

Intra-BRICS Trade & Its Implications for India

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Abstract

The significance of international trade was highlighted by the leaders of the BRICS group of countries as they met for their Sixth Summit in Fortaleza, Brazil in July, 2014. The BRICS group, made up of Brazil, Russia, India, China and South Africa, came together calling for an Action Plan for advancing its work on trade and investment.

With a cumulative global trade of 20 per cent and generating more than 40 per cent of global economic growth, the BRICS countries, and India specifically as a prominent global leader in trade, are poised to strengthen their relationship through intra-BRICS trade.

This Discussion Paper, using a series of analytical tools, illustrates the trends in trade and competitiveness between the BRICS countries as well as its implications for India. Tellingly, the results indicate a complementarity in export and import products with low levels of competition, which can provide opportunities for enhanced intra-BRICS trade.

A greater openness between the BRICS countries has the potential to yield gains for all five of the member countries. Specifically for India, which showed a comparative advantage in certain products, it should re-orient its Focused Market and Focused Product initiatives in light of its ‘new trade policy’, which is expected to be announced in August 2014, to ensure greater and closer trade with its fellow BRICS members.

Introduction

In 2008, four emerging economies, viz. Brazil, Russia, China and India, came together to form the BRIC group of countries. In 2010, South Africa, another emerging economy, joined this group, which came to known as the BRICS group. Together they account for almost 18 per cent of the world's economy. They have approximately 3 billion people, a combined nominal gross domestic product of US\$ 16.039 trillion and an estimated US\$ 4 trillion in combined foreign reserves. All are members of the G20 group of countries.

In July 2014, the BRICS Leaders held their Sixth Summit in Fortaleza, Brazil. While they decided to form a New Development Bank, with an initial authorised capital of US\$ 100 billion to finance infrastructure and sustainable development projects and also created a Contingency Reserve Arrangement worth US\$ 100 billion, the Fortaleza Declaration underlined the importance of intra-BRICS trade and other areas of economic cooperation.

Article 20 of the Fortaleza Declaration states:

“We are committed to raise our economic cooperation to a qualitatively new level. To achieve this, we emphasize the importance of establishing a road map for intra-BRICS economic cooperation. In this regard, we welcome the proposals for a “BRICS Economic Cooperation Strategy” and a “Framework of BRICS Closer Economic Partnership”, which lay down steps to promote intra-BRICS economic, trade and investment cooperation. Based on the documents tabled and informed by the input of the BRICS Think Tanks Council (BTTC), we instruct our Sherpas to advance discussions with a view to submit their proposal for endorsement by the next BRICS Summit.”

Furthermore, as adopted in Fortaleza, the ‘Objective’ of BRICS Trade and Investment Facilitation Plan states: “Taking fully into account the economic diversities among BRICS members, especially the work done in trade and investment facilitation in respective economies, this Action Plan is to provide a menu of suggested actions for the BRICS members, with the aim of further advancing the work in the area of trade and investment facilitation.”

At the Fortaleza Summit, the Leaders of the BRICS group of countries and their trade ministers have rightly underlined the importance of ‘trade’ in taking forward the future agenda of their trade and economic cooperation. Together they account for almost 20 per cent of global trade and generating more than 40 per cent of global economic growth.

Therefore, given the growing importance of trade among the BRICS group of countries, and that India's new trade policy is expected to be announced in August 2014, this Discussion Paper analyses the trends in trade between six pairs of BRICS countries (Brazil, Russia, China and South Africa) and their implications for India. Other than trend analyses, Degrees of Similarity in Export Structures (Finger-Kreinin Index) and Relative Export Competitive Pressure Index (RECPi) are calculated to understand competitive strengths and weaknesses with direct competitors in respective markets. Revealed Comparative Advantage measures of the top ten products of Brazil, Russia, China and South Africa, and their comparison with those of India are also calculated to analyse trade similarities.

Impact of Intra-BRICS Trade on India

Brazil-Russia

In 2013, the total value of India's exports to Brazil was approximately US\$ 6.1 billion. In the same year, the value of exports from Russia to Brazil was approximately US\$ 2.0 billion, which was about one-third of India's exports to Brazil. As shown in Table 1.1, India and Russia were competing in three product segments (among their top 10 exports to Brazil), which are: mineral fuels, oils, distillation products; organic chemicals; and electrical, electronic equipment.

However, India is better positioned than Russia in these product categories. Annual growth rate of exports from India during 2009-2013 was higher than that of Russia. Furthermore, there are products like miscellaneous chemical products; manmade filaments; vehicles other than railway, tramway; machinery, nuclear reactors, boilers; pharmaceutical products; articles of apparel, accessories, not knit or crochet; and plastics and articles thereof where India is likely to remain a better competitor in the Brazilian market as compared to Russia.

Table 1.1: India and Russia's Export to Brazil (2013)

India's Export to Brazil (2013: US\$ 6.12bn)		Russia's Export to Brazil (2013: US\$ 1.98bn)		
Export Value in 2013 (US\$mn)	Average Growth (2009-13, %)	Sectors	Export Value in 2013 (US\$mn)	Average Growth (2009-13, %)
3009.5	52.0	Mineral fuels, oils, distillation products	166.2	40.0
356.7	20.0	Organic chemicals	6.6	9.0
355.3	43.0	Miscellaneous chemical products	...	...
295.5	35.0	Manmade filaments	...	...
243.0	49.0	Vehicles other than railway, tramway	...	...
221.7	24.0	Machinery, nuclear reactors, boilers	...	...
170.0	14.0	Pharmaceutical products	...	...
160.7	14.0	Electrical, electronic equipment	12.5	-19.0
157.3	53.0	Articles of apparel, accessories, not knit or crochet	...	...
127.7	46.0	Plastics and articles thereof	...	...
		Fertilizers	1541.0	24.0
		Iron and steel	116.3	-10.0
		Rubber and articles thereof	41.2	59.0
		Salt, sulphur, earth, stone, plaster, lime and cement	40.4	71.0
		Commodities not elsewhere specified	15.8	
		Cereal, flour, starch, milk preparations and products	13.3	907.0
		Inorganic chemicals, precious metal compound, isotopes	8.1	-3.0
5097.5 (83%)	Top 10 Products (percentage of total export)		1961.3 (99%)	

Source: International Trade Centre, Geneva

On the other hand, when we look at India's exports to Russia in 2013 it was valued at approximately US\$ 2.4 billion, whereas Brazil's export to Russia was approximately US\$ 2.8 billion. Though Brazil's export similarity and complementarity are low (see Table 1.3b), trade diversion in favour of Russia cannot be ruled out.

India is the 10th largest import destination for Brazil and the 23rd largest import destination for Russia. Products like pharmaceuticals; electrical, electronic equipment; machinery, nuclear reactors, boilers; iron and steel; and coffee, tea, mate and spices are major exports from India to Russia. If we compare the data in Table 1.2, India and Brazil compete with each other in certain product categories such as machinery, nuclear reactors, boilers; iron and steel; coffee, tea, mate and spices; tobacco and manufactured tobacco substitutes; and miscellaneous edible preparations.

Additionally, if we look at export growth trends of these products during 2009 to 2013, it indicates that in most of these items India is relatively better positioned. It was also observed that in the case of products like pharmaceuticals; electrical, electronic equipment; vehicles other than railway, tramway; lac, gums, resins, vegetable saps and extracts; plastics and articles thereof, India has an edge over Brazil.

