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## Shall we samba? – an update

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## Introduction

Since the publication of tralac's *South Africa's way ahead: Shall we samba?* in 2010 the world's economic and trading environments have changed. The objective of this paper is to examine how the South American Mercosur economies of Brazil in particular have fared in these changes, with again a special focus on agriculture and its trading relationship with South Africa. Trade data will be updated to the December 2011 year where possible, with most of the data sourced from the Global Trade Atlas and all data expressed in US dollars. This 'Samba' update is appropriate as tralac is in the process of producing a new book in cooperation with the National Agricultural Marketing Council (NAMC) to examine South Africa's relationship with the so-called BRIC countries of Brazil, Russia, India and China. Brazil occupies a key role as an agricultural trading partner in this BRIC relationship. Therefore a focus will be given to updating the earlier *Shall we samba?* by, in part, placing Brazil against this BRIC background and referencing some of the papers intended for publication in late 2012 or very early 2013 in the forthcoming BRICs<sup>1</sup> book from tralac.

In summary, we find that the scars of the 2009 global downturn are apparent but Mercosur countries have recovered better than South Africa. The year 2009 was a bleak one for most countries, and for many the scars are still apparent. Given the direct definitional economic relationships between trade performance and Gross Domestic Product (GDP), the emphasis in this update is upon trade as this is crucial in determining economic wellbeing. We cannot, of course, directly predict the future, but recent past performances give valuable clues as to how countries may weather the storm clouds that have not fully dissipated since 2009 and indeed are still are growing in Europe and other places.

Agricultural production and exports from Brazil in particular continue to grow, and both Argentina and Brazil continue to be crucial sources of South Africa's agricultural imports although their share of these imports is declining. Meanwhile, Brazil is placing an increasing pressure on South Africa's agricultural exports to the African continent. The late addition of Brazilian 2012 trade data shows that the global agricultural exports declined by a significant 33%, and if more than a one-off this could have significant implications for Brazil and indirectly South Africa.

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<sup>1</sup> In this paper the term BRIC refers to the original configuration of Brazil, Russia, India and China, with BRICs being this grouping. However, the term BRICS with a capital S means the new configuration that now includes South Africa for the 'S' addition.

## Section 1 The economic and trade performances of Mercosur and South Africa

The paper starts with an update on the general macroeconomic data for the four Mercosur countries plus South Africa as a comparison, with the data sourced from the World Bank. Table 1 sets the scene and provides a perspective by firstly showing the Gross National Income (GNI) per capita expressed in US dollars followed by the recent GDP growth rates. There is a range in the GNI per capita, from Paraguay's \$5,310 as the lowest to Argentina's \$17,250, with South Africa and Brazil being very similar. The 'change' shown is the 2011 figure over the 2009 figure, and here South Africa has done poorly, as 2011 is only seven% above the 2009 figure. This is mirrored in the GDP growth rate data in the lower half of the table, where 2009 was a bad year for all, but the Mercosur bloc has significantly outperformed South Africa in the latest two years.

**Table 1 GNI per capita and GDP growth rates**

GNI per capita, PPP (current international \$)						
	2007	2008	2009	2010	2011	Change
Brazil	9,570	10,160	10,180	11,000	11,500	1.13
Argentina	13,060	14,100	14,110	15,500	17,250	1.22
Paraguay	4,390	4,660	4,400	5,050	5,310	1.21
Uruguay	11,090	12,020	12,410	13,560	14,740	1.19
South Africa	9,620	10,090	10,040	10,330	10,790	1.07
GDP growth (annual %)						
Brazil	6.1	5.2	-0.3	7.5	2.7	
Argentina	8.7	6.8	0.9	9.2	8.9	
Paraguay	6.8	5.8	-3.8	15.0	4.0	
Uruguay	6.5	7.2	2.4	8.9	5.7	
South Africa	5.5	3.6	-1.5	2.9	3.1	

Source: World Bank: <http://data.worldbank.org/country>

This GDP data is extended in Table 2 to introduce the World Bank forecasts through to 2014 for the three main countries. Here the World Bank is suggesting a similar growth path for the three countries, albeit with South Africa still marginally below Brazil and Argentina except for Argentina's 2012 estimate.

**Table 2 World Bank GDP forecasts**

GDP growth	2010	2011	2012e	2013f	2014f
Brazil	7.5	2.7	2.9	4.2	3.9
Argentina	9.2	8.9	2.2	3.7	4.1
South Africa	2.9	3.1	2.7	3.4	3.5

Source: World Bank forecasts

### **The agricultural background**

Table 3 shows firstly the share of agricultural value-added in each country followed by the annual percentage change in this figure. Clearly, agriculture is more important in the Mercosur countries than in South Africa, and in contrast to the Mercosur countries South Africa's agricultural value-added contribution to GDP has been steadily declining. Note that when combined with the data from Table 1 where for the GDP data Mercosur is outperforming South Africa this means that the relative decline of agriculture in South Africa is accentuated. Overall, a declining role of agriculture in the economy is not necessarily a bad thing, but when set against the real problem of rural poverty and the lack of industrialisation expansion that besets South Africa and combined with a modest GDP growth, it is a problem.

