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India's Trade Partnership with East African Community: Exploratory Results from Trade Indices

Debashis Chakraborty¹ and Manoj Sahu²

Abstract

Since the initiation of economic reforms in 1991, India adopted an outward-oriented strategy for development. After inception of World Trade Organization (WTO) in 1995, the country initially relied on multilateral trade reforms for export growth, but slow progress of the Doha Round negotiations over the last decade caused it to explore the regional trade agreements (RTAs) route as well from 2003-04 onwards. While in the initial period India focused on deeper trade relationship with Asian partners, namely, Association of Southeast Asian Nations (ASEAN), Japan, South Korea etc. as preferential trade allies, the perceived need to diversify the export markets has led the country to focus on potential trade partners in Africa, Europe, North and Latin America as well in recent times. On the other hand, the economies of East Africa are also embracing the RTA route for their trade promotion and the growing Indian market offers an opportunity for them as well. The present analysis attempts to understand the trade potential between the five East African Community (EAC) countries and India in the sphere of merchandise and services trade by looking through various trade indices. The empirical results indicate that bilateral trade between the two regions have a strong potential, which can be aided further through policy reforms at both ends.

Keywords: Trade Policy, International Trade Organizations, Economic Integration, India, East Africa

JEL Classification: F15, F19

Introduction

After attaining independence in 1947, Indian economy for the subsequent four decades adopted an import-substitution led growth model, guided by the predictions of the Prebisch-Singer thesis, which argued that as the developing countries are generally exporters of primary products (raw materials / intermediate goods) and importers of capital and consumer goods from their developed counterparts, they are expected to face terms-of-trade deterioration (Toye and Toye, 2003). While the strategy indeed contributed in developing the industry base, the stress on self-sufficiency weakened competition in the domestic market, which in long run lowered the competitiveness and efficiency levels. The adverse macroeconomic scenario in the aftermath of Gulf war inflicted further pressures and the country moved towards adoption of a liberalized export-promoting growth regime from 1991 onwards. The political turmoil in Soviet Bloc countries forced the export-oriented strategy to identify newer trade partners. The export drive received considerable

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boost from the series of reforms agreed upon at the Uruguay Round negotiations of General Agreement on Tariffs and Trade (GATT) during 1986-1994. The GATT reforms paved the way for inception of World Trade Organization (WTO) in 1995, which continued along the 'free trade' path of its processor. India was particularly impressed by the merchandise export success of the East and Southeast Asian 'Tigers' during seventies and eighties through the help of Japanese Foreign Direct Investment (FDI), i.e., the 'Flying Geese' model (Hayter and Edgington, 2004) and chalking out a similar growth path through trade-investment liberalization was adopted. In addition, the service sector exports started experiencing high growth, and rich dividends from the overseas markets were projected.

Nevertheless, India's expectations of securing enhanced market access through multilateral WTO-led reforms on both merchandise and services trade remained relatively modest owing to deadlock of the WTO Doha Round negotiations, which is in progress from 2001 onwards (Chakraborty and Khan, 2008; Fergusson, 2011). To maintain the export potential India adopted two simultaneous strategies. First, it enhanced its participation levels at the multilateral negotiations by collaborating with like-minded countries in Asia, Africa and Latin America through groupings like G-20, G-33, NAMA-11 etc. (Chakraborty, 2014a). Second, the country entered into a number of regional trade agreements (RTAs) for export promotion, particularly after the failure of the Cancun Ministerial meeting of WTO in 2003 (Chakraborty and Sengupta, 2005). The importance of partnering with economies across continents both in terms of trade and investment integration was noted in the 'National Common Minimum Programme' announced in 2004 (Chakraborty, 2014). While India's 'regionalization' drive in the initial period focused on Asian partners owing to the 'Look East Policy' adopted in nineties, the economies located in the 'West' received the due importance in subsequent period. The country entered into the preferential trade agreement (PTA) with Chile and Mercosur in Latin America and negotiations for India-SACU PTA also began (Chaisse *et al.*, 2011). India has over the years emerged as, "Africa's fourth-largest trading partner behind the EU, China and the US, and a significant investor across the continent" (Baynton-Glen, 2012).

India has a rich history of trade integration with East Africa through Indian Ocean sea route and trade is likely to rise with these countries through systemic efforts on both sides. In particular, the five East African Community (EAC) countries, namely, Burundi, Kenya, Rwanda, Tanzania and Uganda, have the potential of emerging as the gateway of the continent's trade with India in future. Like India, EAC countries are involved in RTAs with other African partners through regional arrangements, namely – Common Market for Eastern and Southern Africa (COMESA), Southern Africa Development Community (SADC), Cross-Border Initiative (CBI), Economic Community of the Countries of the Great Lakes (CEPGL) etc. The group also receives a duty and quota-free access for its exports to the EU market. A similar access for the LDC African countries has been initiated by India through its Duty Free Tariff Preference (DFTPI-LDC) Scheme, which has come into operation since mid-2008. All the EAC countries barring the exception of Kenya are covered by this scheme (DoI, 2012).

While the EAC countries have featured as frontrunners among the African economies in terms of growth in the past, their current performance has been modest given the lower contribution of exports, lower degree of financial deepening, limited physical infrastructure etc. (McAuliffe *et al.*, 2012). It has been noted that the EAC stands to gain significantly by completing the trade and well

as infrastructure (railroads and ports, power and financial) integration within the bloc, which will enhance their welfare manifold (Collier, 2012). It is argued that the export potential and investment attractiveness of the region can be further improved through policy measures for enhancing the ‘ease of doing business’ (Ladegaard, 2012). India, with its growing market size and steady import demand, can serve as a stable market for the bloc and offer it the required growth impetus.

