently been agreed to and is in the process of being implemented. While Singapore has already implemented a wide-ranging pact with New Zealand, this is the first trade pact that Japan has agreed to. It has been termed the Japan-Singapore Economic Partnership Agreement (JSEPA). The significance of Japan's shift from sole emphasis on the multilateral trading route ought not to be understated. Japan has hitherto been among the staunchest multilateralists and has long spurned the FTA route to trade liberalization. Just a few years ago in response to the North American Free Trade Agreement (NAFTA) and the possible formation of a Free Trade of the Americas (FTAAs), Jagdish Bhagwati (1995) noted:

(The US) is currently wedded to the wrongheaded approach supporting free trade agreements...I believe that Japan and the Far Eastern super performers could use..(the)..opportunity to play a leadership role in halting the US slide towards its obsessive fixation on free trade agreements and in restoring a principal focus on multilateralism at the WTO...Japan and the Asian nations have much to offer that is different from and wiser than what the US seeks (pp.15-6).

In addition, rightly or wrongly, the JSEPA has been viewed as a precursor to the formation of an East Asia-wide FTA between economies in Southeast Asia plus Japan, Korea and China (APT) and is regarded by many as a possible template for other trade pacts in Asia⁶.

The next two sections discuss the extent of the two countries' bilateral economic linkages in terms of merchandise trade (Section 2) and trade in services and investments (Section 3). This is followed by an examination of the available details of the JSEPA and how it may be expected to impact bilateral relations. The final section concludes the paper. Two technical annexes follow the main text.

2. Singapore's Bilateral Trade Linkages with Japan

2.1 Trends in Merchandise Trade

According to available data from the World Trade Organisation (WTO), Japan was the world's third largest trading nation in merchandise goods, accounting for 7.5 percent of global exports and 5.7 percent of global imports. Singapore ranked number fifteen in terms of world merchandise exports and sixteen in world merchandise imports, accounting for about 2 percent of global exports and world imports. One must keep in mind the entrepot nature of a large part of Singapore's trade. Excluding this component, the city-state slips slightly to twenty three if only domestic exports (i.e. exports with a proportion of domestic value added) are considered (Table 2)⁷.

⁶ In a recent meeting in Singapore, it was agreed that the APT would explore the possibility of holding an East Asian summit as well as consider the establishment of an APT-wide FTA and investment area (Business Times, Singapore, November 25, 2000). Steps are already underway to create an ASEAN-China FTA.

⁷ Note that this ranking excludes Singapore's trade with Indonesia which the Singapore authorities do not publish.

Table 2
Leading Exporters and Importers in World Merchandise Trade, 2000
 (billion US dollars and percentage)

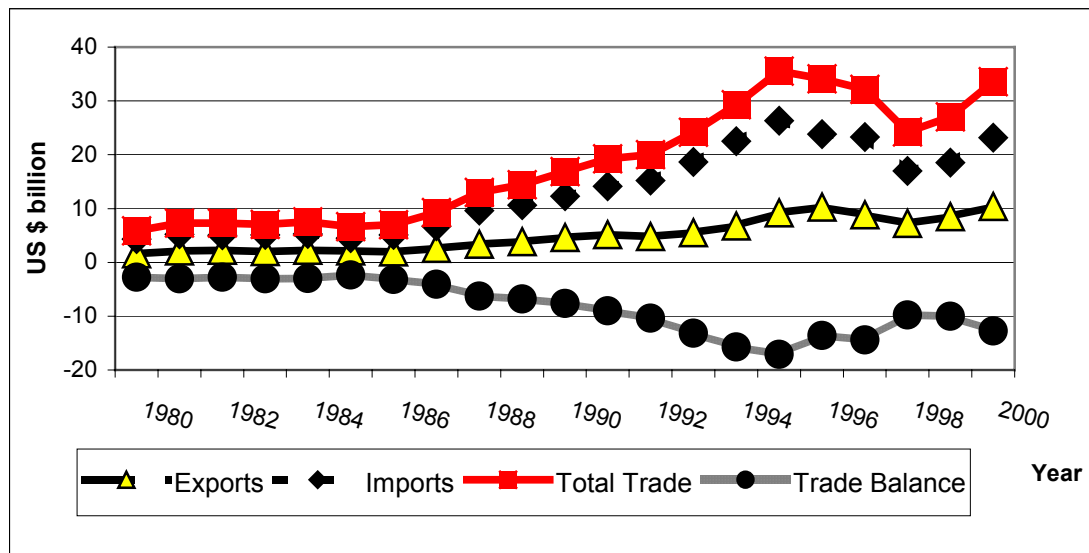
Rank	Exporters	Value	Share	Annual percentage change	Rank	Importers	Value	Share	Annual percentage change
1	Extra-EU exports	858.9	17.3	7.1	1	United States	1257.6	23.9	18.7
2	United States	781.1	15.7	11.3	2	Extra-EU imports	965.7	18.3	13.2
3	Japan	479.2	9.6	14.3	3	Japan	379.5	7.2	21.9
4	Canada	276.6	5.6	16.0	4	Canada	244.8	4.6	11.2
5	China	249.3	5.0	27.7	5	China	225.1	4.3	35.8
6	Hong Kong, China	202.4	4.1	16.1	6	Hong Kong, China	214.2	4.1	18.5
	domestic exports	23.7	0.5	5.8		retained imports	35.4	0.7	23.5
	re-exports	178.8	3.6	17.6	7	Mexico	182.6	3.5	22.9
7	Korea	172.3	3.5	19.9	8	Korea	160.5	3.0	34.0
8	Mexico	166.4	3.3	22.0	9	Taipei, Chinese	140.0	2.7	26.2
9	Taipei, Chinese	148.3	3.0	22.1	10	Singapore	134.5	2.6	21.1
10	Singapore	137.9	2.8	20.2		retained imports	75.6	1.4	16.2
	domestic exports	78.9	1.6	14.8					
	re-exports	59.1	1.2	28.5					

Note: Data exclude intra-EU trade
 Source: World Trade Organisation (2001a)

Figure 1 displays trends in Singapore's total merchandise trade with Japan over the past two decades (1980-2000). The share of Japan in Singapore's overall trade during this period averaged 14 percent, peaked at 16 percent in 1988, but progressively declined between 1995 and 1998. It currently stands at about 12 percent (year 2000). In contrast, trade with Singapore constituted a mere 3 percent of Japan's global trade in 2000. Nonetheless, despite the city-state's microscopic physical size, Singapore was the sixth largest export market for Japanese goods and Japan's thirteenth largest import source in 1999 (IMF, 2000). Singapore's exports to Japan as a share of Singapore's global exports declined from 11 percent in 1992 to less than 8 percent by 2000. Nearly one third of Singapore's exports to Japan have included an entrepot component. On average, Japan constituted about one fifth of Singapore's total imports. Averages fail to capture the entire picture as imports from Japan declined from 21 percent of Singapore's global imports to 17 percent during the period under

consideration. All in all, there appears to be a clear trend of declining relative importance of Japan in Singapore's aggregate trade basket, though it remains a major trade partner of the city-state.

Figure 1
Singapore's Merchandise Trade with Japan



Source: International Monetary Fund, **Direction of Trade Statistics Yearbook**, various issues

While Singapore has maintained large aggregate trade surpluses, as with most other Asian countries, it has run persistent bilateral deficits with Japan which have been increasing both in magnitude as well in terms of Singapore's total trade with Japan, especially during the period 1985-94. The deficit was around US\$13 billion in 2000, constituting about almost 40 percent of Singapore's bilateral trade with Japan. Persistent trade deficits with Japan might at least partly be a reflection of the inability of foreign (including Singapore) exporters to penetrate the Japanese market due to the maintenance of both official and (especially) unofficial non-tariff barriers (NTBs) (Lawrence, 1987). Indeed, these barriers have in turn often led to the accusation that Japan "imports too little" from its trading partners (Takeuchi, 1989), with a survey of Singapore exporters in the late 1980s revealing them to be "generally overawed

by the Japanese ‘closed market’ image” (Lim, 1988, p.100). This factor could be of potential importance, as a bilateral trade pact ought to provide Singapore preferential access to the Japanese market.⁸

2.2 Trade Intensity Indices

While certainly informative, trade shares are an incomplete indicator of the intensity of bilateral trade relations as they do not take into account a country’s trade exposure with the rest of the world. The degree of bilateral orientation of Singapore’s trade with the two partner countries is therefore more appropriately examined with the aid of bilateral trade intensity indices. These indices aim to capture the extent to which the home country (Singapore) regards its trading partners (Japan) as being important in relation to the former’s trade with the rest of the world (ROW). An index value above unity indicates that the trading partner is relatively “over-represented” in the home country’s trade⁹.

