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INDIA-SINGAPORE TRADE RELATIONS

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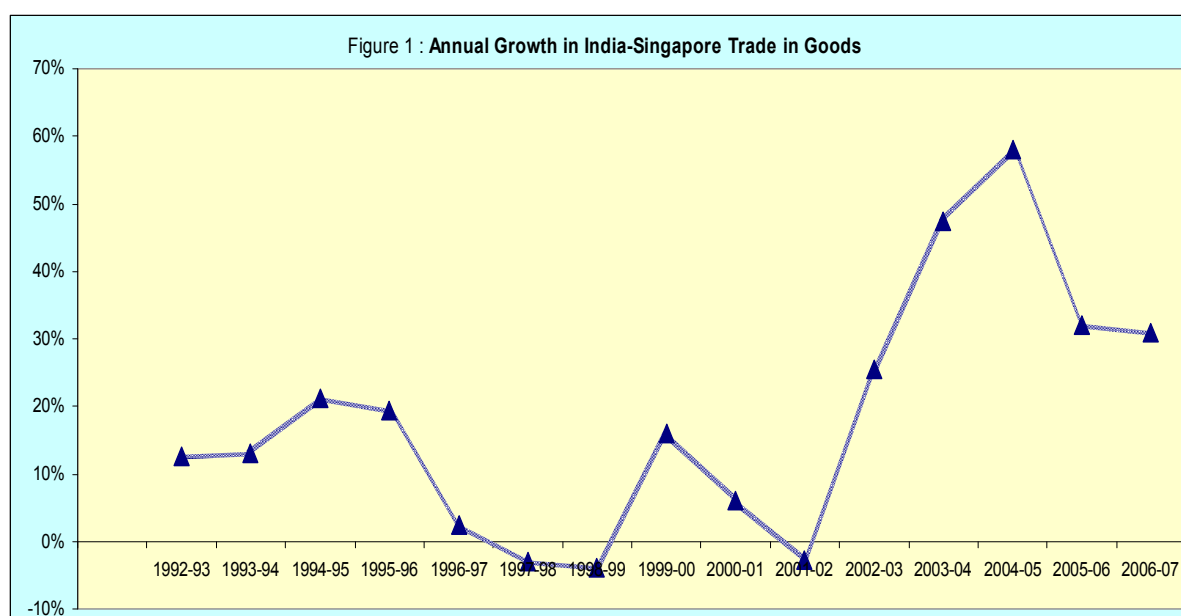
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India-Singapore Trade: Trends, Issues and Outlook

Singapore is India's fourth largest export market and the country's biggest trade partner among the Association of Southeast Asian (ASEAN) states.² The ASEAN countries account for 9.5 percent of India's total commodity exports. Within ASEAN, Singapore alone absorbs 4.5 percent of India's exports. On the other hand, Singapore is India's 10th largest source of imports. At present, it accounts for 3.27 percent of India's total commodity imports.

Pattern of Growth in Bilateral Trade

Trade between India and Singapore has expanded at a rapid pace since the opening up of the Indian economy in the early 1990s. The pattern of growth in bilateral trade since the early 1990s can be divided into three distinct phases on the basis of the annual average rates of growth in trade. These three phases are: a) 1992-93 to 1996-97; b) 1997-98 to 2001-02; and c) 2002-03 to 2006-07 (see Figure 1).³



Source: Computed from *Handbook of Statistics on the Indian Economy* of the Reserve Bank of India (RBI).

1992-93 to 1996-97

The first bout of external sector reforms in India resulted in a sharp growth of trade between India and Singapore. In 1991-92, the total trade between the two countries was US\$1.08 billion. India's exports to Singapore were worth US\$388.8 million, while its imports from Singapore were US\$694.8 million. Over the next five years, trade between the two countries almost doubled to reach US\$2.04 billion in 1996-97. While Indian exports to Singapore went

² ASEAN comprises 10 countries. These are Singapore, Malaysia, Indonesia, Thailand, Vietnam, Philippines, Myanmar, Cambodia, Brunei and Lao.

³ The data used in this section has been obtained from the 'Handbook of Statistics on the Indian Economy'; Reserve Bank of India; Table 139, pp 227-229. See <http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/80319.pdf>.

up to US\$977.5 million in 1996-97, India's imports from Singapore crossed the US\$1 billion mark to reach US\$1.06 billion in 1996-97.

During 1992-93 to 1996-97, bilateral trade between India and Singapore grew at an annual average rate of 13.7 percent (in US dollar terms)⁴. During this period, Indian exports to Singapore grew at an average rate of 21.4 percent per year, while India's imports from Singapore grew by 10.5 percent (Table 1). It is evident that overall growth in bilateral trade during this phase was driven mostly by the sharp acceleration in the growth of Indian exports to Singapore.

