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INDIA-JAPAN COMPREHENSIVE ECONOMIC PARTNERSHIP (CEPA) –AN ECONOMIC OR STRATEGIC PARTNERSHIP

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ABSTRACT

In picking FTA Partner country, often the countries are guided by strategic motives and foreign policy considerations. This is the case with India CEPA with Japan. Japan is India's upright strategic partner in the Asian balance of power with the rise of China as economic and military power and has convergence of interest in the field of East Asian security, maritime security, defense, space and cooperation at global forums. In the paper an attempt has been made to judge the gains from trade because India- Japan also became an important economic partner by signing CEPA in 2011.It is indeed tough to measure the gains from trade because of its nature. Its nature can be short term, long term, static and dynamic. In spite of the limitations of indices, indices are applied by economist to judge the gains from trade. Some important indices are Trade Complementarity Index (TCI), Trade Intensity Index (TII), Revealed Comparative Advantage (RCA) index, Intra-Industry Trade (IIT) index. Along with these indices paper also judged certain dynamic effect through the calculation of trade balance and terms of trade.

Trade Complementarity Index (TCI)

As per the theoretical literature on international trade economic complementarity is considered to be necessary condition but not a sufficient condition for establishing gainful economic relations because other factors are also needed to take into consideration.The formula for TCI calculates the degree to which export pattern of one country coincides with import pattern of its partner importing country. Observing the TCI figures over a period of time shows how the trade profiles of two partner countries are becoming compatible. In the

paper TCI calculations already calculated by UNESCAP formula is used which is explained below.

$$TCI = \left(1 - \left(\sum\left|\frac{\sum_w m_{iwd}}{\sum_w M_{wd}} - \frac{\sum_w x_{isw}}{\sum_w X_{sw}}\right|\right) \div 2\right) \times 100$$ ………………………....…(1)

Where d = importing country of interest
s = exporting country of interest
w = set of all countries in the world
i= set of industries
x = commodity export flow
X = total export flow
m = commodity import flow
M =the total import flow.

The higher the degree of Trade Complementarity Index (TCI) shows favourable condition for establishing trade relationship. The index values lies between 0 and 100 where 100 means perfect overlap.

Table 1: India's TCI with respect to World

Year	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Trade Complementarity Index (%)	58.5	60.1	57.7	53.5	51.7	49	48.7	45.9	40.2	41.4	44.2	44.6

In the table above, overall TCI of India is shown for the period 1996-2007 with respect to the world. Table-1 shows trends in overall trade complementarity index for India with the world over the period. As Table-1 shows, trade complementarity of India has increased from 44.62 in 1996 to 58.46 in 2007. In 1996, India's trade complementarity was around 44.62 per cent but it increased in subsequent years to reach 60.10 per cent in 2006. However in the year 2007 it decreased slightly to reach 58.46 per cent. This indicates that Indian export pattern is becoming more compatible with the World's import pattern.India trade complimentary Index is improving over the period with the World but it is still around 60% showing far behind the figure of perfect overlap.

Table 2: India's TCI with respect to Japan

Year	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Trade Complementarity Index (%)	61.4	58.1	57.7	54.8	51.7	49.6	50.2	46.8	43.7	44.9	48	51.4

* Trade Competitiveness Map, International Trade Centre; http://legacy.intracen.org/appli1/TradeCom/TP_TP_CI.aspx?RP=008&YR=2010; Data accessed 19 Oct 2014

Trend analysis of trade complementarity index shows that India's trade complementarity index with Japanare moving more or less in the same direction as India's trade complementarity Index with the world. It means Japan is not India's preferred trading partner.

Trade Intensity Index

As the Trade Intensity Index, measures the trade potential, it shows how much the two partner countries are trading with each other is calculated on the basis of their share in world trade. Trade Intensity Index value also varies between 0 and 100. If it takes the value 0, means no trade between the partner countries. How much the value are more or less than 100 indicates trade between two partner countries than their share in world trade. To calculate the Trade Intensity Index data are compiled fromTrade Competitiveness Map, International Trade Centre and country specific data on export and import are compiled from DGCI&S Kolkata, Ministry of Commerce and Industry, GOI.

Export and Import Intensity Indices

Trade Intensity Index is further bifurcated into Export and Import Intensity Index.

Export Intensity Index

Export Intensity Index to a partner country represents the export going to the partner country divided by the part of the world export to the partner country. It is calculated as:

XIIK= [XIK / XI] / [MK / (MW- MI)]_____2

Where: XIIK is the Export intensity of country I with country K, XIK is the Export of country I to country K, XI is the total Export of country I, MK is the total Import of country K, MW is total World Imports, and MI is total Import of country I.