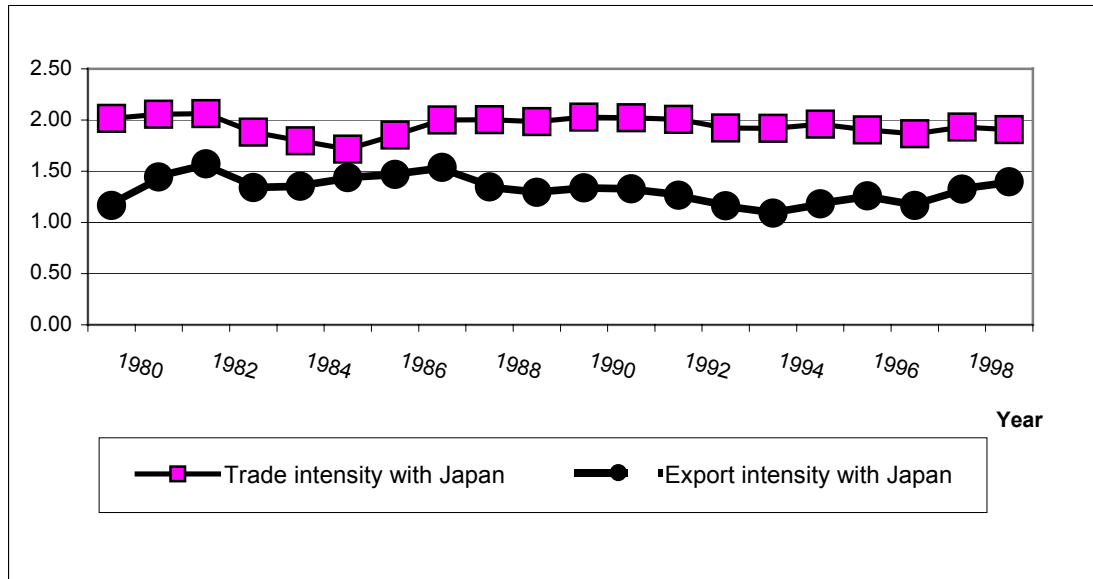
Singapore’s trade (exports plus imports) intensity indices with Japan over the period 1980-99 are highlighted in Figure 2a and 2b. As can be seen, the index values are generally above unity, indicating an “over-representation” of Japan as a market for Singapore’s exports as well as a source of imports. Singapore’s average trade intensity with Japan is 1.9 (Figure 2a), mainly because of the relatively high import intensity. Conversely, from Japan’s perspective, its average export intensity with Singapore is fairly high at 2.4 (Figure 2b). Yet Japan’s import intensity with Singapore is less than 1, implying

⁸ The assemble-and-export strategy, whereby Japanese multinationals in East Asia import intermediate products and capital goods from Japan, assemble them locally and re-export the finished goods to the US and other third countries, is a further reason for Japan’s persistent bilateral trade surplus with Singapore as well as the rest of East Asia. It is this phenomenon that is thought to have contributed to an increase in Singapore’s imports from Japan particularly after 1987-88, with the city-state being one of the largest recipients of Japanese FDI due to various push factors in Japan (Rajan, 1996a).

⁹ See Annex 1 for details.

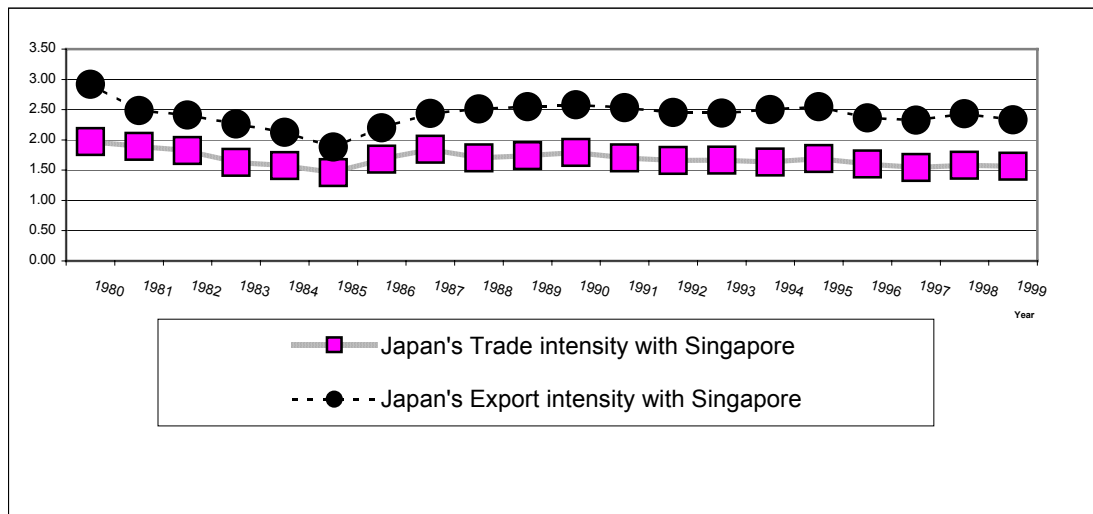
that Singapore is under-represented as an import source for Japan. Overall, the intensity of Japan's total trade with Singapore was 1.7.

Figure 2a
Singapore's merchandise trade intensities with Japan



Source: Computed from International Monetary Fund, **Direction of Trade Statistics Yearbook**, various issues

Figure 2b
Japan's merchandise trade intensities with Singapore



Source: Computed from International Monetary Fund, **Direction of Trade Statistics Yearbook**, various issues

2.3 Commodity Composition of Merchandise Trade

The preceding analysis focuses only on broad trends in aggregate trade relations. An examination of the commodity composition of trade is necessary to obtain a fuller understanding of Singapore's trade linkages.

Table 3 compares the composition of Singapore's overall exports and exports to Japan specifically by commodity groups at the SITC 3-digit level in 1999 which is the latest available year. Singapore's global exports are concentrated in five product categories, viz. electronics and petroleum refined products (SITC 776, 752, 759, 334 and 764), which constituted nearly 60 percent of Singapore's total world exports¹⁰. The top five product categories of Singapore's overall exports noted above are also among the highest categories of Singapore's exports to Japan, accounting for over half of the city-state's total exports to Japan¹¹. Electronic Valves (SITC 776) accounted for about 20 percent of Singapore's global exports as well as exports to Japan specifically, making it the second most important Singapore export to both markets. Data Processing Machines (SITC 752) was the second most important Singapore export globally but was the most important one to Japan.

¹⁰ This trend is similar over 1995-99, indicating that the crisis of 1997-98 has not had any discernible adverse impact on the commodity composition of exports.

¹¹ This result remains unaltered even if periods prior to the crisis in 1997-98 are considered.

Table 3
Top 10 products of Singapore's Total Exports to the World and Japan, 1999
(million Singapore dollars)

World			
Product Code	Product Description	Value	Share
776	Electronic Valves	39028.9	20.1
752	Data Processing Machines	33530.7	17.3
759	Parts For Office & D/P Machines	17165.0	8.8
334	Petroleum Products Refined	14643.5	7.5
764	Telecommunications Equipment	8742.0	4.5
772	Electrical Circuit Apparatus	4823.1	2.5
778	Electrical Machinery N.E.S	4141.0	2.1
898	Musical Instruments & Parts	3327.4	1.7
515	Organo-Inorganic Compounds	2799.6	1.4
931	Special Transactions	2136.6	1.1
	Others	63951.8	32.9
	Total	194289.6	100.0

Japan			
Product Code	Product Description	Value	Share
752	Data Processing Machines	3004.3	20.8
776	Electronic Valves	2322.8	16.1
898	Musical Instruments & Parts	1490.0	10.3
759	Parts For Office & D/P Machines	1103.9	7.7
334	Petroleum Products Refined	745.6	5.2
764	Telecommunications Equipment	378.8	2.6
931	Special Transactions	346.7	2.4
112	Alcoholic Beverages	331.1	2.3
772	Electrical Circuit Apparatus	211.4	1.5
716	Electric Plant & Parts N.e.s	196.8	1.4
	Others	4289.3	29.7
	Total	14420.7	100.0

Note: Commodity composition at SITC 3-digit level

Source: Computed from Singapore Trade Development Board, **Singapore Trade Statistics**, various issues

Table 4 documents the commodity composition of Singapore's imports from Japan in 1999. While Electronic Valves (SITC 776) remains the top ranked product in Singapore's overall imports, constituting nearly one fifth of the total, the import shares of other electronic products and refined petroleum products are much smaller than their corresponding export shares. For instance, SITC 752 (Data processing machines), which has constituted nearly a fifth of Singapore's exports to Japan, has only been about 4 percent from Japan. Refined petroleum products do not figure at all in the top ten items of imports from Japan. This

notwithstanding, seven commodity groups, six of them in the categories of electrical and electronic goods and equipment (i.e. SITC 75-77), are also among the top ten commodities of both Singapore's overall exports and imports. Five out of these seven product groups overlap in Singapore's exports to and imports from Japan (particularly domestic exports) viz. SITC 752, 776, 759, 764 and 772. All this suggests *a priori* a high presence of intra-industry trade (IIT).