In this background, the current article intends to analyze the present and future trade potential between EAC and India. In particular, given the enhanced access offered to the EAC countries by the recent DFTP-LDC scheme, the analysis intends to observe whether the trade patterns are re-orienting themselves to facilitate the future flows. The paper is arranged along the following lines. The comparative analysis between EAC and India in terms of tariff obstacles are noted first, followed by the discussions on merchandise trade patterns and potentials by looking through various trade indices used in the literature. A similar exercise is followed for services trade as well. Finally on the basis of the analysis, a few policy suggestions are drawn.

Comparing Tariff Barriers in EAC and India

Table 1 in the following summarizes the average MFN applied tariff patterns in the EAC countries and compares the same with India at commodity group level. It is observed that barring the exceptions of dairy products, wood and paper products, textiles and clothing products, leather products and electrical machinery, the prevailing average tariff level in India is generally higher vis-à-vis its EAC counterparts. The prevailing high average MFN tariff, coupled with the recently extended DFTP scheme to the African LDC, provides a high preference margin for EAC exports in the Indian market. It has been noted that while the average export growth of Tanzania and Uganda in the Indian market has increased in the post-DFTP period, the same for Burundi and Rwanda has declined (Kallummal *et al.*, 2013). It can be argued that if the EAC countries can develop regional integrated production networks (IPNs) within their territories in line with domestic favourable conditions through improvements in doing business indicators and infrastructure achievements, then the benefits of the preferential margin, as extended by India, will be better exploited. In addition, the IPNs would provide scale advantages for the smaller economies like Burundi and Rwanda as well. On the other hand, the Indian products are likely to have a good opportunity in the EAC market, given their relatively lower tariff profile in several commodities of Indian interest, e.g., chemicals, machineries.

Table 1: Comparing the Average Tariff Pattern in EAC and India (2013)

Product Categories	Burundi	India	Kenya	Rwanda	Tanzania	Uganda
Animal products	23.1	33.1	23.1	23.1	23.1	23.1
Dairy products	43.3	33.5	43.3	43.3	43.3	43.3
Fruits, vegetables, plants	22.1	30.8	22.1	22.1	22.1	22.1
Coffee, tea	19.6	56.3	19.6	19.6	19.6	19.6
Cereals and preparations	21.9	31.3	21.7	21.1	23.5	23.5
Oilseed, fat and oils	11.3	37.4	11.3	11.3	11.3	11.6
Sugar and confectionary	34.3	35.9	33.7	30.1	34.3	30.1
Beverages and tobacco	25.3	69.1	25.3	25.3	25.3	25.3
Cotton	0.0	6.0	0.0	0.0	0.0	0.0
Fish and fish products	24.7	29.9	24.7	24.7	24.7	24.7

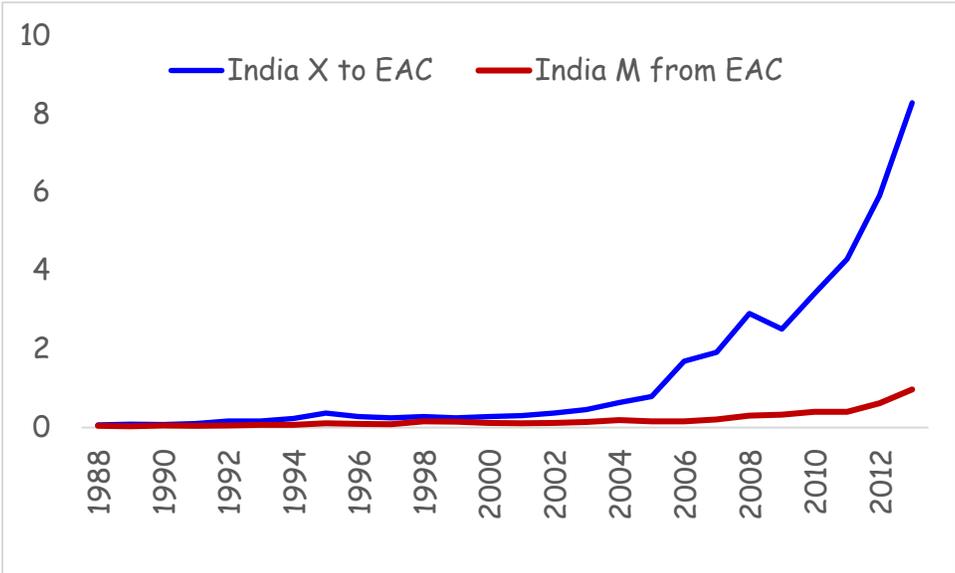
Chemicals	3.9	7.8	3.9	3.9	3.9	3.8
Wood, paper	16.0	9.0	14.7	16.0	16.0	16.0
Textiles	19.5	12.2	19.5	19.5	19.5	19.5
Clothing	25.2	13.0	25.2	25.2	25.2	25.2
Leather, footwear	12.7	10.2	12.7	12.7	12.7	12.7
Non-Electrical machinery	3.2	7.1	3.2	3.2	3.2	3.2
Electrical machinery	10.8	7.3	10.8	10.8	10.8	10.8
Transport equipment	6.0	21.7	6.2	6.0	6.2	6.0

Source: World Tariff Profiles (2014)

Overall Trend and Patterns of Merchandise Trade

It is observed from Figure 1 that EAC-India trade has increased considerably over the last two decades, although EAC exports to India has been much modest as compared to the corresponding import flows. In 1988, Indian exports to EAC stood at 0.06 billion, while the corresponding figure for EAC was around 0.04 billion. A sharp rise has been noted in Indian exports since 2006 onwards, when the exports to EAC increased to 1.69 billion from the figure of 0.79 billion in 2005. The upward trend continued in the subsequent period as well and in 2013, while Indian exports reached a figure of 8.29 billion, the EAC exports to India were only a fraction of it at 0.97 billion.