Table 1.2: India and Brazil's Export to Russia (2013)

India's Export to Russia (2013: US\$ 2.42bn)		Brazil's Export to Russia (2013: US\$ 2.85bn)		
Export Value in 2013 (US\$mn)	Average Growth (2009-13, %)	Sectors	Export Value in 2013 (US\$mn)	Average Growth (2009-13, %)
626.1	25.0	Pharmaceutical products	...	...
209.8	60.0	Electrical, electronic equipment	...	...
150.9	38.0	Machinery, nuclear reactors, boilers	72.1	49.0
132.4	66.0	Iron and steel	42.2	28.0
130.5	8.0	Coffee, tea, mate and spices	60.1	11.0
82.5	21.0	Vehicles other than railway, tramway	...	...
61.6	72.0	Lac, gums, resins, vegetable saps and extracts	...	...
50.8	24.0	Plastics and articles thereof	...	...
48.4	0.0	Tobacco and manufactured tobacco substitutes	164.7	14.0
47.9	2.0	Miscellaneous edible preparations	87.8	11.0
		Meat and edible meat offal	1764.4	0.0
		Sugars and sugar confectionery	593.9	-14.0
		Footwear, gaiters and the like, parts thereof	31.5	13.0
		Products of animal origin	17.2	-17.0
		Inorganic chemicals, precious metal compound, isotopes	15.2	117.0
1504.8 (64%)	Top 10 Products (percentage of total export)		2849.0 (96%)	

Source: International Trade Centre, Geneva

Given this composition of trade between India-Brazil-Russia, a quick simulation using Degrees of Similarity in Export Structures (Finger-Kreinin Index) and Relative Export Competitive Pressure Index can give an indication of competitive strengths and weaknesses with direct competitors in respective markets.

The Finger-Kreinin Index (FKI) measures how similar two sets of numbers are. It is used to compare the similarity between either the structure of a country's imports or exports with any two partner countries so as to see how similar a country's export pattern is to its import pattern, whether geographically or by product; or to compare the structure of production in two different countries. It explains how similar the import of a given product is from two different suppliers. It is useful to measure overall similarity of export of two countries and, therefore, their degree of competitiveness/complementarity either with respect to a particular market or with respect to trade with the rest of the world. If $FK=1$ then export structures would be exactly similar and if $FK=0$ there would be no similarity.

The Relative Export Competitive Pressure Index calculates the average degree of competition that country X faces in country Y's market from country Z. It takes into account both the structure and level of competing countries' trade. Country X will be interested in the value of country Z's exports to country Y, and also to the extent to which country Z's exports are in direct competition with country X's exports. A low RECPI explains less competition between the competitors.

The FKI in Table 1.3A varies between 0.00 and 0.04 and shows no tendency to increase over time, indicating little, if any, similarity of exports of India and Russia to Brazil. This means that at the aggregate level India and Russia were not competing in the Brazilian market to any significant extent. Also, the level of competition between India and Brazil in Russia's market was low and decreasing (Table 1.3B).

Similarly to the Finger-Kreinin Index results between India, Russia, and Brazil, Table 1.3C shows that during 2009-2013 the RECPI of India and Russia with Brazil were very low, indicating that the degree of competition between India and Russia in the Brazilian market was substantially low. The same was true for India and Brazil in Russia's market (Table 1.3D).

Table 1.3: FKI and RECPI among India-Brazil-Russia (2009-13)											
A. India and Russia's FKI with Brazil						B. India and Brazil's FKI with Russia					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
Brazil	0.01	0.02	0.03	0.02	0.04	Russia	0.07	0.05	0.05	0.08	0.05
C. India and Russia's RECPI with Brazil						D. India and Brazil's RECPI with Russia					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
Brazil	0.00	0.00	0.00	0.00	0.02	Russia	0.15	0.08	0.07	0.10	0.03

Source: CUTS calculation using data from UN Comtrade via WITS 6-Digit and TradeSift software

Furthermore, as shown in Table 1.4, India, Brazil and Russia's trade complementarity was low, indicating little similarity, if any. 'Revealed Comparative Advantage' measures how much a country is exporting a given product relative to its total trade, in comparison to the share of that product in world trade. Country X is said to have a 'Revealed Comparative Advantage' in a particular product when the share of that product in its export is larger than the share of that product in world export.

A comparative analysis of the top 10 products in which they enjoyed Revealed Comparative Advantage in 2013 illustrates that there exist low competition among the three countries. This means each country is specialised in different product categories and their level of export similarity with each other as well as with the rest of the world is low.

Table 1.4: RCA of Top Ten Products of Brazil, Russia and India (2013)

Brazil	Russia	India
Arms and ammunition, parts and accessories (17.64)	Commodities not elsewhere specified (8.16)	Lac, gums, resins, vegetable saps and extracts (17.75)
Ships, boats and other floating structures (17.19)	Fertilizers (4.64)	Cotton (8.89)
Salt, sulphur, earth, stone, plaster, lime and cement (10.46)	Nickel and articles (4.57)	Carpets and other textile floor coverings (5.90)
Oil seed, oleaginous fruits, grain, seed, fruit (9.01)	Mineral fuels, oils, distillation products (3.37)	Cereals (5.12)
Raw hides and skins (other than fur skin) and leather (8.53)	Wood and articles of wood, wood charcoal (1.90)	Vegetable textile fibres, paper yarn, woven fabric (4.43)
Mineral fuels, oils, distillation products (8.29)	Iron and steel (1.75)	Vegetable plaiting materials, vegetable products (4.27)
Beverages, spirits and vinegar (6.57)	Other base metals, cement articles (1.56)	Other made textile articles, sets, worn clothing (4.09)
Tin and articles thereof (5.90)	Aluminium and articles (1.48)	Pearls, precious stones, metals, coins (3.93)
Edible fruit, nuts, peel of citrus fruit, melons (5.81)	Inorganic chemicals, precious metal compound, isotopes (1.42)	Coffee, tea, mate and spices (3.57)
Coffee, tea, mate and spices (4.58)	Cereals (1.34)	Manmade filaments (3.02)

Note: Figures in the parentheses are RCA indices.

Source: CUTS calculation using data from International Trade Centre, Geneva

Brazil-China

As stated above, in 2013 the total value of India's exports to Brazil was approximately US\$ 6.1 billion. In the same year, the value of total exports from China to Brazil was approximately US\$ 36.2 billion, about six times of India's exports to Brazil. India and China were competing in five product categories (among their top 10 exports to Brazil), which are: organic chemicals; vehicles other than railway, tramway; machinery, nuclear reactors, boilers; electrical, electronic equipment; and plastics and articles thereof.

However, in some of these competing product categories the annual growth rate of export of India during 2009-2013 was more than that of China. There are products like mineral fuels, oils, distillation products; and pharmaceuticals where India is likely to be a leading player in the Brazilian market as compared to China.

Table 2.1: India and China's Export to Brazil (2013)					
India's Export to Brazil (2013: US\$ 6.12bn)			China's Export to Brazil (2013: US\$ 36.20bn)		
<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	<i>Sectors</i>	<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	
3009.5	52.0	Mineral fuels, oils, distillation products	...	...
356.7	20.0	Organic chemicals	1901.7	21.0	
355.3	43.0	Miscellaneous chemical products	...	...
295.5	35.0	Manmade filaments	...	...
243.0	49.0	Vehicles other than railway, tramway	1141.4	24.0	
221.7	24.0	Machinery, nuclear reactors, boilers	6531.2	22.0	
170.0	14.0	Pharmaceutical products	...	...
160.7	14.0	Electrical, electronic equipment	8358.9	20.0	
157.3	53.0	Articles of apparel, accessories, not knit or crochet	...	...
127.7	46.0	Plastics and articles thereof	1022.1	42.0	
		Optical, photo, technical, medical apparatus	2024.3	12.0	
		Iron and steel	1061.4	23.0	
		Articles of iron or steel	1055.7	31.0	
		Ships, boats and other floating structures	923.8	42.0	
		Furniture, lighting, signs, prefabricated buildings	899.4	67.0	
5097.5 (83%)	Top 10 Products (percentage of total export)			24920.2 (69%)	
<i>Source: International Trade Centre, Geneva</i>					

At the same time, when we look at exports from India to China, in 2013 it was valued at approximately US\$ 16.42 billion, whereas Brazil's export to China was approximately US\$ 46.03 billion. Though Brazil's export similarity and complementarity were moderate, trade diversion in favour of Brazil cannot be ruled out. Also, there exists some competition between India and Brazil in China's market.

India is the 10th largest import destination for Brazil and the 27th largest import destination for China. Products like cotton; copper and articles; ores, slag and ash; and organic chemicals are major exports from India to China. If we compare the data in Table 2.2, India and Brazil largely compete with each other in certain products, especially in copper and articles thereof; ores, slag and ash; mineral fuels, oils, distillation products; and iron and steel.