**Table 3 Agricultural value-added**

	2007	2008	2009	2010	2011
<b>Agriculture, value-added (% of GDP)</b>					
Brazil	5.6	5.9	5.6	5.3	5.5
Argentina	9.4	9.8	7.5	10.0	9.1
Paraguay	22.0	23.6	19.2	22.3	22.0
Uruguay	10.2	10.9	9.8	9.5	10.1
South Africa	3.4	3.2	3.0	2.5	2.4
<b>Agriculture, value-added (annual % growth)</b>					
Brazil	4.8	6.3	-3.1	6.3	3.9
Argentina	9.8	-2.5	-15.7	28.0	6.5
Paraguay	14.3	9.0	-17.2	34.2	-42.0
Uruguay	-9.7	2.1	1.6	0.6	4.5
South Africa	3.5	10.9	-3.2	5.0	0.7

Source: World Bank

### Recent trade performances

The overall export performance for all countries is shown in Table 4, and here South Africa is again struggling to keep up with the Mercosur countries – although the 2011 data is more encouraging. Note especially that this data is an indexed value to show relative and not actual performances, and it will therefore not reconcile with nominal trade data shown later. The 2009 year was disastrous for most, and this is reflected through from the Table 1 GDP data given the importance of trade and its contribution to GDP.

**Table 4 Export performance**

	2007	2008	2009	2010	2011
<b>Export value index (2000 = 100)</b>					
Brazil	291	359	278	366	
Argentina	212	268	213	260	
Paraguay	212	324	513	364	522
Uruguay	172	195	280	236	292
South Africa	206	239	270	208	268
<b>Exports of goods and services (annual % growth)</b>					
Brazil	6.2	0.5	-9.1	11.5	4.5
Argentina	9.1	1.2	-6.4	14.6	4.3
Paraguay	9.6	10.5	-12.8	34.3	1.1
Uruguay	4.8	8.5	5.7	6.0	5.8
South Africa	5.9	2.4	-19.5	4.5	5.9

Source: World Bank data

Table 5 concludes the big-picture analysis by showing the merchandise import equivalent of the Table 4 export data. Again, South Africa is lagging in these statistics as well, and again the economic downturn of 2009 is highlighted for all countries.

**Table 5 The import picture**

	2007	2008	2009	2010	2011
<b>Import value index (2000 = 100)</b>					
Brazil	216	311	228	326	
Argentina	178	228	155	224	
Paraguay	210	259	400	307	444
Uruguay	137	165	258	199	249
South Africa	268	300	320	250	319
<b>Imports of goods and services (annual % growth)</b>					
Brazil	19.9	15.4	-7.6	35.8	9.7
Argentina	20.5	14.1	-19.0	34.0	17.8
Paraguay	10.8	15.9	-13.2	29.3	5.1
Uruguay	5.9	24.4	-6.8	14.4	11.2
South Africa	9.0	1.4	-17.4	9.6	9.7

Source: World Bank data

In summary, the Mercosur countries are doing better than South Africa as measured by most economic indicators, although the recent data and the World Bank forecasts suggest that South Africa is ‘hanging in there’. There has been a strong recovery from the downturn 2009 year in most indicators, but the continued uncertainty in global market accentuated by the European and subsequent Eurozone crisis signals that there are possibly stormy seas still ahead.

## Section 2 Trade

### Exports – the big picture for Brazil and Argentina

Tables 6 and 7 start by showing the export performance from Brazil since 2007, with all merchandise shown in Table 6 and agricultural exports (as defined by the World Trade Organisation – WTO) shown in Table 7. The ‘change’ on the right-hand column is again the 2011 figure divided by the 2009 figure to give the relative increase over that period. The EU is the main market, with China a fast-growing second. Overall exports increased by 67% from 2009 through to 2011, although note the large decline in 2009 from the 2008 figure that accentuated this increase.

**Table 6 Brazil’s merchandise exports**

All commodities, \$ million	2007	2008	2009	2010	2011	change
World	160,649	197,942	152,995	201,915	256,040	1.67
EU	40,357	46,367	34,007	43,101	52,887	1.56
China	10,749	16,403	20,191	30,786	44,315	2.19
United States	25,065	27,423	15,602	19,307	25,805	1.65
Argentina	14,417	17,606	12,785	18,523	22,709	1.78
Japan	4,321	6,115	4,270	7,141	9,473	2.22
Chile	4,264	4,792	2,657	4,258	5,418	2.04
Ships & Aircraft	2,848	4,631	2,614	3,570	4,813	1.84
Korea South	2,047	3,119	2,622	3,760	4,694	1.79
Venezuela	4,724	5,150	3,610	3,854	4,592	1.27
Russia	3,741	4,653	2,869	4,152	4,216	1.47
Top ten as %	70.0%	68.8%	66.2%	68.6%	69.9%	

Source: Global Trade Atlas



Table 7 now shows the destination of Brazilian agricultural exports, as ranked on 2011 trade data. Key points are: 1) the EU has consistently been the number one destination; 2) the rapidly growing market of China is now number two; 3) the share of these top ten markets declined from 72% in 2007 through to around 68% in the two most recent years, thus indicating a slightly broader export diversification; and 4) the agricultural exports have not grown as fast as the ‘all merchandise’ data shown in Table 6 over the last two years.