Table 1: Period-wise growth in export, import and trade between India and Singapore

Period	Export	Import	Trade
a) 1992-93 to 1996-97	21.4 percent	10.5 percent	13.7 percent
b) 1997-98 to 2001-02	3.5 percent	4.7 percent	2.5 percent
c) 2002-03 to 2006-07	46.1 percent	34.4 percent	38.7 percent

Source: Computed from *Handbook of Statistics on the Indian Economy* of the Reserve Bank of India.

1997-98 to 2001-02

The initial burst in trade was followed by a slump when growth in bilateral trade moderated sharply from 1997-98 and remained low till 2001-02. During this period, the average annual rate of growth dropped to 2.5 percent from the corresponding average of 13.7 percent in the earlier period. In terms of individual years, the growth turned negative on three occasions (1997-98, 1998-99 and 2001-02). There was a sudden jump in trade in 1999-2000, when total trade increased from US\$1.9 billion in 1998-99 to US\$2.3 billion. The increase, however, was short-lived as trade growth decelerated over the next couple of years to turn negative again in 2001-02.

Indian exports to Singapore went through a somewhat roller-coaster ride during this phase. From US\$977.5 million in 1996-97, exports dropped to as low as US\$517.5 million in 1998-99 and then recovered slowly to the 1996-97 level by reaching US\$972.3 million in 2001-02. Indian imports from Singapore, on the other hand, after rising steadily from US\$1.06 billion in 1996-97 to US\$1.5 billion in 1999-00, dropped to US\$1.3 billion in 2001-02. The average annual rates of growth for exports and imports during this period were 3.5 percent and 4.7 percent respectively (see Table 1).

While India's external sector reforms were largely responsible for giving a strong push to India-Singapore trade during the first half of the 1990s, some exogenous setbacks affected India's economic growth and external trade during the later part of the 1990s. These included natural calamities like the Orissa cyclone (1997) and the Gujarat earthquake (2000), as well as economic sanctions arising from the Pokhran nuclear tests (1998) and escalating tensions in the neighborhood.

⁴ This average rate of growth actually improves to 16.5 percent if the year 1996-97 is excluded. The year-on-year growth in trade for 1996-97 was a much lower 2.4 percent compared with the previous four years

2002-03 to 2006-07

The last five years have been a robust period for trade between India and Singapore. The annual average rate of growth during this period has been a remarkable 38.7 percent (see Table 1). From US\$2.3 billion in 2001-02, bilateral trade has expanded more than five-fold to US\$11.5 billion in 2006-07. Provisional estimates for the first nine months of the year 2007-08 show total trade at US\$10.8 billion. Thus, there is every possibility of trade in 2007-08 surpassing the previous year level of US\$11.5 billion⁵ and reaching a new landmark.

During recent years, Indian exports to Singapore, and Indian imports from Singapore have grown at annual average rates of 46.1 percent and 34.4 percent respectively (see Table 1). Indian exports to Singapore have increased from US\$972.3 million in 2001-02 to US\$6.02 billion in 2006-07. Indian imports from Singapore, on the other hand, have increased from US\$1.3 billion in 2001-02 to US\$5.5 billion in 2006-07. The growth rates show that the current upswing in bilateral trade has been contributed by a relatively faster rate of growth of Indian exports to Singapore. This is similar to what was observed during 1992-93 to 1996-97. The recovery and expansion in trade has largely been on account of the robust growth shown by the Indian economy in recent years.

Commodity Profile of Bilateral Trade⁶

India's Exports to Singapore

Petroleum (including mineral oils, crude and refined products) is India's main export to Singapore. In 2006-07, India's petroleum exports to Singapore were worth US\$3.4 billion. This was an almost three-fold increase from US\$1.24 billion of such exports in 2005-06. Singapore has emerged as India's second largest export market for petroleum products after the United Arab Emirates. Currently, around 18 percent of India's petroleum exports are being absorbed by Singapore. Within petroleum, refined products occupy significant shares with refined unleaded motor spirit (both regular and premium), high-speed diesel and aviation turbine fuel being the leading exports. Otherwise, fuel oils and naphtha reformat or preparations for preparing spirits are among India's largest petroleum exports (in value terms) to Singapore.

Other leading Indian exports to Singapore include gems and jewellery, machinery and instruments, transport equipment, electronic goods and non-ferrous metals. Articles of jewellery and other precious metals made in India enjoy strong demand in Singapore. Non-industrial diamonds and semi-manufactured gold also figure among leading gems and jewellery exports. Such exports, however, are declining in recent years. While in 2005-06, India exported US\$1.24 billion of gems and jewellery to Singapore, which was around eight percent of its total jewellery exports, in 2006-07, such exports have come down to US\$149.97 million representing only 1 percent of Indian jewellery exports.

