COMPREHENSIVE ECONOMIC PARTNERSHIP AGREEMENT (CEPA) between INDIA and JAPAN

An Analysis of Product Tariff Reduction and Consumer Welfare of Select Sectors

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Abstract : This study examines the trade creation and trade diversion effects in the context of the Comprehensive Economic Partnership Agreement (CEPA) 2011between India and Japan. The study uses the SMART model in a partial equilibrium framework to examine the impact of trade and welfare in the context of three commodity groups - machines, engines and pumps; electronic equipments and textiles and finds that the CEPA resulted in both trade creation for India and positive overall welfare in case of all three commodities. The study thus makes an important contribution for a nascent agreement in the context of two important Asian economies and their trade relations.

Introduction

The global economy is currently trying to cope with the after effects of a global downturn, looking for new drivers of economic growth. In this context, Asia offers some hope of a long-term regional growth model based on Asian savings and demand propelled by regional integration and co operation. Asian economic integration has evolved in an environment of considerable strategic complexity characterised by the economic rise of India and China along with the simultaneous emergence of production networks in different sub-regions. In this scenario India and Japan have the potential to emerge as strategic players in modelling Asian economic co operation and can play a crucial role in spurring regional growth and in preserving the balance of economic power in the region, particularly in the context of a surging China.

In the years following World War II, government-industry cooperation, a strong work ethic, mastery of high technology, and a comparatively small defense allocation (1 percent of GDP) helped Japan develop as a technologically advanced economy. The economy of Japan, still the 3rd largest in the world, has faced a long domestic stagnation and increasing competition in international markets, mainly from China and other neighbouring economies. Given this reality, Japan needs to expand its economic horizon to increase its strategic depth in international economic relationships.

India is the tenth largest economy by nominal gross domestic product (GDP) and third largest by purchasing power parity (PPP), a country of 1.2 billion people, representing the 2nd largest population in the world with a significant demographic dividend. Since 1980, its economy has been growing steadily on an average of 6 percent annually with a peak of around 9 percent. India's consumption-to-GDP was 62% in 2013, higher than in China Russia and South Africa.[i]

India's growth potential due to its vibrant middle class and demographic dividend can be of immense interest for Japan. It could also serve as a base for targeting the neighbouring markets of Bangladesh, Sri Lanka and Pakistan. From the Indian perspective, Japan can be an important ally for both economic and political reasons. However, the mutual goodwill between Japan and India is yet to translate into serious economic and political engagement. This gap has to be bridged through cross-border trade, investment and cultural exchanges leading to a meaningful economic and strategic partnership between these two economies over time.

The renewal of economic engagement between India and Japan began with the 'Look East' policy as a part of India's new economic reform programme of 1991 (Rajamohan, Rahut, and Jacob 2008), which identified Japan as one of the most important sources of investment and technology (Dixit 1996). Recent initiatives include the Comprehensive Economic Partnership Agreement (CEPA) 2011 as a step towards engagement between the two countries in a multitude of sectors and the Tokyo Declaration in September 2014 with promised investment of USD 33.5 billion into the development of economic corridors, infrastructure, transport system, smart cities, clean energy, skill development and food processing.[ii]

This paper presents an initial framework of analysis of the Comprehensive Economic Partnership Agreement (CEPA) which was signed between India and Japan in 2011. The pact opens a huge window of opportunity for India, which hitherto accounted for just one percent of Japan's external trade. It also provides an access to Japanese technology and products, in turn improving innovations, competition, quality consciousness and economies of scale. As for Japan, enhancement of trade with India, the burgeoning consumer giant with a billion-plus population, comes at an opportune time and is of great relevance considering the general slowdown in world trade in the last few years.

The paper is organised as follows: After the initial introduction, section 2 provides an overview of previous economic engagement between the two countries, section 3 identifies the theoretical underpinnings of regional economic co operation and its impact on trade ; Section 4 presents an overview of CEPA; Section 5 analyses CEPA in a partial equilibrium framework using SMART [iii] analysis, and Section 6presents an analysis of results and concludes.

1. Economic Relations between India and Japan – an Overview

India's earliest economic engagement with Japan dates back to a trade convention of 1894 signed for giving a boost to the trade of cotton bales (Sareen, 2007), which also paved the way for the opening of regular ocean transport between India and Japan (Jain and Todhunter, 1996). This resulted in India becoming Japan's fifth largest export market (Yamanouchi, 2000) with trade being done through the barter system as 10,000 tons of iron ore were exchanged for "a small carton of Japanese pearls". [3] Indian assistance to the Japanese war ravaged economy took the form of iron ore, coal and cotton bales to a war ravaged Japan after World War II. This was followed by a long

period of economic stagnation between the two countries, as a consequence of India's socialist stance, which was finally broken in the early 1990s as India undertook major economic reforms and unveiled a "Look East" policy (Rajamohan, et al., 2008) which identified Japan as one of the most important sources of investment and technology (Dixit, 1996).

Japanese interest in India as an investment destination arises out of its large domestic market base and a young population with a large disposable income. The two countries expect mutual synergies to drive business initiatives on the following counts :

- Japan is a relatively labour-scarce, capital abundant country that complements India's rich and abundant of skilled human capital base.

- India's prowess in the software sector lends synergy to Japan's excellence in the hardware sector.

