



National Agricultural
Marketing Council

Strategic positioning of South African Agriculture
in dynamic global markets



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trade law
centre for
southern africa

An Assessment of South Africa's Agricultural Trading Environment with select trading regimes¹

Report
October 2010

 PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS PUBLICATION.

¹ This report is the outcome of a 1 week training session (Geek Week) on trade data analysis conducted by tralac at Rhodes University from 30 August – 03 September 2010.

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Background

As an essential part of tralac's capacity building mandate in Southern Africa we hold, in cooperation with the National Agricultural Marketing Council (NAMC), an annual trade data week to familiarise participants with accessing, assessing and interpreting trade data (colloquially known as "Geek Week"). This year the exercise was held at Rhodes University in Grahamstown¹¹, and was attended by analysts from NAMC, National Department of Agriculture and the dti. The objective of this paper is to present the work was undertaken during this week and hopefully showcase how data can be used to assist policy makers in assessing trade policy options for South Africa. Some of this work is designed to assist in building the foundations of the tralac research on its forthcoming book "South Africa's way ahead: Cape to Cairo"¹².

The group researched five separate areas of interest to trade policy. These were:

- An assessment of tariffs currently facing South African exporters of agricultural products in the Cape to Cairo tripartite region;
- An assessment of the effects on bilateral trade of the earlier Trade and Development Cooperation Agreement (TDCA) between the EU and South Africa;
- An assessment of the extent to which South African bilateral trade with some of its major partners is trade in related products (intra-industry trade) as distinct from trade in unrelated products (inter-industry trade);
- An assessment of the opportunities for South African exporters of agribusiness products in the African continent; and
- An assessment of the impact of the late 2007-early 2008 commodity price boom on South African exports and imports of agricultural products respectively.

We emphasise at the outset that this research was part of a data training week and the results presented in the paper cannot be regarded as the definitive work on these topics, but rather an example of how data can be used to address important policy questions.

¹¹ The week was coordinated by tralac's Taku Fundira and NAMC's Bonani Nyhodo, with tralac Associate Ron Sandrey responsible for the work output. Ron Sandrey was at Rhodes on the Hobart Houghton Fellowship during this period, and we thank Prof Hugo Nel and Niki Cattaneo from the Economics Department for their support and cooperation.

¹² This is the fourth book in the tralac "South Africa's way ahead" series, and we are grateful to NAMC for the funding of this project. This book will examine the implications for South African agricultural interests of integration between SADC, EAC and Comesa to give a common market from Cape Town to Cairo (the so-called tripartite region).

I. An assessment of tariffs currently facing South African exporters of agricultural products in the Cape to Cairo tripartite region

In an effort to enhance market access, harmonise policies in areas of common interest and address the issue of multiple membership among other issues, Heads of States from the regional economic communities (RECs) of COMESA, EAC and SADC agreed in 2008 to establish a FTA amongst the three RECs. One area that will become contentious is the issue of sensitive products for exemption from tariff liberalisation in the different countries/regional groupings. Unfortunately, much of the basis for this exemption designation is likely to be arbitrary, and the sensitive products are more likely to reflect protectionist interests or rent-seeking behaviour, both of which will perpetuate inefficiencies. We urge countries to base their selection on genuine public policy objectives.

Currently COMESA and EAC have attained customs union (CU) status (in theory COMESA is a customs union, but not yet implemented in practice) while SADC is still a FTA but is also aiming to attain CU status. For the proposed tripartite FTA to function there is a need for the rationalisation of tariff structures and to develop common criteria for sensitive products amongst other issues. For the two CUs - COMESA and the EAC, rationalisation of tariff structures is not an issue as both have agreed and established CET duty rates that have similar applied duties on capital goods (0%); raw materials (0%); intermediate goods (10%); and finished goods (25%). However, SADC, which is still a FTA will need to agree on a CET and because of the multiple membership conundrum that its members face, may well rationalise its envisaged CET duties in a manner similar to those of the other RECs (i.e. COMESA and EAC). The fact that within SADC there is a CU, SACU, with a rather complex tariff structure in terms of the number of tariff lines and bands also complicates this process