**Table 7 Brazilian agricultural exports by destination**

Agr products, \$ million	2007	2008	2009	2010	2011	change
World	44,547	58,063	54,609	63,486	81,469	1.49
EU	15,907	18,680	15,595	15,744	19,162	1.23
China	3,571	6,687	7,420	9,326	14,602	1.97
United States	2,911	3,315	2,539	2,926	4,456	1.76
Russia	3,362	4,156	2,769	4,039	4,016	1.45
Japan	1,456	2,124	1,590	2,095	3,201	2.01
Saudi Arabia	953	1,393	1,479	1,926	2,391	1.62
Venezuela	946	2,215	1,442	1,999	2,177	1.51
Iran	1,546	910	1,091	2,061	2,120	1.94
Egypt	643	728	734	1,303	1,879	2.56
Hong Kong	930	1,373	1,535	1,313	1,731	1.13
Top ten as %	72.3%	71.6%	66.3%	67.3%	68.4%	

Source: Global Trade Atlas

Table 8 shows the top twenty agricultural commodity exports from Brazil in 2011, along with the earlier 2000, 2009 and 2010 values and again the ratio of exports expressed as the 2011/2009 exports on the right-hand column<sup>2</sup>. Notable is that the 2011 exports were 1.5 times the 2009 values overall<sup>3</sup>, a dramatic increase in two years although we have reported that 2009 was not a good year! These top twenty exports represented 92.9% of the total agricultural exports in 2011 as calculated in the bottom line, a figure that has been inching up over the period indicating slightly more concentration. Indeed, although not shown, the top five exports represented 64.1% of all exports in

<sup>2</sup> Note that the ‘change’ in this table is 2011 over 2009 data and not 2011 over 2008 as in the previous table.

<sup>3</sup> We are using US dollars throughout this report. When expressed in Brazilian reals, the increase declines from 1.49 to 1.25 over the 2009 to 2011 period. Thus, to Brazilians, the increase in agricultural exports is not as rosy. Similarly, South African agricultural exports are reported late with an increase.

2011. Soybeans and sugar dominate the commodities<sup>4</sup>, with large increases from several others in recent years. This latter group includes beef, corn (maize) and cotton in the top half of the table and almost all the commodities in the lower half of the table. This indicates that although soybeans, sugar, coffee and poultry dominate there are several alternative commodities that, on these projections, are likely to continue contributing to Brazilian exports. The sugar exports are an important feature of Brazilian exports as they directly compete with South Africa, and conversely, South Africa has become an important (and controversial) destination for Brazilian poultry.

**Table 8 Agricultural exports from Brazil, \$ million & % change 2011 over 2009**

Brazil agricultural exports \$ million					Change
Description	2000	2009	2010	2011	2011/2009
Total agriculture	12,899	54,609	63,486	81,469	1.5
Soybeans	2,188	11,424	11,043	16,327	1.4
Sugar	1,199	8,378	12,762	14,942	1.8
Coffee	1,563	3,791	5,204	8,026	2.1
Poultry	879	4,945	5,952	7,243	1.5
Soybean oilcake	1,651	4,593	4,719	5,698	1.2
Beef, frozen	333	2,655	3,376	3,518	1.3
Tobacco	813	2,992	2,707	2,879	1.0
Corn (Maize)	9	1,302	2,216	2,716	2.1
Fruit juice	1,090	1,752	1,925	2,566	1.5
Soybean oil	359	1,234	1,352	2,129	1.7
Cotton	32	685	822	1,590	2.3
Ethyl alcohol	35	1,338	1,014	1,492	1.1
Prepared meat	288	1,438	1,269	1,488	1.0
Pork	163	1,112	1,227	1,286	1.2
Extracts coffee	222	490	563	710	1.4
Wheat	0	63	227	699	11.1
Prepared meat, etc.	5	531	564	659	1.2
Beef, fresh	170	367	485	652	1.8
Rice	7	268	163	613	2.3
Live cattle	0	444	659	445	1.0
Top twenty \$ million	11,006	49,802	58,249	75,678	1.5
Top twenty % total	85.3%	91.4%	91.7%	92.9%	

Source: Global Trade Atlas data

<sup>4</sup> This is even more apparent when soybean oilcake and soybean oil are added to soybeans, as the combined soybeans then add to just on 30% of the total exports.

To fully appreciate the agricultural export might of Brazil and Argentina we have shown in Table 9 that Brazil has five products ranked in the top twenty individual agricultural product exports of the Food and Agricultural Organisation (FAO), while Argentina has two. Both are included with their soybean and cake of soybean exports, while Brazil is also included with sugar, chicken meats and coffee.

**Table 9 Global rankings in 2010 of the top agricultural exports by country/commodity**

Rank 2010	Country	Commodity	Value (\$ million)
4	Brazil	Soybeans	11,043
6	Brazil	Sugar raw	9,307
8	Argentina	Cake of soybeans	8,195
13	Brazil	Chicken meat	5,789
16	Brazil	Coffee, green	5,182
18	Argentina	Soybeans	4,986
19	Brazil	Cake of soybeans	4,719

Source: FAO data

#### Brazilian trade: the 2012 update

Trade data for Brazil for the 2012 year became available as this paper went to print. Overall, merchandise exports were down by 5%, with those to Argentina down 21%. Global imports were virtually unchanged with a 1% decline and no major source changes. There are, however, significant changes in the all-important agricultural exports, 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 a massive decline in sugar and soybeans exports as they went from the two top commodities in 2011 to virtually nothing in 2012. 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 did increase by 50%, but this was from \$12 million in 2011 to \$18 million in 2012.

We do not have access to the Global Trade Atlas for Argentina, but instead we show in Table 10 the updated exports as reported by the Argentinean statistics authorities. This is monthly data for 2011 and 2012 through to August 2012. Notable is the decline in recent exports.

