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The BRICs and agricultural exports to Africa: are they a threat to South African interests?[1]

by Ron Sandrey[2], Nick Vink[3] Hans Grinsted Jensen[4]

1. Introduction

Much has been written about the BRICS countries (Brazil, Russia, India, China and South Africa) in recent years, mostly because of the rising industrial power of especially China. Yet these countries are becoming global agricultural trade players as well. As a group, the BRICS are now second only to the European Union as an agricultural exporter. In 1961, the five countries collectively exported some 48% of the value of agricultural exports of the USA, while they overtook the USA in 2009 (FAOSTAT, 2012). Brazil (3rd in the world when the EU is regarded as a single entity) is the largest agricultural exporter among the group, followed by China (5th), India (12th), Russia (21st) and South Africa (28th) in 2009. South Africa is the only African country amongst this grouping, South Africa's agricultural exports into the rest of Africa have been growing rapidly, and South Africa regards the African market as strategically important. In this regard, the main aim of this article is to examine agricultural exports from the non-African BRICS countries (hereafter BRIC) as they impact upon South African agricultural trade interests on the African continent. This will be done by assessing export data from the BRIC and South Africa to the continent from 1997 to 2011 inclusively, using data from the Global Trade Atlas and the Global Trade Analysis Project (GTAP) database.

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2. Agricultural exports of the BRICS: general

Global exports of the major agricultural commodities by the BRICS countries into the world, into Africa and into South Africa respectively is shown in Table 1 for the two periods (2000/01 and 2008/09). The data are ranked by value of exports from the BRICS to Africa in the second period. The three top exports are sugar, 'other foods' (further processed foods) and wheat.

Table 1: Agricultural exports from the BRICS, $m

	World		Africa		South Africa	
	2000/01	2008/09	2000/01	2008/09	2000/01	2008/09
Agriculture total	42,253	134,036	2,816	11,384	158	853
Sugar	2,201	8,073	473	2,421	0	109
Other foods	14,916	36,228	518	2,138	28	184
Wheat	428	3,420	58	1,275	1	5
Beef/sheep meat	1,404	5,150	144	846	0	0
Other meats	2,981	10,944	97	694	25	144
Other crops	5,657	12,243	316	566	27	101
Rice	1,140	3,842	283	507	33	83
Vegetable oils	949	12,146	194	621	15	94
Vegetable & fruit	3,687	11,215	167	419	12	48
Other grains	1,679	3,311	120	607	2	6
Dairy	311	1,289	101	321	0	3
Oilseeds	3,348	14,599	68	188	3	17
Beverages and tobacco	1,413	5,939	222	607	4	10
Other products	1,654	2,616	28	118	6	48

Source: GTAP database

Table 2 puts this data in perspective by displaying the percentage share of BRICS exports in the global total. In 2000/01 the BRICS exported 9.5% of global agricultural exports[5], 8.2% of global exports to Africa and 9.0% of global exports to South Africa. By 2008 – 09 these percentages had increased to 11.5, 14.6 and 18.1 per cent respectively. The BRICS were commanding a significant share of the African market by the second period, and in the top five GTAP commodities these percentage increases have been significant.

Table 2: Agricultural exports from the BRICS, % share of global exports

	World		Africa		South Africa	
	2000/01	**2008/09**	**2000/01**	**2008/09**	**2000/01**	**2008/09**
Agriculture total	9.5	11.5	8.2	14.6	9.0	18.1
Sugar	21.3	35.4	31.2	66.2	0.0	83.8
Other foods	11.4	11.6	12.5	17.7	5.4	17.3
Wheat	2.7	8.4	1.9	12.3	1.4	1.4
Beef/sheep meat	6.5	12.0	27.0	54.4	0.0	0.0
Other meats	10.5	16.1	17.8	42.7	23.4	56.5
Other crops	13.9	17.7	22.7	21.5	13.9	32.0
Rice	21.2	20.9	23.8	11.4	21.3	18.6
Vegetable oils	6.1	11.9	13.0	8.1	10.6	10.5
Vegetable & fruit	8.6	10.1	24.5	17.4	26.7	37.2
Other grains	12.4	9.8	9.2	20.2	5.0	12.2
Dairy	1.1	2.0	6.6	7.9	0.0	2.7
Oilseeds	22.5	27.6	26.0	16.2	12.5	45.9
Beverages and tobacco	2.9	5.3	17.9	15.0	3.1	1.7
Other products	12.0	10.9	15.8	23.2	10.3	56.5

Source: GTAP database

[5] Note that these data include intra-EU agricultural trade.

An updated and more historical picture for the agricultural trade flows to firstly the world and then Africa in selected years in the period 1997-2011 is shown in Table 3[6]. The top part of Table 3 shows total agricultural exports by BRICS countries to the world. Brazil is the largest exporter, with exports of $81.5bn for 2011, followed by China, India, Russia and lastly South Africa with $7.2 billion. Exports during 2011 were 5.8 times those of 1999 for Brazil, 4.3 times for China, 6.3 times for India, a large 13.1 times for Russia and a modest 3.0 times for South Africa. For the most recent five year period (2007 – 2011) global export increases were more closely grouped: 1.8 times for Brazil, 1.5 for China, 2.1 for India, 1.2 for Russia and 1.7 times for South Africa.

In the second block, agricultural exports to Africa are shown. Again, Brazil is the main exporter, with its $8.4 billion being almost as much as the combined total of $9.1 billion from the remaining four exporters with from $2.0 to 2.8 billion each. Over the 1999 to 2011 period exports from Brazil increase by 12.5 times, China 5.2 times, India 11.5 times, Russia a massive 548 times and South Africa a lesser 3.4 times. Again, increases over the last five year period have been more even, ranging from Russia's low of 1.3 times to Brazil's 2.4 times with South Africa just behind at 2.3 times and both China and India at 1.9 times.