⁵ Total trade of US\$10.7 billion in nine months, that is, three quarters, shows an average of US\$3.6 billion of trade in each quarter. Even if half of this trade (that is, US\$1.8 billion) is achieved in the last quarter, total trade in 2007-08 should amount to US\$12.6 billion! The data has been obtained from 'System on Foreign Trade Performance Analysis (FTPA)' of the Department of Commerce, Ministry of Commerce and Industry, Government of India. See <http://commerce.nic.in/ftpa/cnt.asp>.

⁶ Apart from data made available by the Department of Commerce, Ministry of Commerce and Industry, Government of India, at the primary level of commodity classification, this section has also drawn inputs from the disaggregated data (at 8-digit level) on bilateral trade between India and Singapore provided by International Enterprise (IE) Singapore. The author is grateful to IE Singapore for the data.

Singapore accounts for around three percent of India's machinery and instrument exports. India exports a diverse array of machines and instruments to Singapore. These include : printing machinery (parts and accessories), compression ignition engines, aircraft engines, tool holders and machine die heads, boring or sinking machinery, electrically operated textile spinning machines, different categories of valves, taps and similar appliances, window and wall air-conditioners, roller bearings, machine parts and mechanical appliances, accessories, compressors, printed circuit boards, water and filtering/purifying machinery and centrifugal electrically operated pumps.

India's Imports from Singapore

India's main imports from Singapore include electronic goods, non-electrical machinery, organic chemicals, project goods, transport equipment, artificial resins and professional instruments (non-electronic).

Electronic items are India's largest imports from Singapore. The value of such imports has increased from US\$1.31 billion in 2005-06 to US\$1.65 billion in 2006-07. Out of around 440 different electronic products imported by India from Singapore, some of the leading ones are photosensitive transistor diodes, electronic integrated circuits, telephones for cellular and wireless networks, apparatus for control and distribution of electricity, electrical machinery parts, laser and magnetic discs for reproducing purpose, optical fiber cables, remote control apparatus (excluding radio), apparatus for switching, static convertors, generating sets with spark ignition, fixed capacitors, transmission apparatus, digital cameras, smart cards, video recorders and parts for line telephone apparatus.

Non-electrical machinery is another key import for India from Singapore. The value of such imports increased from US\$265.6 million in 2005-06 to US\$404.5 million in 2006-07. India imports more than 500 different items figuring in this product category. Among these, the relatively higher imports in value terms include parts and accessories of machines and mechanical appliances, hard disk drives, automatic data processing machines and automatic teller machines, processing units, plotters, personal computers, laptops (including notebooks and sub-notebooks), portable digital computers, ink-filled printer cartridges, combination printers, printer copies printing by laser and ink-jet processes, optical disk drives, valves, taps and cocks, circular knitting machines, bearings, rubber or plastic moulds, pneumatic elevators and passenger lifts, bucket and shovels for bulldozers, electron beam microscopes, control and adaptor units, coal cutters, assembled printed circuit boards and industrial robots.

Organic chemicals are another important product group among India's imports from Singapore. Value of organic chemical imports increased to US\$543.8 million in 2006-07 from US\$411.08 million in 2005-06. Some important organic chemicals imported by India from Singapore are styrene, p-xylene, toluene, benzene, propan-1-ol, propylene glycol, phenols and monophenols, acetic acid, acetone, vinyl acetate, esters of acrylic acid, aromatic polycarboxylic acids and isocyanates.

Issues and Outlook

The last five years have witnessed buoyant growth in India-Singapore bilateral trade. The high growth rates posted by the Indian economy during this period have been one of the main drivers behind the expansion in trade. In addition, India's emphasis on the 'Look-East' policy

and the Comprehensive Economic Cooperation Agreement (CECA) entered into by India and Singapore has also been instrumental in boosting bilateral trade.

A key aspect of the trade between India and Singapore is the considerable amount of re-exports⁷ that takes place from Singapore to India. These re-exports from Singapore are also noticed in certain categories of petroleum (for example, motor spirit and aviation turbine fuel), machinery (aircraft engine, centrifugal pumps, compressors and air-conditioners) and gems and jewellery (non-industrial diamonds), which, incidentally, happen to be India's main exports to Singapore. This, of course, does not mean that exports originating from India and moving to Singapore are subsequently re-exported back. Given Singapore's status as the world's leading trans-shipment hub, it is likely that products originating elsewhere are being re-exported to India from Singapore. The latter might be the same as some Indian exports to Singapore. For example, while India is exporting aircraft engines to Singapore, such engines originating in other parts of the world might be getting re-exported to India from Singapore. All analyses of India-Singapore trade must necessarily take note of the significant role of re-exports.

India's imports from Singapore have increased rapidly during 2006-07. However, one needs to examine whether this is a result of the CECA coming into force. Under the 'Early Harvest Programme' of the CECA, India eliminated customs duties on 506 items originating from Singapore from 1 August 2005. These include a large number of items in electronics, machinery, organic chemicals and other product categories that are currently figuring on the list of India's significant imports from Singapore. The duty removals are also likely to have increased re-exports of these products to India.