Additionally, if we look at export growth of these products during 2009 to 2013, it indicates that in some of these items, India was relatively better positioned. It was also observed that for products like cotton; organic chemicals; salt, sulphur, earth, stone, plaster, lime and cement; plastics and articles thereof; machinery, and nuclear reactors, boilers, India has an edge over Brazil.

Table 2.2: India and Brazil's Export to China (2013)					
India's Export to China (2013: US\$ 16.42bn)			Brazil's Export to China (2013: US\$ 46.03bn)		
Export Value in 2013 (US\$mn)	Average Growth (2009-13, %)	Sectors	Export Value in 2013 (US\$mn)	Average Growth (2009-13, %)	
4843.1	59.0	Cotton	...	...
1959.0	30.0	Copper and articles thereof	616.2	16.0	
1742.6	-25.0	Ores, slag and ash	16394.3	19.0	
1046.0	22.0	Organic chemicals	...	...
739.7	67.0	Mineral fuels, oils, distillation products	27.0	22.6	
708.5	30.0	Salt, sulphur, earth, stone, plaster, lime and cement	...	...
687.6	34.0	Plastics and articles thereof	...	...
508.2	12.0	Machinery, nuclear reactors, boilers	...	...
373.0	-10.0	Iron and steel	597.1	-9.0	
345.8	22.0	Animal, vegetable fats and oils, cleavage products	...	...
		Oil seed, oleaginous fruits, grain, seed, fruit	17146.1	28.0	
		Pulp of wood, fibrous cellulosic material, waste	1582.2	9.0	
		Sugars and sugar confectionery	1432.6	96.0	
		Raw hides and skins (other than fur skin) and leather	643.4	23.0	
		Animal, vegetable fats and oils, cleavage products	624.5	10.0	
		Tobacco and manufactured tobacco substitutes	453.9	8.0	
12953.5 (79%)	Top 10 Products (percentage of total export)		43525.3 (95%)		

Source: International Trade Centre, Geneva

As shown in Table 2.3, there was less (and decreasing in the case of India and Brazil in China's market) similarity of exports of India to Brazil and China. The FKI in Table 2.3A varied between 0.13 and 0.14 and showed no tendency to increase over time. This means at the aggregate level India and China were not competing in the Brazilian market to any significant extent. And the level of competition between India and Brazil in China's market was moderate and receding (see Table 2.3B).

Furthermore, India-China and India-Brazil's RECPI with Brazil and China, respectively, indicate that export competitiveness was low or moderate and the degree of competition between India and China in the Brazilian market is substantially low, but the same is not true for India and Brazil in China's market.

Table 2.3: FKI and RECPI among India-Brazil-China (2009-2013)											
A. India and China's FKI with Brazil						B. India and Brazil's FKI with China					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
Brazil	0.13	0.14	0.13	0.12	0.14	China	0.37	0.36	0.27	0.19	0.12
C. India and China's RECPI with Brazil						D. India and Brazil's RECPI with China					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
Brazil	0.05	0.04	0.03	0.01	0.02	China	1.37	1.42	2.76	1.86	1.22

Source: CUTS calculation using data from UN Comtrade via WITS 6-Digit and TradeSift software

In respect to Revealed Comparative Advantage, as shown in Table 2.4 India, Brazil and China's trade complementarity was low to moderate, indicating little similarity, if any. A comparative analysis of the top 10 products in which India, Brazil, and China enjoy Revealed Comparative Advantage illustrates that there exists low competition between India and China. Thus, they are specialised in different product categories and their level of export similarity with each other as well as with the rest of the world is low. However, there is some competition between India and Brazil.

Table 2.4: RCA of Top Ten Products of Brazil, China and India (2013)		
Brazil	China	India
Arms and ammunition, parts and accessories (17.64)	Umbrellas, walking-sticks, seat-sticks, whips (6.67)	Lac, gums, resins, vegetable saps and extracts (17.75)
Ships, boats and other floating structures (17.19)	Bird skin, feathers, artificial flowers, human hair (6.32)	Cotton (8.89)
Salt, sulphur, earth, stone, plaster, lime and cement (10.46)	Manufactures of plaiting material, basketwork (5.69)	Carpets and other textile floor coverings (5.90)
Oil seed, oleaginous fruits, grain, seed, fruit (9.01)	Silk (4.38)	Cereals (5.12)
Raw hides and skins (other than fur skin) and leather (8.53)	Headgear and parts (4.29)	Vegetable textile fibres, paper yarn, woven fabric (4.43)
Mineral fuels, oils, distillation products (8.29)	Articles of leather, animal gut, harness, travel goods (3.62)	Vegetable plaiting materials, vegetable products (4.27)
Beverages, spirits and vinegar (6.57)	Toys, games, sports requisites (3.60)	Other made textile articles, sets, worn clothing (4.09)
Tin and articles thereof (5.90)	Other made textile articles, sets, worn clothing (3.54)	Pearls, precious stones, metals, coins (3.93)
Edible fruit, nuts, peel of citrus fruit, melons (5.81)	Articles of apparel, accessories, knit or crochet (3.52)	Coffee, tea, mate and spices (3.57)
Coffee, tea, mate and spices (4.58)	Knitted or crocheted fabric (3.45)	Manmade filaments (3.02)

Note: Figures in the parentheses are RCA indices.
Source: CUTS calculation using data from International Trade Centre, Geneva

Brazil-South Africa

As shown in Table 3.1, India and South Africa were not significantly competing in Brazil's market. In 2013, the total value of India's exports to Brazil was approximately US\$ 6.1 billion. In the same year, the value of export from South Africa to Brazil was US\$ 657 million.

India and South Africa were competing in three product categories (in their top 10 exports), which are: mineral fuels, oils, distillation products; miscellaneous chemical products; and machinery, nuclear reactors, boilers. India is better positioned than South Africa in these product categories. In most of these competing product segments the annual export growth of India during 2009-2013 was higher than that of South Africa. Furthermore, there are products like organic chemicals; manmade filaments; vehicles other than railway, tramway; and pharmaceuticals where India is likely to remain a leading player.

Table 3.1: India and South Africa's Export to Brazil (2013)					
India's Export to Brazil (2013: US\$ 6.12bn)			South Africa's Export to Brazil (2013: US\$ 0.66bn)		
<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	<i>Sectors</i>	<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	
3009.5	52.0	Mineral fuels, oils, distillation products	76.5	12.0	
356.7	20.0	Organic chemicals	...	...
355.3	43.0	Miscellaneous chemical products	101.6	69.0	
295.5	35.0	Manmade filaments	...	...
243.0	49.0	Vehicles other than railway, tramway	...	...
221.7	24.0	Machinery, nuclear reactors, boilers	31.6	-21.0	
170.0	14.0	Pharmaceutical products	...	...
160.7	14.0	Electrical, electronic equipment	...	...
157.3	53.0	Articles of apparel, accessories, not knit or crochet	...	...
127.7	46.0	Plastics and articles thereof	113.3	55.0	
		Plastics and articles thereof	113.3	55.0	
		Iron and steel	91.5	14.0	
		Organic chemicals	61.3	-3.0	
		Aluminium and articles thereof	47.7	29.0	
		Ores, slag and ash	18.4	19.0	
		Vehicles other than railway, tramway	17.2	40.0	
		Rubber and articles thereof	13.1	20.0	
5097.5 (83%)	Top 10 Products (percentage of total export)		572.4 (87%)		
<i>Source: International Trade Centre, Geneva</i>					

In 2013, export from India to South Africa was valued at approximately US\$ 5.7 billion, whereas Brazil's export to South Africa was approximately US\$ 1.84 billion, about one-third of India's exports to South Africa.

India is the 5th largest import destination for South Africa. Products like mineral fuels, oils, distillation products; vehicles other than railway, tramway; pharmaceuticals; electrical, electronic equipment; machinery, nuclear reactors, boilers; and cereals were major exports from India to South Africa. As shown in Table 3.2, India and Brazil largely compete with each other in five product categories, which are: vehicles other than railway, tramway; electrical, electronic equipment; machinery, nuclear reactors, boilers; cereals; and iron and steel. If we look at the export growth of these products during 2009 to 2013, it indicates that in most of these categories India was relatively better positioned.