- India's abundance of raw-materials and minerals matches well with Japan's capabilities in technology and capital to produce knowledge intensive manufactured goods.

Table 1 is a snapshot of comparison of India and Japan along select economic and demographic parameters.

Table 1.

Economic and Demographic status of India and Japan

Serial no.	Demographic and economic indicators	JAPAN	INDIA
1.	Population in 000's 2014	127,132	1,267,402
2.	GDP (million current US$, 2014)	4,601,461	2,066,902
3.	Real GDP 2010=100	103	129
4.	Last Trade policy review held	March 2015	June 2015
5.	Tariff Binding	99.7%	74.4%

	coverage in %		
6.	Number of service sectors committed to be GATS compliant	112	37
7.	Share in world exports	3.60%	1.69%
8.	Share in world imports	4.31%	2.43%

Source-Adapted from the World trade country profile , WTO as accessed on 08/04/2016.

http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=E&Country=IN,JP accessed on 08/04/2016

http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=E&Country=IN,JP accessed on 08/04/2016
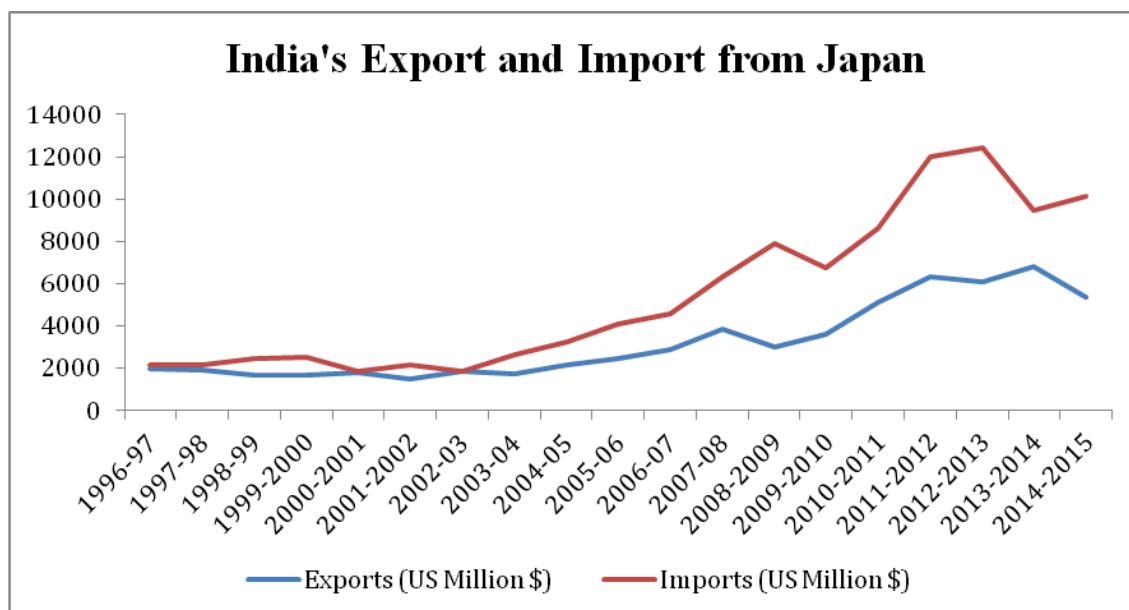
2.1 Trade

Bilateral trade between India and Japan has increased from a meagre USD 4.2 billion in 1996-97 to around USD 18 billion in 2012 -13 (figure 1). The data is given in the annexure 1 of the text. The main items of India's exports to Japan are iron ore, metal products, food products including marine products, raw materials and chemical products. The main items of India's imports from Japan are general machinery, metal products, electrical machinery, metal products and transport machinery.

Trade facilitation and enhancement is further envisaged as a consequence of the signing of the Comprehensive Economic Partnership Agreement (CEPA) between the two countries in August 2011.

Figure 1. India's exports & Imports from Japan

(in US million dollars)

India's Export and Import from Japan
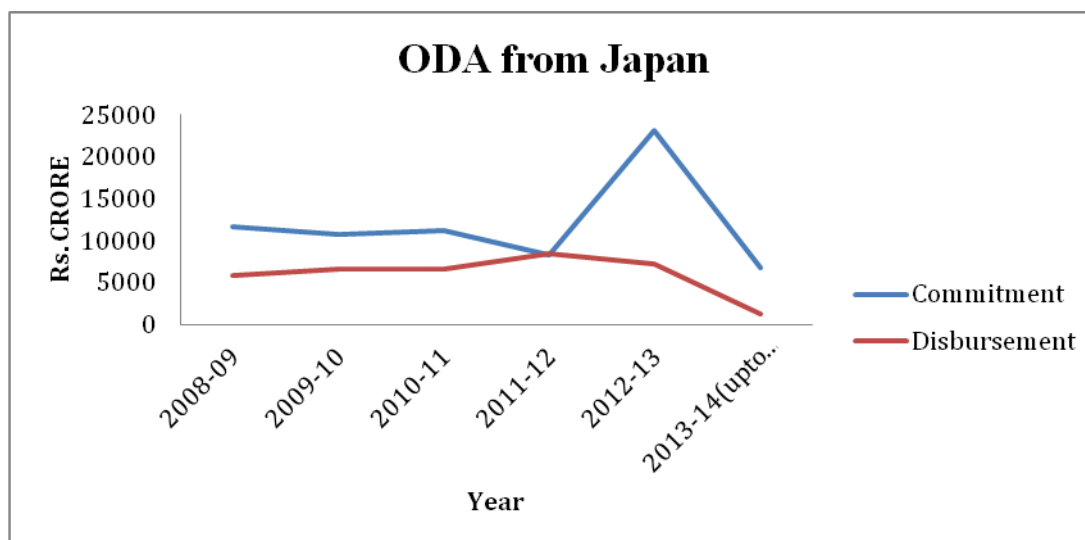
Source: http://www.commerce.nic.in/eidb/ecnt.asp accessed on 8 April 2016