Indian imports from Singapore are expected to increase further as customs duties on different products entering into India from Singapore are eliminated or reduced in different phases. On the other hand, Singapore is already one of India's largest export markets with all goods originating from India getting duty-free access into Singapore. Indian exporters are taking advantage of this provision, as well as Singapore's trans-shipment capacities, to distribute their products in other parts of the world, particularly within ASEAN.

The outlook for India-Singapore trade appears bright. However, the possibility of a recession in the United States' economy and the concomitant contraction in export demand may reduce the volume of Indian exports that are being re-routed to North America through Singapore. This is a potential downside risk to India-Singapore trade in the short term.

⁷ Re-exports are defined as : '.....foreign goods exported in the same state as previously imported, from the free circulation area, premises for inward processing or industrial free zones, directly to the rest of the world and from premises for customs warehousing or commercial free zones, to the rest of the world'. As cited in United Nations (1998c), 'International Merchandise Trade Statistics – Concepts and Definitions'; Statistics Division, Series F, No. 52, Rev. 2, para. 78. See <http://stats.oecd.org/glossary/detail.asp?ID=2268>.

India-Singapore Trade: A Regional Perspective (with Reference to India-China Trade)

Singapore is India's fourth largest export market after the United States, the United Arab Emirates (UAE) and China. At the end of the year 2006-07, Singapore accounted for 4.77 percent of India's total exports. The UAE (9.51 percent) and China (6.56 percent) are the only two other Asian countries that have a bigger share in Indian exports than Singapore.

Singapore's share in total Indian exports increased from 3.33 percent in 2003-04 to 4.77 percent in 2006-07. This has impacted the Association of Southeast Asian Nations (ASEAN)'s share in Indian exports, which increased from 9.12 percent in 2003-04 to 9.95 percent in 2006-07. Singapore is the largest market for Indian exports within ASEAN. Apart from Singapore, among the ASEAN countries, only Vietnam and Cambodia's share in Indian exports increased during the periods 2003-04 to 2006-07.⁸ Presently, Singapore absorbs almost half of India's total exports to ASEAN. During 2006-07, out of a total of US\$12.55 billion worth of Indian exports to ASEAN, Singapore accounted for US\$6.01 billion.

India's exports to Singapore, however, appear to be entering a phase of moderate growth. During the last two years (that is, 2005-06 and 2006-07), the annual rate of growth of Indian exports (in US\$ value) to Singapore showed a declining trend. From a high growth rate of 88.28 percent recorded in 2004-05,⁹ Indian exports to Singapore grew by 35.61 percent in 2005-06 and 10.89 percent in 2006-07. During 2006-07, Indian exports to Singapore recorded lower growth than almost all other leading ASEAN markets (for example, Indonesia, Vietnam, Thailand, Philippines and Malaysia).¹⁰ Moreover, while Indian exports to Singapore recorded declining rates of growth for two successive years, those for Indonesia, Thailand and Vietnam actually increased during 2006-07.

It is difficult to say at this juncture whether the declining growth trend for Indian exports to Singapore will perpetuate in the medium term. However, compared with the UAE and China, India's only two export markets in Asia which are larger than Singapore, the growth trend shows a difference. The growth of Indian exports in the UAE and Chinese markets during 2006-07 was higher than that in 2005-06. It was, however, not so for the Singapore market. Furthermore, data for the first three quarters of 2007-08 (that is, for the period April-December 2007-08) showed a growth rate of only 7.39 percent for Indian exports to Singapore. India's exports to the UAE and China, in sharp contrast, showed much higher growth rates of 27.73 percent and 20.40 percent respectively during the same period. These trends seem to indicate that Indian exports are penetrating faster in these markets compared to Singapore.

Singapore is also India's biggest source of imports in ASEAN. However, it is followed closely by Indonesia and Thailand. In 2006-07, Singapore accounted for 2.96 percent of India's total imports. In the same year, Indonesia and Vietnam accounted for 2.86 percent and 2.26 percent of Indian imports respectively. It is interesting to note that, while Singapore is

⁸ Vietnam's share in Indian exports increased from 0.64 percent in 2003-04 to 0.78 percent in 2006-07. Cambodia's share during this period changed from 0.03 percent to 0.04 percent.

⁹ This was the highest growth rate for Indian exports to Singapore since 1991-92. The previous highest was 51.4 percent in 1992-93.

