



Minia J. of Agric. Res. & Develop.
Vol. (32) No. 3 pp 400-413,
2012

FACULTY OF AGRICULTURE

AGRICULTURAL TRADE FLOWS AMONG BRICS COUNTRIES: INTENSITIES AND COMPLEMENTARITIES

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Received 12 April 2012

Accepted 10 May 2012

Abstract

The purpose of this paper is to review the evolution of agricultural trade of Brazil, Russia, India, China and South Africa, and to discuss agricultural trade potentials among these dynamic trading countries. By adopting the Revealed Comparative Advantage index, Trade Intensity Index and Trade Complementary Index, this paper has made an empirical analysis of the comparative advantages, intensities and complementary of the agricultural trade between BRICS countries during 2000-2010. The results indicate that Brazil, India, Russia and China followed a continuous pattern of increase in agricultural exports, while South Africa was able to only a slight improvement. The BRICS countries export different agricultural products, which reflect the characteristics of the comparative advantages and resource endowments of each country. There is a high degree of agricultural export intensity between Brazil and the other BRICS countries. The highest degrees of agricultural trade exchange was between Brazil exports to Russia, India exports to South Africa, China exports to Russia and South Africa to Russia. The paper is useful for policy makers concerned with BRICS international agricultural trade. It is also beneficial to those wanting to pledge academic research in the international trade of agricultural products.

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INTRODUCTION

The BRICS countries – Brazil, Russia, India, China and South Africa – are among the largest countries in the world and play a vital role in the global economy. Emerging economies are playing an increasingly important role in global economic development, and all five BRICS countries have shown stunning economic growth in recent years. BRICS member countries not only had an impressive growth rates in the past, but also have great potential in the future. The five BRICS account for about 20% of the world's output and 40% of the world's growth in output. China alone commands over 20% of world growth. It is predicted that BRICS will have a larger share of global output. The IMF predicts China's economy will be larger than the U.S.'s by 2016. South Africa in 2011 joined this group of emerging economies, a group which plans to play a constructive role in the global stage in coming years. With the inclusion of South Africa, BRICS represents about 43 percent of the world's population, 18 percent of global trade, attract 53 percent of the foreign capital, accounts for about 20 percent of global gross domestic product on purchasing power parity basis and are currently generating about 40 percent growth of the world economy. Trade among the BRICS countries between 2001 and 2010 increased 10 times, and is increasing 28 percent annually and now stands at US\$230 billion.

The BRICS countries are key players in world agriculture. The five countries are among the world's top producers and exporters of agricultural products and have a significant portion of their population working in agriculture. Table 1 give an overall picture of the world agricultural export and import performances of the BRICS countries during 2000-2010.

Data of table(1) indicate that, the total agricultural trade value among BRICS countries and the world has risen sharply from 83 billion US dollars in 2000 to 340 billion US dollars in 2010, increasing by 4 times with an annual increasing rate of 31%. In 2010 BRICS agricultural trade accounted for 13.4 percent of the world agricultural trade. Combined share of the forum in world agricultural exports and agricultural imports are estimated by 13.3 percent and

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13.0 percent, respectively. In terms of contribution, China stands at top, followed by Brazil and Russia in terms of both world exports and imports. While Brazil, India and South Africa are a net exporter of agricultural products, China and Russia became a net importer of such products during 2000-2010.

Table 1: Pattern of BRICS Agricultural Trade (in US billion dollars), 2000-2010.

	2000	2002	2004	2006	2008	2010
Agricultural Exports to the World						
Brazil	10.47	19.19	30.87	39.03	71.40	78.09
Russia	4.48	0.78	7.97	12.74	18.07	17.42
India	0.90	7.91	8.80	12.40	21.20	23.11
China	17.38	18.80	24.12	32.04	42.27	01.71
S. Africa	3.27	3.33	4.77	4.90	7.04	7.87
Total BRICS Agri. Exports	40.00	50.01	77.53	102.22	160.01	127.09
World Total Agri. Exports	019.8	008.1	740.2	897.0	1279.8	1271.7
BRICS Agri. Exports as % of World	8.76	9.78	10.20	11.39	11.81	13.28
Agricultural Imports from the World						
Brazil	4.77	3.87	4.12	0.48	9.79	10.70
Russia	7.07	10.20	13.37	21.04	34.28	34.80
India	3.99	4.90	7.82	7.98	12.01	13.41
China	19.00	21.81	42.22	01.07	87.73	108.18
S. Africa	1.70	1.78	2.97	3.70	0.37	0.40
Total BRICS Agricultural Imports	37.47	42.07	79.49	89.71	148.07	172.00
World Total Agricultural Imports	073.1	099.2	794.7	937.3	1314.8	1279
BRICS Agricultural Imports as % of World	7.70	7.10	8.70	9.08	11.27	13.49
Total Agricultural Trade						
Brazil	20.22	23.07	34.99	40.01	71.09	79.34
Russia	12.04	17.03	21.32	33.78	02.34	01.22
India	9.94	11.87	10.72	20.43	33.27	37.02
China	30.88	40.71	77.34	84.11	128.99	109.79
S. Africa	4.92	0.01	7.73	8.7	12.4	13.27
Total BRICS Agricultural Trade	87.02	97.08	146.9	191.93	298.07	340.14
World Total Agricultural Trade	1082.9	1107.3	1039.8	1833.8	2084.7	2040.7
BRICS Agricultural Trade as % of World	7.77	8.30	9.48	10.47	11.03	13.39