2.2 Official Development Assistance (ODA)

Japan is also currently India's largest bilateral developmental assistance donor and India has been the top recipient of yen loans from Japan since 2003 surpassing China, which had been holding that position for many years. ODA disbursements to India seem to have increased in tandem with the increased threat perception from China and stood at 42 percent of total ODA received by India in 2010. The ODA figures show a peak in 2012 as in Figure 2. In India, as part of the Japan-India Special Economic Partnership Initiative (SEPI) several high visibility flagship projects like the Delhi-Mumbai Industrial Corridor (DMIC) have been initiated. The DMIC is projected to attract foreign investment worth about US$ 92 billion and will include cooperation in development of sea ports on the west coast and industrial estates and Special Economic Zones with high quality physical and social infrastructure through collaboration between private and governmental sectors of India and Japan. The Japanese government has announced a joint public and private finance of US $ 4.5 billion over the next five years for the DMIC projects. This shows the huge importance of building fair international economic relationships.

Figure 2.

ODA from Japan

2.3 FDI

Japanese FDI inflows to India have moved in response to changes in the Indian policy regime. We examine these in the context of the liberalisation programme launched in 1991.

2.3.1 Phase I – Pre liberalisation

Investment in the 80s was governed by the Foreign Exchange and Regulation Act (FERA) 1974, which was a restrictive regime during which firms could only have equity holdings of 40 per cent and the use of foreign brands was prohibited. A few Japanese companies found various routes of operation even during this period. This included Honda Motorcorp which had a partnership with Hero, and Suzuki Motors which set up as a government joint venture with with Maruti in 1982 as foreign investment policy was relaxed somewhat. These restrictions on foreign private investment policy continued until 1991, and foreign investment during this period was largely in the nature of bilateral or multilateral loans with long-term maturity (Choudhury, 2009).

2.3.2 Phase II Post Liberalisation

Japanese FDI in the post liberalisation phase can be divided into two phases – in the first phase from 1991 to 2000 the permissible equity participation was 49 percent in a limited number of sectors. The FDI inflows received from Japan during the period 1996 was US$ 0.26 billion, which significantly increased to US$ 2.8 in 2012 (figure 3). The FDI outflows (OFDI) are meagre in comparison to FDI inflows during this period. Major surge in FDI inflows occurred after 2006. These figures have been detailed in Annexure 2.

FDI came into automobiles, telecommunications, fuel, chemicals and trading, mainly through technical collaborations. In the initial years, Honda in the automobile sector and Sony in the electronics sector were the two important Japanese brands that made their entry. By the end of the decade, important brands like Toyota, Toshiba and Panasonic had also entered the Indian market. There was also a proliferation of companies in auto parts, fuels and chemical and industrial goods.
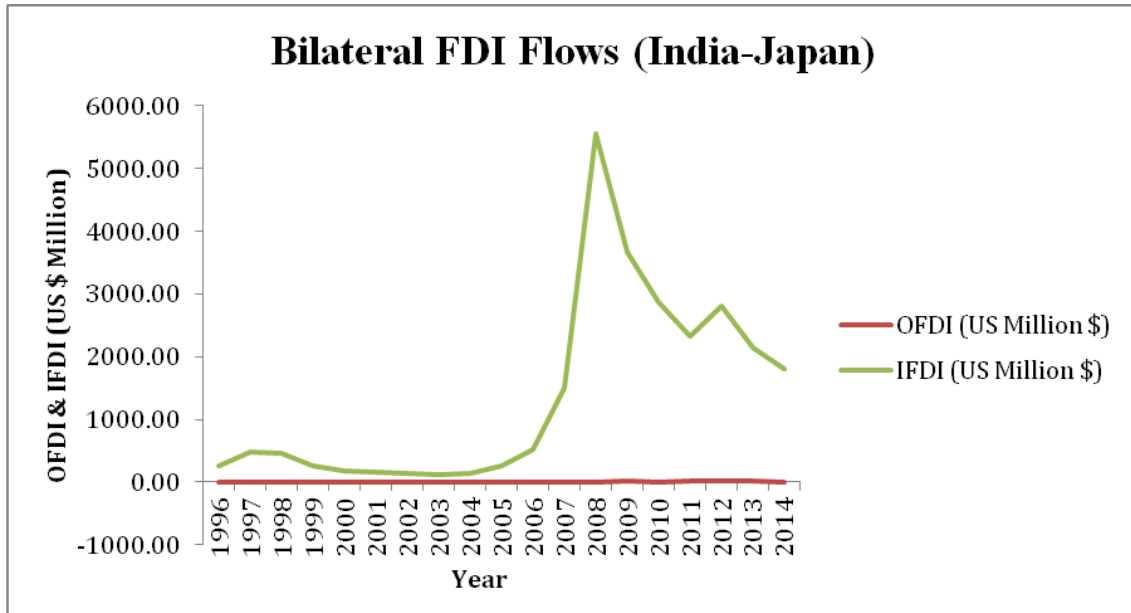
India's diverse culture and complex socio-economic factors accompanied by a plethora of legal provisions, different policies and regulations in different parts of the country and a volatile labour situation created a challenging business environment which discouraged Japanese enterprise.