Table 3: BRICS agricultural exports to the world and Africa, $million

	1997	1999	2001	2003	2005	2007	2008	2009	2010	2011
	$m to World									
Brazil	16,659	13,999	16,251	21,247	31,772	44,547	58,063	54,609	63,486	81,469
Russia	1,583	696	1,227	2,375	3,564	7,844	8,043	7,747	5,921	9,088
India	na	4,827	5,051	5,727	8,835	14,680	19,892	14,871	20,465	30,372
China	12,776	11,386	13,188	17,711	22,618	31,540	34,629	32,037	39,695	48,643
South Africa	2,515	2,370	2,349	3,148	4,057	4,243	5,535	5,626	6,455	7,227
	$m to Africa (including SACU)									
Brazil	765	669	1,031	1,291	2,634	3,494	4,459	4,651	5,792	8,377
Russia	8	4	57	194	596	1,717	1,071	1,257	1,196	2,190
India	n/a	242	316	383	1,062	1,473	1,389	824	1,270	2,783
China	219	409	418	646	652	1,113	1,497	1,482	1,641	2,132
South Africa	644	586	586	857	951	863	1,680	1,804	1,880	1,966

Source: Global Trade Atlas data

[6] Note that these data are sourced from the Global Trade Atlas and use the WTO definitions of agricultural commodities, so the totals may not reconcile with Tables 1 and 2.

Table 4 shows the relative shares of BRICS agricultural exports going firstly to Africa as a whole (top block) and then to non-SACU Africa in the lower segment – i.e. except South Africa, given the integrated nature of the SACU market and the dominance of South Africa within that market. For Brazil, for example, 10.3% of total agricultural exports in 2011 were destined for Africa, with 93.1% to non-SACU, thus, 6.9% to SACU (South Africa). Brazil, China and India have regained market share that was lost during the first part of the decade. Almost all the Russian exports go to non-SACU.

Over the period South Africa's share going to Africa grew to a high of over 32% in 2009. Shares for the BRIC countries have all been increasing, and in 2011 one quarter of Russian agricultural exports were destined for the continent (up from under one per cent in the earlier years). Brazil and India both have around 10% of their exports destined for Africa, and in both cases the bulk is for non-SACU Africa. China is different in that (a) only around four per cent of total exports in recent years have gone to Africa, and (b) around 15% of these exports are to South Africa (SACU).

In summary, for the BRICS Brazil dominates agricultural exports to both the world and Africa, with African exports being tightly bunched in the remaining four countries albeit with India at the head of this pack. Both Russia and South Africa have around one quarter of their global exports destined for Africa, with China and India both around ten per cent and China a modest four per cent.

Table 4: BRICS agricultural exports to Africa and SACU

	1997	1999	2001	2003	2005	2007	2008	2009	2010	2011
	Relative shares to Africa (including SACU) (%)									
Brazil	4.6	4.8	6.3	6.1	8.3	7.8	7.7	8.5	9.1	10.3
Russia	0.5	0.6	4.6	8.2	16.7	21.9	13.3	16.2	20.2	24.1
India	na	5.0	6.3	6.7	12.0	10.0	7.0	5.5	6.2	9.2
China	1.7	3.6	3.2	3.6	2.9	3.5	4.3	4.6	4.1	4.4
South Africa	25.6	24.7	24.9	27.2	23.4	20.3	30.4	32.1	29.1	27.2
	Relative shares to Africa (excluding SACU) (%)									
Brazil	93.7	94.2	92.3	86.6	84.4	84.3	88.3	90.2	93.4	93.1
Russia	100.0	100.0	100.0	99.0	99.8	100.0	99.9	99.3	99.2	98.4
India	na	74.0	88.6	74.2	84.2	87.8	90.5	87.9	88.5	92.5
China	84.0	90.7	90.2	80.7	84.8	82.4	85.4	82.4	83.5	84.2

Source: Global Trade Atlas

Table 5 examines the details of where in Africa these exports are going to, both in aggregate and by BRIC and South African exports, followed by the percentage share of each destination by exporter. It shows the data for the first periods as three year averages and the last three individual years. Ranked by 2011, Egypt has been the main destination, followed by Algeria, Nigeria and South Africa. Angola and Morocco have been consistent destinations over the entire period.

Table 5: Aggregate BRICS exports to Africa by country, 1997-2011, $m

	1997-99	2000-02	2003-05	2006-08	2009	2010	2011
World	**35,828**	**39,111**	**64,432**	**106,860**	**130,391**	**136,022**	**176,799**
Africa	**1,337**	**2,563**	**4,997**	**8,290**	**11,977**	**11,779**	**17,448**
Egypt	318	361	732	1,823	2,187	2,734	3,866
Algeria	50	124	370	639	990	1,042	1,792
Nigeria	204	282	446	580	1,029	820	1,474
South Africa	124	235	558	773	901	788	1,120
Angola	130	201	362	624	780	785	1,095
Morocco	155	238	372	497	649	837	1,038
Ghana	53	51	175	308	450	451	745
Zimbabwe	93	80	190	207	425	496	576
Tunisia	44	59	102	292	232	248	566
Kenya	87	53	90	186	524	258	513
Mozambique	124	153	173	242	338	433	473
Sudan	20	21	60	106	329	215	356
Senegal	32	37	138	160	198	168	294
Togo	9	8	45	63	157	163	289

Source: Global Trade Atlas

Table 6 shows firstly the percentage share of each exporter in the given market and in the extreme right hand side column the percentage of South African agricultural exports going to that destination. Looking firstly at the South African trade structure we see that the Republic has an almost complete domination of the Zimbabwean market, dominance in Mozambique and a strong presence in Angola, but shares below its overall African share in all other markets except Kenya. This emphasises the value of proximity, perhaps as exemplified by regional infrastructures and staple food similarities. Conversely, South Africa has virtually no presence in North Africa. Moving back across Table 6, Russia has a strong presence in Egypt, Tunisia and Kenya, while India has consistent share in the ten to twenty per cent range in many destinations, a commanding share in Sudan and a strong share in both Ghana and Kenya. On the left hand side Brazil has around a 50% or greater share in many countries, a share consistent with its global and overall African export share. Only in South African-dominated Zimbabwe and Mozambique and both Kenya and Sudan does this share drop below the general 50% range.