Table 4
Top 10 products of Singapore's total imports from the World and Japan, 1999
(million Singapore dollars)

World			
Product Code	Product Description	Value	Share
776	Electronic Valves	37461.1	19.9
759	Parts For Office & D/P Machines	14856.8	7.9
333	Petroleum Crude	9029.2	4.8
752	Data Processing Machines	8916.3	4.7
334	Petroleum Products Refined	7980.2	4.2
764	Telecommunications Equipment	7298.4	3.9
772	Electrical Circuit Apparatus	5608.4	3.0
778	Electrical Machinery N.E.S	4782.3	2.5
792	Aircraft	3782.5	2.0
874	Measuring Instruments	3542.7	1.9
	Others	84884.1	45.1
Total		188142	100.0

Japan			
Product Code	Product Description	Value	Share
776	Electronic Valves	6844.3	21.8
764	Telecommunications Equipment	1654.5	5.3
759	Parts For Office & D/P Machines	1592.8	5.1
778	Electrical Machinery N.E.S	1547.8	4.9
772	Electrical Circuit Apparatus	1440.5	4.6
728	Specialized Machinery N.E.S	1354.0	4.3
752	Data Processing Machines	1324.1	4.2
793	Ships & Boats	865.2	2.8
874	Measuring Instruments	775.3	2.5
882	Photographic Supplies	610.7	1.9
	Others	13313.1	42.5
	Total	31325	100.0

Note: Commodity composition at SITC 3-digit level

Source: Computed from Singapore Trade Development Board, **Singapore Trade Statistics**, various issues

2.4 Intra-Industry Trade (IIT)

Broadly, IIT refers to the simultaneous import and export of products within the same product category. The most common measure of IIT is the Grubel-Lloyd (G-L) index which computes the ratio of net exports in a product category to its total trade in an index that takes values from 0 to 100. In other words, the G-L index is a measure of the degree of trade overlap between exports and imports in a given product category or industry. The G-L index takes on a value of 0 if there are no exports or imports of a particular product group, i.e. no IIT. If exports exactly match imports, both being positive, the G-L index value equals 100 (Annex 2). The index can be computed at the aggregate trade level as well as a weighted average of IIT in all industries, the weights based on the share of the industry's trade in the country's total trade. Despite the widespread use of the G-L index, it is not without its problems. For instance, since the G-L index is unable to account for aggregate trade imbalances, it tends to bias downwards the actual intensity of IIT with countries with which bilateral trade is unbalanced (see Rajan, 1996b and references cited within). Accordingly, we also provide data on the actual amount/value of IIT as well as make use of data on both total exports as well as only domestic exports.

Estimates of the G-L index and the actual level of IIT in Singapore's trade with Japan over 1995-99 using total and domestic exports are respectively presented in Tables 5 and 6. Since the preceding section has emphasized that Singapore's bilateral trade with the two countries is concentrated in the SITC 3-8 commodity groups, we focus on these categories at the 3-digit disaggregated level. The G-L index for trade between Singapore and Japan has increased from 31 in 1995 to 40 by 1999. However, except for SITC 759 in the case of Singapore-Japan IIT, each of the other product categories were among the top ten index values, accounting for only 4 percent of bilateral trade with Japan. This highlights the need to carefully differentiate between *levels* or *volumes* and

degree of IIT. The G-L index is a measure of the latter. It is therefore important to consider the actual level of IIT (Rajan, 1996b). The total value of Singapore-US IIT stood at US\$17 billion. The top four products to have experienced the highest levels of IIT are SITC 776, 752, 759 and 764. These constitute two fifths of Singapore's total value of IIT with Japan. Over the period, notwithstanding the crisis years of 1997-1998, most of the products maintained their rankings with respect to the level of IIT.

Table 5
Singapore's Intra-Industry trade with Japan : 1995-99 (computed with total export values)

Product groups with ten highest G-L index values of IIT between Singapore and Japan

1995			1996			1997			1998			1999		
SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade
894	97.9	0.5	894	99.3	0.6	893	99.4	0.5	892	96.8	0.2	885	96.1	0.7
761	91.8	0.8	792	96.6	0.1	931	98.3	1.2	759	87.6	6.0	516	93.9	0.1
885	85.4	0.5	885	94.7	0.7	773	96.4	0.5	893	85.5	0.5	792	91.5	0.3
931	79.3	1.0	893	94.0	0.4	553	96.1	0.2	516	83.6	0.1	893	86.3	0.4
553	77.6	0.2	553	86.3	0.2	761	88.9	0.5	931	83.0	1.7	931	85.9	1.3
762	77.1	0.8	762	85.2	0.7	885	85.8	0.9	899	80.6	0.1	761	84.7	0.5
792	75.2	0.1	761	81.0	0.8	762	82.7	0.5	792	77.4	0.3	541	84.4	0.1
893	73.3	0.4	931	79.7	1.0	892	80.6	0.3	894	77.2	0.3	884	84.0	0.3
872	70.6	0.4	773	75.1	0.6	516	80.2	0.1	885	74.8	1.0	759	81.9	5.9
515	69.2	0.3	872	70.9	0.5	775	69.1	0.2	541	72.4	0.1	892	81.2	0.3
Overall	31.1	100.0	Overall	36.1	100.0	Overall	36.2	100.0	Overall	40.8	100.0	Overall	39.8	100.0

Product groups with ten highest levels of IIT between Singapore and Japan

1995			1996			1997			1998			1999		
SITC Code	Amount (S \$ million)	Share in total trade	SITC Code	Amount (S \$ million)	Share in total trade	SITC Code	Amount (S \$ million)	Share in total trade	SITC Code	Amount (S \$ million)	Share in total trade	SITC Code	Amount (S \$ million)	Share in total trade
776	4482.9	21.7	776	5218.2	19.9	776	4550.6	18.2	776	4099.8	19.1	776	4645.7	20.0
752	2901.0	9.6	752	2938.8	10.4	752	3175.3	9.9	752	2926.0	10.5	752	2648.3	9.5
764	1044.5	6.2	759	1442.0	4.2	759	1627.0	4.9	759	2128.7	6.0	759	2207.8	5.9
759	962.1	3.1	764	869.4	5.0	764	919.9	4.7	764	782.5	4.8	898	1132.7	4.5
763	568.9	1.9	931	366.9	1.0	931	540.4	1.2	898	683.9	2.4	764	757.7	4.4
931	406.0	1.0	772	351.0	3.3	898	521.0	2.2	931	587.4	1.7	931	522.0	1.3
761	359.5	0.8	771	350.6	1.1	772	399.6	3.4	716	421.6	1.7	772	422.8	3.6
772	330.3	3.5	761	325.4	0.8	716	368.5	1.5	772	382.6	3.6	716	393.6	1.4
771	323.9	1.1	763	307.0	1.2	885	361.4	0.9	885	316.2	1.0	771	325.0	1.2
762	310.5	0.8	885	303.5	0.7	771	349.5	1.2	771	291.7	1.2	885	321.7	0.7
Overall	26132	100.0	Overall	28909	100.0	Overall	26249	100.0	Overall	24179	100.0	Overall	28841.0	100.0

Product groups with ten highest degrees of IIT between Singapore and Japan

1995			1996			1997			1998			1999		
SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade
894	97.9	0.5	894	99.3	0.6	893	99.4	0.5	892	96.9	0.2	885	96.3	0.7
761	92.4	0.8	792	96.7	0.1	931	98.4	1.2	759	89.0	6.0	516	94.3	0.1
885	87.3	0.5	885	95.0	0.7	773	96.5	0.5	893	87.3	0.5	792	92.2	0.3
931	82.8	1.0	893	94.4	0.4	553	96.3	0.2	516	85.9	0.1	893	87.9	0.4
553	81.7	0.2	553	88.0	0.2	761	90.0	0.5	931	85.5	1.7	931	87.6	1.3
762	81.3	0.8	762	87.1	0.7	885	87.6	0.9	899	83.7	0.1	761	86.8	0.5
792	80.2	0.1	761	84.1	0.8	762	85.2	0.5	792	81.6	0.3	541	86.5	0.1
893	78.9	0.4	931	83.2	1.0	892	83.8	0.3	894	81.4	0.3	884	86.2	0.3
872	77.3	0.4	773	80.0	0.6	516	83.5	0.1	885	79.9	1.0	759	84.7	5.9
515	76.5	0.3	872	77.5	0.5	775	76.4	0.2	541	78.4	0.1	892	84.2	0.3
Overall	67.5	100.0	Overall	71.5	100.0	Overall	69.0	100.0	Overall	71.3	100.0	Overall	73.0	100.0

Source: Singapore Trade Development Board, **Singapore Trade Statistics**, various issues

Table 6
Singapore's Intra-industry trade with Japan: 1995-99 (computed with domestic export values)

Product groups with Ten highest G-L index values of IIT between Singapore and Japan

1995			1996			1997			1998			1999		
SITC Code	Index value	Share in total trade	SITC Code	Index Value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade
761	88.8	0.8	893	87.7	0.4	761	89.4	0.6	892	97.9	0.2	516	94.8	0.1
821	83.1	0.1	761	82.3	0.9	752	86.1	8.7	752	92.3	9.0	762	93.6	0.3
872	75.8	0.4	821	81.5	0.1	892	85.3	0.3	762	84.3	0.3	892	84.3	0.3
893	69.9	0.4	872	76.0	0.5	893	80.9	0.4	515	76.5	0.3	761	84.3	0.6
515	69.3	0.4	762	75.6	0.7	516	79.2	0.1	516	72.2	0.1	752	83.4	7.9
752	65.5	9.6	892	69.9	0.3	515	69.8	0.4	759	71.2	6.0	513	75.8	0.4
098	63.9	0.3	752	67.0	10.1	762	68.6	0.5	899	69.4	0.1	893	75.7	0.4
762	63.0	0.8	515	65.2	0.4	098	66.7	0.3	898	68.8	2.7	541	73.0	0.1
892	60.3	0.4	098	60.2	0.3	872	66.4	0.5	893	67.1	0.5	759	71.1	6.1
512	56.4	0.1	597	57.4	0.2	821	66.0	0.1	512	59.2	0.1	872	69.0	0.6
Overall	23.8	100.0	Overall	26.7	100.0	Overall	26.6	100.0	Overall	30.5	100.0	Overall	30.1	100.0