In the second phase, from the 2000 till date the cap on foreign equity participation and on permissible sectors was gradually raised. Foreign participation was permitted up to 100 per cent in most sectors from 2000 onwards. FERA was replaced by the new Foreign Exchange Management Act (FEMA) and in a significant development in 2005, foreign companies already operating in one sector were allowed to re-invest in another sector, through the automatic route. This permitted the foreign company to be treated as the equivalent of a domestic company, allowing it access to sectors that had so far been denied to it (Choudhury, 2009).

The period 2000 – 14 saw Japan emerge as the fourth largest contributor of FDI to India, accounting for 7.46% of total inflows, but India lags far behind China, USA and smaller Asian nations such as Thailand and Indonesia which receive a greater magnitude of FDI from Japan.[iv] There were 2542 Japanese business establishments in India in 2013[v], which is an increase of 25.09% over the previous year. The drugs and pharmaceuticals and automobiles sector emerged as the highest recipients of Japanese FDI[vi], driven to an attractive emerging market with a high disposable income and expanding middle class. Japanese multinational enterprises (MNEs) have used Joint

Ventures (JVs) as their main mode of entry into the Indian market driven by the restrictions of the institutional environment and the need for tapping into local experience (Horn et al., 2007).

Figure 3

Bilateral FDI Flows (India-Japan)

Source: https://www.jetro.go.jp/en/reports/statistics/ accessed on 8 April 2016

Figure 3. India's FDI inflows & outflows vis a vis Japan (in US million dollars, for years 1996-2014, annually).

The Tokyo Declaration signed between the Prime Ministers of the two countries in September 2014 aims at a new dynamism in India-Japan relations. It consists of a Special Strategic Global Partnership consisting of defence exchanges, co-operation in clean energy, roads and highways and healthcare and women. The two countries have agreed to double the flow of FDI and the number of Japanese companies in India over the next five years under the India-Japan Investment Promotion Partnership. Japan has committed to financial flows of 3.5 trillion Yen, into the development of economic corridors, infrastructure, transport system, smart cities, clean energy, skill development and food processing.[vii]

3. Regional Economic Integration and Trade– A Theoretical Viewpoint

The decade of the 1990s has witnessed a strong wave of regional economic integration in the world economy. A visible manifestation of this trend has been the emergence of RTAs (regional trading agreements) in different parts of the world. Asia too has been actively using FTA's as a trade policy instrument since 2000 (Kawai and Wignaraja, 2010). These RTAs have pursued a deeper type of integration covering preferential free trading arrangements complemented by strong rules of origin and mobility of capital (and sometimes even labor) across the region. Elements of deeper regional integration incorporated in the currently proliferating RTAs go well beyond the traditional modalities for economic cooperation. Traditionally, RTAs were aimed at lowering trade barriers, but in recent years have moved beyond the trade barrier reducing exercise and involve specific commitments on investment as well. They aim at strengthening a region's participation in global production networks both through trade and capital flows.

3.1 RTAs and their impact on Trade

While the objective to implement any bilateral agreement between nations is economic, social and political cooperation, the economic benefits accruing to both the countries takes the priority as the increase in market size directly affect economic growth (Balassa, 2011).

3.1.1 Increase in trade flows through reduced tariff barriers

RTAs have increasingly been designed to cover much more than formal trade policies, hence the impact of these agreements on trade determines the extent to which broader political and social objectives are achieved. The simplest measure of integration is the trend in the share of imports from regional partners in the total imports of a region. Successful regional agreements might be expected to increase trade between partners relative to those countries' trade with the rest of the world. This is subject to three important conditions :

- First, successful regional integration is typically accompanied by reductions in tariffs for all partners. Hence, regional trade shares may not rise even though the volume of regional trade is increasing.

- Second, regional trade agreements that provide for the removal or reduction in trade costs other than those associated with formal trade policies (such as improved customs procedures), may stimulate trade from all sources.

- Third, many agreements cover nontrade issues such as investment, services, and labor, and these can have important consequences for growth and incomes. Therefore, it is important to bear in mind here that an agreement may be successful even if the propensity for members to trade among themselves does not increase markedly.

3.1.2 Welfare outcome of Integration – Trade Creation and Trade Diversion

Traditional analysis of economic integration utilises a partial equilibrium approach, developed by Viner (1950) , through the use of the concepts of trade creation and trade diversion. This explanation emphasizes that the welfare outcome of economic integration is determined by the relative strength of these two effects.

The trade creation effect of FTAs improves resource allocation within a region and income for member countries by reducing trade barriers. It makes consumers better off by giving them greater choice as they can buy goods from the most efficient supplier at the lowest cost.