In case of products like mineral fuels, oils, distillation products; pharmaceuticals; organic chemicals; plastics and articles thereof; and articles of iron or steel India has an edge over Brazil.

Table 3.2: India and Brazil's Export to South Africa (2013)				
India's Export to South Africa (2013: US\$ 5.74bn)		Brazil's Export to South Africa (2013: US\$ 1.84bn)		
<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	<i>Sectors</i>	<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>
2002.6	28.0	Mineral fuels, oils, distillation products	...	...
1067.4	39.0	Vehicles other than railway, tramway	374.1	2.0
510.3	56.0	Pharmaceutical products	...	...
287.7	25.0	Electrical, electronic equipment	79.6	5.0
209.8	14.0	Machinery, nuclear reactors, boilers	164.5	7.0
203.9	27.0	Cereals	65.9	22.0
170.1	142.0	Organic chemicals	...	...
118.7	29.0	Iron and steel	33.6	6.0
106.8	26.0	Plastics and articles thereof	...	...
101.9	25.0	Articles of iron or steel	...	...
		Pearls, precious stones, metals, coins	256.2	359
		Sugars and sugar confectionery	198.1	19
		Meat and edible meat offal	163.4	3
		Ores, slag and ash	52.5	47
		Aluminium and articles thereof	35.2	16
4779.1 (83%)		Top 10 Products (percentage of total export)	1423.2 (78%)	

Source: International Trade Centre, Geneva

During 2009-13, there was low similarity of exports of India and South Africa to Brazil and that of India to South Africa. The FKI in Table 3.3A varied between 0.06 and 0.08 and did not show any tendency to increase over time. This means at the aggregate level the level of export similarity between India and Brazil in South Africa's market was low without much change.

India-South Africa and India-Brazil's RECPI with Brazil and South Africa, respectively, indicated that export competitiveness was very low and stable for India and South Africa in the Brazilian and South Africa's market (Table 3.3C and D).

Table 3.3: FKI and RECPI among India-Brazil-South Africa (2009-13)											
A. India and South Africa's FKI with Brazil						B. India and Brazil's FKI with South Africa					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
Brazil	0.06	0.06	0.06	0.08	0.08	South Africa	0.10	0.09	0.10	0.11	0.07
C. India and South Africa's RECPI with Brazil						D. India and Brazil's RECPI with South Africa					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
Brazil	0.00	0.00	0.00	0.00	0.00	South Africa	0.02	0.01	0.01	0.01	0.00

Source: CUTS calculation using data from UN Comtrade via WITS 6-Digit and TradeSift software

Furthermore, as shown in Table 3.4, India, Brazil and South Africa's trade complementarity was low, indicating little similarity, if any. A comparative analysis of the top ten products on which they enjoyed Revealed Comparative Advantage illustrates that they were specialising in different product categories and the level of export similarity with each other as well as with the rest of the world was low.

Table 3.4: RCA of Top Ten Products of Brazil, India and South Africa (2013)		
Brazil	India	South Africa
Arms and ammunition, parts and accessories (17.64)	Lac, gums, resins, vegetable saps and extracts (17.75)	Ores, slag and ash (10.36)
Ships, boats and other floating structures (17.19)	Cotton (8.89)	Explosives, pyrotechnics, matches, pyrophorics (6.46)
Salt, sulphur, earth, stone, plaster, lime and cement (10.46)	Carpets and other textile floor coverings (5.90)	Pearls, precious stones, metals, coins (5.52)
Oil seed, oleaginous fruits, grain, seed, fruit (9.01)	Cereals (5.12)	Wool, animal hair, horsehair yarn and fabric thereof (5.38)
Raw hides and skins (other than fur skin) and leather (8.53)	Vegetable textile fibres, paper yarn, woven fabric (4.43)	Edible fruit, nuts, peel of citrus fruit, melons (5.14)
Mineral fuels, oils, distillation products (8.29)	Vegetable plaiting materials, vegetable products (4.27)	Nickel and articles thereof (3.16)
Beverages, spirits and vinegar (6.57)	Other made textile articles, sets, worn clothing (4.09)	Iron and steel (3.09)
Tin and articles thereof (5.90)	Pearls, precious stones, metals, coins (3.93)	Pulp of wood, fibrous cellulosic material, waste etc (2.87)
Edible fruit, nuts, peel of citrus fruit, melons (5.81)	Coffee, tea, mate and spices (3.57)	Milling products, malt, starches, inulin, wheat gluten (2.54)
Coffee, tea, mate and spices (4.58)	Manmade filaments (3.02)	Beverages, spirits and vinegar (2.44)

Note: Figures in the parentheses are RCA indices.

Source: CUTS calculation using data from International Trade Centre, Geneva

Russia-China

In 2013, the total value of India's exports to Russia was approximately US\$ 2.4 billion. In the same year, the value of exports from China to Russia was approximately US\$ 49.6 billion. As shown in Table 4.1, India and China were competing in four product categories (among their top 10 exports to Russia), which are: electrical, electronic equipment; machinery, nuclear reactors, boilers; vehicles other than railway; and plastics and articles thereof. As compared to India, China exported more to Russia in these four competing product categories.

While analysing the annual growth rate of export of India and China during the period of 2009-13, China was doing well in the case of electrical, electronic equipment; machinery, nuclear reactors, boilers, whereas India was performing better than China in two categories, namely vehicles other than railway; and plastics and articles thereof.

Table 4.1: India and China's Export to Russia (2013)				
India's Export to Russia (2013: US\$ 2.42bn)		China's Export to Russia (2013: US\$ 49.60bn)		
<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	<i>Sectors</i>	<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>
209.8	60	Electrical, electronic equipment	6821.1	25
150.9	38	Machinery, nuclear reactors, boilers	8038.2	33
82.5	21	Vehicles other than railway, tramway	2644.6	65
50.8	24	Plastics and articles thereof	1552.6	25
626.1	25	Pharmaceutical products	...	...
132.4	66	Iron and steel	...	...
130.5	8	Coffee, tea, mate and spices	...	...
61.5	72	Lac, gums, resins, vegetable saps and extracts	...	...
48.4	0	Tobacco and manufactured tobacco substitutes	...	...
47.8	2	Miscellaneous edible preparations	...	...
		Articles of apparel, accessories, not knit or crochet	3386.7	24
		Articles of apparel, accessories, knit or crochet	3199.8	26
		Footwear, gaiters and the like, parts thereof	3131.5	20
		Fur skin and artificial fur, manufactures thereof	1907.9	43
		Articles of iron or steel	1630.4	23
		Other made textile articles, sets, worn clothing	1622.9	43
1540.8 (63.69%)	Top 10 Products (percentage of total export)		33935.9 (68.41%)	

Source: International Trade Centre, Geneva

In 2013, India's total export to China was approximately US\$ 16.4 billion. In the same year, Russia's total export to China was approximately US\$ 35.6 billion. There are five product categories, namely ores, slag and ash; organic chemicals; mineral fuels, oils, distillation products; plastics and articles thereof; and machinery, nuclear reactors, boilers on which India and Russia were competing in China's market.

Also comparing the annual growth rate of export of these products during the period of 2009-14, India was performing well in the case of organic chemicals; mineral fuels, oils, distillation products; plastics and articles thereof, whereas Russia was performing better in ores, slag and ash.

Table 4.2: India and Russia's Export to China (2013)					
India's Export to China (2013: US\$ 16.42bn)		Russia's Export to China (2013: US\$ 35.63bn)			
<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	<i>Sectors</i>	<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	
1742.7	-25	Ores, slag and ash	1826.7	32	
1045.9	22	Organic chemicals	546.4	1	
739.7	67	Mineral fuels, oils, distillation products	25178.5	39	
687.6	34	Plastics and articles thereof	306.6	-11	
508.1	12	Machinery, nuclear reactors, boilers	1140.9	12	
4843.0	59	Cotton	...	...
1959.0	30	Copper and articles thereof	...	...
708.5	30	Salt, sulphur, earth, stone, plaster, lime and cement	...	...
373.0	-10	Iron and steel	...	...
345.8	22	Animal, vegetable fats and oils, cleavage products	...	...
		Wood and articles of wood, wood charcoal	2231.1	2	
		Fish, crustaceans, molluscs, aquatic invertebrates	1015.9	9	
		Fertilizers	963.7	19	
		Pulp of wood, fibrous cellulosic material, waste	603.8	7	
		Commodities not elsewhere specified	500.2	-	
12953.5 (78.90%)		Top 10 Products (percentage of total export)	34313.9 (96.31%)		
<i>Source: International Trade Centre, Geneva</i>					

There was some similarity of export from India and China to Russia and that of India's to China. The FKI in Table 4.3A varied between 0.11 and 0.16 and there was no tendency to increase over time. This means at the aggregate level India and China's exports were similar to the Russian market. On the other hand, the level of export similarity between India and Russia in China's market was low and stable.