Figure 1: EAC-India Trade growth over 1988-2013 (US \$ Billion)

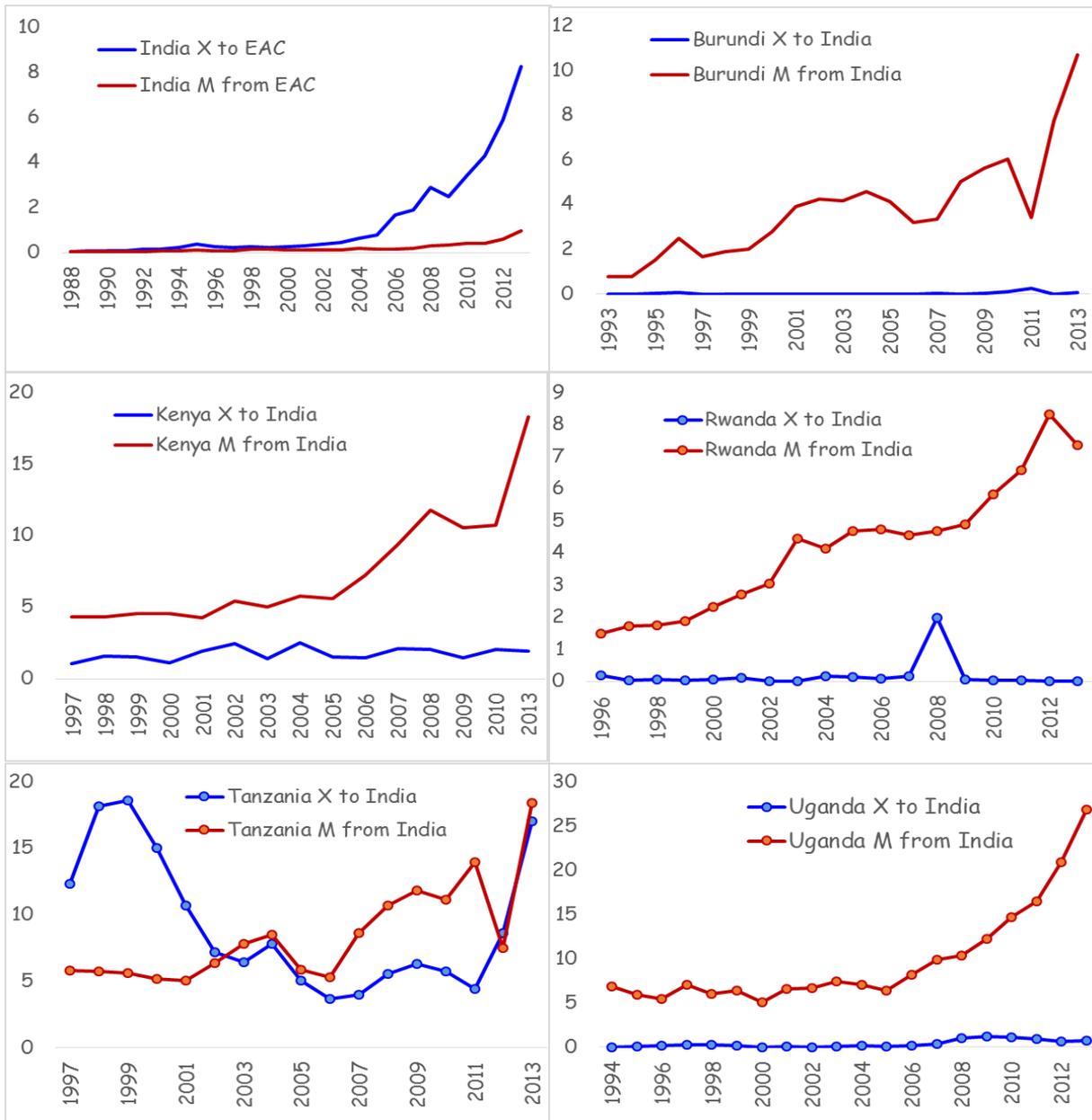


Source: Constructed from WITS data, World Bank (undated)

Six panels summarized in Figure 2 shows the importance of the EAC countries and India in each other's trade basket. The presence of EAC countries has increased considerably in India's export basket from 0.07 percent in 1988 to 8.29 percent in 2013, signifying its growing importance. On the other hand, imports from EAC countries as a whole has increased from 0.04 percent in 1988 to 0.16 percent in Indian import basket in 1998, and further to 0.30 percent in 2008. However an increasing trend in the post-DFTP period has been noted and the share has increased to 0.97 percent in 2013. An analysis of the individual EAC countries mirrors this trend. It is observed that

while for Burundi, Rwanda and Uganda exports to India accounts for less than 1 percent of their export basket, the corresponding figures for Kenya and Tanzania are 1.95 percent and 17.05 percent respectively. Conversely, only in Rwanda, imports from India accounts for less than 10 percent of their overall imports. The figure signifies the growing emergence of India as an exporter to EAC countries, while the exports from EAC to India has grown at a considerably slower rate.