The trade diversion effect on the other hand, means that the FTA would replace imports of highly efficient non-member countries by imports from less efficient FTA members. Trade creation results in an improvement in resource allocation and economic welfare, while trade diversion worsens efficiency in resource allocation. Besides, trade diversion has a negative impact on non-members as they lose an exporting opportunity. Thus while consumers in FTA member countries may have increased welfare as the FTA enables them to buy imports at lower prices, an FTA member country in totality may face a loss if the decline in government's tariff revenue exceeds the consumers' gain.

In general, an FTA would lead to some amount of trade creation and trade diversion. If the trade diversion is sufficiently large relative to the trade creation effects, it is possible that the FTA would end up being harmful to the member countries.

Meade's general equilibrium analysis shifts the focus to trade costs, in addition to trade creation and diversion. The theory of the 'second best' improves the theoretical fundamentals of the general equilibrium setting but also increases the ambiguity of any welfare analysis. By incorporating the 'transfer principle', the fundamentals are in place to facilitate the calculation of the effects of trade policy on welfare (Snorasson, 2012).

The issue that whether countries should undertake RTA's should also take into consideration the empirical evidence of effects of their presence. Research studies of

the African economies show that they should continue to invest in regional trading agreements, as it reduces the war possibilities & information asymmetries between the countries (Melo and Tsikata, 2013). On the contrary, there exists the common thought that in the phase of political instability, RTAs not just are ineffective, but, at worst, can create reasons of conflicts between signatory parties (Brown Oli et al., 2005). RTA also help in increasing agricultural trade between member countries, which can be favourable for an agrarian economy like India (Vollrath et al., 2011).

It is often argued that bilateralism can dampen the effects of multilateralism in terms of non discrimination among countries. This argument however, can be refuted by the evidence from two multilateral agreements COMESA & MERCOSUR, which showed very modest or no diversion [viii] in trade among the non member countries due to RTA's and also showed negligible welfare effects (Conroy, 2013).

Cultural diversity may hamper the role of RTA in increasing trade among countries, as linguistic differences curb trade, though the effect of other cultural differences such as religion might be insignificant (Guo, 2004; Yeganeh, 2011).

4. Comprehensive Economic Partnership Agreement (CEPA)-2011

India and Japan constituted a Joint Study Group (JSG), focusing on measures which would form the basis for a comprehensive expansion of trade in goods, services, investment flows and other areas of economic relations between the two countries. This led to the first round of negotiations on the India - Japan Comprehensive Economic Partnership Agreement (CEPA) in early 2007.

The CEPA was signed in 2011 as a harbinger of hope for strengthening historical ties and as a measure of to further the growth and stability in the Asia- Pacific region. The basic objectives of the agreement are to (a) liberalise and facilitate trade in goods and services (b) increase investment opportunities and improve business environments and bilateral cooperation in other fields (c) ensure protection of intellectual property and promote cooperation in the field thereof and (d) Provide for effective enforcement of competition laws.

The structure of CEPA along similar lines of other general bilateral treaties signed between two trading countries. However, the speciality and distinctiveness of the 2011 treaty lies in its encompassing nature. It covers areas such as *Measures against*

Corruption, Transparency issues, Confidentiality clauses, Environment protection issues, Bilateral safeguard measures, Anti-Dumping Investigation, which usually do not find place in bilateral trade agreements. Taken together with the annexures, it attemps to provide a complete code containing the principles, the modalities of operations and solution to specific issues like dumping, along with an institutional framework to oversee the operation.

In line with the ethos of the WTO objectives, the agreement envisages elimination of tariffs on more than 90 percent of goods traded between the two countries over the next decade. This trade pact envisioned the scrapping of tariffs in sectors like auto parts and machinery as well as farm and fisheries products, which will be mutually beneficial to both economies. The Japanese auto industry stands to benefit from elimination of the 10 per cent tariff levied by India on Japanese exports of lithium ion batteries, DVD players and tractors over the next decade. Likewise Japan proposes to scrap tariffs on Indian tea and other farm products. India hopes to benefit from the promise of fresh capital and technology along with learning from management practices.

In the Indian context, the impact of CEPA in terms of trade creation & trade diversion can be realised when the tariffs reductions are large enough so that the imports prices from Japan become less than those from the rest of the world & imports increase from Japan and decrease from the rest of the world despite Japan being a comparatively high cost producing nation than other nations. So most of the trade will be within the inner dotted circle (figure 4), while in the case of small tariff reductions, import prices will remain higher for Japan than the rest of the world as depicted by outer dotted circle of trade pattern.

5. Methodology

The present study aims to study the gains from trade creation and increased welfare through the implementation of the CEPA using the SMART model.