Import Intensity Index

Similarly Import Intensity Index represents imports from the partner country divided by the part of the world import in to the partner country.

MIIK= [MIK / MI] / [XK / (XW- XI)]_____3

Where: MIIK is Import intensity of country I with country K, MIK is the import of country I from country K, MI is the total import of country I, XK is the total export of country K, XW is the total World Exports and XI is the total export of country I.

Table 3: Export Intensity Index of India with Japan

Year	**2007**	**2008**	**2009**	**2010**	**2011**
Export Intensity Index of India with Japan	44.76	46.1	39.6	36.87	35.32

From above figures, it is clear that the value of export intensity decreases from 2007 to 2011 from44.76 to 35.32 which indicates India's exports to Japan had decreased across the years.It has always been much below 100 and further deteriorated and declined to the level of 35.32 in 2011.

Table 4: Import Intensity Index of India with Japan

Year	**2007**	**2008**	**2009**	**2010**	**2011**
Import Intensity Index of India with Japan	59.68	69.3	93.7	58.96	60.25

* Trade Competitiveness Map, International Trade Centre; http://legacy.intracen.org/appli1/TradeCom/TP_TP_CI.aspx?RP=008&YR=2010; accessed 19 Oct 2014.

* Country specific data on Commodity composition of Export and Import are compiled from DGCI&S, Kolkata, Ministry of Commerce & Industry, GOI.

Analyzing the above table of import intensity of India with Japan, we can see that during this period, India's imports from Japan remain on low and on an average remain almost the same with values 59.68 in 2007 and 60.25 in 2011. From the figure of 59.68 in 2007, it touched the high figure of 93.65 in 2009 then declined to 60.25 in 2011. Value of India's Export Intensity Index with Japan is much lower than India's import intensity index with Japan but in both the

cases it is less than 100.The value of trade between two countries is much smaller than would be expected on the basis of their importance in world trade.

These figures clearly indicate that Japan's importsfrom India have declined much more than its exports to India, witnessing the problem of India's current account deficit. This may be due to thefact that Japan's import items from India are basically composed of primary andintermediary goods, whose demands are inelastic compared to its exports items toIndia. On one hand Indiahas not diversified its export basket over the years to Japanese market, and it basicallyexported the low value added products and on the other hand China is increasing its exports to Japan by supplying rare earth minerals (SandeepDikshit, 2010)[1] and high value added products.India's both import and export intensities with Japan are well below 100, which implythat India is trading much less with Japan than might be expected from India's share inworld trade.The press release(Press Release (2014))[2] from Ministry of External Affairs also emphasized the reason behind the decline in India's exports in the world market is due to the loss of pricecompetitiveness of Indian export industry in conventionally strong areas like leather and textiles,industrial and engineering products, automotive components dueto high cost of production and infrastructural bottlenecks; lack of uniform systemof indirect taxes; and deficiencies in customs procedures and trade logistics. This implies India has much potential to increase its trade with Japan. There is urgent need on the part of India to utilize the trade potential effectively by providing value added products and also simultaneously adopting modern marketing strategies as India has also signed the CEPA with Japan in 2011.Though most of the feasibilities studies conducted on India-Japan CEPA predicted these trends. In spite of this fact India signed the CEPA with Japan because Japan is our strategic partner in the changing global and emerging new power dynamics in East Asia.In picking Japan as a CEPA partner, strategic calculations over ruled economic calculations but we cannot forgo economic gains in the larger interest of India. It is also no point in always justifying CEPA by giving the pretext that long term gains are in India's favour. We should learn to reap the immediate benefits.

[1]Dikshit, Sandeep (2010),India, Japan to expand strategic relations, The Hindu, Oct.26, 2010. http://hindu.com/2010/10/26/stories/2010102656050100.htm, downloaded on May 2013.
[2]Press Release (2014), "Press Note on Free Trade Agreements (FTAs)", Department of Commerce, Ministry of Commerce and Industries, GOI, Udyog Bhavan, New Delhi.

It is also important to identify how much tariffs and other non-tariff barriers constrain both India and Japan from realizing their trade potential with each other. No doubt our tariff rates are one of highest in the world. As compared to India, Japan has reduced their tariff rates to minimal level but Indian agricultural products faces restrictions in the Japanese market in the form of non- tariff barriers in name of sanitary and Phyto-sanitary concerns.India needs to pressurise Japan on setting deadlines for early implementation of Mutual Recognition Agreement (MRAs)[3]in both goods and services to overcome the problem of non- tariff barriers.Moreover Japan has capital andknow how whereas India can provide Japan with labour force and market to convert know how into practical advantage for the development of Indian economy. Therefor there is need of technology transfer from Japan to India through joint collaboration by holding seminars, conferences and workshops. These mutual efforts by both the countries will also help in reviving the stagnant economy of Japan(Ian Hall and David Envall, 2012)[4].

