Trade Creation and Trade Diversion Effects of India-Japan Comprehensive Economic Partnership Agreement (IJCEPA) on Agricultural and Allied Sector

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Abstract

India and Japan signed a Comprehensive Economic Partnership Agreement (IJCEPA) in 2011. The signing of this agreement has resulted in different opinions when it comes to India's Agricultural exports to Japan. The present study focused on trade creation and diversion effect of India-Japan free trade agreement on agricultural and allied sector. This study is based on secondary data and was performed using an *ex-ante* partial equilibrium model i.e., Software for Market Analysis and Restrictive Trade (SMART) model. The results revealed that the IJCEPA will lead to considerable increase in exports of agricultural products and this increase in exports is mostly driven by trade diversion (0.012) rather than trade creation (0.010) replacing efficient non-partner exporters of Japan. On imports side, tariff preferences offered from India's side creates very little scope for Japan to expand their shares in Indian market. The danger of cheap imports replacing the domestic products in the Indian markets therefore, is not much. The results indicated that, IJCEPA will have a favourable effect on Indian agricultural trade.

India and Japan signed a Comprehensive Economic Partnership Agreement (IJCEPA) in 2011. According to official notifications, the trade in goods agreement (Chapter 2) which focuses on tariff liberalization on mutually agreed tariff lines on both the sides and is targeted to eliminate about 94 per cent of the tariffs between India and Japan over a period of 10 years (i.e., 2021). The agreement on trade in goods, proposes to gradually reduction of tariffs for over 4500 tariff lines (HS-6-digit level) by 2021 on both the sides. The major items of India's export include marine products, spices, fruits such as mangoes, lemons, etc.

Tariff Reduction Schedules and Category: According to the trade in goods agreement, the tariff lines (HS 8-digit) subject to tariff reduction or elimination are classified into six broad categories *viz.,* category A**,** B5, 7, 10, 15 and X.

India kept 35 per cent of its total agricultural products, out of tariff liberalization schedule (i.e., in category X) Japan as opposite to non-agricultural market access (NAMA) products kept its 50 per cent of its total agricultural product lines in exclusion list and about 35 per cent of agricultural product lines given immediate zero duty status which will help India's agricultural traders.

The signing of this agreement had resulted in different opinions, while Geethanjali and Ashwani (2014) in their study concluded that reduction of trade barriers as a result of signing FTA with Japan boosted India's Agricultural, Pharmaceutical and Textiles exports but contrary to this, the analytical report of APEDA (2013) states that since the signing of IJCEPA in 2011, there is a decrease in share of agricultural and marine exports to Japan in India's total goods export. It is therefore, of great interest to analyse whether Indian agricultural sector gains or losses and whether this IJCEPA will lead to trade creation or diversion in agricultural trade.

The analysis of customs union dates back to Viner (1950), who introduced the terms "trade creation" versus "trade diversion". Trade creation refers to a situation where in displacement of less efficient national production takes place in favour of more efficient partner country production. Trade diversion occurs when displacement of more efficient non partner imports in favour of less efficient partner country sourced imports.

For this study we used the 6-digit (Nomenclature HS 2007) trade and tariff data of HS 1 to 24 tariff lines except fishery (and relevant tariff lines of HS 29, 33, 35, 38, 41, 43, 50, 51, 52 & 53)

collected from the World Integrated Trade Solution (WITS) and Commodity Trade Statistics (COMTRADE) databases. The other data source like Ministry of Commerce and industries, export-import data bank.

The SMART Model: This study employs the partial equilibrium Software for Market Analysis and Restrictive Trade (SMART[1]) model to simulate the tariff effect of a single market on disaggregated product lines to estimate the trade creation and trade diversion effects. This model was developed by United Nation Conference on Trade and Development (UNCTAD) and World Bank in the 1980's with theoretical background borrowed from Laird and Yeats (1986). The SMART contains incorporated analytical modules that carry trade policy analysis, such as the effects of tariff cuts, preferential trade liberalization and ad hoc tariff changes. Here it considers only single import market and its export partner or partners and analyses the impact of a tariff reduction or elimination scenarios by estimating new values for a set of variable.

The underlying assumptions in this model are: *import demand* elasticity is based on Armington assumption, which implies that similar goods from different countries are imperfect substitutes. The values of this elasticity are provided by SMART module is used. Import substitution elasticity is assumed at 1.5 for each good. Export supply elasticity is assumed as infinite, which implies that an increase in demand for a particular good will always be matched by the producers and exporters of the good, without any influence on the price of the good.

India exports to as well as imports agricultural and allied sector products from Japan, with a positive net trade balance. Hence, the tariff reduction commitments under IJCEPA would affect both the Indian exports as well as imports of agricultural and allied products. Therefore, to quantify the effect of the tariff reduction commitments made under the agreement, simulations were carried out in two different scenarios as mentioned earlier.