¹⁰ The growth rates for Indian exports to Indonesia, Vietnam, Thailand, Philippines and Malaysia during the year 2006-07 were 46.77 percent, 42.14 percent, 34.13 percent, 17.75 percent and 12.22 percent respectively.

far ahead of other ASEAN countries as a market for India's exports, as sources for India's imports, it has close competition from within ASEAN. This is clearly reflected in India's import data. During 2006-07, ASEAN accounted for US\$18.05 billion worth of Indian imports. Out of this, imports from Singapore, Thailand and Vietnam were worth US\$5.46 billion, US\$5.27 billion and US\$4.16 billion respectively. In terms of share in India's total imports from ASEAN, Singapore, Indonesia and Thailand accounted for 30.28 percent, 29.23 percent and 23.07 percent respectively during this period. This shows a much more uniform source distribution of India's imports within ASEAN vis-à-vis its exports to the region where the difference between Singapore and the next biggest market, Indonesia, is around US\$4 billion, which is equivalent to around one-third of India's exports to ASEAN.

While Singapore is a leading source for India's imports,¹¹ there are other Asian countries that are bigger import sources for India. These include China, which is the biggest source of India's imports, accounting for 9.44 percent of its total imports during 2006-07. West Asian countries such as Saudi Arabia (7.24 percent), the UAE (4.67 percent), Iran (4.13 percent), Israel (3.25 percent) and Yemen (2.99 percent) are also bigger contributors to India's imports than Singapore. The prominence of the West Asian countries in India's imports is largely on account of India's progressively higher imports of crude oil from these countries and the escalating prices of such imports.

Though India's exports to Singapore have shown a declining rate of growth in recent years, its imports from Singapore have displayed a different trend. After growing by 27.14 percent in 2004-05, Indian imports from Singapore grew at a marginally lower rate of 26.49 percent in 2005-06, only to increase sharply to 62.93 percent in 2006-07. This was the highest rate of growth for Indian imports from Singapore since the early 1990s. Was this increase a result of the Comprehensive Economic Cooperation Agreement (CECA) between India and Singapore that came into force in 2005? One must be cautious in underpinning the causality on the basis of import growth figures for just one year. During 2006-07, India's imports from its other major sources also showed high growth. Imports from China grew by 60.16 percent. Similarly, imports from the West Asian countries also showed high growth mainly on account of the sharp increase in the price of crude oil imports. However, it is worth noting that, during April-December 2007-08, India's imports from Singapore also showed a robust growth of 34.22 percent. During this period, India's imports showed a higher rate of growth for only three other source countries. These are China (56.65 percent), the UAE (48.72 percent) and Japan (38 percent). Thus, the data for 2006-07 and 2007-08 underline the continuation of strong growth in Indian imports from Singapore.

India-Singapore and India-China Trade

How does India's trade with Singapore compare with its trade with China? At the outset, the size of India's trade with China is much larger than that with Singapore. In 2006-07, India's total trade with China was US\$25.69 billion. This was more than double the India-Singapore trade of US\$11.48 billion in the same year. Similar differences are also noticeable in terms of the respective shares in India's trade. While India-Singapore trade was 3.7 percent of India's total trade in 2006-07, India-China trade was 8.27 percent of India's total trade.

¹¹ In 2006-07, Singapore was the 12th largest source country for India's imports. According to data for April-December 2007-08, it has become the 10th largest source country.

It must be noted that the gap between China and Singapore as contributors to India's trade has widened over time. During the year 2003-04, China and Singapore accounted for 4.94 percent and 2.97 percent of India's total trade respectively. The gap in contribution to India's trade between the two nations was roughly 1.97 percent of India's total goods trade. This amounted to US\$2.79 billion. The gap has widened to 4.57 percent of India's trade in 2006-07, which is equivalent to US\$14.19 billion. Thus, during the period 2003-04 to 2006-07, the gap widened by more than one percent of India's trade per year or by more than US\$3 billion per year.

The data for the year 2007-08 points to a further widening of the gap. During April-December 2007-08, India's total trade with China was reported at US\$26.59 billion while India-Singapore trade was worth US\$10.75 billion. The India-China trade was 9.31 percent of India's total trade during this period. On the other hand, India-Singapore trade was 3.76 percent of India's total trade. Thus, while the share of India-China trade in India's total trade increased from what it was in 2006-07, that of India-Singapore trade remained more or less the same. Furthermore, on the basis of data for April-December 2007-08, the gap between China and Singapore as contributors to India's trade widened to 5.5 percent of the latter.

Implications

The pattern of trade between India and Singapore has shown signs of a change from 2005-06. Indian exports to Singapore have shown a lower rate of growth. Indian imports from Singapore, however, have shown a higher rate of growth. If this trend continues and strengthens over time, then future India-Singapore trade will be driven more by India's imports (Singapore's domestic exports and re-exports) as opposed to India's exports (Singapore's imports).

With India exporting less to Singapore and importing more from it, the importance of Singapore as one of India's main source of imports will increase. At the same time, its significance as one of India's main export markets may decrease over time. These changes in India-Singapore trade can lead to further changes in India's trade pattern with ASEAN.