Source: Own calculations based on WITS-Comtrade data

Brazil, India and China followed a continuous pattern of increase in agricultural exports between 2000 and 2010. Russia performed similarly except a small fluctuation in 2008. South Africa, on the other hand, got a slight improvement. In the case of agricultural imports, Brazil faced a slight fluctuation in 2004 and recovered from

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it in 2006. Russia, India and China performed the same continuous pattern of increase as it did in the case of exports. South Africa's agricultural imports like its exports had a slight increase during the same period.

It is clear that in the overall BRICS trade, agricultural trade is one of the most sensitive and argumentative issues, with both challenges and opportunities ahead. Therefore, it is important to provide guidelines for the private sector and government policy makers through indicating a detailed import and export profiles of major agricultural products which are traded within the BRICS countries and analyzing the comparative advantages, intensities and complementary of BRICS agricultural trade.

Methodology and Data Sources

The methodologies adopted in this paper include the Revealed Comparative Advantage (RCA) Index, the Trade Intensity Index (TII) and the Trade Complementary Index (TCI). Through the estimation and measurement of the above indicators (2000-2010), this paper intends to find out the characteristics and changing trends of the comparative advantages and complementary of the BRICS countries agricultural trade. The main data source used for this paper is the online database of United Nations Commodity Trade Statistics Database through World Integrated Trade Solution (WITS) as well as certain other additional data sources of commerce and trade. The type of analysis was done through shares analysis and calculation of certain trade indicators and indices.

Revealed Comparative Advantage Index (RCA)

Revealed comparative advantage index uses the trade pattern to identify the sectors in which an economy has a comparative advantage, by comparing the country of interests' trade profile with the world average. This index is defined as the share of each commodity group in a country's total exports divided by the share of each commodity group in another economy's total exports. It can be described as:

$$RCA = (X_{ij}/X_{wj}) / (X_i/X_w) \dots\dots\dots (1)$$

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Where X_{ij} denotes country i exports of commodity j , X_{wj} denotes world exports of commodity j , X_i and X_w refer to total exports of country i and total world exports. It should be noted that the partner economy can be another economy (to assess bilateral RCA) or the world (to assess global RCA).

A country is said to have a revealed comparative advantage when its share of export of a given good exceeds the equivalent share of export of the world. This is captured when the numerator is bigger than the denominator, or equivalently when the RCA is above 1, meaning that a given country exports, proportionally to its total exports, more than the share of exports of the world in that given product. An RCA below 1 indicates that a country does not have a revealed comparative advantage in a given good or equivalently that the world share of that given product is higher than that of the country under analysis.

Trade Intensity Index (TII)

Several statistical indices can be used to measure trade between two nations. One such index is the trade intensity index (TII) (Brown 1949, Kojima 1964). The trade intensity index is used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in world trade. Trade intensity is measured as the exporting country's share of world exports of a particular commodity to a partner country, divided by the exporting country's share of total world exports. It simply explains whether or not a country exports more to a given destination than the world does on average. TII appears in two forms, i.e., the export intensity index (XII) and import intensity index (MII). They can be defined as follows:

$$XII = [(x_{ij}/X_{iw})] / [M_{jw}/(M_w - M_{iw})] \dots\dots\dots(1)$$

and

$$MII = [m_{ij}/M_{iw}] / [X_{jw}/(X_w - X_{iw})] \dots\dots\dots(2)$$

Where XII and MII denote Country i 's export and import intensity index, respectively. x_{ij} (m_{ij}) denotes country i 's exports (imports) to (from) country j . Whereas X_{iw} (M_{iw}) refers to country i 's total exports

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(total imports) to (from) the world. M_{jw} (X_{jw}) refers to country j 's total imports (total exports) from (to) the world. M_w (X_w) describes world total imports (world total exports). M_{iw} and X_{iw} describe country i 's total imports from the world and country i 's total exports to the world, respectively.