Product groups with Ten highest levels of IIT between Singapore and Japan

1995			1996			1997			1998			1999		
SITC Code	Amount (\$ million)	Share in total trade	SITC Code	Amount (\$ million)	Share in total trade	SITC Code	Amount (\$ million)	Share in total trade	SITC Code	Amount (\$ million)	Share in total trade	SITC Code	Amount (\$ million)	Share in total trade
752	2901.0	9.6	776	3146.6	19.6	752	3175.3	8.7	752	2926.0	9.0	752	2648.3	7.9
776	2776.7	21.7	752	2938.8	10.1	776	2370.5	17.9	776	2081.2	19.0	776	2436.3	20.0
759	722.6	3.1	759	945.5	4.1	759	1095.5	4.9	759	1509.3	6.0	759	1755.8	6.1
764	660.8	6.4	764	565.8	5.1	764	574.0	4.9	898	667.6	2.7	898	1132.7	5.1
761	338.7	0.8	761	325.4	0.9	898	492.6	2.5	764	528.0	5.1	764	420.1	4.6
772	266.0	3.8	772	282.3	3.6	772	309.8	3.7	772	270.3	3.9	772	262.4	3.9
763	257.0	1.7	898	265.5	2.3	716	263.7	1.6	716	250.7	1.7	761	210.2	0.6
898	230.2	1.8	762	225.5	0.7	761	226.8	0.6	931	148.6	1.0	872	171.4	0.6
762	227.7	0.8	334	187.4	3.8	778	179.3	3.5	778	135.4	3.8	334	166.5	2.1
334	206.2	2.8	716	183.9	1.7	893	146.7	0.4	874	121.8	1.6	931	158.4	0.8
Overall	18101.14	100.0	Overall	19578.28	100.0	Overall	15911.43	100.0	Overall	13894.17	100.0	Overall	17977.4	100.0

Product groups with Ten highest degrees of IIT between Singapore and Japan

1995			1996			1997			1998			1999		
SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in total trade	SITC Code	Index value	Share in Total trade	SITC Code	Index value	Share in total trade
761	90.0	0.8	893	89.0	0.4	761	90.4	0.6	892	97.9	0.2	516	95.0	0.1
821	85.6	0.1	761	85.0	0.9	752	87.8	8.7	752	92.8	9.0	762	94.0	0.3
872	80.5	0.4	821	84.4	0.1	892	87.2	0.3	762	86.4	0.3	892	86.4	0.3
893	76.9	0.4	872	80.6	0.5	893	84.0	0.4	515	81.0	0.3	761	86.4	0.6
515	76.5	0.4	762	80.4	0.7	516	82.8	0.1	516	78.3	0.1	752	85.7	7.9
752	74.3	9.6	892	76.9	0.3	515	76.8	0.4	759	77.6	6.0	513	80.5	0.4
098	73.5	0.3	752	75.2	10.1	762	76.1	0.5	899	76.6	0.1	893	80.5	0.4
762	73.0	0.8	515	74.2	0.4	098	75.0	0.3	898	76.2	2.7	541	78.7	0.1
892	71.6	0.4	098	71.5	0.3	872	74.9	0.5	893	75.2	0.5	759	77.6	6.1
512	69.6	0.1	597	70.1	0.2	821	74.6	0.1	512	71.0	0.1	872	76.3	0.6
Overall	62.1	100.0	Overall	64.6	100.0	Overall	61.5	100.0	Overall	62.2	100.0	Overall	64.3	100.0

Source: Singapore Trade Development Board, **Singapore Trade Statistics**, various issues

Does exclusion of the entrepot component of Singapore's trade with these countries lead to any significant alteration in the above conclusions? The G-L index values using domestic exports are lower for IIT, declining from 40 to 30 in 1999 (Table 6). This is a reflection of the higher proportion of Singapore exports to Japan being entrepot related as previously noted. There was no variation in IIT over the period under consideration. As such, the observed increase in Singapore-Japan IIT when using total exports has been entirely due to increasing trade with other countries in the region, with Singapore being used as a transshipment point.

3. Trade in Services and Direct Investment

3.1 Importance of Services Trade to Japan and Singapore

An important structural change facing many economies, both developed and developing, is the rapid expansion of the services sector and its rising prominence in their production and employment structures. In many countries, including Singapore and Japan, the services sector has become the largest contributor to GDP (between 60 and 70 percent) (The World Bank, 2001 and Table 7).

Table 7
Services Sector and Services Trade in Japan and Singapore

	Japan									
	1980	1991	1992	1993	1994	1995	1996	1997	1998	
Communications, computer, etc. (% of service exports, BoP)	32.4	53.6	55.1	57.2	58.2	59.7	57.2	59.1	57.3	
Insurance and financial services (% of service exports, BoP)	1.6	-0.4	-0.1	0.6	1.0	0.9	4.9	3.2	2.6	
International tourism, receipts (% of total exports)	0.4	1.0	0.9	0.9	0.8	0.7	0.9	0.9	0.9	
Service exports (BoP, current US\$ billion)	20.2	44.8	49.1	53.2	58.3	65.3	67.7	69.3	62.4	
Service imports (BoP, current US\$ billion)	32.4	86.6	93.0	96.3	106.4	122.6	130.0	123.5	111.8	
Services, etc., value added (% of GDP)	54.4	56.4	57.4	58.7	59.6	59.9	60.3	61.1	N.A	
Services, etc., value added (annual % growth)	3.3	3.5	2.1	2.5	1.1	0.9	5.0	2.1	N.A	
Transport services (% of commercial service exports, WTO)	62.9	39.2	37.6	35.6	34.8	34.5	31.9	31.5	34.1	
Travel services (% of commercial service exports, WTO)	3.4	7.9	7.5	6.9	6.1	5.0	6.2	6.4	6.1	

	Singapore									
Communications, computer, etc. (% of service exports, BoP)	42.5	47.6	46.5	47.1	51.6	55.6	56.4	60.8	48.4	
Insurance and financial services (% of service exports, BoP)	1.1	0.8	1.0	1.4	1.4	1.2	1.3	1.5	2.3	
International tourism, receipts (% of total exports)	5.9	6.3	7.3	7.3	6.5	5.7	5.1	3.9	4.0	
Service exports (BoP, current US\$ billion)	4.9	13.8	16.2	18.6	23.0	29.8	30.0	30.5	18.3	
Service imports (BoP, current US\$ billion)	2.9	9.1	9.5	11.3	13.9	17.8	19.7	19.4	18.0	
Services, etc., value added (% of GDP)	60.6	64.3	64.9	65.8	66.6	65.8	65.2	65.3	64.6	
Services, etc., value added (annual % growth)	9.6	6.9	6.5	14.5	10.1	7.9	7.7	8.4	1.8	
Transport services (% of commercial service exports, WTO)	27.4	18.3	17.2	17.2	17.6	17.2	17.4	17.0	24.4	
Travel services (% of commercial service exports, WTO)	30.0	33.6	35.6	34.6	29.6	26.1	25.1	20.9	25.2	

Source: World Bank, **World Development Indicators**, various issues

The services trade sector is inherently more complex than merchandise trade. Consequently, its regulation and liberalization is particularly challenging. Data problems in services trade are especially acute since available data are not comprehensive, detailed, timely or even internationally comparable¹². Nonetheless, it is indisputable that the revolutions brought about by the introduction of innovations in information and communications technologies (ICT) and telecommunication have been a vital factor in increasing the importance of service transactions in the global economy. Many services are becoming increasingly internationalized. In fact, “the internationalization of services is viewed as being at the core of economic globalization” (Primo Braga, 1996). Commercial services accounted for nearly one fifth of world trade and an estimated three fifth of global Foreign Direct Investment (FDI) inflows in 1996. In view of its increasing importance, a multilateral framework for liberalizing trade and investments in the services sectors was conceptualized in the form of General Agreement Trade in Services (GATS). The GATS negotiations were initiated under the aegis of the WTO as part of the Uruguay Round¹³.

There is no known source of data on bilateral services trade between Singapore and Japan. However, in order to understand the importance of services trade in both countries, it would be useful to analyze the trends in overall services trade and its composition in Singapore and Japan. Table 7 provides this information over the period 1991-98. Singapore’s overall services exports increased significantly from US\$14 billion to over US\$30 billion over 1991-97¹⁴, while services imports more than doubled from about US\$9 billion to almost US\$20 billion over the same period. Overall, Singapore maintained an aggregate

¹² Continued omission of services trade in such empirical analysis is becoming progressively more glaring in view of its mounting importance in global output and trade.