Alternatively, India-China and India-Russia's RECPI with Russia and China, respectively, indicate that export competitiveness was moderate to high for India and China in Russia's markets. However, India and Russia's competition was not as intense in China's market (see Table 4.3C and D).

Table 4.3: FKI and RECPI among India-China-Russia (2009-13)											
A. India and China's FKI with Russia						B. India and Russia's FKI with China					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
Russia	0.11	0.11	0.13	0.15	0.16	China	0.07	0.07	0.13	0.06	0.09
C. India and China's RECPI with Russia						D. India and Russia's RECPI with China					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
Russia	0.23	0.45	0.66	0.89	0.70	China	0.07	0.06	0.36	0.15	0.20

Source: CUTS calculation using data from UN Comtrade via WITS 6-Digit and TradeSift software

Furthermore, as shown in Table 4.4, India, China and Russia's trade complementarity was low, indicating little similarity, if any. A comparative analysis of the top ten products in which they enjoyed Revealed Comparative Advantage illustrates that there exist moderate competition between India and China. This means they were specialising in different product categories and the level of export similarity with each other as well as with the rest of the world was low.

Table 4.4: RCA of Top Ten Products of Russia, China and India (2013)		
Russia	China	India
Commodities not elsewhere specified (8.16)	Umbrellas, walking-sticks, seat-sticks, whips (6.67)	Lac, gums, resins, vegetable saps and extracts (17.75)
Fertilizers (4.64)	Bird skin, feathers, artificial flowers, human hair (6.32)	Cotton (8.89)
Nickel and articles thereof (4.57)	Manufactures of plaiting material, basketwork (5.69)	Carpets and other textile floor coverings (5.90)
Mineral fuels, oils, distillation products (3.35)	Silk (4.38)	Cereals (5.12)
Wood and articles of wood, wood charcoal (1.90)	Headgear and parts (4.29)	Vegetable textile fibres nes, paper yarn, woven fabric (4.34)
Iron and steel (1.75)	Articles of leather, animal gut, harness, travel goods (3.62)	Vegetable plaiting materials, vegetable products (4.27)
Other base metals, cement articles thereof (1.56)	Toys, games, sports requisites (3.60)	Other made textile articles, sets, worn clothing (4.09)
Aluminium and articles thereof (1.48)	Other made textile articles, sets, worn clothing (3.54)	Pearls, precious stones, metals, coins, (3.93)
Inorganic chemicals, precious metal compound, isotopes (1.42)	Articles of apparel, accessories, knit or crochet (3.52)	Coffee, tea, mate and spices (3.57)
Cereals (1.34)	Knitted or crocheted fabric (3.45)	Manmade filaments (3.02)

Note: Figures in the parentheses are RCA indices.

Source: CUTS calculation using data from International Trade Centre, Geneva

Russia-South Africa

In 2013, India's total export to South Africa was approximately US\$ 5.7 billion. In the same year, Russia's export to South Africa was approximately US\$ 300 million. Thus, India was much further ahead of Russia in exporting to South Africa's market.

There are three product categories in which India and Russia were competing in South Africa's market. They are: cereals; mineral fuels, oils, distillation products; and iron and steel. If we look at the export growth of these product categories during 2009 to 2013, it indicates that in most of these items India was relatively better positioned.

Table 5.1: India and Russia's Export to South Africa (2013)					
India's Export to South Africa (2013: US\$ 5.74bn)			Russia's Export to South Africa (2013: US\$ 0.29bn)		
<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	<i>Sectors</i>	<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	
203.9	142.0	Cereals	124.4	.....
2002.5	39.0	Mineral fuels, oils, distillation products	56.2	48	
118.8	118.7	Iron and steel	6.3	73	
170.1	29	Organic chemicals	...	...
510.2	25	Pharmaceutical products	...	...
106.8	25	Plastics and articles thereof	...	...
101.9	34	Articles of iron or steel	...	...
209.8	27	Machinery, nuclear reactors, boilers	...	...
287.7	14	Electrical, electronic equipment	...	...
1067.4	56	Vehicles other than railway, tramway	...	...
		Tobacco and manufactured tobacco substitutes	10.8		
		Fertilizers	39.5	124	
		Rubber and articles thereof	13.3	245	
		Printed books, newspapers, pictures	4.80	0	
		Aluminium and articles thereof	6.31	45	
		Tools, implements, cutlery of base metal	5.31	34	
		Optical, photo, technical, medical apparatus	6.35	105	
		Top 10 Products (percentage of total export)	273.5 (94.37%)		
<i>Source: International Trade Centre, Geneva</i>					

Likewise, in 2013 India's export to Russia was approximately US\$ 2.4 billion and that of South Africa's was approximately US\$ 400 million. There are four product categories in which India and South Africa were competing against each other in the Russian market. They are: iron ore; machinery, nuclear reactors, boilers; electrical, electronic equipment; and vehicles other than railway, tramway.

While comparing the annual growth of exports of key competing product categories, it was evident that in the case of iron ore; machinery, nuclear reactors, boilers; and electrical, and electronic equipment India's performance was better, whereas South Africa was better placed in vehicles other than railway, tramway.

Table 5.2: India and South Africa's Export to Russia (2013)				
India's Export to Russia (2013: US\$ 2.42bn)			South Africa's Export to Russia (2013: US\$ 0.40bn)	
<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>	<i>Sectors</i>	<i>Export Value in 2013 (US\$mn)</i>	<i>Average Growth (2009-13, %)</i>
132.4	66	Iron and steel	25.9	70
150.9	38	Machinery, nuclear reactors, boilers	27.3	9
209.8	60	Electrical, electronic equipment	16.4	11
82.4	21	Vehicles other than railway, tramway	73.9	220
130.5	8	Coffee, tea, mate and spices	...	...
61.6	72	Lac, gums, resins, vegetable saps and extracts	...	...
47.9	2	Miscellaneous edible preparations	...	...
48.3	0	Tobacco and manufactured tobacco substitutes	...	...
626.1	25	Pharmaceutical products	...	...
50.8	24	Plastics and articles thereof	...	...
		Edible fruit, nuts, peel of citrus fruit, melons	154.0	10
		Vegetable, fruit, nut, food preparations	12.9	20
		Beverages, spirits and vinegar	26.6	45
		Salt, sulphur, earth, stone, plaster, lime and cement	5.01	65
		Ores, slag and ash	42.9	27
		Aluminium and articles thereof	2.9	0
1540.8 (63.70%)	Top 10 Products (percentage of total export)		387.8 (96.15%)	

Source: International Trade Centre, Geneva

As shown in Table 5.3B, India and Russia's FKI with South Africa varied between 0.01 and 0.21, showing a tendency to increase over time. This means at the aggregate level India and Russia were moderately competing in South Africa's market. On the other hand, the level of competition between India and South Africa in Russia's market was low (Table 5.3A).

However, India-South Africa and India-Russia's RECPI with Russia and South Africa, respectively, indicated that their export competitiveness was very low and the same was true for India and South Africa in Russia's market (Table 5.3C and D).

Table 5.3: FKI and RECPI among India-Russia-South Africa (2009-13)						
A. India and South Africa's FKI with Russia					B. India and Russia's FKI with South Africa	
Partner	2009	2010	2011	2012	2013	
Russia	0.03	0.02	0.02	0.02	0.04	
C. India and South Africa's RECPI with Russia					D. India and Russia's RECPI with South Africa	
Partner	2009	2010	2011	2012	2013	
Russia	0.00	0.00	0.00	0.00	0.00	

Source: CUTS calculation using data from UN Comtrade via WITS 6-Digit and TradeSift software

Furthermore, as shown in Table 5.4, India, South Africa and Russia's trade complementarity was low, indicating little similarity, if any. A comparative analysis of the top ten products in which they enjoyed Revealed Comparative Advantage illustrates that there exist some competition between India and Russia.