**Table 10 Global merchandise trade data for Argentina**

Period	Exports				Imports			
	2011	2012	Percentage variation		2011	2012	Percentage variation	
			A	B			A	B
US dollars (millions) and percentage age variations								
<b>Annual total</b>	<b>83.950</b>				<b>73.937</b>			
January	5.254	5.909	12	12	4.889	5.358	10	10
February	5.487	6.098	11	12	4.800	4.757	<u>-1</u>	4
March	6.159	6.276	2	8	5.642	5.199	<u>-8</u>	--
April	7.149	6.687	6	4	5.662	4.861	<u>-14</u>	<u>-4</u>
May	8.082	7.556	<u>-7</u>	<u>1</u>	6.373	6.039	<u>-5</u>	<u>-4</u>
June	7.938	7.121	<u>-10</u>	<u>-1</u>	6.899	6.097	<u>-12</u>	<u>-6</u>
July	7.302	7.435	2	<u>-1</u>	6.645	6.368	<u>-4</u>	<u>-5</u>
August	8.419	7.952	<u>-6</u>	<u>-1</u>	7.619	6.324	<u>-17</u>	<u>-7</u>
September	7.787				6.889			
October	7.464				6.303			
November	6.594				6.230			
December	6.316				5.987			
A relative to the same month of the previous year (underlined data is negative to highlight)								
B accumulated since January relative to the same period in the previous year								

Source: Argentinean Instituto Nacional de Estadística y Censos: [www.indec.gov.ar](http://www.indec.gov.ar)

Table 11 continues with the FAO agricultural export data from Argentina. Many of the 2010 values are below the 2008 values. Soybean and soybean products dominate, and Argentina holds number one world ranking in cake of soybean and soybean oil along with number two in maize and sunflower oil for 2010.

**Table 11 Agricultural exports from Argentina, \$ million ranked by 2010 exports**

Product/\$ million	2008	2009	2010	Change	Global Rank
Cake of soybeans	7,129	8,053	8,195	1.02	1
Soybeans	4,583	1,675	4,986	2.98	3
Soybean oil	4,896	3,261	4,136	1.27	1
Maize	3,531	1,613	3,145	1.95	2
Beef & veal	1,349	1,513	1,041	0.69	9
Wheat	2,547	1,002	902	0.90	8
Wine	644	632	737	1.17	11
Sunflower oil	1,501	734	539	0.73	2
Milk whole dried	394	348	460	1.32	3
Chicken meat	279	260	379	1.46	9
Subtotal	26,855	19,091	24,520		

Source: FAO

Finally, Table 12 reports on the agricultural exports from both Uruguay and Paraguay during 2010. Both countries have soybeans and beef as their top two commodities. Note that the subtotals for the top twenty agricultural exports from both countries are very similar, with \$3,202 million from Uruguay and a marginally higher \$3,375 million from Paraguay.

**Table 12 Agricultural exports from Uruguay and Paraguay, \$ million ranked by 2010 exports**

Uruguay exports \$ million	2010		Paraguay exports \$ million	2010
Soybeans	832.0	*	Soybeans	1,489.9
Beef & veal	830.0	*	Beef & veal	701.7
Wheat	316.5	*	Cake of soybeans	370.0
Rice	303.7	*	Soybean oil	202.0
Cheese	157.3	*	Maize	190.6
Malt	136.2	*	Wheat	134.5
Hair	99.9	*	Rice	56.9
Sheep meat	67.8	*	Sesame seed	45.0
Milk whole dried	59.2	*	Sugar raw	33.0
Offal of cattle, edible	53.3	*	Cotton lint	25.1
Oranges	51.1	*	Sunflower oil	22.0
Fat prep, nes*	48.5	*	Offal of cattle, edible	19.2
Wool, greasy	44.1	*	Cigarettes	13.6
Tangerines, mandarins	40.6	*	Rapeseed	12.5
Tallow	30.8	*	Food prep, nes	11.2
Buttermilk	29.1	*	Tobacco	10.3
Preparations of beef meat	28.9	*	Oil essential, nes	10.2
Milk skimmed dry	25.0	*	Cassava starch	9.7
Butter cow milk	24.7	*	Oil of vegetable, nes	9.5
Meal meat	23.3	*	Rapeseed oil	8.2
<b>Total top twenty</b>	<b>3,202</b>		<b>Total top twenty</b>	<b>3,375</b>

Source: FAO data

\*nes – not elsewhere specified

### Section 3 Agricultural production

From the FAO database we were able to extract the values of the top ten Brazilian agricultural products. These are shown in Table 13, where the values are ranked by 2010 and expressed in dollars (millions). The right-hand section of the table shows the values for the same products for earlier years. Beef, sugar and soybeans have consistently been the top three products, but the rankings have changed in other products. Chickens have moved to number four as a result of the growth over the period, while maize at number ten has also displayed dramatic growth. Note that four of the top six products are the three meat products of beef, chicken and pigmeat, and cow's milk. The FAO ranks Brazil as being the number one global producer of sugar cane, oranges and coffee; number two in beef and soybeans; number three in chicken meat and maize; number four in cow's milk; number five in pigmeat; and number nine in rice. Note also that while sugar is, of course, an agricultural product, a significant percentage of the output in Brazil is used for ethanol fuel production.

**Table 13 Brazilian agricultural production, \$ million**

	2010	Global rank	2009	2008	2005	2000	1990
<b>beef</b>	25,193	2	25,691	24,590	23,276	17,738	11,071
<b>sugar</b>	23,362	1	22,513	20,993	13,823	10,597	8,350
<b>soybeans</b>	16,800	2	15,358	16,027	13,669	8,665	5,074
<b>chicken</b>	15,288	3	14,206	14,596	11,239	8,533	3,356
<b>milk</b>	9,489	4	8,986	8,786	7,842	6,296	4,614
<b>pigmeat</b>	4,733	5	4,811	4,635	5,431	3,997	1,614
<b>oranges</b>	3,498	1	3,405	3,583	3,450	4,122	3,386
<b>coffee</b>	3,122	1	2,622	3,005	2,299	2,045	1,574
<b>rice</b>	3,072	9	3,467	3,300	3,613	3,024	1,978
<b>maize</b>	2,962	3	2,380	2,353	927	621	572

Source: FAO data

The global rankings of production in Argentina reflect its role as a heavyweight on the agricultural scene, with several products ranked in the top ten during 2010. Note in the final row the subtotals for these top twenty exports, where the figures for 2010 are only marginally above the 2007 and 2008 figures after the decline during 2009.