Figure 2: Share of EAC and India in their respective Markets (% of total trade)



Source: Constructed from WITS data, World Bank (undated)

The huge trade surplus presently being enjoyed by India vis-à-vis EAC can be partly explained by the difference in the bilateral trade pattern on the basis of value-addition. EAC-India bilateral

trade data is obtained from WITS database on the basis of the pre-defined stage of processing categories, namely - raw materials, intermediate goods, consumer goods and capital goods for 2000 and 2013. While drawing data, India has been considered as reporter country for obtaining a long time series information. The current trade pattern in 2013 has been benchmarked with 2000, as EAC imports from India have shown an increasing trend from that period. Moreover, India's trade with the EAC has been presented in light of the country's trade pattern with the world as well, so as to identify whether there is any structural difference. To avoid the size differences, the results are presented in percentized format. The observations are the following. First, India's proportional exports of raw materials and intermediate goods to the EAC countries is distinctly lesser vis-à-vis the corresponding figure with rest of the world. Second, India's proportional exports of consumer goods to the EAC countries is considerably higher vis-à-vis the corresponding world figure, barring the exception of Uganda. Third, India's proportional exports of capital goods to the EAC countries is higher vis-à-vis the corresponding world figure, barring the exception of Kenya and Tanzania. The results emerges from the fact that processed petroleum product (HS 27) exports from India to EAC has considerably increased over the last decade. Conversely, Indian imports are mostly consisting of raw materials and intermediate products. The value addition difference also broadly accounts for the widening EAC-India trade balance in favour of the latter.

Table 2: Comparing India's Bilateral Trade Pattern with EAC and the World (2013)

Indian Export basket (%)								
	A	B	C	D	A	B	C	D
	2000				2013			
World	9.79	43.13	40.65	6.43	9.82	31.76	46.71	11.72
Burundi	0.26	37.31	49.67	12.76	0.20	24.97	56.15	18.68
Kenya	1.72	44.12	36.13	18.03	0.41	15.84	72.53	11.22
Rwanda	0.17	38.24	47.53	14.06	0.16	17.25	54.92	27.67
Tanzania	0.95	51.29	35.80	11.97	0.13	8.96	84.10	6.81
Uganda	1.47	32.02	51.07	15.44	0.20	26.07	42.72	31.01
Indian Import basket (%)								
	A	B	C	D	A	B	C	D
	2000				2013			
World	46.95	26.58	10.92	15.55	44.75	29.37	9.60	16.28
Burundi	27.57	72.43	0.00	0.00	0.00	90.80	9.20	0.00
Kenya	50.09	47.33	2.28	0.30	20.43	67.27	11.45	0.86
Rwanda*	41.64	58.36	0.00	0.00	8.84	27.17	63.99	0.00
Tanzania	82.14	16.83	0.46	0.57	23.69	74.21	2.09	0.01
Uganda	87.51	1.24	11.25	0.00	81.41	16.67	1.87	0.05

Source: Computed from WITS data, World Bank (undated)

A -Raw materials B - Intermediate goods C - Consumer goods D - Capital goods

* - the import figures for Rwanda in 2000 are replaced by the corresponding 2005 figures

Analyzing Merchandise Trade Potential with Trade Indices

To understand the EAC-India trade potential, there is a need to first analyze the level of diversification in the trade baskets of the two sides. The *Herfindhal Concentration Index* (H) is used extensively in trade literature to understand the diversification / concentration in a country's trade pattern with respect to its partners. The 'H' index for the exports can be calculated by the following formula:

$$H = \sqrt{\sum_i \left[\frac{x_i}{X}\right]^2}$$

where x_i indicates the export of commodities at HS 2-digit level in a country's trade basket and X represents total exports in a particular year. Similarly, the index for imports can be calculated by considering the values of m_i and M respectively. Higher value of H indicates concentration of limited products in a country's trade basket in value terms and vice versa. It is expected that after formation of any trade preference arrangement the trade basket of the partner countries will be widely spread, i.e., H will register a decline. Therefore, the H index calculated in this manner with EAC-India export-import data enables one to understand the diversification patterns over 2000-13, especially since the introduction of DFTP scheme since 2008.

Table 3 indicates rising concentration of Indian exports to all the EAC member countries, and the same has declined for all countries barring the exception of Kenya and Tanzania over 2005-13. On the other hand, imports have shown a fluctuating trend, indicating less stability in the EAC exports to the Indian market in value terms. The high concentration for countries like Burundi who are exporting intermediate products to India, partially explains the trade deficits as well. Interestingly, concentration has declined in Burundi, Rwanda and Uganda over 2010 to 2013, reflecting export diversification after introduction of the DFTP scheme. The findings suggest that there is considerable scope for both EAC countries and India to diversify their export basket to each other's market.

Table 3: Concentration Trends in EAC-India Trade Basket

Partner Countries	Indian Export				Indian Import			
	2000	2005	2010	2013	2000	2005	2010	2013
Burundi	0.29	0.72	0.58	0.40	0.78	1.00	0.96	0.91
Kenya	0.23	0.33	0.51	0.61	0.37	0.38	0.40	0.43
Rwanda	0.33	0.57	0.51	0.34		0.68	0.87	0.69
Tanzania	0.27	0.26	0.50	0.74	0.76	0.50	0.56	0.58
Uganda	0.33	0.35	0.40	0.34	0.57	0.54	0.65	0.45

Source: Computed from WITS data, World Bank (undated)

The analysis next computes the *Export Similarity Index* (ESI) between EAC countries and India, which is done by the following formula:

$$ESI_{jk} = \sum_i \min \left(\frac{\sum_w x_{ij}}{\sum_w X_{ij}}, \frac{\sum_w x_{ik}}{\sum_w X_{jk}} \right) \times 100$$

where, x_{ij} and x_{ik} show exports of i -th product group at HS 2-digit level for countries j and k respectively, and X_{ij} and X_{ik} represent the total exports of countries j and k to rest of the world in that order. High values of ESI indicates that the export basket of two countries j and k are too similar, which may give rise to a perception of competition between them. A moderate ESI however may present the possibility of collaboration between the countries involved, as firms within the same industries may join hands with each other to form IPNs.