Table 5.4: RCA of Top Ten Products of Russia, South Africa and India (2013)		
Russia	South Africa	India
Commodities not elsewhere specified (8.16)	Ores, slag and ash (10.36)	Lac, gums, resins, vegetable saps and extracts (17.75)
Fertilizers (4.64)	Explosives, pyrotechnics, matches, pyrophorics (6.46)	Cotton (8.89)
Nickel and articles thereof (4.57)	Pearls, precious stones, metals, coins (5.52)	Carpets and other textile floor coverings (5.90)
Mineral fuels, oils, distillation products (3.35)	Wool, animal hair, horsehair yarn and fabric thereof (5.38)	Cereals (5.12)
Wood and articles of wood, wood charcoal (1.90)	Edible fruit, nuts, peel of citrus fruit, melons (5.14)	Vegetable textile fibres, paper yarn, woven fabric (4.34)
Iron and steel (1.75)	Nickel and articles thereof (3.16)	Vegetable plaiting materials, vegetable products (4.27)
Other base metals, cement articles thereof (1.56)	Iron and steel (3.09)	Other made textile articles, sets, worn clothing (4.09)
Aluminium and articles thereof (1.48)	Pulp of wood, fibrous cellulosic material, waste (2.87)	Pearls, precious stones, metals, coins, (3.93)
Inorganic chemicals, precious metal compound, isotopes (1.42)	Milling products, malt, starches, inulin, wheat gluten (2.54)	Coffee, tea, mate and spices (3.57)
Cereals (1.34)	Beverages, spirits and vinegar (2.44)	Manmade filaments (3.02)

Note: Figures in the parentheses are RCA indices.

Source: CUTS calculation using data from International Trade Centre, Geneva

China-South Africa

In 2013, India's total export to China was approximately US\$ 16.4 billion. In the same year, South Africa's export to China was approximately US\$ 12 billion. Table 6.1 exhibits five product categories in which India and South Africa were competing against each other. They are: ores, slag and ash; iron and steel; copper and articles thereof; boilers; mineral fuels, oils, distillation products.

In regard to the annual growth of export of key competing product categories of India and South Africa in China's market, there are three product categories, namely machinery, nuclear reactors, boilers; mineral fuels, oils, distillation products; and copper and articles thereof where India was doing better. South Africa, on the other hand, was relatively well-positioned in ores, slag and ash; iron and steel; and machinery, nuclear reactors.

Table 6.1: India and South Africa's Export to China (2013)

India's Export to China (2013: US\$ 16.42bn)		South Africa's Export to China (2013: US\$ 12.06bn)		
Export Value in 2013 (US\$mn)	Average Growth (2009-13, %)	Sectors	Export Value in 2013 (US\$mn)	Average Growth (2009-13, %)
1742.6	-25	Ores, slag and ash	8022.8	21
373.	-10	Iron and steel	1094.2	0
1959.	30	Copper and articles thereof	238.1	18
508.1	12	Machinery, nuclear reactors, boilers	162.9	48
739.7	67	Mineral fuels, oils, distillation products	996.8	52
345.8	22	Animal, vegetable fats and oils, cleavage products	...	...
708.5	30	Salt, sulphur, earth, stone, plaster, lime and cement	...	...
1045.1	22	Organic chemicals	...	...
687.6	34	Plastics and articles thereof	...	...
4843	59	Cotton	...	...
		Pulp of wood, fibrous cellulosic material, waste	210	28
		Wool, animal hair, horsehair yarn and fabric thereof	212	20
		Pearls, precious stones, metals, coins	332.5	5
		Nickel and articles thereof	100.2	-1
		Vehicles other than railway, tramway	143	130
12953.5 (78.90%)		Top 10 Products (percentage of total exports)	11512.8 (95.47%)	

Source: International Trade Centre, Geneva

In 2013, India's export to South Africa was approximately US\$ 5 billion and that of China's was US\$ 16.8 billion. There are five product categories in which India and China were competing against each other in South Africa's market. They are: plastics and articles thereof; articles of iron and steel; machinery nuclear reactors, boilers; electrical, electronic equipment; and vehicles other than railway, tramway.

As per the annual growth of export of key competing product categories of India and China in South Africa's market, there are three product categories, namely articles of iron and steel; machinery, nuclear reactors, boilers; and vehicles other than railway, tramway in which India was doing relatively better. China was relatively well-positioned in plastics and articles thereof; and electrical, electronic equipment.

Table 6.2: India and China's Export to South Africa (2013)					
India's Export to South Africa (2013: US\$ 5.74bn)			China's Export to South Africa (2013: US\$ 16.83bn)		
<i>Export Value in 2013 (US\$mn)</i>	<i>Growth (2009-13, %)</i>	<i>Sectors</i>	<i>Export Value in 2013 (US\$mn)</i>	<i>Growth (2009-13, %)</i>	
106.8	25	Plastics and articles thereof	608.8	34	
101.9	34	Articles of iron or steel	621.4	30	
209.8	27	Machinery, nuclear reactors, boilers	2459.9	21	
287.7	14	Electrical, electronic equipment	2989.8	18	
1067.4	56	Vehicles other than railway, tramway	611.4	30	
203.9	142	Cereals	...	...
2002.6	39	Mineral fuels, oils, distillation products	...	...
170.1	29	Organic chemicals	...	...
510.3	25	Pharmaceutical products	...	...
118.73	26	Iron and steel	...	...
		Articles of apparel, accessories, knit or crochet	952.4	15	
		Articles of apparel, accessories, not knit or crochet	873.9	14	
		Footwear, gaiters and the like, parts thereof	853.6	21	
		Ceramic products	413.03	34	
		Furniture, lighting, signs, prefabricated buildings	1166.2	47	
4779.1 (83.22%)	Top 10 Products (percentage of total exports)			11550.0 (68.62%)	

Source: International Trade Centre, Geneva

As shown in Table 6.3, there was moderate and stable similarity of exports of India to China and South Africa. The FKI varied between 0.16 and 0.19, showing no tendency to increase over time. This means at the aggregate level there was not much competition between India and China in South Africa's market.

On the other hand, India-South Africa and India-China's RECPI with China and South Africa, respectively, indicated that export competitiveness was moderate for India and South Africa in China's market and low in South Africa's market. During 2009-2013, RECPI of India and South Africa with China was increasing. As for India and China with South Africa it was decreasing, indicating that the degree of competition between India and South Africa in China's market was moderate but the same was not true for India and China in South Africa's market.

Table 6.3: FKI and RECPI among India-China-South Africa (2009-13)											
A. India and South Africa's FKI with China						B. India and China's FKI with South Africa					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
China	0.13	0.13	0.19	0.20	0.13	South Africa	0.19	0.15	0.17	0.14	0.16
C. India and South Africa's RECPI with China						D. India and China's RECPI with South Africa					
Partner	2009	2010	2011	2012	2013	Partner	2009	2010	2011	2012	2013
China	0.07	0.06	0.28	0.21	0.22	South Africa	0.20	0.05	0.05	0.03	0.03

Source: CUTS calculation using data from UN Comtrade via WITS 6-Digit and TradeSift software

As shown in Table 6.4, there was no direct competition among the three countries in the international market.