Revealed Comparative Advantage (RCA)

In theoretical models comparative advantage is the basis for establishing international trade relations but it is calculated on the basis of difference in relative prices between the two partner trading countries but this is not practically feasible, therefore in practice economist measure comparative advantage indirectly through the formula of Revealed Comparative Advantage (RCA), which is the ratio of two shares. The numerator is the share of countries total export of the particular commodity to the partner country to the total export of particular commodity of the country; whereas denominator is the share of world export of particular commodity to the total world export. The value of RCA varies between Zero and infinity. A country enjoys comparative advantage in a particular commodity, if its value is more than unity.Therefore the paper includes only product categories where RCA is more than unity.

Likewise if RCA is less than unity, weaker is the country's comparative advantage in that commodity and in case RCA equals one country specialization in a particular commodity to

[3]MRA means professional qualification and licensing standards judged by the concerned authority of one country equally recognized by the authorities of other country with which free trade agreement is signed.

[4]Hall, Ian; Envall David (2012), India –Japan relations, Interview with Dr. Ian Hall, (Director, Graduate Studies in International Affairs (GSIA) program in the Department of International Relations, College of Asia and the Pacific, Australian National University), Published in Foreign Policy Research Centre Journal, FPRC Journal-12, New Delhi.

the partner country equals world's specialization in a particular commodity. This is called Balassa Index and is calculated as follows.

RCAij = (xij/Xit) / (xwj/Xwt)…….....……..….....4

where xij and xwj are the values of country i's exports of product j and world's exports of product j and where Xit and Xwt refer to the country's total exports and world's total exports.

Using Balassa Index, and applying the similar logic, in the paper RCA of India and Japan is calculated with the world and with each other and included product categories where RCA is more than unity.

Revealed Comparative Advantage (RCA) of India and Japan

World Trade Performance HS (2011): Revealed Comparative Advantages

Below table shows the list of products where India's RCA with respect to rest of the world is more than one

Table 5: India RCA with the world

Industry	IndiaRCA with the world
13 Lac, gums, resins, vegetable saps and extracts nes	18.54
52 Cotton	6.57
53 Vegetable textile fibres nes, paper yarn, woven fabric	5.41
57 Carpets and other textile floor coverings	5.34
71 Pearls, precious stones, metals, coins, etc	5.08
50 Silk	4.59
14 Vegetable plaiting materials, vegetable products nes	4.22
63 Other made textile articles, sets, worn clothing etc	4.19
09 Coffee, tea, mate and spices	3.53
55 Manmade staple fibres	3.38
54 Manmade filaments	3.29
79 Zinc and articles thereof	3.11
10 Cereals	2.86
23 Residues, wastes of food industry, animal fodder	2.58
17 Sugars and sugar confectionery	2.43
62 Articles of apparel, accessories, not knit or crochet	2.39
89 Ships, boats and other floating structures	2.31
67 Bird skin, feathers, artificial flowers, human hair	2.20
25 Salt, sulphur, earth, stone, plaster, lime and cement	2.14

03 Fish, crustaceans, molluscs, aquatic invertebrates nes	2.02
41 Raw hides and skins (other than furskins) and leather	1.88
42 Articles of leather, animal gut, harness, travel goods	1.85
61 Articles of apparel, accessories, knit or crochet	1.64
29 Organic chemicals	1.52
32 Tanning, dyeing extracts, tannins, derivs,pigments etc	1.44
68 Stone, plaster, cement, asbestos, mica, etc articles	1.43
02 Meat and edible meat offal	1.41
78 Lead and articles thereof	1.40
12 Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	1.37
99 Commodities not elsewhere specified	1.33
73 Articles of iron or steel	1.32
05 Products of animal origin, nes	1.30
24 Tobacco and manufactured tobacco substitutes	1.22
26 Ores, slag and ash	1.17
58 Special woven or tufted fabric, lace, tapestry etc	1.15
36 Explosives, pyrotechnics, matches, pyrophorics, etc	1.12
30 Pharmaceutical products	1.09
27 Mineral fuels, oils, distillation products, etc	1.09
64 Footwear, gaiters and the like, parts thereof	1.08
72 Iron and steel	1.01
08 Edible fruit, nuts, peel of citrus fruit, melons	1.01

There are 41 product categories at HS 2 digit level where India enjoy RCA more than 1 in the World market. If we give a glance to India's RCA with the world, calculated on the basis of 2011, export and import database. In Lac, gums, resins, vegetable saps and extracts nes (18.54), cotton (6.57), Vegetable textile fibres nes, paper yarn, woven fabric (5.41), Carpets and other textile floor coverings (5.34), Pearls, precious stones, metals, coins, etc (5.08), silk (4.59), Vegetable plaiting materials, vegetable products nes (4.22), Other made textile articles, sets, worn clothing etc (4.19), coffee, tea mate and spices (3.53). From the RCA figures it can be implied that India enjoys high RCA in textiles and garments, carpeted floor covering, tea and spices. The two important export sectors of India in the world are textiles and clothing and the spice sector. Indian textile industry is also losing its world market and is in fact taken over by China by providing high value added textile products in the world as well as in Japanese market.