**Table 14 Argentinean agricultural production, \$ million**

Argentina Commodity/\$ million	2010	Global rank	2009	2008	2007
Soybeans	14,172	3	8,223	12,411	12,774
Beef	7,095	4	9,121	8,829	8,694
Cow milk, fresh	3,277	15	3,235	3,221	3,065
Maize	2,768	4	1,492	2,490	2,435
Chicken meat	2,275	9	2,137	1,993	1,771
Wheat	2,270	10	1,314	1,274	2,510
Grapes	1,496	8	1,247	1,613	1,768
Sugar cane	821	10	840	885	787
Sunflower seed	611	3	680	1,276	958
Apples	444	11	434	402	423
Lemons and limes	441	3	565	540	555
Pigmeat	432		444	421	369
Hen eggs	419		421	410	388
Barley	347	4			
Rice, paddy	336		362	337	291
Cotton lint	329	10	193	238	243
Potatoes	327		318	310	318
Pears	288	4	286	303	294
Sorghum	282	7			
Groundnuts	268	9	265	273	262
Subtotal	38,699		31,579	37,224	37,904

Source: FAO data

Finally, recent agricultural production from both Paraguay and Uruguay is shown in Tables 15 and 16 respectively. The decline in Paraguay's production during 2009 was signalled in Table 3 above, as was the recovery in 2010. Soybeans and beef again feature. Conversely, production in Uruguay slowly increased over the three years, with cattle in the form of firstly beef and secondly milk making a significant contribution to the overall production.



**Table 15 Paraguay's agricultural production, \$ million**

Commodity / \$ million	2010	2009	2008
Soybeans	1,951.9	990.9	1,645.1
Beef	1,039.7	849.1	782.1
Maize	430.6	255.5	341.7
Wheat	190.9	138.0	102.3
Pigmeat	184.4	166.0	166.0
Cassava	132.9	132.8	128.7
Cow milk, whole, fresh	123.7	145.7	137.9
Hen eggs	106.2	105.8	103.0
Sugar cane	105.6	105.0	105.5
Rice, paddy	86.9	59.0	39.6
Sunflower seed	71.9	53.1	52.2
Oranges	44.4	43.7	43.4
Chicken meat	29.6	33.1	27.0
Beans, dry	27.3	23.8	24.6
Sesame seed	27.2	44.0	33.9
Rapeseed	24.5	0.0	0.0
Tomatoes	21.6	16.4	14.9
Bananas	20.2	14.9	14.8
Mangoes, mangosteens, guavas	19.1	17.8	16.6
Pineapples	16.9	15.8	15.5
Subtotal	4,655	3,211	3,795

Source: FAO data

**Table 16 Uruguay's agricultural production, \$ million**

Commodity/ \$ million	2010	2009	2008
Beef	1,506.3	1,444.3	1,529.0
Cow milk	511.4	525.6	477.8
Soybeans	477.0	260.8	197.7
Rice, paddy	313.8	352.4	364.3
Wheat	182.1	267.9	192.6
Chicken meat	98.1	103.4	107.0
Sheep meat	93.6	96.6	86.3
Wool	66.4	78.5	86.3
Grapes	63.0	50.0	64.5
Honey, natural	47.9	20.1	25.1
Maize	46.1		
Hen eggs, in shell	43.5	43.5	48.4
Tangerines, mandarins	30.0	22.9	21.8
Oranges	29.8	25.1	24.9
Pigmeat	28.3	26.6	32.1
Apples	22.1	24.9	21.7
Barley	18.9	51.9	45.6
Potatoes	16.3	14.4	14.9
Lemons and limes	14.9	16.6	13.1
Horse meat	13.7		15.6
Subtotal	3,623	3,426	3,369

Source: FAO data

### Brazilian agricultural exports and the competition with South African exports within Africa

Sandrey et al. (2012) examined the market for agricultural imports into Africa to establish the role that the BRICS<sup>5</sup> 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 was analysed from a number of different perspectives, and this provides a good background for the role of Brazil as a competitor of South Africa in the African market. The main conclusions drawn from that analysis were:

<sup>5</sup> BRICS here refers to Brazil, Russia, India, China and South Africa.

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. These BRICS exports (including South Africa's) are concentrated by destination: 22% went to Egypt and another 32% went to the next four largest destinations of Algeria, Nigeria, South Africa and Angola. 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 except Zimbabwe, although the losses have generally been very small over the past decade. 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. 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, with the fastest growing exports into Africa being wine and apples. Of concern to South Africa must be competition for the exports of processed agricultural products into Africa, and here the BRICs in general and Brazil in particular are providing serious competition that has grown dramatically in recent years.

## Section 4 Chile

While not a member of Mercosur, Chile is nonetheless an essential part of South America and a very successful agricultural exporter. Table 17 shows the recent agricultural export performance from Chile, and notable is the bottom row where the subtotals of the top twenty exports in 2010 have been increasing each year. Of particular interest to South Africa are the exports of wine, grapes, maize, apples, food preparations not elsewhere specified, and pears, as they also appear on the top twenty list from South Africa when using the same FAO classifications.