Table 6: BRIC and South African market shares in African destinations, 2011

	2011 shares in each market (%)					
Destination/Exporter	**Brazil**	**Russia**	**India**	**China**	**South Africa**	**South Africa (%)**
World	46.1	5.1	17.2	27.5	4.1	100
Africa	48.0	12.6	16.0	12.2	11.3	27.2
Egypt	48.6	34.7	11.0	5.4	0.3	0.6
Algeria	79.2	0.3	10.8	9.3	0.3	0.3
Nigeria	58.4	0.5	17.6	17.6	5.8	4.3
South Africa	50.9	3.0	17.5	28.6	0.0	0.0
Angola	60.6	0.1	12.1	4.6	22.6	12.6
Morocco	70.3	5.3	2.3	22.0	0.1	0.1
Ghana	46.8	0.0	23.5	22.3	7.4	2.8
Zimbabwe	0.2	0.9	0.5	1.6	96.9	28.4
Tunisia	58.3	23.0	9.5	9.0	0.2	0.1
Kenya	18.7	33.7	26.3	6.4	14.8	3.9
Mozambique	8.5	5.9	11.2	2.1	72.3	17.4
Sudan	20.2	20.2	49.2	8.7	1.7	0.3
Senegal	62.2	1.0	18.4	14.3	4.1	0.6
Togo	49.5	0.0	11.1	38.1	1.4	0.2

Source: Global Trade Atlas

Table 7 compares the market share data from Table 6 with the comparable averages for 2000 to 2002 inclusive. This data is shown in **percentage points** and not actual percentages, as it represents the per cent shares in 2011 minus their percentage shares in the earlier period. Data in the main body of the text must add to zero, as the percentage point changes for the five exporters is a zero sum game – increases in market share from one exporter must be balanced by decreases from others. The column for South Africa shows some disturbing trends, as in both Africa overall and each individual market except Zimbabwe, South Africa is losing market share. Overall for Africa, this loss is

14.7 percentage points; from the average of a 26.0% share in 2000 – 2002 to the 2011 share of 11.3% as shown in Table 6. This is a significant decline, and only in Zimbabwe has South Africa increased market share. Significant losses are reported for Kenya in particular. Both Brazil and Russia have lodged significant increases, although as Table 3 shows, the Russian gains are off a very low base. China has lost aggregate African market share, while both India and Russia have increased theirs. Of interest is that Brazil in particular and to a lesser degree both China and Russia have increased market share in the South African market at the expense of India.

Table 7: Market share changes in African destinations from 2000/2002 to 2011

	Change in shares in each market (percentage points); 2011 from 2000-02 averages					**% of South Africa's Africa exports going to**
	Brazil	**Russia**	**India**	**China**	**South Africa**	
World	5.5	1.3	4.1	-8.8	-2.1	
Africa	9.7	7.1	3.8	-5.9	-14.7	100.0
Egypt	-6.5	22.8	-10.0	-5.4	-0.9	-0.2
Algeria	42.7	-36.7	7.8	-13.5	-0.2	0.2
Nigeria	-12.8	0.2	6.3	13.0	-6.7	-0.8
SACU	8.3	2.9	-13.8	2.5	0.0	0.0
South Africa	9.2	3.0	-14.4	2.2	0.0	0.0
Angola	21.9	0.1	6.2	2.2	-30.5	-3.1
Morocco	10.8	-5.0	1.2	-6.1	-0.9	-0.3
Ghana	0.7	0.0	13.6	10.2	-24.5	0.4
Zimbabwe	-0.3	0.9	-0.8	-4.8	4.9	16.9
Tunisia	-9.7	8.1	3.8	-1.8	-0.4	0.0
Kenya	13.3	33.7	13.5	4.4	-64.9	-2.4
Mozambique	2.6	5.9	8.7	0.5	-17.7	-3.6
Sudan	15.3	19.0	-25.2	0.2	-9.3	-0.2
Senegal	20.7	1.0	13.4	-31.3	-3.8	0.2
Togo	49.5	0.0	11.1	-45.3	-15.3	0.0

Source: Global Trade Atlas

The top fifteen export products by HS 2 Chapters are shown in Table 8, along with the relative contribution from each exporter, and, in the right hand columns firstly the percentage share of South Africa in these exports and then the percentage that this particular HS 2 Chapter contributes to South Africa's exports to Africa. Dominating the table are exports of sugar, where these exports are in turn dominated by Brazilian exports. South Africa is an exporter of sugar, and although this HS Chapter contributes 9.6% of the Republic's African exports they are still only one quarter of the sugar exports to Africa from India, the second major contributor. Sugar is followed by cereals and then meats, and again Brazil is a significant exporter of both these products. Note also that cereals comprise almost all of the Russian exports to Africa, and that South Africa is a minor player in both cereals and meat. These top three HS Chapters make up two-thirds (65.8%) of the total exports to Africa from the parties under consideration, with a dominating 96.0% of Brazilian exports and 88.9% of the Russian contribution. At the other extreme they are only 6.4% of China's exports. Dominance in the other HS Chapters below these top three is shared; four each by South Africa and China, three by Brazil and one by India. Thus, South Africa is doing much better in these "lesser", but still important, markets in Africa. Note here that South Africa is, in essence, competing against itself by the definition of exports from the BRICs to an Africa that includes SACU, a market that South Africa is not, by definition, exporting into.