The simulation modelling was carried out with India as an exporter (Scenario-I) as well as importer (Scenario-II) of agricultural products from Japan. Drawing from the tariff reduction schedule of both the countries as per the IJCEPA agreement, the impact of tariff change in 2021(i.e., termination year) compared to base year tariff in 2013 were simulated for the relevant product lines of agricultural products at HS 6-digit level, later results were aggregated and presented at sectoral level.

Scenario 1: India as exporter of Agricultural products to Japan

The simulation results for Agricultural and allied sector products showing gains to India 2021 (terminal year for phased tariff reduction as per IJCEPA) as compared to the base year 2013 are presented in Table I.

The total value of Indian Agricultural exports in the base year from all the categories (i.e., X, A, B7, B10 and B15) was about US$ 61006.67 million of which 45 per cent is from X category only. If Japan reduces tariffs to zero duty or dismantles the tariffs imposed on Indian imports, trade worth US$ 13.98 million would be increased in favour of India in 2021. Overall, the results suggest that the total increase in exports is mostly driven by trade diversion (Table III). Trade diversion signifies the level of trade that is replaced by Indian producers which was earlier exported by rest of world to Japan due to tariff preference given to Indian agricultural exports. As a result, many countries lost their market in Japan. Overall, the Indian agricultural exporters will benefit from this agreement.

At the category level, the gains are particularly noteworthy in A category as its share in total increase in export value is about 92 per cent in 2021 (Table I). Almost 70 per cent of the total trade diversion towards Japan would be attributable to 5 countries; they are Chile, Finland, Switzerland, Paraguay and South Africa, implying that these countries will lose their market share of agricultural products in Japan while India will be the gainer.

Scenario II: India as importer of Agricultural products from Japan

TABLE I

Impact of IJCEPA on Indian Agricultural exports to Japan by 2021

Category	Base year Exports (in Million US$)	Total change in Exports (in Million US$)	Trade Creation Effect (%)	Trade Diversion Effect (%)
B7	392.89	00.003 (0.0007)	0.0003	0.0004
B15	1265.90	00.005 (0.0004)	0.0001	0.0003
B10	4299.37	00.018 (0.0004)	0.0003	0.0001
A	29754.02	12.988 (0.0436)	0.0206	0.0231
X	25294.49	00.969 (0.0038)	0.0020	0.0019
Total	61006.67	13.983 (0.0229)	0.0109	0.0120

Note: Figure in parentheses indicate percentage change in imports to base year's imports

Under IJCEPA agreement, like Japan, India has also committed to reduce tariff on agricultural products under A and B10 category. The reduction of tariff by a country have two effects on its economy, one it may lead to loss in tariff revenue and another it can increase consumer surplus due to access to cheaper imports from Japan.

Due to this tariff reduction commitment, there would be an increase in India's import value of agricultural products from Japan by US$ 3.35 million by 2021. Overall, the simulation results reveal that trade creation outweighs the trade diversion in total as well as in each category (Table II). This additional trade would benefit the Indian consumers in the sense that more efficient Japanese producers and exporters will supplant the inefficient producers in India.

The level of welfare gain depends mainly on the level of trade creation. Weighed against the revenue loss, the trade creation effect and positive welfare effect changes in the terminal year of tariff reduction present IJCEPA as potentially beneficial arrangement for India (Table III). However, these are static results and welfare results do not represent the producer surplus loss that will occur due to replacement of domestic producers of India by the Japanese producers.

The results obtained from the study suggest that the IJCEPA will lead to considerable increase in exports

TABLE II

Impact of IJCEPA on Indian Agricultural imports from Japan by 2021

Category	Base year (2013) Imports (in Million US$)	Total change in Imports (in Million US$)	Trade Creation Effect (%)	Trade Diversion Effect (%)
B10	4351.14	2.64 (0.0606)	0.0052	0.0008
A	840.73	0.000006 (0.0000)	0.0000	0.0000
X	11906.93	0.72 (0.0060)	0.0431	0.0175
Total	17098.82	3.35 (0.0196)	0.0146	0.0050

TABLE III

Revenue and Welfare effects of IJCEPA on Indian economy

Category	Revenue shortfall in Million US$	Total welfare in Million US$
B10	0.120	0.913
A	-0.000005	0.000001
X	-1.620	1.235
Total	-1.499	2.148

of agricultural and allied products as per the SMART analysis; however, these would have to be analysed from the point of view of the SPS and TBT measures also to come to any conclusion. But in SMART model quality parameters are not taken into consideration and therefore these results are based on new tariff allocations only. The increase in exports is mostly driven by trade diversion rather than trade creation replacing efficient exporters of Japan like Chile, Finland, Switzerland, Paraguay and South Africa. In future, the inefficient agricultural and allied producers will become efficient due to achievement in economies of scale.

On imports side, tariff preferences offered from India's side creates very little scope for Japan to expand their shares in Indian market. The danger of cheap imports supplanting the domestic products in the Indian markets is not much. However, clear directives and necessary assistance should be provided to the domestic agricultural and allied commodities producers to counter the competition.

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