Export and import intensity indices reflect the ratio of the share of country i 's trade with country j relative to the share of world trade destined for country j . An index of greater (less) than unity has been interpreted as an indication of larger (smaller) than expected trade flow between the two parties concerned.

Trade Complementary Index (TCI)

This index shows how well the export profile of one country matches the import profiles of others. This index provides useful information on prospects for intra-regional trade in that it shows how well the structures of a country's imports and exports match. The TC between countries k and j is defined as:

$$TC_{ij} = \frac{1}{n} \sum (|m_{ik} - x_{ij}|/n) \dots \dots \dots (\xi)$$

Where x_{ij} is the share of good i in global exports of country j and m_{ik} is the share of good i in imports of country k . The index is zero when no goods are exported by one country or imported by the other and 1 when the export and import shares exactly match.

A higher value in this index indicates closer matches in the export profile of one country to the import profile of another country. In other words, larger the value of TCI, higher the trade potential between the concerned pair of countries.

RESULTS AND ANALYSES

Comparative advantages of agricultural trade in BRICS countries

The revealed comparative advantages (RCAs) of agricultural products in BRICS countries at the two digit SITC level are given in Table 2.

Table ٧: The Average RCA of Agricultural Products in BRICS Countries (٢٠٠٥-٢٠١٠)

Product	Brazil	Russia	India	China	S. Africa
٠٠ Live animals	١.٥١	٠.٠١	٠.٠٥	٠.٢٧	٠.٣٢
٠١ Meat	٩.٠٢	٠.٠٣	٠.٨٥	٠.٢٤	٠.٢١
٠٢ Dairy products	٠.٣٦	٠.١٤	٠.٣٢	٠.٠٥	٠.٢١
٠٣ Fish	٠.٢٩	٠.٤٥	١.٧٤	١.٢٥	١.١٢
٠٤ Cereals	١.٠٧	٠.٩٩	٢.٠٩	٠.١٨	٠.٨٢
٠٥ Vegetables and fruits	١.٤٧	٠.٠٦	١.٠٦	٠.٨٠	٢.٧٧
٠٦ Sugars	١٦.٤٦	٠.١٥	١.٩٣	٠.٣٠	٢.١٤
٠٧ Coffee, tea and spices	٦.٠١	٠.٢٢	٢.١٣	٠.٢٥	٠.٢٧
٠٨ Animal feed	٦.٦٨	٠.١٧	٣.٠١	٠.٢٧	٠.٢٣
٠٩ Edible products	٠.٧٩	٠.٣٤	٠.٢٢	٠.٣٧	٠.٧٣
١١ Beverages	٠.٠٩	٠.١٧	٠.٠٨	٠.١١	٢.٣٥
١٢ Tobacco	٦.١١	٠.٤١	١.٥٠	٠.٢٥	١.٣١
٢١ Hides and skins	٠.٠٩	٠.٣٤	٠.٢٤	٠.٠٢	٢.٢١
٢٢ Oil seeds	١٦.٩٣	٠.٠٩	١.٢٢	٠.٢٢	٠.٣١
٢٣ Crude rubber	٠.٨١	١.٦٧	٠.٣٩	٠.١٠	٠.٤٢
٢٦ Textile fibers	٢.٠١	٠.٠٧	٤.٧٥	٠.٦٥	١.٨٦
٢٩ Animal and vegetable materials	١.٠٥	٠.٠٤	١.٨٠	٠.٧٣	٠.٧٩
٤١ Animal oils and fats	٠.٤٣	٠.٠٠	٠.٣٢	٠.١٢	٠.١٨
٤٢ Vegetable fats and oils	٢.٦٩	٠.٣٩	٠.٦٥	٠.٠٦	٠.٢٣
٤٣ Animal or vegetable fats and oils	١.٢٢	٠.٠٢	٠.٩٥	٠.١٠	٠.٢٤

Source: Own calculations based on WITS-Comtrade data

Data of that table gives the average Revealed Comparative Advantage (RCA) of BRICS countries during the period ٢٠٠٥-٢٠١٠ for ٢٠ product categories. Data show that:

- Brazil has the comparative advantage and a strong position in a lot of labor-intensive agricultural products (live animals, meat, vegetables and fruits, coffee, tobacco, and materials of animals and vegetables) and also in a lot of land-intensive products (cereals, sugar, animal feed, oil seeds, textile fibers, and oils of vegetables or animals). On the other hand, it has a comparative disadvantage in dairy products, fish, edible products, beverages, hides and skins, rubber, and animal oils and fats.