Table 6.4: RCA of Top Ten Products of China, South Africa and India (2013)										
China			South Africa				India			
Umbrellas, walking-sticks, seat-sticks, whips (6.67)			Ores, slag and ash (10.36)				Lac, gums, resins, vegetable saps and extracts (17.75)			
Bird skin, feathers, artificial flowers, human hair (6.32)			Explosives, pyrotechnics, matches, pyrophorics (6.46)				Cotton (8.89)			
Manufactures of plaiting material, basketwork (5.69)			Pearls, precious stones, metals, coins (5.52)				Carpets and other textile floor coverings (5.90)			
Silk (4.38)			Wool, animal hair, horsehair yarn and fabric thereof (5.38)				Cereals (5.12)			
Headgear and parts (4.29)			Edible fruit, nuts, peel of citrus fruit, melons (5.14)				Vegetable textile fibres, paper yarn, woven fabric (4.34)			
Articles of leather, animal gut, harness, travel goods (3.62)			Nickel and articles thereof (3.16)				Vegetable plaiting materials, vegetable products (4.27)			
Toys, games, sports requisites (3.60)			Iron and steel (3.09)				Other made textile articles, sets, worn clothing (4.09)			
Other made textile articles, sets, worn clothing (3.54)			Pulp of wood, fibrous cellulosic material, waste (2.87)				Pearls, precious stones, metals, coins, (3.93)			
Articles of apparel, accessories, knit or crochet (3.52)			Milling products, malt, starches, inulin, wheat gluten (2.54)				Coffee, tea, mate and spices (3.57)			
Knitted or crocheted fabric (3.45)			Beverages, spirits and vinegar (2.44)				Manmade filaments (3.02)			

Note: Figures in the parentheses are RCA indices.

Source: CUTS calculation using data from International Trade Centre, Geneva

Conclusions & Recommendations

As per the World Development Indicators of the World Bank, India is an emerging economy with a gross domestic product of US\$ 1.88 trillion in 2013. It is the largest economy in South Asia and one of the fastest growing in the world.

In 2013, its merchandise export was valued at US\$ 336.61 billion, with the United States of America (US\$ 41.96bn), United Arab Emirates (US\$ 33.98bn) and China (US\$ 16.42bn) being its top three export destinations. Furthermore, in 2013 its import was worth US\$ 466.04 billion, with the top three sources being China, Saudi Arabia and United Arab Emirates (US\$ 51.64bn, 36.60bn and 32.95bn, respectively).

Since 2001, its trade openness (export plus import of goods and services as a percentage of GDP) increased from 27 per cent to 57 per cent. While India's trade openness has surpassed Brazil, Russia and China, over the next few years it is expected to pass the current world average of 61 per cent. In 2013, it was 65 per cent in the case of South Africa.

Not only among its peers in the BRICS group of countries, India is poised to become a major 'trade open' country in the world. Therefore, given the fact that by the end of the next decade the BRICS group is expected to account for almost 50 per cent of world's GDP growth and the centre of gravity of the global economy is expected to be located somewhere between India and China, India should give much greater emphasis on similarities (and otherwise) of intra-BRICS trade.

Further welfare gains from trade will be available for India as well as the other BRICS countries if: a) intra-industry trade is promoted sincerely, and b) intra-industry trade is promoted along with horizontal movement of capital, that is, horizontal foreign direct investment due to the similarities of skill level amongst the BRICS countries. A strong institutional framework will be needed to tap into the potential skills and resources of each country.

Our analysis has revealed that there are many product categories in which India is competing with other BRICS countries and also there are products where India is enjoying comparative advantages. Accordingly, India should re-orient its Focused Market and Focused Product initiatives in its new trade policy. Our comparative analyses of Revealed Comparative Advantage of top ten products of the BRICS group of countries supports this re-orientation. With an increasing level of specialisation between and among the BRICS industries the cost of production will decrease, providing economic gains for all consumers across borders.

Furthermore, though our analyses did not go beyond trade, looking at Degrees of Similarity in Export Structures (Finger-Kreinin Index) and Relative Export Competitive Pressure Index of different pairs of BRICS countries, there may be a case for a free trade agreement among the BRICS group of countries. More importantly, if the BRICS group of countries can negotiate a comprehensive economic partnership agreement among themselves, covering behind-the-border issues of trade and investment (such as intellectual property rights, standards, competition, government procurement), not only will there be more robust trade growth among those countries but they can also play a more proactive role in global trade and investment governance in the future.

While we are not recommending an immediate initiation of negotiations for a BRICS free trade agreement with a built-in agenda for a comprehensive economic partnership agreement at a later stage, we should keep a close eye on how they react to expected impact of mega free trade agreements (Trans-Pacific and Trans-Atlantic) on their economies.

Over the last few years, the BRICS group of countries has shown the world that they can arrive at multilaterally negotiated solutions. Future growth of intra-BRICS trade (and investment), particularly in the context of the Fortaleza Declaration, may make a stronger case for institutionalising BRICS trade (and investment) relationship.

Annexure Tables

Annexure Table 1: Share of BRICS Countries' Trade in World Trade						
			2001	2006	2011	2013
Brazil	Goods	Export	0.95	1.15	1.30	1.35
		Import	0.88	0.75	1.17	1.28
	Services	Export	0.63	0.67	0.81	0.86
		Import	1.15	1.06	1.70	2.10
Russia	Goods	Export	1.64	2.52	2.62	2.93
		Import	0.66	1.13	1.49	1.69
	Services	Export	0.78	1.07	1.16	1.46
		Import	1.38	1.63	1.99	3.05
India	Goods	Export	0.72	1.01	1.46	1.87
		Import	0.80	1.46	2.28	2.48
	Services	Export	1.18	2.41	3.01	3.35
		Import	1.35	2.15	3.11	3.09
China	Goods	Export	4.36	8.08	10.43	12.28
		Import	3.87	6.47	9.09	10.38
	Services	Export	2.27	3.18	4.18	4.56
		Import	2.64	3.68	5.25	7.98
South Africa	Goods	Export	0.43	0.44	0.47	0.53
		Import	0.41	0.56	0.52	0.55
	Services	Export	0.33	0.42	0.36	0.31
		Import	0.35	0.52	0.50	0.41

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 2: BRICS Countries' Trade Profile (US\$ billion)					
		2001	2006	2010	2013
Brazil	Total Trade	140.3	277.7	471.8	607.6
	GDP	553.6	1088.9	2476.7	2245.7
	Trade Openness	25%	26%	19%	27%
Russia	Total Trade	173.7	515.2	744.5	1036.9
	GDP	306.6	989.9	1904.8	2096.8
	Trade Openness	57%	52%	39%	49%
India	Total Trade	132.0	427.8	801.8	1083.5
	GDP	494.0	949.1	1880.1	1876.8
	Trade Openness	27%	45%	43%	58%
China	Total Trade	582.3	1953.2	3329.3	4699.0
	GDP	1324.8	2713.0	7321.9	9240.3
	Trade Openness	44%	72%	45%	51%
South Africa	Total Trade	61.7	147.5	184.1	229.5
	GDP	118.5	261.0	403.9	350.6
	Trade Openness	52%	57%	46%	65%
World	Total Trade	15363.3	29854.2	38060.3	45476.4
	GDP	32780.1	50333.6	71448.8	74899.9
	Trade Openness	47%	59%	53%	61%

Note: GDP - Gross Domestic Product

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 3.1: Brazil - Top Ten RCA

HS Code	Product	2009	2010	2011	2012	2013
93	Arms and ammunition, parts and accessories thereof	20.12	22.33	20.05	18.68	17.64
89	Ships, boats and other floating structures	15.93	12.57	14.27	14.11	17.19
25	Salt, sulphur, earth, stone, plaster, lime and cement	9.82	12.12	11.96	10.67	10.46
12	Oil seed, oleaginous fruits, grain, seed, fruit	8.99	9.29	8.32	8.72	9.01
41	Raw hides and skins (other than fur skin) and leather	10.54	11.18	11.50	9.43	8.53
27	Mineral fuels, oils, distillation products	8.50	8.09	6.95	7.70	8.29
22	Beverages, spirits and vinegar	7.59	6.75	6.48	7.07	6.57
80	Tin and articles thereof	7.11	6.03	5.14	5.92	5.90
08	Edible fruit, nuts, peel of citrus fruit, melons	4.50	4.43	4.46	4.86	5.81
09	Coffee, tea, mate and spices	4.72	4.76	4.11	4.51	4.58