Table 8: Main products by HS 2 Chapters, 2011 $m

	Total	Brazil	Russia	India	China	South Africa	South Africa (%)	Share of South Africa's exports to Africa
Total	17,448	8,377	2,190	2,783	2,132	1,966	11.3	
Sugar etc.	5,479	4,399	0	805	86	189	3.4	9.6
Cereals	4,090	1,414	1,946	588	49	93	2.3	4.7
Meat	1,911	1,390		479	1	41	2.1	2.1
Sub-total	11,480	7,203	1,946	1,872	136	323	2.8	16.4
Top 3 share (%)	**65.8**	**86.0**	**88.9**	**67.3**	**6.4**	**16.4**		
Fats, Oils	865	460	158	11	25	211	24.4	10.7
Coffee, Tea	732	66	0	149	490	27	3.7	1.4
Prepared vegetables, fruit, etc.	668	17	0	11	520	120	18.0	6.1
Beverages	551	81	3	131	71	265	48.1	13.5
Miscellaneous edible preparations	481	25	1	43	183	229	47.6	11.6
Tobacco	399	133	0	86	81	99	24.8	5.0
Vegetables	341	12	5	74	199	51	15.0	2.6
Prepared cereals etc.	263	41	0	101	35	86	32.7	4.4
Milling products	240	48	49	21	15	107	44.6	5.4
Fruit and nuts	216	2	0	43	17	154	71.3	7.8
Oilseeds	204	21	4	46	95	38	18.6	1.9
Prepared meat	204	101	0	5	74	24	11.8	1.2
Sub-total top 15	**16,644**	**8,210**	**2,166**	**2,593**	**1,941**	**1,734**	**10.4**	**88.2**
Top 15 share (%)	**95.4**	**98.0**	**98.9**	**93.2**	**91.0**	**88.2**		

Source: Global Trade Atlas

Table 9 shows the changes in market shares for these top fifteen 2011 exports from the average of the 2000 to 2002 period. Table 7 showed that South Africa had dropped 14.7 percentage points in African market share, and that same figure appears in the top right hand corner again. Looking down the column from there it can be seen that South Africa has lost market share in every HS Chapter except the export of fats and oils. Brazil has both gained and lost market shares, but the gains in Cereals and Meats in particular (given their importance in total trade) has contributed to an overall gain of almost ten percentage points. Russia's gains have come almost exclusively from cereals and milling products, while China has gained in twelve of the fifteen Chapters. India has managed to register more gains than losses to record its overall gain.

Table 9: Market share changes in African HS2 Chapters (percentage points), 2000-2011

	Brazil	Russia	India	China	South Africa
Total	9.7	7.1	3.8	-5.9	-14.7
Sugar	-2.2	0.0	12.9	1.4	-12.2
Cereals	28.8	25.2	-7.2	-33.0	-13.8
Meat	19.6	0.0	-7.3	-6.8	-5.5
Fats, oils	-17.0	6.5	-2.7	2.9	10.4
Coffee, tea	2.3	0.0	9.0	-10.0	-1.3
Preparations of vegetables, fruit etc.	-2.1	0.0	1.6	45.7	-45.3
Beverages	3.2	0.2	22.9	11.7	-38.0
Miscellaneous edible preparations	-9.6	0.2	3.3	22.7	-16.6
Tobacco	8.2	-0.5	14.3	2.7	-24.7
Vegetables	0.6	1.5	-7.5	8.6	-3.2
Preparations of cereals etc.	8.6	0.0	19.1	6.3	-34.0
Milling products	11.1	20.4	5.8	6.3	-43.5
Fruit and nuts	-2.6	0.0	1.6	7.0	-6.1
Oilseeds	-17.8	1.4	-0.2	18.5	-1.9
Preparations of meat	-3.0	0.0	2.5	21.3	-20.7
Sub-total top 15	31.2	13.0	8.7	11.7	-64.6

Source: Global Trade Atlas

Table 10 shows the details of the significant trade lines at the HS 6 level for exports of cereals to Africa during 2011. Wheat dominates the trade, with Brazil and Russia being the main providers followed by India, then China and South Africa. Next is rice (from India) and then corn from Brazil.

Table 10: Market share for exporters of cereals into Africa, 2011

		Tot $m	Brazil	Russia	India	China	South Africa
			%				
HS Chapter 10, Cereals		4091	34.6	47.6	14.4	1.2	2.3
100190	Wheat	2423	78.6	0.0	20.3	0.7	0.4
100630	Rice	822	0.0	62.9	32.5	3.8	0.9
100590	Corn	591	2.2	0.2	90.4	0.0	7.3
100640	Rice, Broken	175	0.0	30.3	63.4	0.0	6.3
100300	Barley	30	96.7	0.0	0.0	0.0	3.3

Source: Global Trade Atlas

Table 11 shows the exports of meat to Africa in 2002 and 2011. Beef from Brazil and perhaps surprisingly India and chicken from Brazil dominate both periods. Neither China nor South Africa are meaningful exporters of meat.

Table 11: Meat exports to Africa from the BRICS, 2002 and 2011

	2002	2011	2002	2011	2002	2011	20-02	2011
	Brazil		India		China		South Africa	
Beef, boneless, frozen	48	483	42	477			1	4
Chicken cuts, frozen	13	391			7	0	5	7
Chicken pieces, frozen	20	280					2	3
Turkey cuts	3	73						
Pork, frozen	1	68					1	1
Chilled boneless beef	0	28	7	0	4	1	1	5
Beef dried etc.	4	26					0	1
Beef offal	0	17	0	2				
Beef bone in, Frozen	0	9	3	0			2	2
Pig offal	0	11						
Chicken cuts chilled							0	5
Duck etc.							0	4
Beef bone in Chilled							1	4

Source: Global Trade Atlas

3. Agricultural exports of the BRICS by country

This section will examine the main exports to both Africa and SACU by HS 6 digit line level by each of the BRICS countries. Note that HS 6 line definitions are not necessarily consistent across all countries, so the product definitions associated with the HS 6 lines are provided.