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- India has a comparative advantage in labor-intensive products (fish, vegetables and fruits, tea and spices, tobacco, and materials of animals and vegetables) and land-intensive products (cereals, sugar, animal feed, oil seeds, and textile fibers). It has comparative disadvantages in the other agricultural products.
- Both of Russia and China have comparative disadvantages in all agricultural products except the former has a comparative advantage in crude rubber and China has a comparative advantage in fish only.
- South Africa has comparative disadvantages in all agricultural products, except fish, vegetables and fruits, sugar, beverages, tobacco, hides and skins, and textile fibers.
- RCA index for all BRICS countries is less than one in dairy products, edible products and animal oils and fats, reflecting the lower export share of these products than the total world exports. Brazil is the only country that has a comparative advantage in live animals, meat, and animal or vegetable fats and oils. Russia is the only country that has a comparative advantage in production of crude rubber. South Africa is the only country among BRICS countries that specialize in production of beverages, and hides and skins.

Trade intensity of BRICS countries

Trade intensity indices can provide additional insights into the nature and importance of secular changes in bilateral agricultural trade flows such as those occurring for BRICS countries. Yearly estimations of agricultural trade intensity of BRICS during 2000-2010 are shown in Table 3. Data of the table reveals that:

- The bilateral Brazil-BRICS agricultural trade intensity indices indicate that the export intensity values above unity. Therefore, Brazil is exporting more to the other BRICS countries than might be expected. Brazil's trade intensity with the other BRICS countries show dominant role in recent years, where Russia performs the most export intensive market for Brazil. In contrast, import intensity values of Brazil with Russia, India and South Africa less than unity, indicating Brazil is importing less from

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these countries than would be expected. Brazil-China import intensity value increased from 0.21 in 2000/2004 to 1.07 in 2010, showing Brazil is experiencing an increased tendency to import from China in recent years.

Table 3 :Agricultural Trade Intensity of BRICS Countries, 2000-2010

	Year	Export Intensity Index					Import Intensity index				
		Brazil	Russia	India	China	S. Africa	Brazil	Russia	India	China	S. Africa
Brazil	2000-2004	-	3.10	4.93	1.02	1.86	-	0.31	0.16	0.21	0.16
	2000-2009	-	2.93	1.02	1.71	2.38	-	0.34	0.28	0.73	0.18
	2010	-	2.14	1.49	1.80	1.30	-	0.70	0.44	1.07	0.18
Russia	2000-2004	0.01	-	0.71	4.78	0.02	2.76	-	1.91	0.86	0.78
	2000-2009	0.02	-	1.14	3.33	0.00	2.74	-	0.81	1.08	0.87
	2010	0.19	-	0.31	2.84	0.18	2.02	-	0.77	0.97	1.01
India	2000-2004	0.16	1.83	-	0.73	4.02	0.80	0.93	-	1.10	1.46
	2000-2009	0.26	0.71	-	1.10	2.76	0.70	1.90	-	0.99	1.04
	2010	0.33	0.48	-	1.40	1.73	0.79	1.16	-	0.76	0.82
China	2000-2004	0.22	1.16	1.31	-	1.09	1.77	1.70	0.03	-	0.37
	2000-2009	0.71	1.13	0.90	-	1.12	2.04	4.91	1.12	-	0.40
	2010	1.14	0.98	1.00	-	1.10	2.03	3.73	1.20	-	0.71
S. Africa	2000-2004	0.19	0.48	1.44	0.34	-	1.00	0.10	2.73	0.93	-
	2000-2009	0.21	0.70	1.30	0.43	-	1.80	0.09	2.73	1.16	-
	2010	0.23	0.77	1.19	0.46	-	1.22	0.22	1.71	1.28	-

Source: Own calculations based on WITS-Comtrade data

- The bilateral Russia-BRICS agricultural trade intensity indices indicate that the export intensity values below unity with all countries except China during 2000-2010 and India during 2000-

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2009. Therefore, Brazil is exporting more to China but the value of export intensity decreased from 4.7 in 2000/2004 to 2.8 in 2010. So, Russia is experiencing a decreased tendency to export from China. Import intensity values of Russia with Brazil above unity during all the period 2000-2010 but they are below unity with the other countries, indicating Russia is importing more from Brazil and importing less from the other BRICS countries.