**Table 17 Chilean agricultural exports**

Commodity/\$ million	2010	2009	2008	2007
Wine	1,541.1	1,374.2	1,352.8	1,251.0
Grapes	1,345.3	1,154.7	968.8	983.4
Apples	647.0	497.3	558.0	552.4
Fruit preparations, nes	439.0	416.0	555.9	385.5
Cranberries	349.3	183.6	171.2	157.2
Cherries	300.8	149.2	144.8	107.5
Food preparations, nes	291.4	279.7	225.6	
Pork	273.8	286.4	281.1	314.4
Avocados	184.7	283.6	88.2	178.9
Chicken meat	169.2	165.2	124.5	98.0
Maize	166.1	195.4	123.0	116.6
Kiwi fruit	153.1	146.5	148.5	143.1
Raisins	141.4	118.6	126.6	87.1
Peaches and nectarines	130.9	108.0	99.1	100.4
Plums, dried (prunes)	125.7	99.6	119.2	93.4
Plums and sloes	114.8	107.2	83.2	108.2
Pears	111.0	115.8	107.9	96.9
Walnuts shelled	103.1		94.8	
Paste of tomatoes	95.2	83.8	97.1	
Breakfast cereals	75.5	0.0	96.9	62.3
Subtotal	6,758	5,765	5,567	4,836

Source: FAO data

Continuing with the Chile – South Africa theme Table 18 shows the top twenty commodities produced during 2010 in each country as reported by the FAO. There are main similarities, with thirteen of the top twenty South African commodities also appearing on the Chilean list.

**Table 18 Chilean agricultural production set against South Africa's, 2010**

Chile	\$ m		South Africa	\$ m
Grapes	1,575.2		Cattle meat	2,176.8
Pigmeat	766.0	*	Chicken meat	2,098.7
Cow milk	738.0	*	Maize	1,203.9
Chicken meat	717.5	*	Cow milk	908.5
Cattle meat	569.3	*	Grapes	721.0
Apples	465.2	*	Sugar cane	525.9
Tomatoes	332.6	*	Pigmeat	519.6
Avocados	228.7	*	Hen eggs	392.3
Wheat	210.9	*	Sheep meat	361.9
Peaches and nectarines	194.4	*	Apples	306.3
Kiwi fruit	186.8	*	Potatoes	304.9
Plums and sloes	177.8	*	Oranges	273.4
Potatoes	166.0	*	Wheat	215.7
Hen eggs, in shell	121.1	*	Tomatoes	204.8
Turkey meat	118.6	*	Maize, green	166.4
Cherries	75.0	*	Pears	150.7
Pears	73.6	*	Soybeans	149.5
Maize, green	72.8	*	Sunflower seed	134.1
Almonds, with shell	64.9	*	Bananas	110.8
Onions	62.4		Onions	108.9

## Section 5 South Africa’s recent trade performance

South Africa’s global merchandise export performance is shown in Table 19, with the overall decline during 2009 apparent but with a strong recovery since then. Interestingly, in both Brazil and South Africa the exports during 2009 were only 78% of the 2008 figure, but from 2009 South Africa’s exports have increased by 55% as shown in the top right-hand part of Table 19 while the comparable increase by Brazil as shown in Table 6 is 67%. Again, South Africa has done well but not as well as Brazil. The third major destination for South Africa’s exports is ‘unidentified country’, as South Africa does not disclose the destination of gold exports. This table shows the top eight export destinations plus Brazil and Argentina, as we wanted to keep those trade flows in perspective.

**Table 19 South African global merchandise exports, \$ million and change 2011 over 2009**

All merchandise	2006	2007	2008	2009	2010	2011	change
World	57,898	69,868	80,208	62,380	81,311	96,702	1.55
EU	18,447	21,061	23,653	15,025	19,197	21,333	1.42
China	2,036	3,972	4,456	5,798	8,136	11,718	2.02
Unidentified country	5,232	5,783	5,662	6,443	8,600	10,436	1.62
United States	6,043	7,488	8,176	5,049	7,137	8,303	1.64
Japan	6,082	7,159	8,005	4,102	6,394	7,657	1.87
India	783	1,354	2,250	2,125	3,054	3,365	1.58
Switzerland	1,694	1,511	1,726	2,654	2,478	3,110	1.17
Zimbabwe	1,090	1,208	1,671	1,680	2,192	2,457	1.46
Brazil	406	523	658	365	726	829	2.27
Argentina	101	99	152	81	110	183	2.26

Source: Global Trade Atlas

Table 20 turns to agricultural exports to the world, where it can be seen that their overall performance over the two years from 2009 to 2011 was overshadowed by that of total merchandise exports (28% increase versus 55% for all merchandise). Mexico is the real star, as there was a large (possible one-off) shipment of maize to that country in 2011. South Korea is emerging as a valuable market, and China was reported as being just below the US but missed the listing in Table 20 because again we have placed Brazil and Argentina in the table to give some perspective on how important (or not, as the case may be) they are as agricultural markets to South Africa.