Table 6: Japan RCA with the world

Industry	Japan RCA with the world
37 Photographic or cinematographic goods	5.83
89 Ships, boats and other floating structures	3.12
92 Musical instruments, parts and accessories	2.68
87 Vehicles other than railway, tramway	2.59
70 Glass and glassware	2.08
72 Iron and steel	1.97
81 Other base metals, cermets, articles thereof	1.88
90 Optical, photo, technical, medical, etc apparatus	1.86
84 Boilers, machinery; nuclear reactors, etc	1.82
38 Miscellaneous chemical products	1.61
96 Miscellaneous manufactured articles	1.51
82 Tools, implements, cutlery, etc of base metal	1.47
32 Tanning, dyeing extracts, tannins, derivs,pigments etc	1.45
40 Rubber and articles thereof	1.45
99 Commodities not elsewhere specified	1.39
68 Stone, plaster, cement, asbestos, mica, etc articles	1.35
85 Electrical, electronic equipment	1.29
29 Organic chemicals	1.24
39 Plastics and articles thereof	1.20
54 Manmade filaments	1.16
55 Manmade staple fibres	1.14
74 Copper and articles thereof	1.11
73 Articles of iron or steel	1.06
56 Wadding, felt, nonwovens, yarns, twine, cordage, etc	1.02

There are 24 product categories at HS 2 digit level where Japan enjoy RCA more than 1 in the World market.Japan RCA with the world in Photographic or cinematographic goods (5.83), Ships, boats and other floating structures (3.12), Musical instruments, parts and accessories (2.68), Vehicles other than railway, tramway (2.59), and in glass and glass wares (2.08).Number of products in which India's enjoys higher RCA in world market is more as compared to number of products in which Japan enjoy higher RCA in the world market.

Table 7: Japan RCA in India

Industry	Japan RCA in India
93 Arms and ammunition, parts and accessories thereof	20.02
82 Tools, implements, cutlery, etc of base metal	6.79
37 Photographic or cinematographic goods	5.66
87 Vehicles other than railway, tramway	4.67
34 Soaps, lubricants, waxes, candles, modelling pastes	4.52
86 Railway, tramway locomotives, rolling stock, equipment	4.01
96 Miscellaneous manufactured articles	4.01
84 Boilers, machinery; nuclear reactors, etc	3.91
73 Articles of iron or steel	3.84
72 Iron and steel	3.65
90 Optical, photo, technical, medical, etc apparatus	3.64
40 Rubber and articles thereof	3.41
54 Manmade filaments	2.94
68 Stone, plaster, cement, asbestos, mica, etc articles	2.83
83 Miscellaneous articles of base metal	2.28
35 Albuminoids, modified starches, glues, enzymes	1.97
92 Musical instruments, parts and accessories	1.88
38 Miscellaneous chemical products	1.82
32 Tanning, dyeing extracts, tannins, derivs,pigments etc	1.73
85 Electrical, electronic equipment	1.71
75 Nickel and articles thereof	1.66
39 Plastics and articles thereof	1.62
81 Other base metals, cermets, articles thereof	1.60
89 Ships, boats and other floating structures	1.47
16 Meat, fish and seafood food preparations nes	1.43
70 Glass and glassware	1.29
55 Manmade staple fibres	1.25
29 Organic chemicals	1.09
91 Clocks and watches and parts thereof	1.01

There are 29 product categories at HS 2 digit level where Japan enjoy RCA more than 1 in the Indian market. Number of products in which India's enjoy RCA more than 1 in World market and in Japanese market is more as compared Japan's product in the World market and in the Indian market. Japan RCA in Indian market is quite high in some of products than Japan RCA in the world market. Japan RCA in Indian market is high in Arms and ammunition, parts and accessories thereof (20), Tools, implements, cutlery, etc of base metal (6.7), Photographic or cinematographic goods (5.6), Vehicles other than railway, tramway (4.6), Soaps, lubricants, waxes, candles, modelling pastes (4.5), and Railway, tramway

locomotives, rolling stock, equipment (4).Japan enjoys higher RCA in Indian market then its products enjoy RCA in the world market.