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 3.2: Russia - Top Ten RCA

HS Code	Product	2009	2010	2011	2012	2013
99	Commodities not elsewhere specified	4.68	4.10	4.77	0.00	8.16
31	Fertilizers	5.53	5.13	4.67	5.11	4.64
75	Nickel and articles thereof	7.60	6.79	4.85	4.78	4.57
27	Mineral fuels, oils, distillation products	4.39	4.27	3.78	3.83	3.35
44	Wood and articles of wood, wood charcoal	2.50	2.17	2.04	1.96	1.90
72	Iron and steel	2.18	1.84	1.61	1.82	1.75
81	Other base metals, cements articles thereof	2.52	1.86	1.45	1.69	1.56
76	Aluminium and articles thereof	2.07	1.69	1.53	1.52	1.48
28	Inorganic chemicals, precious metal compound, isotopes	1.05	2.13	1.96	2.09	1.42
10	Cereals	1.82	1.08	1.34	1.80	1.34

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 3.3: India - Top Ten RCA

HS Code	Product	2009	2010	2011	2012	2013
13	Lac, gums, resins, vegetable saps and extracts	5.28	7.91	17.19	32.29	17.75
52	Cotton	5.29	8.14	6.66	8.01	8.89
57	Carpets and other textile floor coverings	5.74	6.43	4.94	5.69	5.90
10	Cereals	2.70	2.38	2.77	4.56	5.12
53	Vegetable textile fibres, paper yarn, woven fabric	4.36	6.42	5.29	5.29	4.34
14	Vegetable plaiting materials, vegetable products	3.51	4.96	3.78	5.35	4.27
63	Other made textile articles, sets, worn clothing	3.79	4.09	4.14	4.43	4.09
71	Pearls, precious stones, metals, coins	7.05	5.09	4.79	4.13	3.93
09	Coffee, tea, mate and spices	3.48	3.72	3.49	3.53	3.57
54	Manmade filaments	3.64	3.64	3.25	3.04	3.02

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 3.4: China - Top Ten RCA

HS Code	Product	2009	2010	2011	2012	2013
66	Umbrellas, walking-sticks, seat-sticks, whips	7.11	7.23	7.41	7.05	6.67
67	Bird skin, feathers, artificial flowers, human hair	6.33	6.20	6.71	6.52	6.32
46	Manufactures of plaiting material, basketwork	7.28	6.68	6.88	6.35	5.69
50	Silk	4.77	4.81	4.98	4.83	4.38
65	Headgear and parts thereof	4.28	4.29	4.50	4.45	4.29
42	Articles of leather, animal gut, harness, travel goods	3.60	3.84	3.91	3.64	3.62
95	Toys, games, sports requisites	3.17	3.27	3.48	3.45	3.60
63	Other made textile articles, sets, worn clothing	4.05	3.89	3.87	3.78	3.54
61	Articles of apparel, accessories, knit or crochet	3.44	3.53	3.63	3.63	3.52
60	Knitted or crocheted fabric	3.01	3.15	3.34	3.28	3.45

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 3.5: South Africa - Top Ten RCA

HS Code	Product	2009	2010	2011	2012	2013
26	Ores, slag and ash	11.36	10.61	10.64	11.27	10.36
36	Explosives, pyrotechnics, matches, pyrophorics	5.87	6.13	6.23	6.80	6.46
71	Pearls, precious stones, metals, coins	6.00	5.71	6.44	6.01	5.52
51	Wool, animal hair, horsehair yarn and fabric thereof	5.38	4.59	4.81	5.46	5.38
08	Edible fruit, nuts, peel of citrus fruit, melons	5.46	5.83	4.99	5.18	5.14
75	Nickel and articles thereof	3.34	3.02	1.95	1.83	3.16
72	Iron and steel	4.37	4.31	3.25	3.23	3.09
47	Pulp of wood, fibrous cellulosic material, waste	3.71	3.56	3.73	3.28	2.87
11	Milling products, malt, starches, inulin, wheat gluten	1.82	1.74	1.43	1.53	2.54
22	Beverages, spirits and vinegar	2.90	2.67	2.08	2.15	2.44

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 4: BRICS - Top Ten RCA (2013)

Brazil	Russia	India	China	South Africa
Arms and ammunition, parts and accessories (17.64)	Commodities not elsewhere specified (8.16)	Lac, gums, resins, vegetable saps and extracts (17.75)	Umbrellas, walking-sticks, seat-sticks, whips (6.67)	Ores, slag and ash (10.36)
Ships, boats and other floating structures (17.19)	Fertilizers (4.64)	Cotton (8.89)	Bird skin, feathers, artificial flowers, human hair (6.32)	Explosives, pyrotechnics, matches, pyrophorics (6.46)
Salt, sulphur, earth, stone, plaster, lime and cement 10.46)	Nickel and articles (4.57)	Carpets and other textile floor coverings (5.90)	Manufactures of plaiting material, basketwork (5.69)	Pearls, precious stones, metals, coins (5.52)
Oil seed, oleaginous fruits, grain, seed, fruit (9.01)	Mineral fuels, oils, distillation products (3.37)	Cereals (5.12)	Silk (4.38)	Wool, animal hair, horsehair yarn and fabric thereof (5.38)
Raw hides and skins (other than fur skin) and leather (8.53)	Wood and articles of wood, wood charcoal (1.90)	Vegetable textile fibres, paper yarn, woven fabric (4.43)	Headgear and parts (4.29)	Edible fruit, nuts, peel of citrus fruit, melons (5.14)
Mineral fuels, oils, distillation products (8.29)	Iron and steel (1.75)	Vegetable plaiting materials, vegetable products (4.27)	Articles of leather, animal gut, harness, travel goods (3.62)	Nickel and articles thereof (3.16)
Beverages, spirits and vinegar (6.57)	Other base metals, cement articles thereof (1.56)	Other made textile articles, sets, worn clothing (4.09)	Toys, games, sports requisites (3.60)	Iron and steel (3.09)
Tin and articles thereof (5.90)	Aluminium and articles (1.48)	Pearls, precious stones, metals, coins (3.93)	Other made textile articles, sets, worn clothing (3.54)	Pulp of wood, fibrous cellulosic material, waste (2.87)
Edible fruit, nuts, peel of citrus fruit, melons (5.81)	Inorganic chemicals, precious metal compound, isotopes (1.42)	Coffee, tea, mate and spices (3.57)	Articles of apparel, accessories, knit or crochet (3.52)	Milling products, malt, starches, inulin, wheat gluten (2.54)
Coffee, tea, mate and spices (4.58)	Cereals (1.34)	Manmade filaments (3.02)	Knitted or crocheted fabric (3.45)	Beverages, spirits and vinegar (2.44)

Note: Figures in the parentheses are RCA indices.

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 5: India's Market Size in Top Ten RCA Products (US\$mn)

	2009	2010	2011	2012	2013
World	45944	51771	76640	77602	82497
BRCS Aggregation	2335	3116	4113	5260	6552
Brazil	193	394	367	399	437
Russia	189	186	217	303	273
China	1815	2357	3229	4176	5428
South Africa	137	180	300	383	413

Source: CUTS calculation using data from International Trade Centre, Geneva

Annexure Table 6: India's Trade Profile with BRICS Countries (top ten products on which India has high RCAs; 2011-13; US\$mn)

Product	India's Export to BRICS			BRICS's Import from the World			India's Export to the World		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
All Products	28323	28010	30690	2375456	2459152	2610822	301483	289565	336611
India's Top Ten Products with High RCAs (2013)	4113	5260	6552	51017	56295	61175	76640	77602	82497
Cotton	2921	3725	4933	16570	19834	18362	7796	8569	11294
Lac, gums, resins, vegetable saps and extracts	196	424	353	448	517	545	2271	6548	3066
Manmade filaments	226	269	328	6194	6070	6068	2645	2261	2681
Cereals	113	194	247	5949	8912	9920	5371	8729	11592
Coffee, tea, mate and spices	219	226	207	1730	1829	1812	2972	2694	2885
Pearls, precious stones, metals, coins	200	182	203	16730	15486	20664	50016	43090	44158
Other made textile articles, sets, worn clothing	91	90	103	1783	2142	2204	3850	3973	4713
Vegetable textile fibres, paper yarn, woven fabric	65	64	81	858	718	789	379	326	327
Carpets and other textile floor coverings	49	50	60	503	582	617	1280	1351	1716
Vegetable plaiting materials, vegetable products	33	35	35	251	204	193	61	62	65

Source: CUTS calculation using data from International Trade Centre, Geneva