Since 2003-04, India has had a positive trade balance with Singapore. However, with export growth falling and import growth rising, the trade balance is likely to become negative. This is what it used to be during the 1990s and the early years of the current decade. A negative trade balance might have implications for India's overall trade balance and the current account of its balance of payments.

It is not clear whether the changing pattern of trade between India and Singapore is a result of the CECA. It is difficult to establish a direct causality between the signing of the CECA and the emerging trade pattern from the overall macro-trends and paucity of data beyond two years since the CECA.

At the same time, it is difficult to overlook the fact that growth in Indian imports from Singapore has become much robust in the years following the CECA. There is a possibility due to the fact that Indian imports have increased with more items from Singapore being allowed duty-free access into India. This, however, can only be verified after a detailed mapping of Indian imports from Singapore, before and after the CECA, at the farthest disaggregated level of commodity classification. It is also possible that the lowering of duties has encouraged Indian importers to procure more products that originate elsewhere via

Singapore. And finally, there is also the possibility that more imports are taking place on account of higher demand from a rapidly expanding Indian industry and the process has simply been facilitated by the CECA.

China, however, is becoming a much bigger trading partner for India than Singapore. India-China trade is expanding much faster than India-Singapore trade. China is consolidating its position as the main source of India's imports. The current trends point to the distinct possibility of China playing an even bigger role in India's trade in the years to come. The implications of such an eventuality for India-Singapore trade need to be studied carefully. It also needs to be noted that India-China trade is expanding notwithstanding the absence of a comprehensive economic cooperation agreement between the two countries on the lines of that between India and Singapore.

Impact of the CECA on India-Singapore Trade: Some Preliminary Evidence¹²

Trade between India and Singapore has been on an upswing with such trade increasing from US\$4.2 billion in 2003-04 to US\$ 11.4 billion in 2006-07. This robust increase has drawn attention to the drivers of the growth. In particular, there has been a lot of interest in the role played by the Comprehensive Economic Cooperation Agreement (CECA) between India and Singapore in facilitating and enhancing bilateral trade.

The CECA came into force from 1 August 2005. It is yet to complete full three years. It is perhaps too early to assess its impact. Apart from the fact that the full impact of the CECA is expected to unfold only over a longer period of time, rigorous statistical analysis is impeded by the lack of empirical data beyond two years. At this juncture, therefore, only a preliminary and tentative impact analysis of the CECA can be attempted.

One of the main components of the CECA is the 'Early Harvest Programme (EHP)'. The EHP is a part of Annex 2A of the Agreement. It puts down a list of 506 items originating from Singapore on which customs duties were to be eliminated and the goods allowed duty-free entry into India from 1 August 2005. The EHP is the first stage in a phased tariff reduction programme being implemented by India for products from Singapore.

The EHP was expected to give a strong fillip to Indian imports from Singapore (Singapore's exports to India). Indeed, the impact of the EHP can throw some light on the progress of the CECA in promoting India-Singapore trade. Notwithstanding the lack of long-period data, a comparative study of the changing composition of Singapore's domestic exports and re-exports to India between two points in time – before and after the CECA and in the context of the EHP – can provide some useful initial insights.

This paper examines the disaggregated product pattern (at the 8-digit level) of Singapore's domestic exports and re-exports to India for the years 2003 and 2007. The choice of the years allows equal space before and after the CECA, which got off the ground in 2005. The analysis is carried out at the 4-digit level of the harmonised system (HS) of commodity classification. The methodology is as follows. The 506 items in the EHP, which are all listed at the 8-digit level, are grouped under their respective broader 4-digit classifications. From the 4-digit categories thus obtained, all groups having 10 or more than 10 items are identified. There are 16 such groups. These are:

1. 2804 Hydrogen, rare gases and other non-metals
2. 2825 Hydrazine and Hydroxylamine and their inorganic salts
3. 2912 Aldehydes, cyclic polymers, paraformaldehydes
4. 2914 Ketones and quinones
5. 3912 Cellulose and its chemical derivatives
6. 8471 Automatic data processing machines and units thereof
7. 8473 Parts and accessories of typewriters and word-processing machines
8. 8517 Electrical apparatus for line telephony, including telephone sets and videophones
9. 8523 Prepared unrecorded media for sound recording
10. 8524 Records, tapes and other recorded media for sound or other recording

¹² This paper is based on data provided by the IE Singapore on domestic exports and re-exports from Singapore to India. The author is grateful to the IE for providing the data.