5.1 The SMART Model

Software for Market Analysis and Restrictions on Trade (SMART) Model is used to compute total trade creation/diversion in the importing country and can be extended to measure overall welfare implications of the agreement. Our SMART analysis is

broadly based on the methodology adopted from the discussion paper (ADB, 2010). The SMART model discusses the changes in imports into a particular market when there is any alteration in trade policy. It holds the Armington assumption that means commodities are differentiated by their country of origin, which implies that for a particular commodity, imports from one nation are an imperfect substitute for imports from another nation. The SMART model also assumes that consumer demand entails allocating their spending by commodity prices and by its variety. The relationship between changes in the price index and the import demand for the commodity is called import demand elasticity. Thus the decided level of spending for this commodity is allocated among the different national varieties, depending on the relative price of each variety as determined by the commodities substitution elasticity. The degree of responsiveness of each foreign exporter's supply to changes in the price is measured by the export supply elasticity. The SMART model, by default, assumes that the export supply elasticity of each foreign country is infinite. SMART can also operate with a finite export supply elasticity, but the value of this parameter must be found and incorporated into the analysis. The substitution of imports is also perfectly balanced in the SMART model so that the substitution does not affect the overall imported quantity, but simply reallocates market shares among foreign partners based on the new relative prices. The preferential FTA can cause an increase in imports from the country or countries benefiting from trade because of lower prices. Hence, the importing country will experience an increase in imports, FTA export partners will have an crease in exports, and exports from outsiders will, fall. The SMART can calculate changes in tariff revenue as well.

5.2 Data Collection

The data required for the analysis were obtained from Export- Import Data Bank of the Ministry of Commerce (MOC), India.

SMART analysis is performed on the imports of a country and we have considered India's imports from Japan for the purpose of study. The methodology to use the SMART model requires a systematic approach that begins with the collection of the list of top ten imports from Japan to India for the year 2013-14[ix] and consideration of top highly imported goods i.e. Machines, Engines & Pumps; and Electronic equipments for the analysis as mentioned in chapters 84 & 85 in the Indian Customs Tariffs, 2010-11. These two goods are chosen because these form the largest imports from Japan to India's rapidly growing sector. The results could later be extended for all the goods

being traded. Since the Textiles sector is a major industrial sector in India with a significant contribution to employment and is more prone to threat under rising foreign competition, we have therefore included textiles in our analysis. Thus, our study is based on commodities facing tariffs reductions under chapter 50 to 63 & chapter 84 & 85 according to the Indian Custom Tariff 2010-11. We have simplified our analysis by taking commodities with 4-digit HS Code [x] as per HS classification, 2007. We laid basis on the fact that the Indian market is too small to affect foreign export prices of the considered commodities, therefore the foreign export supply elasticity's of these commodities are infinite. Import demand elasticity's of the concerned commodities are assumed to be greater than one.

Data for total imports from Japan to India for three years are taken from MOC i.e. for 2010-11 (Base Year), 2012-13 (First Year) & 2013-14 (Second Year). The terminology – Base year, first year & second year are used to simplify the names of the years and to maintain their sequentiality. Total Imports to India from the World for the base year & the 2nd year have also been included in the analysis. Custom duties on the relevant commodities for the base year are taken from the Indian Customs tariffs 2010-11. For the second year, the duties are taken from the Notification No.17 (Department of Revenue, 2013) regarding tariff reduction on commodities under CEPA.

In our 4-digit HS Code approach, weighted tariffs are assigned to the 4-digit commodities if all its sub-commodities have different custom rates. Here, the assumption is that every sub-commodity under 4-digit commodity have equal share in imports from Japan to India, so posses equal weights. For example, if the commodity 'wxyz' have 10 sub-commodities with two of them having custom rate of 10%, four of them having 7.5% & four of them with 0%, then weighted tariff for 'wxyz' is (2/10*10 + 4/10*7.5 + 4/10*0) is 5 percent. So the base year weighted tariffs are calculated and assigned likewise.

For the second year, weighted tariffs are assigned to every 4-digit commodity which have undergone reductions in tariffs, in accordance with the 3rd notification and the calculated base year tariffs. For example:- If the commodity 'wxyz' contains 10 sub-commodities and base year tariff is 5 percent (calculated/given) and only 6 sub-commodities face reductions, five of them to 3.65 & one of them to 0% as per the notification, then the weighted tariffs for 'wxyz' is (4/10*5 + 5/10*3.6 +1/10*0) is 3.8 percent. Calculation of weighted tariffs for base year and 2nd year is done to compute the welfare.

4.3 Results and Analysis

There is increase in imports from Japan to India from base year (last year before CEPA came into force) to first year (1st annual year after CEPA came into force), by 9,54, 960 lacs rupees (2095.59 million USD[xi]), where majorly all commodities imports rose. However, from 1st to 2nd year, imports from Japan decreased by 4,06,000 lacs rupees (890.94 million USD). The reason for this decline could be GDP related, where last two years faced very slow growth as compared to the base year & imports shrank due to prolonged low growth. But the overall growth in imports from base year to second year was positive with increment in imports of approx. 5,50,000 lacs rupees (1206.94 million USD) (Figure 5).

Total imports from the rest of the world/ ROW (Total imports to India from the world minus total imports to India from Japan) for base year & second year are calculated for commodities in the analysis and cumulative deterioration in imports from ROW from base year to 2nd year is calculated. Instead of the decline, there was the rise in overall imports from the rest of the world by 1,18,22,765 lacs rupees (25944.18 million USD). Thus the total trade creation from base year to 2nd year for India was amazingly positive with 1,23,71,815 lacs rupees (27149.03 million USD). This completes more than half of the analysis with results favoring enforcement of CEPA.