**Table 20 South African global agricultural exports, \$ million and change 2011 over 2009**

Agricultural products	2006	2007	2008	2009	2010	2011	change
World	3,865	4,243	5,535	5,626	6,455	7,227	1.28
EU	1,526	1,923	2,136	1,916	2,223	2,277	1.19
Zimbabwe	127	60	421	420	493	558	1.33
Mexico	1	7	1	1	2	383	383.00
Mozambique	177	197	262	251	397	342	1.36
Angola	121	132	180	173	176	247	1.43
Hong Kong	64	63	75	88	144	228	2.59
Korea South	49	44	35	20	102	228	11.40
United States	204	186	186	191	217	215	1.13
Brazil	7	7	7	9	15	12	1.33
Argentina	3	4	4	5	7	7	1.40

Source: Global Trade Atlas

However, in our next table of agricultural imports the Mercosur situation changes, as Table 22 highlights that behind the composite 27 European Union (EU) countries are firstly Argentina and secondly Brazil. While their combined share of South African agricultural imports has declined from a heady 29.1% in 2007 to 19.3% in 2010 and 20.2% in 2011 it remains a substantial part of the total trade.

**Table 22 South African agricultural imports**

Agriculture	2007	2008	2009	2010	2011	change
World	4,318	4,847	4,420	4,934	6,331	1.43
EU	988	1,082	1,186	1,416	1,807	1.52
Argentina	861	847	608	589	781	1.28
Brazil	396	443	415	362	495	1.19
Thailand	278	506	483	463	482	1.00
United States	314	321	172	267	428	2.49
China	192	214	264	299	313	1.19
Malaysia	197	262	188	248	303	1.61
Indonesia	101	198	154	195	254	1.65
India	171	140	106	149	209	1.97
Australia	101	112	112	112	208	1.86

Source: Global Trade Atlas

We start the detailed examination of the Mercosur import profile with Table 13 that looks at imports from Argentina in recent years. Soybean oilcake has been the main import in recent years, and the data shows that these imports have been consistent. Conversely, the imports of wheat are more variable, as several countries are competitive suppliers of this generic and source-substitutable product.

### South Africa's agricultural trade with Brazil and Argentina

**Table 23 South African agricultural imports from Argentina, \$ million and change 2011/2009**

	2006	2007	2008	2009	2010	2011	change
All agricultural products	572	861	847	608	589	781	1.28
Soybean oilcake	158	209	301	293	340	360	1.23
Wheat	62	68	237	44	9	211	4.80
Sunflower seed or oil	65	106	48	88	76	45	0.51
Grape juice	14	23	24	14	7	25	1.79
Soybean oil	18	41	31	40	53	24	0.60
Sunflower oilcake	5	15	6	13	15	18	1.38
Chicken cuts and offal	6	11	15	16	11	12	0.75
Whole chickens	4	3	3	6	9	11	1.83
Barley	0	0	3	0	4	11	
Soybean oil	88	91	104	33	27	8	0.24

Source: Global Trade Atlas



Chickens and sugar dominate the Brazilian imports in Table 24, although there are several rather diverse products appearing on the list, highlighting Brazil’s agricultural diversity.

**Table 24 South African agricultural imports from Brazil, \$ million and change 2011/2009**

	2006	2007	2008	2009	2010	2011	change
All agricultural products	278	396	443	415	362	495	1.19
Chicken cuts and offal	101	144	122	112	109	112	1.00
Chickens whole	23	13	1	8	48	69	8.63
Cane sugar	6	26	34	17	11	49	2.88
Cane sugar sucrose	1	4	17	32	27	44	1.38
Rice	0	0	7	37	2	43	1.16
Tobacco	27	19	22	83	46	37	0.45
Soybean oil	9	54	114	21	10	34	1.62
Turkey cuts and offal	12	16	20	14	22	20	1.43
Wheat	0	0	0	10	21	12	
Ethyl alcohol	0	1	3	4	5	9	2.25

Source: Global Trade Atlas

As signalled above, South African agricultural exports to Argentina and Brazil are minuscule. After all, what present do you buy for the person that has everything? The meagre fare is shown in Table 25 for Argentina and Table 26 for Brazil. Only alcoholic beverages to Brazil have been even modestly significant in recent years.

**Table 25 South African agricultural exports to Argentina, \$ million**

Agricultural exports to Argentina	US dollars (millions)				
	2007	2008	2009	2010	2011
Total agriculture	4	4	5	7	7
Vegetable saps	1	1	1	1	2
Liqueurs and cordials	0	0	1	1	2
Skins, etc. of birds	0	0	0	1	1
Pineapple juice	1	1	1	1	1
Subtotal	2	2	3	4	6

Source: Global Trade Atlas

**Table 26 South African agricultural exports to Brazil, \$ million**

Exports to Brazil	2007	2008	2009	2010	2011
Total agriculture exports	7	7	9	15	12
Liqueurs and cordials	3	3	3	5	5
Wine	2	1	2	4	3
Grapes, dried	0	0	1	2	1
Cotton seeds	0	0	0	0	1
Vegetable seeds	0	0	0	0	1
Subtotal	5	4	6	11	11

Source: Global Trade Atlas

In summary, both Argentina and Brazil are considerable suppliers of agricultural products to South Africa, with these products being both consumables such as chickens and sugar from Brazil and wheat for bread from Argentina, and inputs such as soybean products for South Africa's own feedlot sectors. They are of little consequence as agricultural markets.

## Section 6 Agricultural policy in Brazil and implications for Africa

Of particular interest to South Africa are the factors that lie behind the rise of Brazilian agriculture in recent years. In examining that question this paper draws heavily from a forthcoming paper by Sandrey and Vink (2012). There have been two distinctive periods of Brazilian agricultural policies in recent years. The first period ended around the very early 1990s and was characterised by policy interventions to promote industrialisation in Brazil through an import substitution regime that resulted in both direct and indirect taxation of the agricultural sector. This led to a chronically overvalued exchange rate that was accentuated by direct export taxes. Agriculture remained effectively closed to trade thanks to the set of trade policy instruments that skewed prices on import-competing crops by direct intervention and measures ranging to outright bans on exports. Overall, the economy in general and the rural sector in particular stagnated, and the legendary inflation of the time created problems for the rural sector that have not yet fully dissipated.<sup>6</sup>

<sup>6</sup> This is mainly in the form of rural credit which still has problems that incubated during the inflation periods.