Table 8: India RCA in Japan

Industry	India RCA in Japan
23 Residues, wastes of food industry, animal fodder	20.70
13 Lac, gums, resins, vegetable saps and extracts nes	15.24
52 Cotton	9.52
53 Vegetable textile fibres nes, paper yarn, woven fabric	7.75
79 Zinc and articles thereof	5.00
15 Animal,vegetable fats and oils, cleavage products, etc	4.61
57 Carpets and other textile floor coverings	4.37
03 Fish, crustaceans, molluscs, aquatic invertebrates nes	4.07
32 Tanning, dyeing extracts, tannins, derivs,pigments etc	3.98
71 Pearls, precious stones, metals, coins, etc	3.60
41 Raw hides and skins (other than furskins) and leather	3.05
05 Products of animal origin, nes	2.85
08 Edible fruit, nuts, peel of citrus fruit, melons	2.53
09 Coffee, tea, mate and spices	2.50
59 Impregnated, coated or laminated textile fabric	2.49
51 Wool, animal hair, horsehair yarn and fabric thereof	2.46
72 Iron and steel	2.39
97 Works of art, collectors pieces and antiques	2.29
25 Salt, sulphur, earth, stone, plaster, lime and cement	2.20
55 Manmade staple fibres	2.01
88 Aircraft, spacecraft, and parts thereof	1.93
14 Vegetable plaiting materials, vegetable products nes	1.91
63 Other made textile articles, sets, worn clothing etc	1.91
29 Organic chemicals	1.86
35 Albuminoids, modified starches, glues, enzymes	1.81
50 Silk	1.77
62 Articles of apparel, accessories, not knit or crochet	1.70
33 Essential oils, perfumes, cosmetics, toiletries	1.57
27 Mineral fuels, oils, distillation products, etc	1.30
58 Special woven or tufted fabric, lace, tapestry etc	1.16
38 Miscellaneous chemical products	1.14
26 Ores, slag and ash	1.10

* Trade Competitiveness Map, International Trade Centre; http://legacy.intracen.org/appli1/TradeCom/TP_TP_CI.aspx?RP=008&YR=2010; Data accessed 19 Oct 2014

* Country specific data on Commodity composition of Export and Import are compiled from DGCI&S, Kolkata, Ministry of Commerce & Industry, GOI

There are 32 product categories at HS 2 digit level where India enjoy RCA more than 1 in the Japanese market. India RCA is high in Japanese market in Residues, wastes of food industry, animal fodder (20.7), Lac, gums, resins, vegetable saps and extracts nes (15.24), cotton (9.52), Vegetable textile fibres nes, paper yarn, woven fabric (7.7), Zinc and articles thereof (5), Animal,vegetable fats and oils, cleavage products, etc. (4.6), Carpets and other textile floor coverings (4.3), India RCA in the world market is slightly higher than India RCA in Japanese market. According to theoretical literature, RCA is the basis for establishing international trade relations between two countries therefore as per RCA calculation Japan is not our preferred economic partner rather the reason behind the signing of CEPA is strategic. Japan is no doubt our important strategic partner in the changing Asian power dynamics.

Intra Industry Trade(IIT)

Intra Industry Trade means trade between the two countries within the same product category. Moreover Intra Industry Trade means advantage available beyond the comparative advantage in the form of large market availability in the same product category. Grubel-Lloyd (G-L) index is generally used to calculate the intra industry trade which is as follows:

$$B_j = 1- (X_j – M_j / X_j + M_j)----------5$$

Where B_j is the trade balance of industry J of a country, X_j is the value or volume of its exports and M_j is the value or volume of its imports. When this Trade Index B_j is 0, there is no intra industry trade taking place. When B_j is 1 exports are matched by imports and there is perfect matching intra industry trade.

Intra Industry Trade of India with Japan

With Japan, India's IIT list is given below in the descending order. IIT of India with Japan in product categories across industries is shown in table below:

Table 9: Intra Industry Trade of India with Japan

Industry	India with Japan
59 Impregnated, coated or laminated textile fabric	0.95
92 Musical instruments, parts and accessories	0.94
19 Cereal, flour, starch, milk preparations and products	0.91
32 Tanning, dyeing extracts, tannins, derivs,pigments etc	0.91
65 Headgear and parts thereof	0.88
76 Aluminium and articles thereof	0.88
35 Albuminoids, modified starches, glues, enzymes	0.85
71 Pearls, precious stones, metals, coins, etc	0.81
58 Special woven or tufted fabric, lace, tapestry etc	0.80
67 Bird skin, feathers, artificial flowers, human hair	0.80
29 Organic chemicals	0.79
50 Silk	0.79
30 Pharmaceutical products	0.78
28 Inorganic chemicals, precious metal compound, isotopes	0.77
41 Raw hides and skins (other than furskins) and leather	0.77
55 Manmade staple fibres	0.76
56 Wadding, felt, nonwovens, yarns, twine, cordage, etc	0.76
01 Live animals	0.74
44 Wood and articles of wood, wood charcoal	0.71
79 Zinc and articles thereof	0.70
74 Copper and articles thereof	0.68
24 Tobacco and manufactured tobacco substitutes	0.68
15 Animal,vegetable fats and oils, cleavage products, etc	0.64
95 Toys, games, sports requisites	0.64
94 Furniture, lighting, signs, prefabricated buildings	0.55
51 Wool, animal hair, horsehair yarn and fabric thereof	0.54
38 Miscellaneous chemical products	0.53
88 Aircraft, spacecraft, and parts thereof	0.52
04 Dairy products, eggs, honey, edible animal product nes	0.49
97 Works of art, collectors pieces and antiques	0.48
68 Stone, plaster, cement, asbestos, mica, etc articles	0.46
25 Salt, sulphur, earth, stone, plaster, lime and cement	0.46
81 Other base metals, cermets, articles thereof	0.43
22 Beverages, spirits and vinegar	0.38
43 Furskins and artificial fur, manufactures thereof	0.36
12 Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	0.35
99 Commodities not elsewhere specified	0.31

07 Edible vegetables and certain roots and tubers	0.30
11 Milling products, malt, starches, inulin, wheat gluten	0.28
72 Iron and steel	0.28
33 Essential oils, perfumes, cosmetics, toiletries	0.27
70 Glass and glassware	0.27
27 Mineral fuels, oils, distillation products, etc	0.27
42 Articles of leather, animal gut, harness, travel goods	0.24
21 Miscellaneous edible preparations	0.22
78 Lead and articles thereof	0.21
73 Articles of iron or steel	0.20
20 Vegetable, fruit, nut, etc food preparations	0.20
87 Vehicles other than railway, tramway	0.18
53 Vegetable textile fibres nes, paper yarn, woven fabric	0.17
64 Footwear, gaiters and the like, parts thereof	0.17
61 Articles of apparel, accessories, knit or crochet	0.16
54 Manmade filaments	0.16
96 Miscellaneous manufactured articles	0.16
08 Edible fruit, nuts, peel of citrus fruit, melons	0.14
39 Plastics and articles thereof	0.14
85 Electrical, electronic equipment	0.12
46 Manufactures of plaiting material, basketwork, etc.	0.11
69 Ceramic products	0.10
75 Nickel and articles thereof	0.10
90 Optical, photo, technical, medical, etc apparatus	0.09
60 Knitted or crocheted fabric	0.09
40 Rubber and articles thereof	0.08
82 Tools, implements, cutlery, etc of base metal	0.08
13 Lac, gums, resins, vegetable saps and extracts nes	0.08
66 Umbrellas, walking-sticks, seat-sticks, whips, etc	0.07
84 Boilers, machinery; nuclear reactors, etc	0.07
63 Other made textile articles, sets, worn clothing etc	0.07
06 Live trees, plants, bulbs, roots, cut flowers etc	0.06
18 Cocoa and cocoa preparations	0.06
05 Products of animal origin, nes	0.06
52 Cotton	0.06
57 Carpets and other textile floor coverings	0.05
49 Printed books, newspapers, pictures etc	0.04
09 Coffee, tea, mate and spices	0.04
31 Fertilizers	0.04
83 Miscellaneous articles of base metal	0.04
17 Sugars and sugar confectionery	0.04
91 Clocks and watches and parts thereof	0.03

48 Paper & paperboard, articles of pulp, paper and board	0.03
26 Ores, slag and ash	0.03
45 Cork and articles of cork	0.02
14 Vegetable plaiting materials, vegetable products nes	0.02
89 Ships, boats and other floating structures	0.02
62 Articles of apparel, accessories, not knit or crochet	0.02
16 Meat, fish and seafood food preparations nes	0.02
34 Soaps, lubricants, waxes, candles, modelling pastes	0.02
86 Railway, tramway locomotives, rolling stock, equipment	0.01
23 Residues, wastes of food industry, animal fodder	0.01

Source: Government of India, Ministry of Commerce & Industry, DGCI&S, Kolkata.

High intra industry trade also an indication of increase interdependence in a particular product category which ultimately leads to increase economic interdependence between the two countries which also strengthen the strategic and political relationship because any point of conflict between the two countries means disruption in trade relation and subsequently leading to economic losses therefore there are more chances that the both the countries avoid involving in any conflict for smooth flow of trade relationship leading to economic gains.