- India's export intensity to China and South Africa present an effective role with stagnant growth in export to India in recent years. India is exporting less to Brazil and Russia than would be expected, where India's export intensity values with them below unity. In recent years, India is importing more from Russia and less from Brazil, China and South Africa than would be expected.
- Most of China's export intensity values with the other BRICS countries above unity. Therefore, China is exporting more to the other BRICS countries than would be expected. China's import intensity with the other BRICS countries show dominant role in recent years. Among them, Russia and Brazil performs the most import intensive market for China.
- South Africa's export intensity to the other BRICS countries shows that South Africa is exporting more to India and less to the other countries than would be expected. South Africa's import intensity values with all countries are above unity except Russia, indicating that South Africa is importing more from Brazil, India and China than would be expected during 2000-2010.

Agricultural Trade Complementary between BRICS countries

The trade complementary index (TCI) of agricultural trade among BRICS countries was calculated for the period 2000-2010. Trends in agricultural trade complementary index for BRICS countries over the period have been indicated through figures 1 to 6.

There is a very high degree of complementary between the agricultural exports of Brazil and Russia's agricultural imports, and a moderately high degree of complementary for China and South Africa. India, by contrast, currently has low agricultural export

complementary levels with Brazil. TCI for Brazil to BRICS countries embodied only cutbacks. (Figure ١)

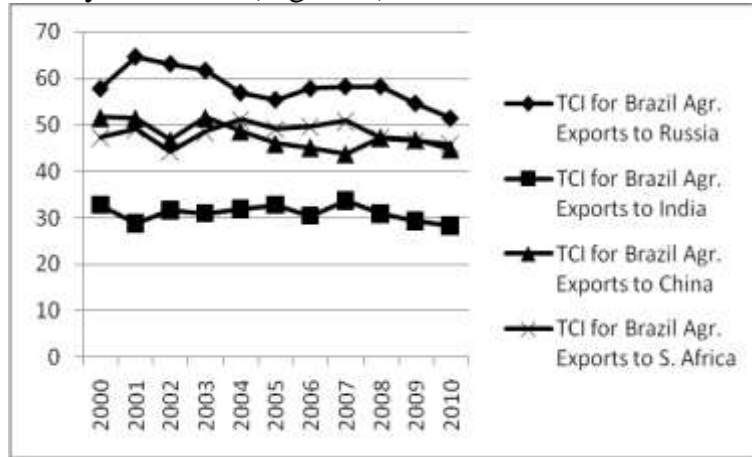
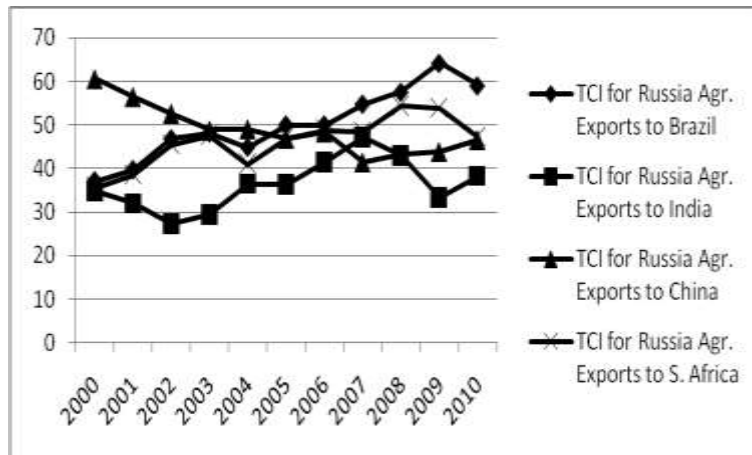


Figure ١ : TCI for Brazil agricultural exports to BRICS

Source: Own calculations based on WITS-Comtrade data

There is a degree of complementary between the agricultural exports of Russia and agricultural imports of the other BRICS countries; especially with Brazil (the trend is upward). TCI of Russia’s agricultural exports improved for Brazil, India and South Africa; but it deteriorated for China. (Figure ٢)



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Figure 3: TCI for Russia agricultural exports to BRICS

Source: Own calculations based on WITS-Comtrade data

There is a very high degree and rapidly growing degree of complementary between India's agricultural exports and South Africa's agricultural imports. On the other hand, the complementary degree is very low between India and China. TCI for India's agricultural exports in 2010 contain greater cross-pair import matches with all other BRICS countries in comparison to 2000. (Figure 3)