3.1 Brazil

Table 12 shows agricultural exports from Brazil to Africa from 2000 to 2011. Both the dominance and consistency of sugar is apparent, and the increases in meats are also shown. Following on from tables 8 and 9 the increases in cereals is emphasised, and the similar increases in soybean oils (replacing soybeans to some extent) and tobacco is also shown. Over the period the list of lines shown is impressive. Soybeans are perhaps the only instance where trade has fallen off, as in all others it has either been consistent or dramatically increasing. Brazil's total agricultural exports to SACU (South Africa) made up only about 10% of its total agricultural exports to Africa.

Table 12 Brazilian agricultural exports to Africa ($m)

	2000/04	2009	2010	2011
Total	1,224	4,651	5,792	8,377
Cane sugar, raw	201	1,215	1,729	2,775
Sugar, refined	450	1,072	1,389	1,590
Beef, boneless, frozen	105	430	590	483
Chicken cuts, frozen	36	276	303	391
Corn	21	139	351	534
Soybean oil	91	142	108	396
Whole chickens, frozen	29	149	293	280
Wheat	22	26	73	493
Tobacco	40	175	160	121
Rice	0	149	54	267
Ethyl alcohol	15	69	63	74
Soybeans	24	130	11	9
Rice, broken	1	39	71	111
Sugar confection	27	35	23	27
Turkey cuts, frozen	7	51	62	73

Source: Global Trade Atlas

3.2 Russia

Exports of wheat completely dominate Russian exports to Africa (Table 13). Sunflowers (and sunflower oils) are also important, barley exports have been consistent over the period, and there have been some exports of corn to Africa. Agricultural exports to SACU constitute less than 1% of Russia's agricultural exports to Africa, and consist mainly of wheat.

Table 13: Russian agricultural exports to Africa ($m)

	2000-04	2009	2010	2011
Total	161	1,257	1,196	2,190
Wheat	126	1,035	1,087	1,904
Sunflower oil	10	35	41	155
Barley	20	26	29	29
Corn	0	88	2	13
Sunflower seed oilcake	2	10	4	7
Soybean oil	0	40	19	3

Source: Global Trade Atlas

3.3 India

Table 14 shows that Indian agricultural exports to Africa are heavily concentrated in rice, beef and sugar. Tobacco has become important, as have both biscuits and chickpeas, and there are several HS 6 lines down the list that have been consistent in the last three years. Exports to SACU constitute 13% of India's total agricultural exports to Africa, and are dominated by rice.

Table 14: Indian agricultural exports to Africa ($m)

	2000-04	2009	2010	2011
Total agricultural exports	364	824	1270	2783
Rice	141	43	42	517
Beef, boneless, frozen	39	169	408	477
Sugar chemical sucrose	14	0	32	605
Tobacco	7	74	96	57
Sugar, raw	3	0	41	126
Rice, broken	3	0	0	53
Sweet biscuits	3	31	33	64
Chickpeas	0	20	45	60
Soybean cake	8	10	15	77
Sugar confection	1	22	28	42
Black tea	5	17	22	28
Milk powders	4	4	4	0
Sesame seeds	9	10	15	29

Source: Global Trade Atlas

3.4 China

Chinese exports to Africa are shown in Table 15. These have historically been dominated by green tea in bulk bags. In recent years tomato paste exports have increased (as have sauces and food preparations) while rice has declined. Chinese exports to SACU are headed by kidney beans, and constitute 16% of exports into Africa as a whole.

Table 15: Chinese agricultural exports to Africa, $m

	2000-04	2009	2010	2011
Total agricultural exports	510	1,482	1,641	2,132
Green tea, 3kg	86	316	322	401
Tomato paste	8	258	295	360
Rice	146	126	63	31
Green tea	64	46	47	70
Kidney beans	31	55	65	84
Sauces	5	60	83	122
Garlic	5	42	97	92
Animal guts	20	39	49	54
Tobacco	23	44	33	37
Yeasts	3	44	49	49
Food preparations	5	32	35	60
Peanuts	20	14	11	9

Source: Global Trade Atlas

BRIC agricultural exports to Africa: the 2012 update from Brazil and China

Trade data from China and Brazil for the 2012 year became available as this paper went to print. There were significant changes in the all-important agricultural global exports from Brazil, as these were down by 33% overall. This included declines of 78% to China, 37% to Africa in total and 23% to South Africa by destination and globally a massive decline in sugar and soybeans exports as they went from the two top commodities in 2011 to virtually nothing in 2012. Most of the top export destinations in Africa declined during 2012, although Angola at number two stayed the same while Libya at number eight almost doubled. By commodity, sugar and wheat decline significantly while maize at number three increased by 65%. The main changes in Brazilian agricultural exports to South Africa were declines in chicken cuts and edible offal by 22% (perhaps in the face of threatened action from South African authorities against these imports, action which has now been dropped) and significant increases in the export of both sugar and turkey meats. The relatively insignificant import of agricultural products from South Africa into Brazil did increase by 50%, but this was from $12 million in 2011 to $18 million in 2012.

Chinese global agricultural exports were down by 9.36% in 2012 over 2011, while those to Africa were steadier with a decline of 1.3%. South Africa bucked the trend and saw Chinese agricultural exports to them increase by 5.3%. There were few changes of note in Chinese agricultural exports to Africa by either destination or HS 6 commodity line.