In India- japan trade relationship industries showing high intra industry trade are - Impregnated, coated or laminated textile fabric (0.95), Musical instruments, parts and accessories (0.94), With a value of 0.95 in Impregnated, coated or laminated textile fabric, it makes its exports almost equal to its imports & similarly across different industries are- Cereal, flour, starch, milk preparations and products (0.91), Tanning, dyeing extracts, tannins, derivs,pigments etc (0.91), Headgear and parts thereof (0.88), Aluminium and articles thereof (0.88), Albuminoids, modified starches, glues, enzymes (0.85), Pearls, precious stones, metals, coins, etc (0.81), Special woven or tufted fabric, lace, tapestry etc. and Bird skin, feathers, artificial flowers, human hair (0.80).

Balance of Trade

Balance of trade is considered as a good indicator for judging the soundness of economy, if the country is exporting more than it is importing it will improve the balance of trade position of the exporting country and also an indication of increase in net international asset position of the exporting country.

Balance of Trade = (Export Value - Import Value)

Table 10: India's Balance of Trade with Japan (Values in US$ Million)

Year	Japan
1998	-252.83
1999	-813.72
2000	-850.43
2001	-47.71
2002	-636
2003	27.7
2004	-958.39
2005	-1107.22
2006	-1579.84
2007	-1731.42
2008	-2467.44
2009	-4860.57
2010	-3104.64
2011	-3540.79
2012	-5772.03

Source: Government of India, Ministry of Commerce & Industry, DGCI&S, Kolkata.

Looking at India's Balance of Trade with Japan, in the year 1998 it was -252.83, it deteriorated in the upcoming years and reached -636.00 in the year 2002. Then in the year 2003 it improved to reach 27.70. Further it had continuously decreased in the upcoming years to reach -5772.03 in the year 2012.

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In Nutshell, India's balance of trade is highly unfavorable with Japan. On goods front, our imports are much higher than our exports. India needs to seriously work out on services front where India enjoy competitive advantage, moreover aging population in Japan can provide synergy in India's interest in providing services to Japan.

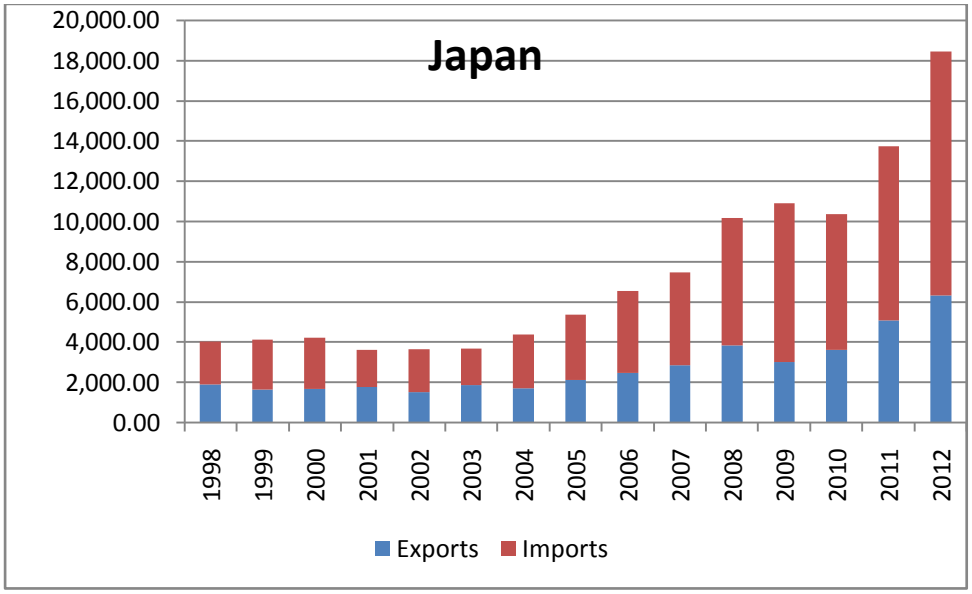
India's total trade turnover with partner countries