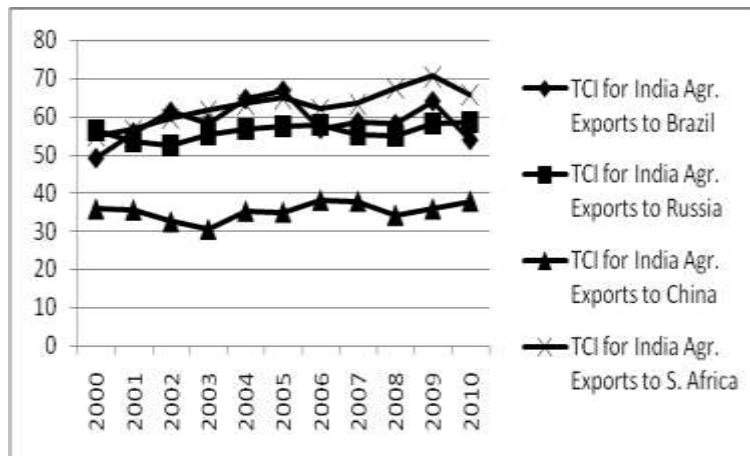


Figure 4: TCI for India agricultural exports to BRICS

Source: Own calculations based on WITS-Comtrade data

There is a high degree and rapidly growing degree of complementary between China's agricultural exports and Russia's agricultural imports. On the other hand, the complementary degree is very low between India and China, and a moderately high, and a little stable, degree of complementary for Brazil and South Africa. By contrast, there is a low agricultural export complementary levels between China and India, although the trend is upward during 2003-2007. TCI of China's agricultural exports improved for Russia and India; but it deteriorated for Brazil and South Africa. (Figure 4)

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There is a very high and rapidly growing degree of complementary between the agricultural exports of South Africa and Russia's agricultural imports, and a moderately high degree of complementary for Brazil, India and China. TCI of South Africa's agricultural exports improved for Brazil, Russia and India; but it deteriorated for China. (Figure 6)

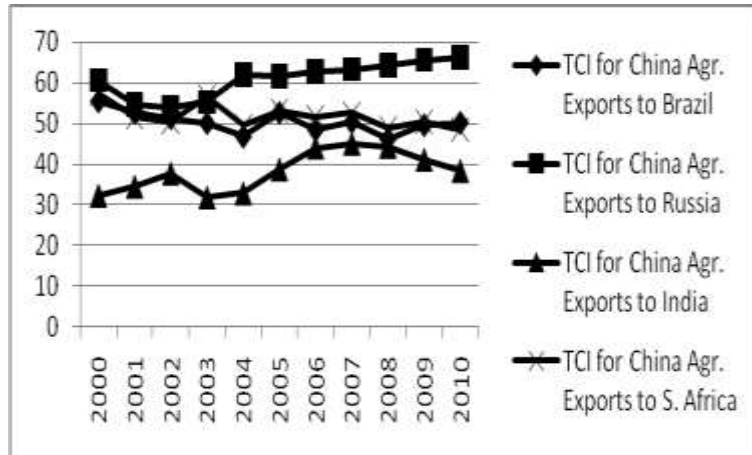
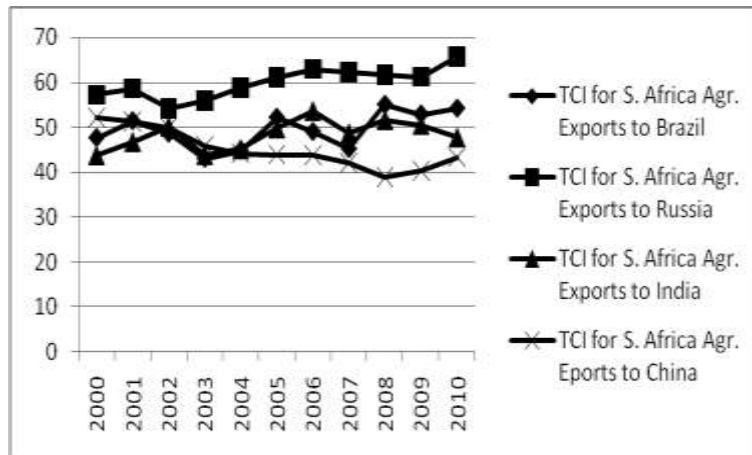


Figure 4: TCI for China agricultural exports to BRICS

Source: Own calculations based on WITS-Comtrade data



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Figure 9: TCI for South Africa agricultural exports to BRICS

Source: Own calculations based on WITS-Comtrade data

CONCLUSION

Brazil, Russia, India, China and South Africa represent the most dynamic emerging markets in the world. Agricultural trade plays a vital role in their economic development. The five countries are among the world's top producers and exporters of agricultural products and have a significant portion of their population working in agriculture.