Table 4 shows the ESI patterns of India with the five EAC countries for 2000, 2005, 2010 and 2013. It is observed that while the bilateral annual ESI has declined consistently for Kenya and Uganda, the same have fluctuated for the other three EAC countries. The modest ESI can be explained by the increasing change in Indian export structure towards the capital and processed value-added goods. It can be noted that while the modest ESI does not make EAC and India outright competitors, the possibility of collaborating in various fields do exist.

Table 4: Comparing Export Similarity Index between EAC and India

Partner Countries	2000	2005	2010	2013
Burundi	-	24.45	26.29	21.96
Kenya	43.80	42.91	37.56	34.29
Rwanda	-	10.05	14.60	14.41
Tanzania	40.14	37.23	42.61	40.28
Uganda	33.03	33.52	23.37	22.81

Source: Computed from WITS data, World Bank (undated)

The high concentrations noted in Table 3 cast a shadow over the extent of ‘deepening’ of EAC-India merchandise trade pattern and calls for further exploration. Table 5 summarizes the bilateral *Trade Complementarity Index* (TCI) between India and EAC countries, higher values of which over time indicate increasing similarities between export basket of a country and import basket of its trade partner. The TCI is calculated by using the following formula:

$$TCI_{ij} = 100 - \frac{(\sum |M_{jk} - X_{ik}|)}{2}$$

where X_{ik} is share of commodity k in country i 's total exports, and M_{jk} is share of commodity k in country j 's total imports at HS 2-digit level.

It is observed from Table 5 that India's export complementarity with imports of EAC partners generally displays an increasing trend over 2000 to 2013. Only in case of Rwanda the index has shown a decline, but a highly concentrated and instable trade basket of the country can explain the scenario. The computed export complementarity indices are moderately high, explaining the rising trend in Indian exports to the EAC markets since 1999. On the other hand, import complementarity has showed a fluctuating trend, although the figure has increased for four countries over the period,

barring the exception of Uganda. The result indicates that the convergence of EAC-India trade pattern has occurred quite slowly. It also underlines the significance of the supporting measures like DFTP in the Indian market for expanding the access for EAC exports.

Table 5: Trade Complementarity Index between EAC and India

Partner Countries	India Export – Partner Import				India Import – Partner Export			
	2000	2005	2010	2013	2000	2005	2010	2013
Burundi		44.69	40.34	61.59		20.92	21.27	21.97
Kenya	36.5	48.62	56.07	62.53	24.57	39.02	28.66	24.79
Rwanda		49.58		45.55		3.95	8.67	9.83
Tanzania	37.27	48.01	54.04	58.71	26.91	25.72	39.19	34.40
Uganda	37.79	47.45	54.97	60.52	22.00	22.91	15.35	13.99

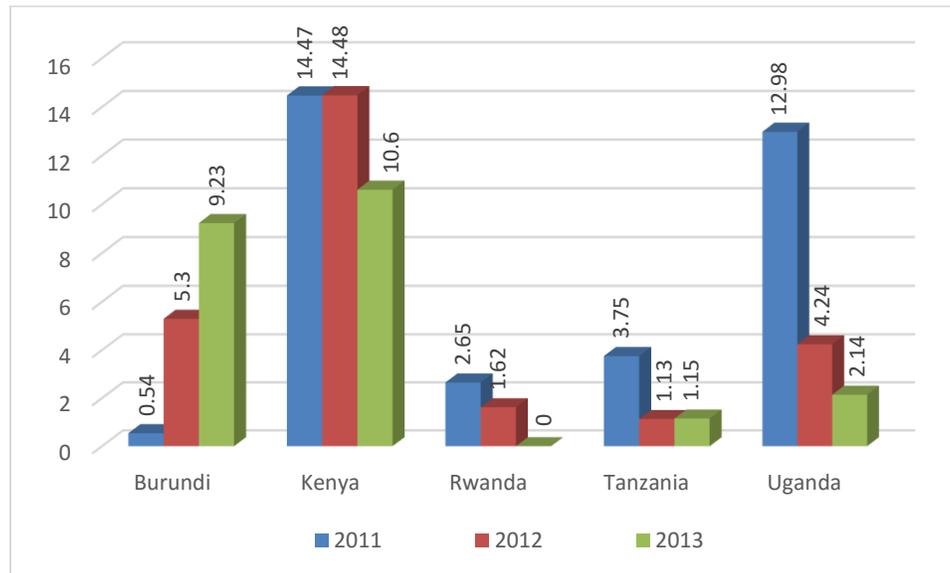
Source: Computed from WITS data, World Bank (undated)

The bilateral *Intra-Industry Trade* (IIT) index between India and EAC countries is computed next to understand the depth of their trade integration. The higher values of bilateral IIT indicate higher trade in intermediate products between the two countries at disaggregated level, which can be interpreted as deeper participation in IPNs. The IIT is measured by the Grubel-Lloyd Corrected (GLC) index here, which can be calculated by using the following formula:

$$GLC = \frac{\sum(X_i + M_i) - \sum |X_i - M_i|}{\sum(X_i + M_i) - |\sum X_i - \sum M_i|} \times 100$$

where, X_i and M_i represent the simultaneous export and import of the i -th product at HS 4-digit level respectively. A comparison of the IIT indices reveal that EAC-India trade in intermediate products (i.e., simultaneous export and imports) have not grown considerably over the last three years and maturity of IPNs through firm-level collaborations have not yet occurred. While 10.6 percent of India's trade with Kenya in 2013 can be explained by IIT, the corresponding figure for all other EAC countries lie below 10 percent. In other words, most of the EAC-India trade can be explained by Heckscher-Ohlin type specialization pattern.