¹³ For a recent general discussion of the growing importance of services trade worldwide and various approaches to liberalization of trade in services, see the WTO (2001b, chapter IV: 5) and Prieto and Stephenson (1999).

¹⁴ According to MTI (2002), services exports of Singapore were worth US \$27 billion in 2000.

surplus in services trade. ICT and related services constituted the bulk of Singapore's service exports during the entire period (nearly a half of the total for 1998), followed by travel and transport services. Japan has been a relatively more important player in services trade. Its services exports were nearly four times while its service imports were nearly six times that of Singapore in 1998. Specifically, its services exports increased from US\$45 billion in 1991 to almost US\$70 billion by 1997, thereafter declining in 1998 due to the regional financial crisis¹⁵. A similar trend was noted for service imports. Unlike Singapore, Japan's services trade has been in deficit over the same period.

The WTO defines services trade in terms of trade in "commercial services" specifically. The commercial services category in the WTO in turn is defined as services minus government services, n.i.e. (not included elsewhere) (WTO, 2001a, p.216). Commercial services are further sub-divided into transport, travel, and other commercial services (including communication, construction, financial, insurance, computer and information services and other business services). According to the WTO rankings of commercial services trade, Japan ranked fifth in global exports of commercial services and third in global imports of commercial services, accounting for 4.8 percent of world service exports and 8.1 percent of world service imports, respectively. This indicates Japan's position as a leading country in commercial services trade. Singapore ranked fifteen in the global export of commercial services and eighteen in the case of imports, accounting for about 1.9 percent of world service exports and 1.5 percent of world service imports, respectively (Table 8). Therefore, while Japan's ranking is more or less similar in both world merchandise trade and in world trade in commercial services, Singapore's ranking is much higher in the former compared to that of the latter. While services trade has been gaining importance for both Singapore

¹⁵ According to MTI (2002), Japan's imports of commercial services in 2000 were about US\$115 billion, while its exports of commercial services were worth US\$68 billion.

and Japan, ICT related services are especially prominent in their respective trade baskets, as are travel and transport services.

Table 8
Leading Exporters and Importers in World Trade in Commercial Services, 2000
(US dollar billions and percentage)

Rank	Exporters	Value	Share	Annual percentage change	Rank	Importers	Value	Share	Annual percentage change
1	United States	274.6	19.1	10.0	1	United States	198.9	13.8	13.0
2	United Kingdom	99.9	7.0	-3.0	2	Germany	132.3	9.2	0.0
3	France	81.2	5.7	0.0	3	Japan	115.7	8.1	1.0
4	Germany	80.0	5.6	1.0	4	United Kingdom	82.1	5.7	-1.0
5	Japan	68.3	4.8	13.0	5	France	61.5	4.3	-2.0
6	Italy	56.7	4.0	-6.0	6	Italy	55.7	3.9	-3.0
7	Spain	53.0	3.7	0.0	7	Netherlands	51.1	3.6	2.0
8	Netherlands	52.3	3.6	-1.0	8	Canada	41.9	2.9	9.0
9	Hong Kong, China	42.1	2.9	13.0	9	Belgium-Luxemburg	38.3	2.7	6.0
10	Belgium-Luxemburg	42.0	2.9	4.0	10	China	35.9	2.5	16.0
12	China	30.1	2.1	15.0	11	Korea	33.4	2.3	25.0
14	Korea	29.2	2.0	13.0	15	Hong Kong, China	26.2	1.8	3.0
15	Singapore	26.6	1.9	13.0	18	Singapore	21.3	1.5	13.0
16	Switzerland	26.4	1.8	0.0	19	India	19.9	1.4	16.0

Notes: The commercial services category in the WTO is defined as being equal to services minus government services, n.i.e. commercial services is further sub-divided into transport, travel, and other commercial services (includes communication, construction, financial, insurance, computer and information services and other business services)

Source: World Trade Organisation (2001a)

3.2 Strategies to Develop Singapore into an International Services Hub

Singapore aims to strengthen and consolidate its position as a regional and global services hub, particularly in trade logistics, financial services, media and entertainment, and educational and training services. It plans to achieve this goal while simultaneously moving to higher value added manufacturing. More specifically in this regard, the strategies pursued by the Economic Development Board of Singapore (EDB) in developing the services hub of Singapore relate to its objectives set out in the Industry 21 (I21) plan launched in January 1999. These broadly include: boosting manpower and skills in knowledge-based industries (viz. information technology and media, e-commerce, supply chain management); encouraging overseas companies to set up their headquarters in Singapore under the Overseas Headquarter/Regional Headquarter (OHQ/RHQ) scheme to gain from new business opportunities; facilitating the promotion of innovation and R&D in the production process for local companies using IT-related applications, besides identifying opportunities for investments overseas in emerging and fast-growing markets (EDB, 2000).

Of these strategies, the one that has been actively targeted by the EDB for development of the services sector has been its OHQ/RHQ schemes as a part of its International Business Hub 2000 (IBH2000) strategy. The IBH2000 strategy was based on the fact that key economic activities involved in the services sector, viz. transportation, finance, telecommunications, and information technology functions are concentrated in a few strategic centers in the world, and that Singapore could secure a first mover advantage in this area by planning ahead and investing in human capital and infrastructure to have a competitive edge (Chia, 1998). The OHQ/RHQ schemes under this program were aimed at inviting international businesses to set up their regional headquarters or operational headquarters under a RHQ/OHQ scheme¹⁶. Of the twenty seven

¹⁶ RHQs are defined as intermediaries between corporate headquarters or and country branches located across a region (Avenell, 1996). The RHQ's main role is that of coordination, control and

companies establishing their HQs (both RHQs and OHQs) in Singapore in 1999, fifteen were from the US, and six each were from Europe and Asia¹⁷. The HQs cut across diverse industries, including chemicals, electronics, engineering, life sciences, logistics/supply chain management, hospitality, information and communication technology and media services. Eight HQs were subsidiaries of Fortune Global 500 companies including Cisco Systems, Unilever, Lucent Technologies, Chevron and Honeywell (Singapore Investment News, April 30, 2000).

3.3 Singapore's Investment Linkages with Japan

Investments in the services sector play a major role in the area of trade cooperation, an issue that we now briefly turn to. Singapore's ability to attract substantial Foreign Direct Investment (FDI) flows has transformed it into an important manufacturing base for foreign multinationals and a major international financial, logistics, trading and transportation hub¹⁸. The stock of Singapore's direct inward equity investment increased more than five-fold from US\$14 billion in 1987 to US\$75 billion by 1998. Among the major countries that invested in Singapore, the US, Japan and the EU together accounted for over half of total inward direct investment in 1998 (Table 9). The US has been the single largest foreign investor in terms of investment commitments in both Singapore's manufacturing and services sectors. Japan is the second largest investor in Singapore's manufacturing sector. In 1998, the stock of Japanese direct investments in Singapore amounted to US\$13 billion or almost one fifth of the total stock of Singapore's direct foreign equity investments. Japan's investments

planning of business functions.

¹⁷ Although the exact number is not known, it can be safely assumed from past trends that most of the Asian companies establishing HQs were from Japan.

¹⁸ In 1999, FDI inflows in the manufacturing sector accounted for almost 80 percent of total direct investment inflows (EDB, 2000).

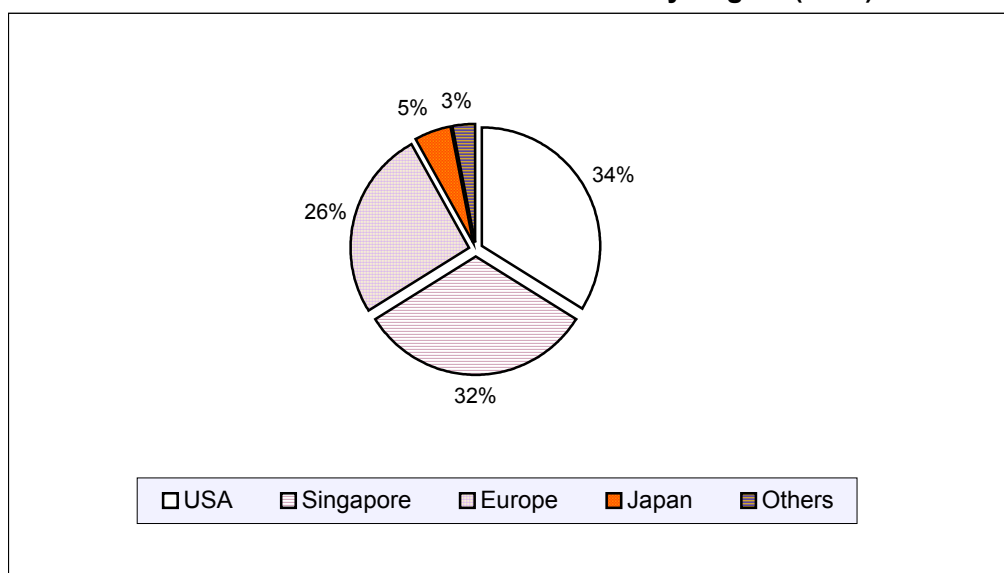
in the services sector were only about US\$47 million in 1997 or 5 percent of the total investment commitments in this sector (Figure 3). On the other hand, Singapore's investments in Japan have been relatively low, less than US\$300 million in 1998, barely 1 percent of the city-state's total outward investments. However, in 1999, Singapore investments increased their share to about 3 percent of total inward FDI in Japan (Ministry of Finance, Japan, 2002).