This paper assessed the statistical data of agricultural trade between BRICS countries. The analysis was based on a measure of the Revealed Comparative advantage (RCA) index, Trade Intensity Index (TII) and Trade Complementary Index (TCI) during 2000-2010. The results can be summarized as follows:

- The total agricultural trade value between BRICS countries and the world has risen sharply from \$⁸³ billion in 2000 to \$³⁴⁰ billion in 2010, increasing by 4 times with an annual increasing rate of 31%. In 2010 BRICS agricultural trade accounted for 13.4 % of the world agricultural trade. Combined share of the forum in world agricultural exports and agricultural imports are estimated as 13.3 % and 13.0 %, respectively.
- Brazil, India and China followed a continuous pattern of increase in agricultural exports between 2000 and 2010. Russia performed similarly except a small fluctuation in 2008. South Africa, able to get a slight improvement. In the case of agricultural imports, Brazil faced a slight fluctuation in 2004 and recovered from it in 2006. Russia, India and China performed the same continuous pattern of increase as it did in the case of exports. South Africa's agricultural imports like its exports had a slight increase during the same period.
- The BRICS countries export different agricultural products, which reflect the characteristics of the comparative advantages and resource endowments of each country. Brazil has the comparative advantage and a strong position in a lot of labor-intensive agricultural products (live animals, meat, vegetables and fruits,

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coffee, tobacco, and materials of animals and vegetables) and also in a lot of land-intensive products (cereals, sugar, animal feed, oil seeds, textile fibers, and oils of vegetables or animals). India has a comparative advantage in labor-intensive products (fish, vegetables and fruits, tea and spices, tobacco, and materials of animals and vegetables) and land-intensive products (cereals, sugar, animal feed, oil seeds, and textile fibres). Both of Russia and China have comparative disadvantages in all agricultural products except the former has a comparative advantage in crude rubber and China has a comparative advantage in fish only. South Africa has comparative disadvantages in all agricultural products, except fish, vegetables and fruits, sugar, beverages, tobacco, hides and skins, and textile fibres.

- Yearly estimations of agricultural trade intensity of BRICS during 2000-2010 indicated that Brazil is exporting more to the other BRICS countries than might be expected. Russia performs the most export intensive market for Brazil. The bilateral Russia-BRICS agricultural trade intensity indices indicate that the export intensity values below unity with all other countries except China during 2000-2010 and India during 2000-2009. Therefore, Brazil is exporting more to China but the value of export intensity decreased from 4.7 in 2000/2004 to 2.8 in 2010. So, Russia is experiencing a decreased tendency to export to China. India's export intensity to China and South Africa present an effective role with stagnant growth in export to India in recent years. China is exporting more to BRICS countries than would be expected. China's import intensity with BRICS countries show dominant role in recent years. Among them, Russia and Brazil performs the most import intensive market for China. South Africa's export intensity to BRICS countries shows that South Africa is exporting more to India and less to the other countries than would be expected. South Africa's import intensity values with all countries are above unity except Russia, indicating that South Africa is importing more from Brazil, India and China than would be expected during 2000-2010.

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- There is a very high degree of complementary between the agricultural exports of Brazil and Russia's agricultural imports, and a moderately high degree of complementary for China and South Africa. India, by contrast, currently has low agricultural export complementary levels with Brazil. There is a degree of complementary between the agricultural exports of Russia and agricultural imports of BRICS countries; especially with Brazil. There is a very high degree and rapidly growing degree of complementary between India's agricultural exports and South Africa's agricultural imports. There is a high degree and rapidly growing degree of complementary between China's agricultural exports and Russia's agricultural imports. On the other hand, the complementary degree is very low between India and China, and a moderately high, and a little stable degree of complementary for Brazil and South Africa. By contrast, there is a low agricultural export complementary levels between China and India, although the trend is upward during 2003-2007. There is a very high and rapidly growing degree of complementary between the agricultural exports of South Africa and Russia's agricultural imports, and a moderately high degree of complementary for Brazil, India and China.