Figure 3: India's Bilateral IIT with EAC countries



Source: Computed from Trade Map Data, ITC (undated)

The trade indices computed so far clearly indicates that despite a moderate trade potential as predicted by the TCI, the promises have not yet materialized. Two underlying reasons may be conjectured in this context. First, while the DFTP offers preferential tariff for EAC (LDC) exports, the Mutual Recognition Agreements (MRAs) involving the product standards are not yet fully formalized, thereby explaining slower trade growth for both sides. Second, given the growing competition for the Indian market (both by developed, developing and LDC exporters, who are recipients of DFTP scheme support), there is an urgent need to enhance the competitiveness of EAC exports, through realization of integration benefits through economic and infrastructural integration.

Analyzing Service Trade Potential with Trade Indices

In addition to trade in merchandise, the economic importance of EAC-India trade in services deserves special mention. Table 6 summarizes the global market presence of India and the EAC countries in the arena of services exports. India's overall global export market share in services is much higher as compared to EAC countries, thanks primarily to the exports of computer and information services and other business services (which covers miscellaneous business, professional and technical services such as legal, accounting, management consulting, public relations services, advertising and market research etc.). India at present prefers to enter into comprehensive trade agreements involving service trade and investment provisions (e.g. the existing ones involving Singapore, Malaysia, South Korea and Japan) with partner countries, for realizing the benefits of its services competitiveness. EAC countries on the other hand intend to open up services trade within the bloc, as reflected from the agreed upon resolutions (EAC, 2009a, 2009b, 2009c). It is expected that, in addition to merchandise trade, India may prefer to have a greater presence in EAC market in the sphere of services trade as well, and such a collaboration will be mutually beneficial.

Table 6: Global Export Market Presence of India and EAC Countries in Services Categories (2012)

Service Categories	India	Burundi	Kenya	Rwanda	Tanzania	Uganda
Transportation	1.98821	0.00030	0.24177	0.00669	0.07190	0.02112
Travel	1.64017	0.00013	0.08531	0.02572	0.14271	0.10363
Communications services	1.52659	0.00000	0.43666	0.01483	0.03629	0.02166
Construction services	0.88282	0.00323	0.00000	0.00043	0.00000	0.23419
Insurance services	2.18350	0.00185	0.07098	0.00097	0.03711	0.01870
Financial services	1.67641	0.00017	0.07093	0.00025	0.00359	0.00885
Computer and information services	18.63258	0.00000	0.00000	0.00001	0.00292	0.02241
Royalties and license fees	0.10972	0.00000	0.01096	0.00000	0.00000	0.00692
Other business services	4.14030	0.00008	0.00000	0.00002	0.02608	0.01701
Personal, cultural and recreational services	1.96350	0.00011	0.02320	0.00000	0.01206	0.02206
Government services, n.i.e.	0.66686	0.10333	1.32059	0.08927	0.04430	0.23670
Total services	3.28687	0.00209	0.10896	0.00957	0.05920	0.04711

Source: Computed from Trade Map Data, ITC (undated)

One limitation for conducting a detailed analysis on EAC's potential gains in the area of trade in services with India is the lack of availability of bilateral trade data. Hence, to understand the trade potential, the bilateral TCI indices has been calculated and summarized in Table 7. A comparison for the years 2009 and 2012 reveals that while for Burundi, Kenya and Uganda, India's export complementarity has increased, the same has declined for Rwanda and Tanzania. On the other hand, the import complementarity has declined only for Rwanda. The complementarity analysis clearly indicates growing synergies between India and EAC countries in trade in services both for exports and imports. It also indicates that the benefits of opening trade in services may not be one-sided.

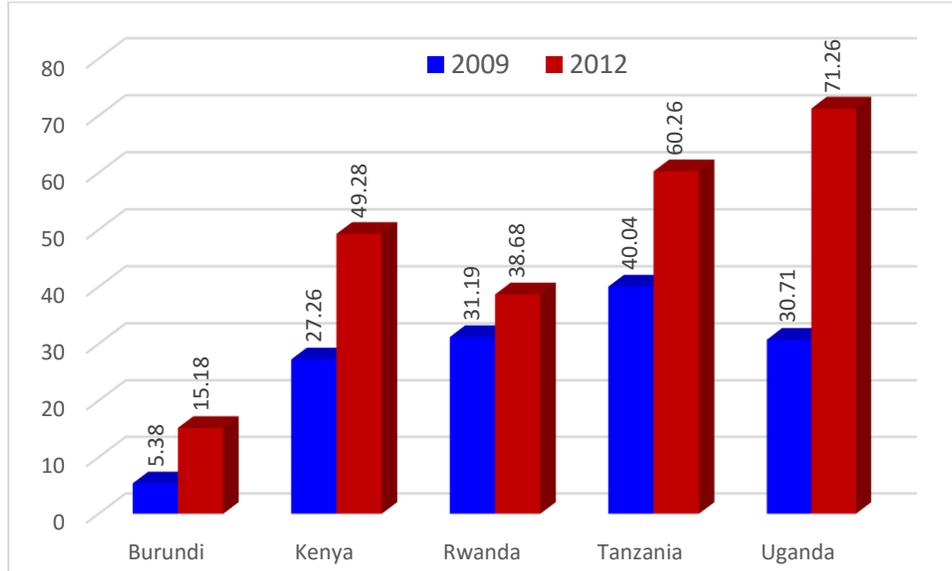
Table 7: India's Opportunity in Services - Trade Complementarity Indices