Table 9
Singapore : Inward stock of Foreign Direct Equity investment by country
(US dollar billion)

	1987	1992	1995	1997	1998	1987	1992	1995	1997	1998	1987-92	1992-95	1995-98
	Amount					Shares in total					C.A.G.R		
US	3.8	5.9	10.0	14.0	11.9	26.8	0.2	0.2	18.4	15.8	9.4	19.2	5.8
EU	3.0	8.0	12.2	15.4	15.7	20.8	23.1	20.6	20.3	20.9	22.1	15.1	8.6
Japan	2.2	8.1	12.0	13.7	13.6	15.3	23.3	20.1	18.1	18.1	30.1	13.9	4.4
ASEAN	0.8	1.9	4.0	4.6	4.4	5.4	5.4	6.7	6.0	5.9	19.5	28.9	3.2
Total Direct equity investment	14.2	34.8	59.3	75.8	75.1						19.6	19.5	8.2

Source: Calculated from **Yearbook of Statistics**, Singapore, various issues

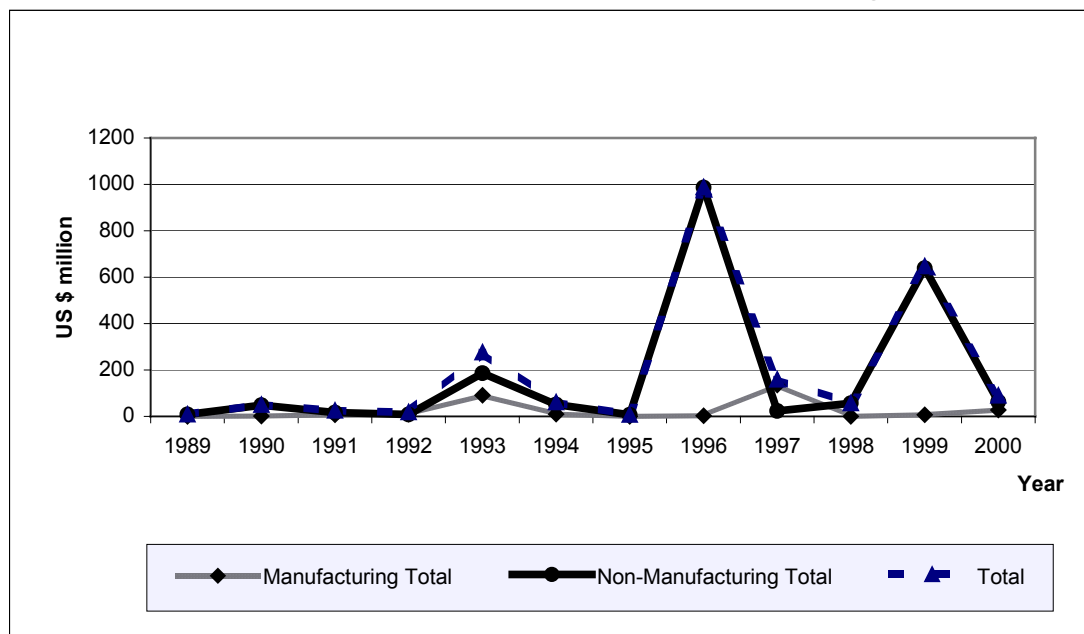
Figure 3
Services Investment Commitments by Region (1999)



Source: Economic Development Board (2000b)

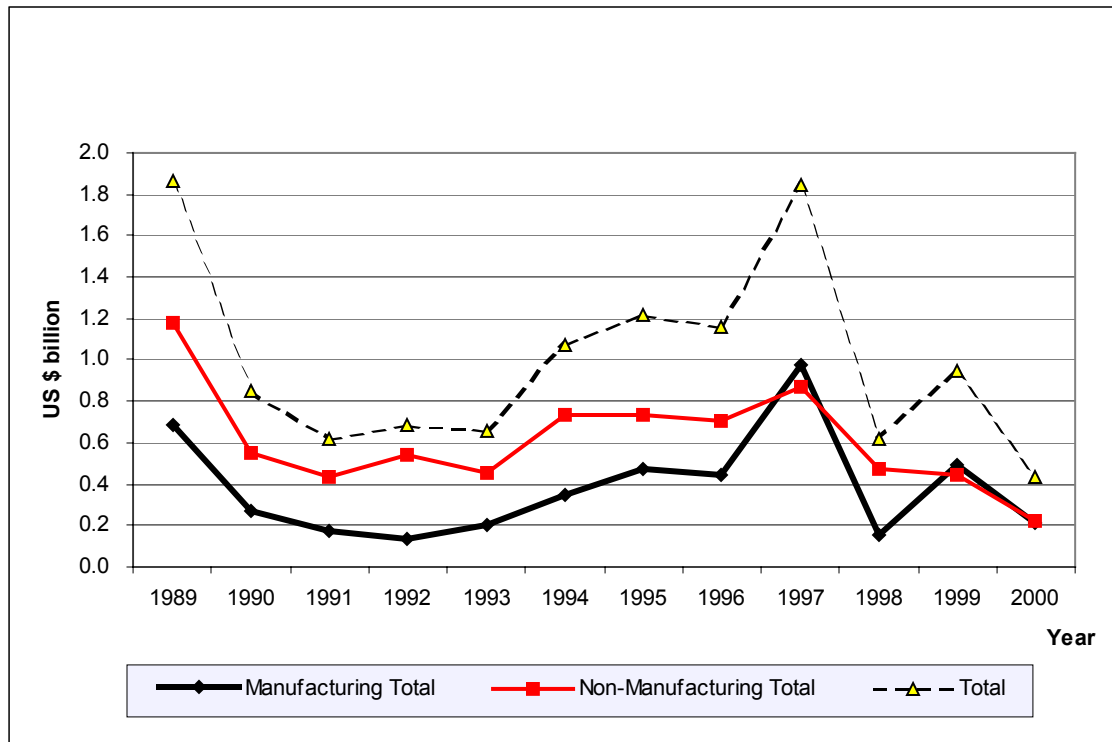
Figures 4 and 5 capture trends in Japan's inward and outward FDI in both the manufacturing and non-manufacturing (i.e. service) sectors in Singapore. Japan's inward investments from Singapore decreased between 1989-1995 but peaked next year due to a sudden spurt of inflows into the non-manufacturing sector. It declined thereafter due to the regional financial crisis in 1998 but increased again in 1999. Conversely, Japan's outward investments into Singapore have shown a distinct downward trend compared to the early 1990s (Figure 5). Overall, Japan's investments in Singapore have been much higher than Singapore's investments in Japan, and have also been more evenly distributed across manufacturing and non-manufacturing sectors. However, the services sector has remained an important target for Japanese and Singapore investors in one another's countries.

Figure 4
Japan's inward direct investments from Singapore



Source: Calculated from Ministry of Finance, Japan (2002)

Figure 5
Japan's outward direct investments in Singapore



Source: Calculated from Ministry of Finance, Japan (2002)

4. Overview of the Japan-Singapore Free Trade Agreement¹⁹

Having outlined the degree of existing bilateral economic linkages that exist between Singapore and Japan, this section offers an overview of some of the main elements of the JSEPA (commonly dubbed the “New Age Economic Partnership”) and their possible implications for bilateral ties.

The idea of a JSEPA was first mooted in December 1999 by the Singapore Prime Minister, Goh Chok Tong to his Japanese counterpart. A Joint Study Group was established to study the viability of the proposal. The group completed its work in September 2000 and the governments of Japan and Singapore entered into formal negotiations on a trade pact in October of that year. Following a series of negotiating rounds, the Agreement was signed in January 2002 in Singapore. The Agreement comprises a number of elements pertaining to the liberalization and facilitation of trade in goods and services and

¹⁹ This draws on MTI (2001) as well as various media reports on the topic, including Low and Choong (2002).

investment flows as well as a number of other elements dealing with broader economic cooperation. We discuss some of the main elements of the agreement below.

4.1 Trade in Goods

Tariffs: The JSEPA eliminates tariffs on goods covering 98.5 percent of current trade between the two countries, much higher than the WTO zero-tariff commitments, which currently covers about 65 percent of current Japan-Singapore trade (Table 10). Singapore has committed to grant zero-tariff treatment on all imports from Japan. In turn, Japan has more than doubled its zero-tariff commitments to Singapore from the current 34 percent to 77 percent of total tariff lines. While preferential tariff-free market access has been granted to an extensive range of products, agriculture is the one area where tariff concessions have lagged because of the extreme political sensitivity of this sector in Japan, on the one hand, and its relative unimportance to Singapore, on the other. Both countries are prohibited from maintaining any export duties that may distort bilateral trade²⁰.