Our next step is to see the welfare implications of the reductions in tariffs. For this purpose, we have to weigh consumer surplus generated in India due to increased imports from Japan, with tariffs revenue loss for ROW due to decreased imports to India from ROW. Consumer surplus is shown in the figure 6 indicates that with the fall in tariffs causing decline in prices from p to p', imports from Japan increases from q to q', is raising consumer surplus by the amount shown in triangle ABC. Also, since imports from ROW have actually increased, this proved the welfare to be positive. Mathematically, Consumer surplus (figure 6) for 2010-2014 (0.5*tariff reductions*cumulative increase in imports) & tariffs revenue loss for ROW for 2010-2014 (cumulative decrease in imports*base year tariffs), are 5,76,852 lacs rupees (1265.86 million USD) and 6,12,88,000 lacs rupees (134,491.98 million USD) respectively. Hence, Welfare is found out to be approx. 6,18,00,000 lacs rupees (135,615.53 million).

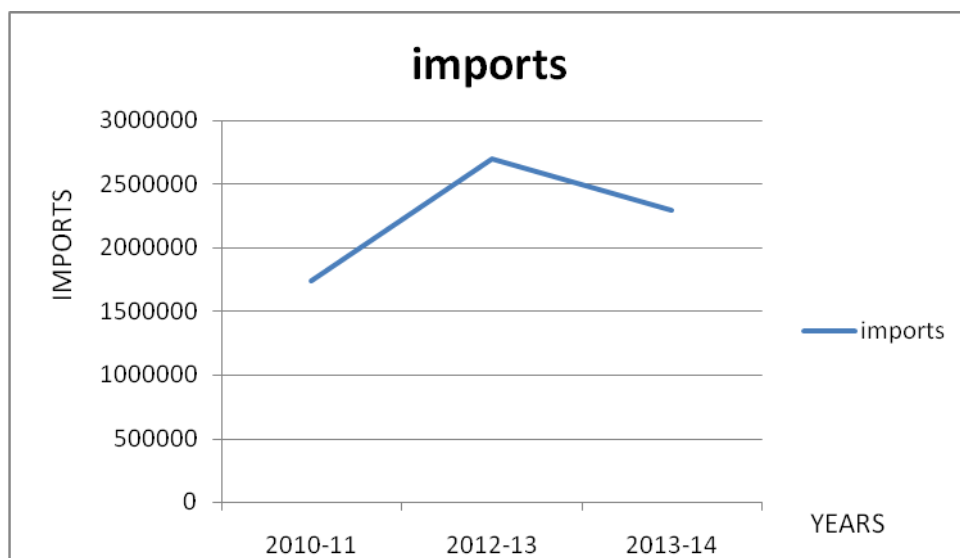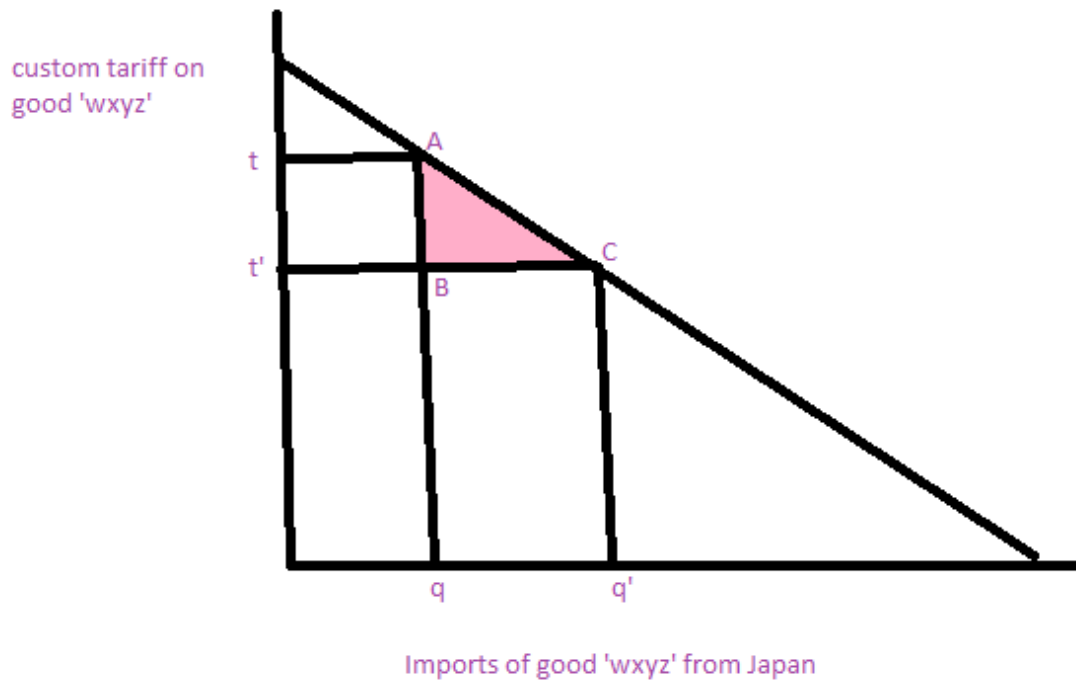**Figure 5. Imports from Japan for Base year, first year & second year.**

Figure 6.   Net Consumer Surplus Generated "ABC".

custom tariff on good 'wxyz'

Imports of good 'wxyz' from Japan

5. CONCLUSION

This study aims to evaluate the Indo Japanese agreement CEPA, which is a comprehensive trade agreement covering both trade and investment with articles on safeguards, antidumping duties and anti corruption implementation. The evaluation of a Free Trade Agreement is the success it achieves in terms of increase in trade and investment as a result of opening of trade restrictions. This is based on expectations of the two countries and its alignment with multilateral trading agreements. This study examines the trade creation and trade diversion effects of CEPA for three commodity groups - machines, engines and pumps; electronic equipments and Textiles.