The second period saw the slumbering giant awaken. From the very late 1980s Brazil adopted a set of policies that has seen macroeconomic stability (and, most importantly a stable exchange rate) coupled with trade liberalisation and generally much less intervention in agricultural markets. The first direct changes were from 1989 to 1992 when unilateral trade liberalisation was adopted with policies that included the elimination of controls and taxes over exports and reduce tariffs on imports. Shortly after this the economy-wide stabilisation programmes started focusing on the exchange rate and government expenditure, albeit with the side effect of increasing real<sup>7</sup> exchange rates of the Brazilian real. During a transition period from 1990 to 1999 increased imports were accentuated by an appreciating exchange rate that depressed local prices in an environment in which farmers were provided little support; but from post-2000 a devaluing local currency and higher international prices allowed the larger commercial farmers with their technological enhancements to significantly increase production and, consequently, exports. Brazil increasingly became a major international agricultural exporter with much of this credited to enhanced productivity flowing from fresh investment in agricultural research and currency stability in a more neutral policy environment.

Contrary to a widely held view, agriculture in Brazil has been very lightly supported in recent years. The accepted measurement of overall support to the sector is the Producer Support Estimate (PSE) that is used by the Organisation for Economic and Cooperation Development (OECD). Brazilian PSE values are low, and, importantly, they have moved from negative values through to the mid- to late-1990s (indicating that farmers were effectively taxed) to modest positive values from 2000 onwards. To put these PSE values in perspective internationally, Brazil belongs to a group of countries that provide minimal support to agriculture, as indicated by a PSE of around 5.0 in recent years. These countries are New Zealand, the lowest at one%, and Australia, Chile and South Africa. Conversely, the highly protected EU averages around 22%. The salient point is that Brazilian agricultural expansion has not been driven by direct supports.

If direct supports have not driven Brazilian agriculture, what has? Perhaps the most important factor has been Research and Development (R&D) in leading technological gains from agricultural research by the National Agricultural Research System (Embrapa). The development of the Brazilian savannah

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<sup>7</sup> Care must be taken not to confuse the Brazilian currency, the *real* exchange rates in nominal terms, with the common economic measure of the real exchange rate or the inflation-adjusted rate of the *real*. Key to Brazilian reforms has been the very successful *Real Plan*, the currency stabilisation plan.

(Cerrado) into agricultural land required a portfolio of technologies that have made the region one of the top grain- and beef-producing regions in the world. These technologies concentrate on 1) biological nitrogen fixation for soybeans on the poor acid soils of the Cerrado; 2) new plant varieties and hybrids and the use of no-tillage systems; 3) the integrated crop-livestock systems; and 4) the adoption of double-cropping where possible. There are potential lessons for Africa in the Brazilian example of Embrapa's organisation and funding. Brazil ranks third in the developing world in terms of public agricultural R&D investments after China and India, as total public agricultural R&D spending has increased substantially in recent years. Embrapa has also undergone restructuring to ensure that the country's agricultural sector remains competitive, with modifications that include enhancing human and institutional capacities, improving institutional structures, and strengthening the performance and evaluation system.

Of special interest to South Africa is the Brazilian sugar sector. Expansion in this sector was driven by exports of sugar and the domestic market for fuel ethanol following the first oil shock in 1973. The share of ethanol in sugar cane production increased sharply from the beginning of the gasohol programme (Proálcool) in 1975 until 1985, when 70% of sugar cane was devoted to ethanol. This ratio slowly declined until 2001 when the sugar/ethanol ratio converged to be almost exactly equal, and remained that way until at least 2006. Early government intervention was a trade mark of the ethanol industry for many years, with this based on production quotas, price controls and the gasohol programme that granted special tax treatment for ethanol-fuelled cars, determined the volume of anhydrous ethanol to be added to gasoline, and guaranteed purchases of the ethanol production. Intervention was phased out after 1990 and the government was left with two instruments: the ethanol gasoline mix and auctions where Petrobras purchases ethanol. Brazil remains the lowest-cost sugar producer in the world, but the cost competitiveness of Brazilian sugar has been eroded by the increasing valuation of the Brazilian real during the 2000s.

Central to the Brazilian sugar expansion is the issue of land clearance, and the perception that this expansion is detrimental to the rainforest is generally refuted. There are still vast amounts of land available for agricultural expansion without desecrating the Amazon Basin. The majority of (the declining) deforestation in the Amazon is for subsistence agriculture or for larger landowners to expand their cattle-ranching operations, as cattle operations are moving northward. So, is the expansion of Brazilian soybean and sugar production contributing to Amazon land clearing? The answer seems to be an unequivocal 'yes' and 'no'. 'No' because the crop area is taking over previous

pastoral land that was being used for cattle production, ‘yes’ because this in turn is pushing some of the cattle ranching further north and at times into newly cleared land in or contiguous to the Amazon forests.

Meanwhile, Brazil’s concerted R&D efforts to boost agriculture that directly or indirectly enabled more than 40 million people to graduate into middle-class income categories and the lowering of abject poverty levels from 23% to 8% in less than two decades should serve as a source of inspiration for South Africa.

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