Table 10
Tariff Coverage of Goods under JSEPA

Key sector	Percentage of tariff-free products in the sector after JSEPA (percent)
Chemicals & petroleum products	95
Electrical & electronic products	100
Plastic products	94
Pharmaceuticals	100
Instrumentation equipment	100
Transport equipment	100
Fabricated metal products	100

Source: Ministry of Trade and Industry, Singapore (2002)

²⁰ As with all trade agreements, the JSEPA also discusses rules of origin (ROOs) to prevent the transshipment of goods from third countries. We do not discuss these provisions here.

Customs Procedures and Paperless Trading: As tariff barriers have progressively come down worldwide, the focus of trade agreements (bilateral, regional and multilateral) has shifted to other potential barriers to the flow of goods that may restrict market access opportunities. Complex and non-uniform customs procedures are seen as a significant hindrance to the movement of goods across borders. The JSEPA commits both countries to improve the speed and efficiency of customs clearance of goods on a mutual basis by streamlining and simplifying existing procedures and via the use of informational technologies. In relation to this, the countries have agreed to replace the current paper-based supporting trade documents which are typically required for goods to be cleared with more cost-effective electronic versions. Steps will be taken to ensure that the necessary infrastructure is put in place to support “paperless trading”.

Mutual Recognition: Differences in testing and certification standards is another important barrier to the trade in goods across borders. In recognition of this, both countries have agreed to take steps to ensure the mutual recognition of test results and certification by accredited conformity assessment bodies in either countries. Once this is in place, exporters can have their products tested and certified by assessment bodies locally and not have to duplicate the procedures in the importing country. All of these are bound to reduce delays in cross-border transactions, hence facilitating bilateral trade. The specific focus of the agreement is on electrical, electronic and telecom products which is a major area of bilateral trade (discussed in Section 2) as well as pharmaceuticals. The latter is not only an area of growing importance in terms of bilateral trade but is also of strategic relevance in view of the rapidly ageing populations in both countries.

4.2 Trade in Services

As noted, the services sector is of particular significance to both economies. The JSEPA therefore discusses a number of provisions for the

liberalisation and facilitation of transactions in this sector. To begin with, the agreement vastly increases the commitments by both countries well beyond those agreed under the WTO (over 130 sectors in both cases). Much more than in the case of trade in goods, non-tariff and non-quantitative barriers hinder cross-border services trade. Accordingly, steps have been taken to ensure that “behind the border” impediments to trade and investment flows (i.e. trade facilitation measures) have also been addressed. The committed sectors are subject to market access, national treatment and domestic regulation disciplines. Given the degree of internationalization of the Singapore economy, the JSEPA has been extended to include permanent residents and multinational firms, which have “substantive business operations in Singapore”. While a number of services sectors are expected to benefit from the agreement, it is noteworthy that four sectors have come in for special attention.

Tourism: In an effort to promote the tourism sectors in both countries, the JSEPA has proposed the establishment of a Joint Committee on Tourism. More concretely, the countries have agreed to a Memorandum of Understanding (MOU) on the twinning of Ginza and Orchard Road which are the premier shopping districts of Japan and Singapore, respectively. The aim of this is not only to promote the two areas to one another’s citizens and those in third countries but also to undertake joint promotions and special events to showcase the arts and cultures of both Asian countries.

Information, Communication Technology (ICT): Both Japan and Singapore are among the leaders in ICT trade and its day-to-day utilization. Undoubtedly one of the reasons for the depiction of the JSEPA as being “New Age” is its emphasis on cooperation and facilitation of this sector. The JSEPA has put in place steps to: (a) fortify the market access in Japan for Singapore-based businesses delivering ICT products and services and vice versa; (b) augment the knowledge of business environments in both countries and provide

a more level playing field for businesses dealing in Telecommunication Services; (c) reduce technical and technological obstructions to ICT trade; (d) offer additional and alternative routes to orderly Dispute Settlement; and (e) catalyze and facilitate the ongoing expansion of e-Commerce transactions.

Broadband: Cooperation in the area of media and broadcasting has also been identified as a key area of cooperation in which Japan and Singapore can help one another in the development and provision of innovative media and broadcasting technologies.

Financial Services: Singapore, Tokyo and Hong Kong are the three important financial centers in Asia. In an effort to give one another's financial sectors a boost in terms of turnover and cost efficiency, the JSEPA has put in place a number of initiatives to enhance bilateral cooperation to promote financial sector and capital market development.

4.3 Investment Facilitation and Movement of Natural Persons

As noted previously, Singapore is highly dependent on FDI and Japan is the second largest investor in the city-state. Indeed, study after study has emphasized the complementarity between FDI and trade growth (Rajan, 1996a). Thus issues relating to the facilitation of investments must be part of any broad-ranging economic cooperative agreement. The JSEPA contains a set of detailed provisions on investment promotion and protection aimed at fostering an open international environment for cross-border investment and providing access to each other's markets. Issues covered include national treatment, prohibition of performance requirements, expropriation and compensation, transfers of profits and other funds, and investor-to-state dispute settlement mechanisms and procedures. As with trade in services, the agreement spans both citizens and permanent residents of Singapore and encompasses firms formed in either Japan or Singapore which are owned or controlled by non-

Singaporeans/Japanese and “engaged in substantive business operations”. Steps have also been put in place to encourage cooperation and business alliances between small and medium sized enterprises (SMEs) between the two countries so as to gain greater market shares in one another’s economies as well as penetrate third countries.

Trade in services and investments invariably require complimentary movements of natural persons. The JSEPA will grant Singaporeans and permanent residents of Singapore guaranteed entry and stay in Japan to work and to administer their investments under fairly liberal conditions. Similarly, Japanese professionals will be able to practice in Singapore. Measures are also being taken towards the mutual recognition of professional qualifications.

4.4 Other Areas of Cooperation

Beyond those already stated and other specific ones to promote trade and investment (by enhancing facilities for export credit insurance and overseas investment reinsurance), the JSEPA has taken steps to: (a) promote mutual recognition of and cooperation with regard to competition policies; (b) put in place a set of procedures and regulations pertaining to government procurement; (c) undertake collaborative measures and cooperative activities on Intellectual Property (IP); (d) step up cooperation in Science and Technology and human resource development; (e) and establish provisions for orderly dispute settlement.

5. Concluding Remarks

The economic linkages between Japan and Singapore are deep and well established. The recently concluded “New Age Economic Partnership” is aimed at fortifying and revitalizing these already strong linkages bilaterally as well as promoting joint Japan-Singapore trade and investment in third countries. The JSEPA is expected to provide significant mutual benefits to the two participating countries. Beyond the gains from the elimination of tariffs on most products, both countries can be expected to enjoy cost savings due to less delay from the streamlining and harmonization of customs procedures, development of orderly dispute settlement mechanisms, paperless trading, and mutual recognition of standards in the area of testing and certification. The agreement has also established norms for the liberalisation and facilitation of trade and investment in the services sector. Given the relatively low penetration of FDI in this sector in Japan, Singapore, which has a growing comparative advantage here, can be expected to reap significant economic gains. Specific services that Japan has committed for trade under the JSEPA are professional services, construction services, computer services, distribution services, telecommunication services, financial services, and transport services.

Conversely, trade and investment diversion remains a real concern particularly with regard to the services sector. This could potentially hurt third countries if not the two countries directly concerned. In response, apart from repeatedly asserting the primacy of the multilateral trading system²¹, policy makers in both Japan and Singapore have often expressed the view that the JSEPA is open to other “like-minded” countries in Southeast Asia and elsewhere.

²¹ For instance, Singapore Prime Minister, Goh Chok Tong, has reportedly noted: FTAs should not be pursued at the expense of the multilateral trading system. We must continue to invest efforts towards the launch of a New Round (of multilateral trade negotiations), to ensure that the gap between FTAs and the WTO does not grow so wide that it becomes irreconcilable.” (Business Times, Singapore, December 5, 2000).

Nonetheless, the presence of these “new” trade issues pertaining to harmonization of investment and intellectual property rights regimes as well as the large-scale exclusion of agriculture products does make one doubt the extent to which these agreements can be extended to other countries²². This may, to some extent, limit the appropriateness of the JSEPA as a model for future trade arrangements²³. The relatively lax and vague WTO rules regarding FTAs ensures that the JSEPA is not inconsistent with them, but then again, virtually none of the other 170 trade pacts that dot the global trading system are either.

²² Indeed, the absence of many sensitive areas between two countries like agriculture, forestry and fisheries appears to have been the main reason for Japan’s willingness to embark on an FTA with Singapore. Other reasons might include similarity of income levels, geographic proximity as well as Singapore’s experience with negotiating agreements with other countries.

²³ In fact, while proclaiming the JSEPA as being “forward-looking” and “a model of cooperation for the region”, the Japanese Prime Minister, Junichiro Koizumi also ruled out the possibility of extending the agreement to other Southeast Asian countries, citing agriculture access as a potential problem area (Low, 2002).

References

Avenell, S. (1996). "The Competition for Corporate Regional Headquarters", **Working Paper No. 67**, Asia Research Centre, Murdoch University, Western Australia, November.

Baldwin, R. (1997). "The Causes of Regionalism", **The World Economy**, 20, pp.865-88.

Bhagwati, J. (1995). "U.S. Trade Policy: The Infatuation with Free Trade Areas", in **The Dangerous Drift to Preferential Trade Agreements**, Washington, DC: The AEI Press.