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Agricultural trade flows among brics countries

□ تدفق التجارة الزراعية بين مجموعة دول البريكس

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تعتبر كل من دول البرازيل - روسيا - الهند - الصين - جنوب أفريقيا أكبر الأسواق الناشئة في العالم حيث تلعب التجارة الخارجية الزراعية دوراً هاماً وفعالاً في اقتصاديات هذه الدول. تأتي هذه الدول الخمس في مقدمة دول العالم من حيث إنتاج وتصدير المنتجات الزراعية بالإضافة إلى اشتغال نسبة كبيرة من سكان هذه الدول بالزراعة. ويهدف هذا البحث إلى التوصل لبعض مؤشرات التجارة الخارجية الزراعية بين هذه الدول الخمسة والتي شملت مؤشر الميزة النسبية ومؤشر الكثافة التجارية ومؤشر التكامل التجاري وذلك خلال الفترة ٢٠٠٠-٢٠١٠، وأشارت أهم نتائج البحث إلى ما يلي:

- زيادة إجمالي قيمة التجارة الزراعية بين بلدان البريكس ودول العالم الأخرى من نحو ٨٣ مليون دولار في عام ٢٠٠٠ إلى حوالي ٣٤٠ مليون دولار في عام ٢٠١٠ أي بزيادة قدرها أربعة أضعاف عن قيمتها في عام ٢٠٠٠. وبلغت نسبة التجارة الزراعية لهذه الدول ١٣.٤% من إجمالي التجارة الزراعية للعالم في عام ٢٠١٠ حيث بلغت نسبة الصادرات والواردات حوالي ١٣.٣% و ١٣.٥% على الترتيب من جملة قيمة صادرات وواردات العالم.

- ازدادت قيمة الصادرات الزراعية لكل من البرازيل والهند والصين بشكل ملحوظ خلال فترة الدراسة بينما ازدادت الصادرات الزراعية لروسيا أيضاً خلال هذه الفترة لكن مع وجود تقلبات في عام ٢٠٠٨ في حين شهدت دولة جنوب أفريقيا تحسن طفيف في قيمة صادراتها الزراعية. أما بالنسبة لقيمة الواردات الزراعية لتلك الدول فقد شهدت البرازيل انخفاض في قيمة وارداتها الزراعية في عام ٢٠٠٤ ثم عادت للارتفاع في عام ٢٠٠٦ ، في حين شهدت واردات دول البريكس الأخرى زيادة في قيمتها.

- تقوم الدول الخمس بتصدير منتجات زراعية مختلفة مما يعكس الميزة النسبية لهذه الدول فالبرازيل لديها ميزة نسبية في تصدير الكثير من المنتجات الزراعية كثيفة العمالة مثل الحيوانات الحية واللحوم والخضر والفاكهة والقهوة والتبغ كما أن لها ميزة نسبية في

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تصدير الكثير من المنتجات ذات الكثافة الأرضية مثل الحبوب والسكر وغذاء الحيوانات و بذور الزيت والألياف وزيت الخسروات والحيوانات. وتتمتع دولة الهند أيضاً بميزة نسبية في المنتجات كثيفة العمالة مثل السمك والخضر والفاكهة والشاي والبهارات والتبغ كما أن لها ميزة نسبية في المنتجات الزراعية ذات الكثافة الأرضية مثل الحبوب والسكر والغذاء الحيواني والألياف النسيجية. على الجانب الآخر لا تتوافر هذه الميزة النسبية بالنسبة لكل من دول روسيا والصين في جميع المنتجات الزراعية ماعدا المطاط الخام في روسيا والسمك في الصين. دولة جنوب أفريقيا أيضاً ليس لها ميزة نسبية في الكثير من المنتجات الزراعية فيما عدا السمك والخضر والفاكهة والسكر والتبغ ورعوس وجلود الماشية والألياف النسيجية.

- أوضحت التقديرات السنوية لمؤشر الكثافة التجارية لدول البريكس خلال الفترة ٢٠٠٠-٢٠١٠ أن البرازيل تصدر المنتجات الزراعية للدول الأربعة الأخرى أكثر مما كان متوقعاً وتعتبر روسيا أكثر الأسواق التصديرية للبرازيل. أوضح المؤشر أن التجارة الزراعية بين روسيا والدول الأربعة الأخرى أقل من ١ فيما عدا الصين خلال الفترة ٢٠٠٠-٢٠١٠ والهند خلال الفترة ٢٠٠٥-٢٠٠٩.

- يوجد درجة عالية جداً من التكامل بين الصادرات الزراعية للبرازيل والواردات الزراعية لروسيا كما يوجد درجة متوسطة من التكامل بين الصادرات الزراعية للصين والواردات الزراعية لجنوب أفريقيا ويوجد درجة عالية من التكامل بين الصادرات الزراعية لدولة جنوب أفريقيا والواردات الزراعية لروسيا.