Country	Indian Export / Partner Import		Partner Export / Indian Import	
	2009	2012	2008	2011
Burundi	31.37	41.27	7.90	14.24
Kenya	43.44	47.61	54.90	62.89
Rwanda	31.20	29.46	36.12	27.28
Tanzania	40.31	36.75	47.70	50.74
Uganda	43.33	44.38	31.66	37.58

Source: Computed from Trade Map Data, ITC (undated)

The growing complementarity in services trade is accompanied by growing export basket similarity over 2009-12 as well, which can be observed from Figure 4. The service trade ESI has been particularly high for Kenya, Tanzania and Uganda. While the size difference does not make India and the EAC countries competitors in the sphere of trade in services, it indeed opens up possibilities for collaborations and value co-creation in various service categories.

Figure 4: India's Bilateral Service ESI with EAC countries



Source: Computed from Trade Map Data, ITC (undated)

In order to understand whether the increasing trade potential is also backed by sectoral export capabilities, the Revealed Comparative Advantage (RCA) index for each major service export categories is calculated for EAC countries and India and compared. The RCA index is computed by the following formula:

$$RCA_i = \frac{\sum A_{iX} / \sum A_X}{\sum W_{iX} / \sum W_X}$$

where,

RCA_i stands for RCA of the i-th service sector export from country A

$\sum A_{iX}$ stands for exports of i-th service sector from country A

$\sum A_X$ stands for summation of all service exports from country A

$\sum W_{iX}$ stands for exports of i-th service sector from the world

$\sum W_X$ stands for summation of all service exports from the world

A country is said to have a RCA in a product category, if the value of the index exceeds unity. Conversely, the country is said to be suffering from Revealed Comparative Disadvantage (RCDA), if the value of the index is less than unity.

The RCA results (rounded upto second decimal), comparing India with EAC countries for 2009 and 2012 have been summarized in Tables 8 and 9 respectively. India has an RCA value greater than unity for only two sectors, namely computer and information services and other business services. India's RCA index is particularly high for the former sector. It becomes evident that, service trade reforms would enable India to enhance its exports in these two categories. As there exist certain service trade barriers both in EAC countries and India (USTR, 2014), reforms in this category might turn out to be mutually beneficial.

Table 8: How Competitive are EAC and India in Services Trade? RCA Results for 2009

Service Sectors	Burundi	India	Kenya	Rwanda	Tanzania	Uganda
Transportation	0.06	0.61	1.94	0.77	0.93	0.19
Travel	0.12	0.49	0.97	1.96	2.54	2.64
Communications services	0.00	0.82	5.10	2.24	1.01	0.84
Construction services	0.00	0.30	0.00	0.62	0.00	0.00
Insurance services	0.26	0.61	0.18	0.07	0.41	0.64
Financial services	0.00	0.53	0.00	0.03	0.01	0.23
Computer and information services	0.00	6.70	0.00	0.00	0.02	0.68
Royalties and license fees	0.00	0.03	0.10	0.01	0.00	0.04
Other business services	0.00	1.16	0.00	0.13	0.48	0.21
Personal, cultural and recreational services	0.00	0.60	0.14	0.08	0.19	0.00
Government services, n.i.e.	51.14	0.24	12.97	13.71	1.73	8.92

Source: Computed by author from Trade Map Data, ITC (undated)

Table 9: How Competitive are EAC and India in Services Trade? RCA Results for 2012

Service Sectors	Burundi	India	Kenya	Rwanda	Tanzania	Uganda
Transportation	0.27	0.60	2.22	0.70	1.21	0.45
Travel	0.12	0.50	0.78	2.69	2.41	2.20
Communications services	0.00	0.46	4.01	1.55	0.61	0.46
Construction services	2.88	0.27	0.00	0.04	0.00	4.97
Insurance services	1.64	0.66	0.65	0.10	0.63	0.40
Financial services	0.15	0.51	0.65	0.03	0.06	0.19
Computer and information services	0.00	5.67	0.00	0.00	0.05	0.48
Royalties and license fees	0.00	0.03	0.10	0.00	0.00	0.15
Other business services	0.07	1.26	0.00	0.00	0.44	0.36
Personal, cultural and recreational services	0.10	0.60	0.21	0.00	0.20	0.47
Government services, n.i.e.	92.01	0.20	12.12	9.33	0.75	5.02

Source: Computed by author from Trade Map Data, ITC (undated)

Obstacles to Trade and the Possible Remedies

While the data analysis with trade statistics so far indicates that there exist considerable potential for enhancing EAC-India trade, the current level of lower trade growth can be explained by the presence of several factors. First and foremost, the major road block behind the poorer performance of the EAC countries in the arena of productive capacity creation is the lack of credit lines for mega projects in infra-structure and strategic establishments. The prevailing higher cost of capital borrowing at home (i.e., EAC) can be prohibitive, especially for capital-intensive and

manufacturing segments. On the other hand, the establishment of mega-projects through access to credit create strong backward and forward linkage effect in the economy and long-term export opportunities, by enabling many small and medium scale entrepreneurs (SME) to come up with ancillary and supporting industries. Enhancing access to trade and infrastructure finance would therefore greatly facilitate export flows from EAC to India, which will be further aided by the already operational DFTP scheme. In particular, the lack of collaborative banking sector and bilateral trade financing insurance from respective governments to protect the exporters is a non-starter in many industrial segments for the prospective players. For industry-to-industry tie ups in both the economies, trade insurance might play a major role. Trade finance insurances from government of respective countries in line with the similar offers from major EU countries could be considered as a replicable model.