Chia, S.Y. (1998). "Singapore: Advanced Production Base and Smart Hub of the Electronics industry" in W. Dobson and S.Y. Chia (eds.), **Multinationals and East Asian Integration**, Singapore: Institute of South East Asian Studies.

Economic Development Board, Singapore (EDB) (2000a). "Promoting Singapore as the Premier HQ Location", **Singapore Investment News**, April 30.

Economic Development Board, Singapore (EDB) (2000b). **Annual Report**, Singapore: EDB.

Garnaut, R. (1994). "Open Regionalism: Its Analytic Basis and Relevance to the International System", **Journal of Asian Economics**, 5, pp.273-90.

Goldstein, M. and J. Hawkins (1998). "The Role of Contagion in the Asian Financial Crisis", **mimeo**, Reserve Bank of Australia.

International Monetary Fund (IMF). **Direction of Trade Statistics Yearbook**, various issues.

International Monetary Fund (IMF) (2001). **World Economic Outlook**, December.

Koh, T. (2000). "US-Singapore FTA: It's Good for More Than Just the Two", **The Straits Times**, Singapore, December 7.

Lawrence, R. (1987). "Imports in Japan: Closed Markets or Minds?" **Brookings Papers on Economic Activity**, 2, pp.517-58.

Lawrence, R. (1999). "Regionalism, Multilateralism, and Deeper Integration: Changing Paradigms for Developing Countries", in M. Mendoza, P. Low and B. Kotschwar (eds.), **Trade Rules in the Making: Challenges in Regional and Multilateral Negotiations**, Washington, DC: Brookings Institution Press.

Lim, H. (1988). "Singapore-Japan Trade Frictions", in **ASEAN-Japan Relationship Towards the 21st Century**, Japanese University Graduates Association of Singapore, pp.91-121.

Low, I. (2002). "Japan, Singapore Sign Landmark Trade Deal", **The Straits Times**, Singapore, January 14.

Low, I. and W. Choong (2002). "Trading Partners", **The Straits Times**, Singapore, January 14.

Ministry of Finance, Japan (2002). "Data on Japan's Foreign Investments by Country and Industry, Ministry website www.mof.gov.jp/english

Ministry of Trade and Industry, Singapore (MTI) (2002). "**Agreement Between Japan and the Republic of Singapore for a New-Age Economic Partnership**", Mediakit prepared by the MTI, Singapore.

Primo Braga, C. (1996). "The Impact of the Internationalization of Service on Developing Countries", **Finance and Development**, March, pp.34-7.

Prieto, F. and S. Stephenson (1999). "Multilateral and Regional Liberalization of Trade in Services", in M. Mendoza, P. Low and B. Kotschwar (eds.), **Trade Rules in the Making: Challenges in Regional and Multilateral Negotiations**, Washington, DC: Brookings Institution Press.

Rajan, R. (1995). "Regional Economic Cooperation Involving Developing Countries in the Post-Cold War World: Lessons from the Asia Pacific", **Development and International Cooperation**, 10, pp.383-404.

Rajan, R. (1996a). "Singapore's Merchandise Trade Linkages with Japan and the United States: Trends, Patterns and Comparisons", **Asian Economic Journal**, 10, pp.133-63.

Rajan, R. (1996b). "Measures of Intra-Industry Trade Reconsidered with Reference to Singapore's Bilateral Trade with Japan and the United States". **Weltwirtschaftliches Archiv**, 132. p.378-89.

Rajan, R. and G. Bird (2001). "Still the Weakest Link: The Domestic Financial System and Post-Crisis Recovery in East Asia", **Development Policy Review**, 19, pp.355-66.

Rajan, R. and R. Sen (2002). "Singapore's New Commercial Trade Strategy: Examining the Pros and Cons of Bilateralism", in Chang L.L. (ed.), **Singapore Perspectives 2002**, Singapore: Times Academic Press, forthcoming.

Rajan, R., R. Sen and R. Siregar (2002). "Hong Kong, Singapore and the East Asian Crisis: How Important were Trade Spillovers?", **The World Economy**, forthcoming.

Sager, M. (1997). "Regional Trade Agreements: Their Role and the Economic Impact on Trade Flows", **The World Economy**, 20, pp.239-52.

Schiff et al. (2000). **Trade Blocs**, Washington, DC: The World Bank.

Takeuchi, K. (1989). "Does Japan Import Less than it Should?: A Review of the Econometric Literature", **Asian Economic Journal**, 3, pp.138-70.

Willett, T. (2000). "International Financial Markets as Sources of Crises or Discipline: The Too Much Too Late Hypothesis", **Princeton Essays in International Economics No.218**, International Economics Section, Princeton University.

World Bank (2000), **World Development Report 1999/2000**, Washington, DC: The World Bank.

World Trade Organization (WTO) (2001a). **International Trade Statistics 2001**, Geneva: WTO.

World Trade Organisation (WTO) (2001b). **Annual Report of the Director-General 2001**, Geneva: WTO.

Annex 1: Trade Intensity Indices

a) Total Trade Intensity

The bilateral trade intensity index for total trade is as follows:

$$T_{ij} = [(X_{ij} + M_{ij}) / (X_i + M_i)] / \{ [X_{wj} + M_{wj}] - (X_{ij} + M_{ij}) / [(X_w + M_w) - (X_i + M_i)] \}$$

where: T_{ij} = Total trade intensity index of country i with country j; X_{ij} = Exports of country i to j; M_{ij} = Imports of country i from j; X_i = Total exports of country i; M_i = Total imports of country i; X_{wj} = Total world exports to country j; M_{wj} = Total world imports from country j; and X_w = Total world exports; M_w = Total world imports.

This index is interpreted as a relative measure of two ratios. The numerator represents the share of bilateral trade between country i and j as a percentage of total trade of country i. This forms the numerator of the total trade intensity index. The second ratio in the denominator represents the total trade of country j with the world excluding country i as a share of total world trade excluding country i. This forms the denominator of the total trade intensity index.

If the numerator exceeds the denominator, i.e. if the value of $T_{ij} > 1$, It implies that the bilateral trade intensity for country i with country j is greater than in comparison to country i's trade with the rest of the world (ROW). For instance, if Thailand is regarded as country i and country j is represented by its trading partners, viz. US / Japan, then a value of $T_{ij} > 1$ implies that Thailand prefers to trade more intensely with them than trading with the rest of the world.

b) Export Intensity Index_

The bilateral export intensity index among country i and country j may be stated as follows:

$$X_{ij}^a = [X_{ij}/X_i]/[(M_j - M_{ji})/(M_w - M_i)]$$

where: in addition to the notations in the bilateral trade intensity index, M_j = Total imports of country j and M_{ji} = Imports of country j from country i. A value of this index above unity implies that country i's relative share of exports to country j exceeds country j's share of imports from the ROW. This implies an over-representation of country j in country i's export market. From country i's point of view, the value of greater than one indicates that country i has a relatively more intense preference for exporting to country j as compared to country j's imports from the ROW.

c) Import Intensity Index

The import intensity index may be stated as follows:

$$M_{ij}^a = [M_{ij}/M_i]/[(X_j - X_{ji})/(X_w - X_i)]$$

where: in addition to the notations in the bilateral trade intensity index, X_j = Total exports of country j; and X_{ji} = Exports of country j to country i. A value of this index above unity implies that country i's relative share of imports to country j exceeds country j's share of exports to the ROW. This implies an over-representation of country j in country i's import market. From country i's point of view, the value of greater than one indicates that country i has relatively more intense preference for importing from country j as compared to country j's exports to the ROW.

Annex 2: Measures of Intra-Industry Trade (IIT)

The Grubel-Lloyd (G-L) index is the most common measure of IIT. It measures the ratio of net exports in a product category to its total trade in an index that takes values from 0 to 100. It thus calculates IIT as a part of balanced trade (overlap between exports and imports) in the total trade in a given industry k:

$$GL_k = \frac{X_k + M_k - |X_k - M_k|}{X_k + M_k} = 1 - \frac{|X_k - M_k|}{X_k + M_k}$$

Alternatively, the index may be formulated as follows:

$$G-L_k = [2 * \min(X_k, M_k) / (X_k + M_k)] * 100$$

It takes a value of zero if either X_k or M_k equals 0, implying no IIT and if $X_k = M_k$, it implies a value of 100 and signifies complete IIT in that industry. This index can be calculated at the aggregate level as a weighted average of IIT in all industries, these weights based on the share of the industry - specific trade in the country's total trade. The aggregate G-L index may be stated as follows:

$$G-L_{agg} = \sum_{k=1}^n \left[\frac{G-L_k (X_k + M_k)}{X_k + M_k} \right] / (X + M) * 100$$

where:

$$X = \sum_{k=1}^n X_k \qquad M = \sum_{k=1}^n M_k$$

and $k=1 \dots n$ for n industries in the economy. In the above equation, $G-L_k$ represents the weights for each product category. However, the G-L index is more of a measure of *degree* of IIT rather than the actual *level* or *volume* of IIT. The latter is measured by the following formula (Rajan, 1996):

$$\text{Level of IIT} = 2 * \min(X_k, M_k) \text{ for any industry } k.$$