3.5 South Africa

Table 16 reports on South Africa's agricultural exports to the continent. It is noticeable that no commodity dominates the export portfolio: corn, sugar and food preparations have all taken their turn as the single largest export item. Wine and apple exports have also grown considerably over the past decade. Over the entire period corn has been the major export, closely followed by sugar when both refined and raw sugar is considered. Sugar faces significant competition in Africa from Brazil and to a lesser extent India, while Brazilian exports of corn have increased in recent years.

Table 16: South African agricultural exports to Africa ($m)

	2000-04	2009	2010	2011
Total agricultural exports	589	1,804	1,880	1,966
Corn	54	389	100	43
Sugar, refined	41	120	116	95
Cigarettes	32	47	68	73
Food preparations, other	19	70	96	123
Sugar, raw	40	46	77	64
Waters	38	51	24	31
Apples	15	53	72	98
Ethyl alcohol	12	39	114	33
Groats	5	40	34	41
Corn seed	23	28	18	20
Sunflower oil	5	55	95	69
Wine	8	31	45	46
Beer	27	18	14	18
Wheat	6	27	6	9
Wheat flour	8	21	35	44
Mixed fruit/vegetable juices	8	26	29	25

Source: Global Trade Atlas

4. South African trade with the BRICs

Table 17 shows South African agricultural imports by source, ranked by 2011 values and with the EU aggregated. The final column enables a comparison of the relative growth over this period. The EU has been the main source of agricultural imports over the entire period, with Argentina in second place. However, the rapid rise of Brazil and China is also apparent. Imports from India have been lower than the overall average, while Russia has seen dramatic growth, but off an almost non-existent base. The losers in the top part of the table are the United States, Australia and Zimbabwe. Thailand and Indonesia are the main non-BRIC growth partners in the top part of the table.

Table 17: South Africa global agricultural imports by source, $m

	1996-00	2001-05	2006-08	2009	2010	2011	last/first
World	1,657	1,964	4,086	4,420	4,934	6,331	3.8
EU - 27	427	435	938	1,180	1,410	1,796	4.2
Argentina	184	268	760	608	589	781	4.2
Brazil	**33**	**178**	**372**	**415**	**362**	**495**	**15.2**
Thailand	75	129	329	483	463	482	6.4
United States	213	161	265	172	267	428	2.0
China	**34**	**77**	**179**	**264**	**299**	**313**	**9.2**
Malaysia	94	87	193	188	248	303	3.2
Indonesia	29	53	123	154	195	254	8.8
India	**59**	**71**	**151**	**106**	**149**	**209**	**3.5**
Australia	124	99	106	112	112	208	1.7
Canada	46	46	125	131	117	153	3.3
Zimbabwe	83	80	67	80	91	145	1.7
New Zealand	23	30	52	41	58	69	3.0
Vietnam	4	8	29	29	49	60	13.6
Ukraine	0	5	3	10	9	54	270
Zambia	15	37	38	29	42	51	3.5
Malawi	21	28	47	42	38	49	2.4
Mozambique	9	7	25	22	30	48	5.5
Pakistan	2	3	6	23	50	46	28.8
Switzerland	13	11	23	29	29	39	2.9
Russia	**1**	**2**	**2**	**21**	**13**	**30**	**30.0**
BRIC %	7.66	16.70	17.23	18.24	16.68	16.54	**2**

Source: Global Trade Atlas

Table 18 examines the same data, but this time by HS 6 product classification. Rice has been the main import at this level overall and in every period except 2011, where it was overtaken by wheat. Both soybean oilcake and palm oil, in third and fourth spots, have shown growth well above the average, as has chicken cuts and soybean oil.

Table 18: South African global agricultural imports by HS 6 lines, $m

	1996/00	2001/05	2006/08	2009	2010	2011	last/first
Total	1,657	1,964	4,086	4,420	4,934	6,331	3.8
Rice	140	160	323	450	411	472	3.4
Wheat	86	118	284	282	274	600	7.0
Soybean oilcake	65	109	227	297	341	360	5.5
Palm oil	56	89	204	232	302	412	7.4
Whiskies	70	88	199	202	262	294	4.2
Chicken cuts, frozen	33	60	151	144	147	245	7.4
Food preparations, other	41	62	130	115	129	157	3.8
Tobacco	23	60	76	161	142	141	6.1
Soybean oil	0	38	91	64	225	296	740
Sunflower seed/oil	75	23	76	92	102	111	1.5
Cotton	56	73	51	46	51	102	1.8
Corn	28	47	112	5	5	23	0.8
Soybean oil	11	30	119	43	55	74	6.7
Animal guts	28	22	53	59	69	76	2.7
Coffee	32	19	46	39	51	71	2.2
Malt	30	23	32	76	19	45	1.5
Beer	7	7	65	145	22	26	3.6
Pork, frozen	12	22	37	43	57	76	6.4
Animal feed	18	22	40	33	42	63	3.4
Kidney beans	15	16	40	49	60	62	4.1

Source: Global Trade Atlas

Table 19 shows South African agricultural exports by destination, ranked by 2011 values, with the EU aggregated. The final column enables a comparison of the relative growth over this period. The EU has been the dominant destination of agricultural imports over the entire period, but its growth rate has been below the overall average. Zimbabwe has been in second place in recent years, and a notable change in 2011 is the emergence of Mexico in third place (exclusively exports of corn). China and Russia, the only BRIC countries in the top twenty, are down the table, but China in particular is showing rapid growth. Six of the top twenty are African markets, although only Nigeria is showing rapid growth. The main exports to Zimbabwe in 2011 were soybean oil, sunflower oil and wheat.

Exports to Mozambique were headed by sugar, corn and prepared foods, while to Angola they were sugar, groats and fermented beverages (cider etc.).