11. 8525 Transmission apparatus for video telephony and camera, still and digital camera
12. 8532 Electrical capacitors, fixed, variable or adjustable
13. 8533 Electrical resistors other than heating resistors
14. 8541 Diodes, transistors and similar semi-conductor devices
15. 8544 Insulated wire cable and other insulated wire conductors
16. 9027 Instruments or apparatus for physical/chemical analysis

Between them, these 16 groups account for 256 of the 506 items in the EHP list. A closer look also reveals that 10 of the groups (that is, 8471, 8473, 8517, 8523, 8524, 8525, 8532, 8533, 8541 and 8544) include items pertaining to different varieties of machinery and mechanical appliances, electrical machinery and electronic goods and equipment. Four others (that is, 2804, 2825, 2912 and 2914) represent inorganic and organic chemicals. Finally, Groups 3912 and 9027 pertain to plastics and optical, photographic and medical equipments respectively. The export and re-export of items from these groups to India during the years 2003 and 2007 are examined with particular attention to the roles played by the EHP items. The main findings are summarised below.

Impact on overall exports and re-exports

Out of the 16 4-digit groups, nine groups (2912, 2914, 8473, 8517, 8525, 8532, 8541, 8544 and 9027) showed an increase in both exports and re-exports between 2003 and 2007. For two groups (2804 and 3912), both exports and re-exports showed a decline between these two periods. In another three (8471, 8523 and 8533), exports declined, while re-exports went up. In one group (2825), exports increased but re-exports did not. Finally, for one group (8524), there were no exports or re-exports during 2003 and 2007.

Presence of EHP items in exports and re-exports

In two groups (8471 and 8532), the EHP items were seen to figure prominently among exports and re-exports. Out of 26 items in Group 8471 that were exported/re-exported in 2007, 18 were EHPs. Similarly, in Group 8532, out of nine items, seven were EHPs. In Group 9027, there were also examples of EHP items emerging as new exports. In some groups, however, EHP items did not figure among current exports/re-exports. These included large groups such as 8517 and 8523, from where 28 and 36 items were exported/re-exported. Group 3912 has 12 items in the EHP list. However, none of them figured in the list of exports or re-exports to India. In the remaining groups too, the presence of EHP items was not very significant.

Contribution of EHP items in exports and re-exports

The contribution of the EHP items to exports and re-exports was seen to vary widely among the groups. In Group 2804, two EHP items were new exports but their contributions to overall group exports were marginal. The situation was similar in Group 2912. In Group 2825, however, one new EHP item (copper oxides and hydroxides) contributed significantly to exports as well as re-exports. In Group 8471, despite a marginal decline in value of group exports between 2003 and 2007, some EHP items showed higher exports. A few of these items (personal computers, micro computer/processor, automatic data processing machines, scanners and cartridge tape drives) were also re-exported in greater quantities. This was one of the groups where the EHP items were found to be significant performers. Another such

group is 8532, where capacitors of different varieties (EHP items) contributed to growth of exports as well as re-exports.

Interestingly, there were instances, where increases in re-exports of EHP items were accompanied by decreases in their exports and vice-versa. In Group 8473, the re-exports of electronic calculating machine parts went up, while their exports dropped. In Group 8541, lower exports of transistors and other light-emitting diodes were accompanied by their higher re-exports. The same was noted for electrical resistor parts in Group 8533, as well as in Group 9027, where calorimeter re-exports went up, while their exports dropped. However, the reverse was also visible. In Group 8471, the exports of monitor, keyboard and floppy disc drives went up, while re-exports declined. In Group 9027, refractometer exports increased and their re-exports declined.

Finally, there were instances where increases in both exports and re-exports were found to be entirely independent of the EHP items. A relevant example is Group 8517, where exports and re-exports increased sharply without any contribution from the EHP items. This was somewhat surprising since as many as 27 items from this group figure in the EHP list. In Group 8523, the substantive increase in the value of re-exports was not the result of contribution from any EHP item. Similarly, in Group 8525, increases in exports and re-exports also did not come from the EHPs. One group (8524) having 18 items under the EHP did not show up anywhere among exports or re-exports. The detailed group-wise findings are reported in [Annex 1](#).

Conclusion

An in-depth examination of a select sample of EHP items shows that *customs duty elimination through the EHP has had selective impact on exports and re-exports from Singapore to India*. Within machinery and appliances (including electronics), which comprises the biggest chunk of Singapore's exports to India, the impact of duty removals on exports are most evident in segments such as automatic data processing machines and electrical capacitors. But in certain other segments of machinery such as electrical apparatus for line telephony, unrecorded media for sound recording and transmission apparatus for cameras, there was not much impact of the EHP duty eliminations. On the whole, therefore, the impact of duty removals and the EHP appear to be limited to some segments.

In some instances, *the EHP appears to have encouraged re-exports rather than exports*. This is true for some segments within machinery exports (for example, electronic calculating machines and transistors). On the whole, for most groups, values of re-exports are seen to exceed those of exports, irrespective of the EHP presence.