The study empirically proved that there was trade creation for India and positive overall welfare in case of all three commodity groups as a result of implementation of the CEPA agreement. Trade creation has great relevance in the context of the Indian economy where technological advancement and R&D sector needs to pace up. Trade growth raises the economic pie for both the nations, raising the growth in investments, employment creation, and technology transfers.

Our analysis also supports the argument that the reduction in trade barriers between two structurally and culturally different economies induces economic growth for both the nations with greater overall welfare. Although the results depend upon the partial equilibrium approach, ignoring linkages with other markets, this assumption is not too vague in our direct effect measurement method because the concerned products taken

for the analysis are assumed to have substitution elasticity to be less than one. The results can be generalized for other commodities also and we can conclude that the economic impact of the agreement seems to be positive as of now and will continue to improve with further notifications of tariff reduction on goods enforcement.

The CEPA 2011 is a complete balanced agreement which fully WTO compatible and principle of non-discrimination is practiced in carrying out the agreement. The agreement which would help both the countries in trade expansion, although the degree of success may vary between the two countries on account of different technological status, availability of money in the market depending upon the interest rates, the level of stringency of the Non Tariff Barriers (NTBs) such as TBT and SPS measures; and the efficiency of manpower in terms of productivity per man-hour. Success of the policy requires stability and consistency in implementation for maximum benefit to be derived from it. This is not to say that the policy should be rigid. The agreement itself envisages modification depending upon the trade environment in future. A contentious issues that needs an overhauling is the labour laws reforms which have a direct nexus with efficiency and scale of production.

The CEPA between India and Japan if implemented in the right spirit would not only increase the economic growth of both countries and may become a catalyst for forging friendships and mutual understanding in other areas as well. With this, it will pave way for many bilateral agreements in the near future.

6. SCOPE FOR FURTHER RESEARCH

The study may also be extended by the use of other frameworks of analysis as its the agreement matures. A natural corollary of this paper would be to consider the impact of FDI flows on welfare as a result of CEPA and compare the results with findings which show greater benefits of FDI flows over cost in the host and home countries, (Moura and Rosa, 2010), (Sanna-Randaccio, 2002).

This should include an analysis of FDI flows, services trade, technology transfers, and social and political integration also to broaden our analysis on the after effects of the agreement. Theoretical implications of CEPA on trade in services & FDI flows sound

very favourable, giving a way for empirics, but the measurement in respect of technological transfers seems difficult.

Annexure 1. Indo-Japan Trade

Year	Exports US (Million $)	Imports US (Million $)
1996-97	2005.96	2187.45
1997-98	1892.07	2144.9
1998-99	1652	2465.72
1999-2000	1685.37	2535.8
2000-2001	1794.48	1842.19
2001-2002	1510.44	2146.44
2002-03	1864.03	1836.33
2003-04	1709.29	2667.68
2004-05	2127.91	3235.13
2005-06	2481.26	4061.1
2006-07	2868.12	4599.54
2007-08	3858.48	6325.92
2008-2009	3025.7	7886.27
2009-2010	3629.54	6734.18
2010-2011	5091.24	8632.03
2011-2012	6328.54	11999.43
2012-2013	6100.06	12412.29
2013-2014 (april-dec)	5163.96	7327.01

Annexure 2. Indo- Japan FDI flows

Year	OFDI US (Million $)	FDI Inflows US (Million $)
1996	5.56	262.13
1997	0.00	485.43
1998	2.86	460.42
1999	0.00	261.45
2000	0.00	174.67
2001	0.00	150.50
2002	-0.82	145.55
2003	0.00	124.14
2004	0.00	139.09
2005	1.40	265.88
2006	-0.56	512.40
2007	3.39	1506.07
2008	0.86	5551.20
2009	13.98	3664.26
2010	4.25	2863.60
2011	9.17	2325.90
2012	18.84	2802.10 [4]

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[iii] Software for Market Analysis and Restrictions on Trade (SMART) Model is used to compute total trade creation/diversion in the importing country & can be extended to measure overall welfare implications of the agreement also.

[iv] https://www.jetro.go.jp/en/reports/statistics/

[v] http://www.in.emb-japan.go.jp/PDF/J_C_list_2012_%20(rev).pdf

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[viii] Trade diversion as explained by Trade Diversion: Commentary on development, globalization, and trade by Jonathan Dingel, is an economic term related to international economics in which trade is diverted from a more efficient exporter towards a less efficient one by the formation of a free trade agreement or a customs union

[ix] The recent year 2013-14 was chosen for selecting the top ten imports from Japan available at ITC, intracen.org/Market Analysis

[x] HS Code: The **HS** was created and is administered by the Brussels-based World Customs Organization (WCO). The first 6 digits of an **HS code** indicate the same product description for all 190 countries, but that does not mean that the rates of customs duties are the same. There are over 5,000 groups of 6-digit codes.

[xi]