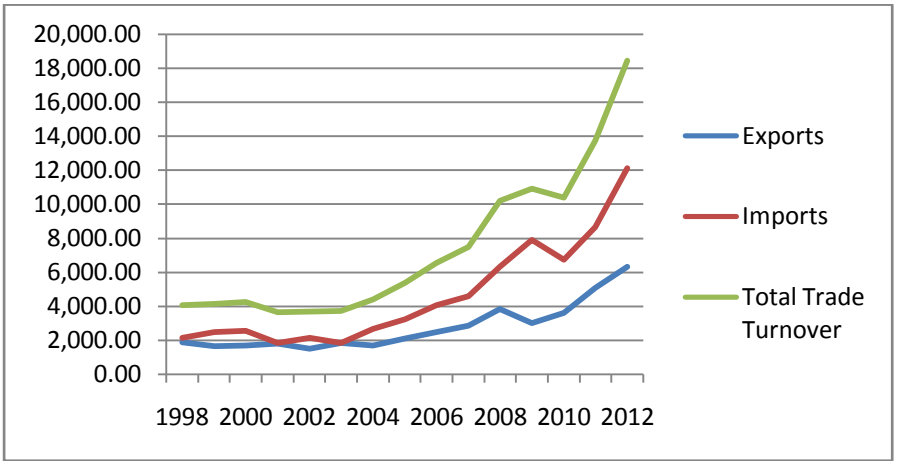
Table 12: India's total trade turnover withJapan

Year	Exports	Imports	Total Trade Turnover
1998	**1,892.07**	**2,144.90**	4,036.97
1999	**1,652.00**	**2,465.72**	4,117.72
2000	**1,685.37**	**2,535.80**	4,221.17
2001	**1,794.48**	**1,842.19**	3,636.67
2002	**1,510.44**	**2,146.44**	3,656.88
2003	**1,864.03**	**1,836.33**	3,700.36
2004	**1,709.29**	**2,667.68**	4,376.97
2005	**2,127.91**	**3,235.13**	5,363.04
2006	**2,481.26**	**4,061.10**	6,542.36
2007	**2,868.12**	**4,599.54**	7,467.66
2008	**3,858.48**	**6,325.92**	10,184.40
2009	**3,025.70**	**7,886.27**	10,911.97
2010	**3,629.54**	**6,734.18**	10,363.72
2011	**5,091.24**	**8,632.03**	13,723.27
2012	**6,328.54**	**12,100.57**	18,429.11

Source: Government of India, Ministry of Commerce & Industry, DGCI&S, Kolkata.

Graphical Representation:-





With the steady increase in total trade turnover Japan is also becoming our economic partner but Imports is more than the increase in exports of India to Japan from the period 1998 to 2012, but on goods front economic benefits moves in favour of Japan because design of CEPA also influence the gains from trade. India can minimize the economic losses if it is successful in the implementation of Mutual Recognition Agreement (MRAs) in goods and services which act as no tariff barrier on the part of Japan.

Total Trade Turnover decreased from 4036.97 in 1998 to 3007.36 in 2003 and finally increased to 18429.11

India'sTerms of Trade with the partner Countries

Terms of trade (TOT) also gives an indication of gains to the economy. It is a measure of ration of unit price of exports to unit price of imports. It means the imported goods the country can purchase per unit of exports. It is affected by fluctuations in exchange rates. A rise in per unit price of exported goods increases the terms of trade whereas decline will reduce the terms of trade.

Terms of Trade = (Unit Export Price / Unit Import Price*100)

Table 13: India's Terms of Trade with Japan considering 1998 as Base Year

Year	Japan
1998	100
1999	140.44
2000	1164.54
2001	1163.9
2002	1038.77
2003	1302.09
2004	942.4
2005	694.25
2006	541.71
2007	506.18
2008	690.38
2009	425.61
2010	1483.06
2011	1928.83
2012	1131.89

Source: Government of India, Ministry of Commerce & Industry, DGCI&S, Kolkata.

More than 100 means improvement in Terms of Trade and less than 100 means Deterioration. The level of Deterioration is measured on the basis of its deviation from the value of 100 on either side.

Looking at India's Terms of Trade with Japan, in the year 1998 it was100, it improved in the upcoming years and reached its highest value of 1928.83 in the year 2011.It came down in the year 2012 to 1131.89.

It is a good point that our terms of trade are showing improvement with Japan. It means per unit price of export is improving as compared with unit price of imports.

Conclusion

Economic indices show that Japan is not a preferred economic partner because the value of trade between the two countries is much smaller than their share in World Trade. Moreover, exports of India to Japan are much less than imports from Japan to India, straining our already precarious current account deficit but Japan is our important strategic partner in the changing Asian balance of power after the signing of CEPA in 2011, India cannot ignore economic gains in the larger interest of the country. Design of the agreement also helps in molding the gains in favour of a country or helps in minimizing the adverse impact of the

agreement. India should pressurize Japan and both work on the early implementation of MRAs in goods and services to overcome the problem of non tariff barriers. Japan is rich in technology but with ageing population. India can provide working labour force and market. These mutual benefits if exploited judiciously also help in stimulating Japanese economy.