As of now, therefore, the impact of the CECA, as captured through the effect of the EHP on Singapore's exports and re-exports to India, appear to be partial. There are certainly factors other than the EHP that have contributed to the buoyant growth of Singapore exports and re-exports to India in recent years. One suspects that the upsurge has much to do with the rapid growth of Indian manufacturing in recent years, which has heavily increased the demand for non-oil imports. Such imports have gone up from almost all of India's key import sources, including China and the United States. Singapore also has not been an exception. One is inclined to opine that, while an across-the-board robust growth of Indian industry has increased its demand for imports from Singapore, in some segments, such demand has been reinforced by the duty eliminations offered by the EHP and the CECA.

Summary Description of Export and Re-Export Performances and Findings (at 4-digit level)

Product Code (HS 4-digit)	EHP Items (no.)	Domestic Exports (2003)(S\$)	Domestic Exports (2007) (S\$)	Re-exports (2003) (S\$)	Re-exports (2003) (S\$)	Comments
2804	15	342,037	182,074	221,385	103,509	Both exports and re-exports have declined. Some EHP items are being newly exported (silicon) and re-exported (arsenic)
2825	17	16,763	111,835	268,975	239,887	Exports have increased, while re-exports have marginally reduced. Export of 1 EHP item – copper oxides and hydroxide- has sharply increased.
2912	13	146,921	250,294	2,910,745	3,228,477	Both exports and re-exports have increased. Re-export of 1 EHP has increased (vanillin) and 1 decreased (ethyl vanillin).
2914	14	5,503,537	23,283,563	5,592,233	17,126,565	Both exports and re-exports have increased sharply. Re-exports of 2 EHP items (Butanone and Ketone-phnl) have significantly increased. Export of Butanone has also gone up sharply.
3912	12	30,251	15,822	1,171,434	615,063	Both exports and re-exports have declined. No EHP items figure in exports/re-exports.
8471	32	219,440,905	202,794,906	167,602,944	269,624,383	Exports have declined while re-exports have gone up. For 6 EHP items ¹³ both exports and re-exports have gone up. For 3 EHP items, exports have increased ¹⁴ and re-exports have declined and for 1 the reverse has occurred. ¹⁵ For 2 EHP items, both exports and re-exports have declined. ¹⁶
8473	12	6,001,020	122,296,047	3,451,471	121,396,295	Both exports and imports have increased. For 1 EHP (parts and accessories of electronic calculating machines), exports have declined, re-exports have increased. For another (parts of other machines), both have declined.
8517	27	74,404,158	158,624,114	156,256,691	798,983,059	Both exports and imports have increased. No EHP items figure in exports/re-exports.

¹³ These include personal computers (laptop, palmtop etc.), micro computer/processor, digital automatic data processing machines, scanners and cartridge tape drives.

¹⁴ Monitor, keyboard and floppy disc drives

¹⁵ Winchester/ hard disc drives

¹⁶ Removal/exchangeable disc drives and magnetic tape drives.

8523	13	284,204,533	90,047,187	42,283,619	140,536,104	Re-exports have increased sharply, but exports have declined. No EHP items in exports/re-exports.
8524	18	0	0	0	0	
8525	16	10,183,066	19,636,179	18,103,379	60,391,650	Both exports and re-exports have increased. No EHP items figure in exports/re-exports.
8532	10	3,930,499	7,762,171	17,701,017	47,654,653	Both exports and re-exports have increased. For 4 EHP items (fixed capacitors of ceramic and other varieties) both exports and re-exports have gone up. For one EHP, exports have gone up and re-exports have come down, while for two EHPs it's the opposite. ¹⁷
8533	20	3,004,025	2,833,326	646,165	21,100,038	Re-exports have increased, but exports have decreased. Re-exports of 1 EHP (parts of articles of electrical resistors) have gone up, but its exports have decreased.
8541	12	28,019,315	85,734,301	77,068,346	213,844,054	Both exports and re-exports have increased. For 2 EHPs (mounted crystals and other parts) both have increased. But for other EHPs increase in exports is accompanied by decrease in re-exports and vice-versa. ¹⁸
8544	20	5,464,016	18,060,395	8,348,103	21,618,613	Both exports and re-exports have increased. Both have gone up for 1 EHP (telephone cables). 1 new EHP (dry core insulated telephone cable) has entered exports.
9027	15	2,115,009	8,852,523	39,971,078	98,931,431	Both exports and re-exports have increased. In 2 EHPs (photometer and nuclear magnetic instruments) both exports and re-exports have increased. ¹⁹ 2 EHP items (spectrometer and spectro-photometer) are being newly exported.

¹⁷ Again, these are capacitors of different varieties.

¹⁸ EHPs showing contradictory trends include transistors (including photo-sensitive), light-emitting diodes and other semi-conductor devices.

¹⁹ Re-exports of spectrometer and spectro-photometers have increased. However, re-exports of refractometers and viscometers have decreased. Exports for calorimeters have also dropped. All these are EHP items.