Second, existence of multiple regulatory windows for documentation are currently working as a major obstacle to promotion of merchandise trade, as a result of which the traders are presently following a third country route (e.g., via Dubai) for reaching each other's market. There is a need to develop comprehensive single window solution for business houses of both countries for effecting simplified trade logistics solutions and documentation procedure, which will considerably lower cost of doing business and fuel the trade flows. Expanding the scope of the mutual recognition of standards would similarly contribute in this regard.

Thirdly, development of a comprehensive data centre for Indian manufacturers at the business cities of India for facilitating direct contact between EAC and India and vice-versa would play a crucial role in this regard. Such a centre would also enable the EAC players to benefit and understand the opportunities in the Indian market in a more constructive manner. The direct business-to-business contacts between the economies will help in building confidence and enable the countries to capitalize on the competitive advantage in each other's market.

Finally, since both EAC and India are endowed with diverse cultures and languages, developing multi-lingual e-portals can play a major role in diminishing the communication barriers between respective business entities.

Concluding Remarks

The analysis so far indicates that there exist considerable scope for expanding EAC-India trade in merchandise and services. Nevertheless, the actual trade in recent years has been below potential, especially from the perspective of EAC exports. The trade data suggests that since late nineties Indian export to EAC countries have increased considerably, while its imports are yet to take off. The DFTPI-LDC scheme initiated in 2008 has already contributed significantly in this regard and the existing trade imbalance may be corrected in long run through the following measures.

First, the DFTPI-LDC scheme has been an important step for expanding the access of African LDCs in the Indian market, subject to fulfillment of Rules of Origin and Operational Certification Procedures (GoI, 2012). Kallummal *et al.* (2013) have noted that, the DFTPI-LDC scheme offers significant export opportunities for beneficiary countries for products receiving preference, as they are growing at a pace faster than overall imports. There is need to expand the information

dissemination programmes enabling EAC exporters to get access to necessary formalities, so that the requirements can be easily fulfilled. Since the scheme also have option of providing technical assistance, as appropriate, this provides an opportunity for exporting value-added products to Indian market in long run. It also may facilitate development of intra-bloc IPNs in LDC EAC member countries, as regional exports could be facilitated by such developments. Moreover, arriving at a mutual recognition agreement (MRA), covering Sanitary and Phytosanitary Measures (SPS) / Technical Barriers to Trade (TBT) standards and other similar provisions, will be mutually beneficial for expanding exports. For instance, Non-tariff Barriers (NTBs) faced by Indian exporters in the African markets have been reported in the literature (Joshi *et al.*, 2012).

Second, while the EAC countries receive preferential access in Indian market through the DFTPI-LDC scheme, they still need to compete there with other LDCs located in Asia and Africa, whose exports are also subject to similar tariff preferences. Price competitiveness may not be in favour of EAC countries, and there is significant competition. This urgently calls for augmentation of EAC's competitiveness in general and in the Indian market in particular. The objective can be fulfilled by improving the doing business indicators and infrastructure level at home, especially by augmenting regional linkages, enhancing port efficiency etc. among other things.

Thirdly, the recent multilateral efforts to promote Indo-Africa trade can provide a strong opportunity for the East African countries, e.g., the International Trade Centre's (ITC) programme entitled, *Supporting India's Trade Preferences for Africa* (SITA) to remain operational over 2014 - 2020. The initiative, supported by United Kingdom's Department for International Development (DFID), is targeted for enhancing exports from five East African countries, namely - Ethiopia, Kenya, Rwanda, Tanzania and Uganda to India, "through investments and the transfer of skills" (ITC, 2014).

Fourthly, Indian investment in productive capacities in EAC countries is likely to offer rich dividends, as the positive repercussions will be realized in other bilateral exports as well. For instance, CII-WTO (2013) notes that, "Lack of adequate investments is a key reason for the under-utilisation of Africa's hydropower potential and other renewable and non-renewable energy sources. India has proven expertise in energy generation and can partner African countries build their energy infrastructure through manpower, technical and financial investments and engineering inputs". Similar areas of cooperation may pave the way for greater bilateral trade flows in long run.

Finally, India's investment integration with Africa in general and EAC in particular in terms of FDI outflows need to be improved further. FDI outflow from India to EAC has been on the rise over the last decade (Khan, 2012). There exist tremendous potential for strategic investments from India to the EAC countries (Joshi *et al.*, 2012). On a more specific note, Indian FDI to EAC in manufacturing sector can play a crucial role in encouraging technology transfer, thereby in turn also enhancing competitiveness of EAC firms and deepening IPNs with their Indian counterparts. Greater collaborations in services may cumulate the advantages further by providing crucial core services to EAC firms as well as access to trade finance. The recent initiatives like 'Focus Africa Program' will contribute significantly in this regard (Barka, 2011).

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