Table 20 examines the same data, but this time by HS 6 product classification. Corn has been the main export in recent years, with the other top exports being very consistent. Note that as the products are at the HS 6 level, some exports such as wine and sugar are listed twice when the differences in detailed classifications are taken into account. Both lemons and macadamia nuts have grown of a zero base, but otherwise there have been no real growth surprises. Comparing this data with the South African exports to Africa as given in Table 16 provides an indication of the importance of Africa for the individual commodities.

Table 19: South African agricultural exports by destination, $m

	1996-2000	2001-05	2006-08	2009	2010	2011	last/first
World	2,422	3,115	4,548	5,626	6,455	7,227	3.0
EU-27	961	1,330	1,859	1,914	2,223	2,276	2.4
Zimbabwe	74	148	203	420	493	558	7.5
Mexico	8	1	3	1	2	383	46.7
Mozambique	124	135	212	251	397	342	2.8
Angola	98	127	144	173	176	247	2.5
Hong Kong	49	54	67	88	144	228	4.7
Korea South	43	41	43	20	102	228	5.4
United States	102	145	192	191	217	215	2.1
China	9	25	102	**164**	**171**	**206**	23.4
UAE	23	57	115	171	183	199	8.7
Japan	144	158	159	151	199	186	1.3
Russia	23	38	94	**123**	**167**	**176**	7.7
Zambia	47	62	125	135	129	155	3.3
Saudi Arabia	59	51	60	90	161	125	2.1
Canada	43	65	98	97	127	122	2.8
Malaysia	24	28	46	55	100	105	4.4
Nigeria	9	36	45	49	60	85	9.7
Taiwan	19	18	15	16	22	78	4.1
Australia	11	23	41	49	61	76	7.2
Kenya	56	40	69	332	114	76	1.3
BRIC total	32	63	196	287	338	382	12
BRIC %	1.32	2.02	4.31	5.10	5.24	5.29	4

Source: Global Trade Atlas

Table 20: South African global agricultural exports by HS 6 lines, $m

	1996/00	2001-05	06-08	2009	2010	2011	last/first
Total	2,422	3,115	4,548	5626	6455	7,227	3.0
Corn	133	114	201	400	267	770	5.8
Oranges	147	208	390	430	601	625	4.3
Wine	156	345	492	526	549	504	3.2
Grapes	148	205	305	333	419	427	2.9
Apples, fresh	98	126	206	236	246	299	3.0
Wool	44	60	127	150	170	276	6.2
Wine	26	65	144	177	202	220	8.5
Pears	45	55	102	129	157	177	4.0
Food Preps	20	34	66	84	111	151	7.4
Lemons	0	37	65	77	107	139	na
Grapefruit	31	60	88	86	92	128	4.1
Macadamias	0	0	16	44	70	115	na
Mandarins	16	37	64	73	89	107	6.5
Ethyl Alcohol	24	62	97	99	179	102	4.2
Sugar	88	72	76	127	127	99	1.1
Sugar	173	172	160	256	115	98	0.6
Cigarettes	57	54	69	80	101	97	1.7
Soybean Oil	1	1	2	6	27	76	127
Plums	23	28	34	46	57	73	3.1
Peaches	42	53	58	64	78	71	1.7

Source: Global Trade Atlas

While perhaps not directly comparable with the Global Trade Atlas or the GTAP definitions above, the FAO do publish agricultural trade data (FAOSTAT, 2012). Table 21 shows this data for the BRICs and South Africa, indexed with the 2004/06 average as the base year. The Index gives a clear idea of the relative changes in exports over time. South Africa starts considerably ahead of the BRIC on this index at 1980. This indicates that the BRICs increased their exports much more over the first pre-index period of 2005. After that date, from 2005 through to 2009, there are three growth groups. Both South Africa and China are at 148 by 2009, indicating an increase of 48% in value terms over this period. Brazil and India are both similar (171 and 175 respectively), while the growth from Russia has been to a spectacular 237 index from the base 104 at 2005.

Table 21: Agricultural exports from the BRICS, 1980 – 2009 (Index, 2005=100)

	1980	1985	1990	1995	2000	2005	2006	2007	2008	2009
Brazil	30	31	28	43	40	100	112	138	179	171
Russia				36	33	104	131	244	243	237
India	27	24	34	61	52	99	124	188	194	175
China	26	36	54	73	64	103	113	143	153	148
South Africa	69	29	51	62	59	107	101	110	144	148

Source: FAOSTAT, 2012

5. Competition for South Africa from the BRIC exporters

Tables 10 and 11 showed exports of cereals (wheat) and meat respectively from the BRICS and emphasised that South Africa is not a serious exporter of these commodities. This was further reinforced by the data in Table 18 which shows that these commodities, along with soybean products and palm oil, are major imports into South Africa. Closer examination of South Africa's global exports in Table 18 and exports to Africa in Table 16 does however highlight the importance of fruit exports and processed agricultural products. The paper now turns to an examination of the fruit exports (HS Chapter 08) and prepared foodstuffs and most of the other agricultural products in Section IV of the HS classifications that includes all products in Chapters 16 (prepared meats) to 24 (tobacco and substitutes), except for HS 17, sugar, which has been discussed earlier. Similarly, Chapters 16 (prepared meats) and 18 (cocoa and products) are also excluded as they are of minor significance.

Table 22 shows the top twenty processed agricultural products by overall exports from 1997 to 2011. These products are grouped at the HS 4 level and shown by ascending HS 4 codes. There are three sets of data for firstly South Africa, and then Brazil, China and India. Russia is exclude as there are only exports of $4 million in both beer and tobacco products but otherwise no reported exports in the classifications used. The data presented enables an assessment of where the BRIC exporters are "nipping at the heels" (or even passing South Africa) either throughout the period or in recent years. There are several categories:

- Where South Africa faces no competition from these countries. This includes citrus fruit, soups etc., beer, wine and fermented beverages. These make up some 21% of South Africa's exports into the rest of Africa in the categories included in the Table.
- Where there is emerging competition in recent years that is potentially threatening– grapes and apples from China, prepared cereals from China and India, waters from Brazil and China. These make up 19% of South Africa's exports into Africa in the categories included in the Table.
- Where there already is serious competition that has grown dramatically in recent years – malt extracts, bread and similar products, processed vegetables from China, fruit juices from both China and a lesser extent Brazil, sauces from China, food preparations not elsewhere specified (nes), ethyl alcohol from Brazil and India, animal feeds from the three BRICs, and cigarettes and tobacco.

Clearly there are warning signals for South Africa from the dominant third group above, those commodities where the competition is significant and in most instances increasing.

Table 22: Competition for South Africa from BRIC exports to Africa, $m

	RSA		Brazil		China		India	
	2000/02	2009/11	2000/02	2009/11	2000/02	2009/11	2000/02	2009/11
Citrus fruit	29	68						
Grapes	7	43			0	13	0	9
Apples	45	239	0	3	1	30		
Malt extracts	14	50	0	40			0	11
Prepared cereals	5	68			0	4	0	11
Bread etc.	17	86	4	72	0	51	11	172
Processed vegetables	7	60	0	4	0	32		
Fruit juice	42	207	1	19	7	118		
Sauces etc.	14	75	0	8	22	273	0	4
Soups etc.	7	97	1	4	0	0		
Food preparations nes	72	314	20	16	4	131	4	33
Waters	99	122	0	6	0	10	0	4
Beer	64	50	2	4			0	4
Wine	33	192						
Fermented beverages	10	97						

	RSA		Brazil		China		India	
	2000/02	2009/11	2000/02	2009/11	2000/02	2009/11	2000/02	2009/11
Ethyl alcohol	53	187	36	206			2	93
Ethyl alcohol	24	137	0	6	0	14	1	110
Animal feed	9	81	2	19	4	35	0	7
Cigarettes etc.	179	189	1	15	23	47	1	16
Tobacco etc.	3	78					3	21
Total		2440		422		758		495

Source: Global Trade Atlas

6. Conclusions

The purpose of this paper has been to analyse the market for agricultural imports into Africa, to establish the role that the BRICS countries play in this market, collectively and individually, and to try and gain a better understanding of the opportunities and threats facing South Africa in the African market. To this end the trade data over the past decade, and in some cases a longer period, were analysed from a number of different perspectives. The main conclusions that are drawn from this analysis are:

1. BRICS agricultural exports to the rest of the world are increasing rapidly. In 2008/09 the BRICS exported 11.5% of global agricultural exports, 14.6% of global exports to Africa and 18.1% of global exports to South Africa, up from 9.5%, 8.2% and 9.0% in 2000/01 respectively.

2. In 2011, South Africa (27.2%), and Russia (24.1%) had the highest proportionate shares of their total agricultural exports going to Africa, followed by Brazil (10.3%), India (9.2%) and China (4.4%). Nevertheless, Brazil was responsible for 48% of BRICS agricultural exports into Africa, and South Africa for only 11.3% in 2011.

3. The agricultural exports of the BRICS countries are also concentrated by destination: 22% went to Egypt in 2011, with 54% going to the largest five destinations (Egypt, Algeria, Nigeria, South Africa and Angola).

4. South Africa dominates agricultural exports into Zimbabwe, followed by Mozambique, Angola and Kenya, but has no presence in North Africa. Russia has a strong presence in Egypt, Tunisia

and Kenya, while India dominates in Sudan and has a strong share in both Ghana and Kenya. Brazil dominates across the continent, except in Zimbabwe, Mozambique, Kenya and Sudan. South Africa is losing market share in all markets excepting Zimbabwe, although the losses have generally been very small over the past decade.

5. Sugar, cereals and meat made up almost two thirds of the BRICS countries' agricultural exports into Africa in 2011. These three commodities were 86% of Brazil's exports into the continent, 89% of Russia's and 67% of India's, but only 6% of China's and 16% of South Africa's. Brazil, India and China gained market share over the BRICS total for the period 2000-2011 for the top 15 export commodities, while Russia and South Africa lost. Russia dominates wheat exports and Brazil the exports of meat.

6. South Africa's export portfolio into Africa is very diverse, with sugar, maize and food preparations all taking a turn as the largest over the past decade. The fastest growing exports into Africa are wine and apples

7. Some 16.5% of South Africa's agricultural imports originate from the BRIC countries, up from 7.5% a decade ago. These imports have increase more rapidly than imports from the EU and from Argentina, South Africa's biggest source of imports. Rice has traditionally been the largest import, but was overtaken by wheat in 2011. When the oilseeds and oilcake are combined, these make up the largest import category.

8. South Africa's agricultural exports have tripled since the average for the period 1996-2000, but have increased fourfold to China and Russia (agricultural exports to Brazil and India are negligible). Nevertheless, these exports still constitute only 5.3% of South Africa's agricultural exports to the biggest 20 destinations, smaller than exports to Zimbabwe, which have grown almost eight-fold since the average for 1996-2000.

9. South Africa's exports of processed agricultural products into Africa can be divided into three categories: a) where South Africa faces no competition from the BRIC countries (products such as citrus fruit, soups etc., beer, wine and fermented beverages, making up some 21% of these exports); b) where there is emerging competition that is potentially threatening (e.g. grapes and apples from China, prepared cereals from China and India, waters from Brazil and China, making up 19% of the exports); and c) where there already is serious competition that has

grown dramatically in recent years (including malt extracts, bread and similar products, processed vegetables from China, fruit juices from both China and a lesser extent Brazil, sauces from China, food preparations not elsewhere specified (nes), ethyl alcohol from Brazil and India, animal feeds from the three BRICs, and cigarettes and tobacco.

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