A review of South African agricultural exports facing tariffs in the tripartite enclave

During the data training week we undertook a review of the agricultural products that South African exporters face in the COMESA-EAC-SADC tripartite configuration. Our aim is to identify agricultural products that are classified as sensitive products by members of the tripartite configuration and thus may well remain so in the broader regional integration process. We have also included the broad range of clothing and textile products, as an examination of the tariffs here may give an indication as to whether or not better access may offer export opportunities for the embattled South African clothing sector. In an attempt to determine these products we use the current MFN applied rates as reported to the UN ITC MacMap database (at the HS 6 level of the harmonised classification system) by the respective countries in the tripartite configuration.

Our preliminary analysis reveals the following:

- With the exception of SACU members and Libya, South African agricultural products still face tariffs in the tripartite configuration;
- Mauritius (95%); Seychelles (85%); Zambia (83%) and Mozambique (81%) are the only countries which are relatively open to South African exports of agriculture products. The rest of the countries in the tripartite configuration still maintain protection in over 60% of the product lines under review, with Burundi (100%); Rwanda (96%); Zimbabwe (95%) and Sudan (88%) maintaining protection on virtually all products.
- In most countries under review, “Food, Beverages and Tobacco” and “Vegetable products” still face the highest level of protection.
- Mauritius; Mozambique; Seychelles; Tanzania and Uganda are the only countries that offer duty free access to South Africa C&T exports.

The tables below provide details of the level of protection that South African exporters are facing in each of the countries in the tripartite configuration. We have only shown the averages and not the variations within these categories. The data clearly signals that (a) there is a considerable distance to go in implementation of the so-called SADC Free Trade Agreement, and (b) this and the high tariffs further north do not auger well for anything other than an FTA in name only! The categories shown are:

- Chapters HS 01 to 05 inclusive, live animals, animal products;
- Chapters HS 06 to 14 inclusive, vegetable products;
- Chapter 15, animal or vegetable fats & oils;
- Chapters 16-24 inclusive, food, beverages & tobacco; and
- Chapters 50 -63, clothing and textiles.

Table 1: Regional (average) tariff barriers to South African exports

Country/sector	Ch 01 05	Ch 06-14	Ch 15	Ch 16-24	CH 50-63
Angola	10	9	5	14	2
Burundi	18	5	5	5	5
Comoros	11	5	5	8	16
DRC	12	12	14	16	5
Djibouti	12	12	13	15	26
Egypt	14	6	7	237	5
Eritrea	7	10	9	16	2
Ethiopia	23	24	23	25	6
Kenya	26	21	14	23	0
Madagascar	18	18	16	18	5
Malawi	13	19	18	22	8
Mauritius		12	11	13	0
Mozambique	14	14	13	12	0
Rwanda	13	9	22	26	6
Seychelles	63	83		211	0
Sudan	37	33	33	36	28
Tanzania	27	24	19	23	0
Uganda	27	23	19	23	0
Zambia	11	19	13	19	15
Zimbabwe	35	23	15	36	5

Source: UN ITC MacMap database, data training week analysis

2. An assessment of the TDCA

The Trade and Development Cooperation Agreement (TDCA) between South Africa and the European Union (EU) is an important trade agreement for South Africa, as it enables preferential access to its largest market for many product lines. Unfortunately those lines exclude many agricultural lines that are of significant interest to South Africa. The dti reports that it was signed in October 1999 after five years of negotiations. It was provisionally applied but only partially applied from 1 January 2000 and fully entered into force on 1 May 2004. This implementation phasing period makes it hard to assess, as it really gives no clear starting point for comparative analysis. We have however taken the 1 January as the starting point, but this phasing period may well be a factor in distorting our preliminary results as shown here. Nonetheless, as South Africa's major export-oriented trade agreement, albeit one with considerable exemptions, it behoves analysts to examine the trade effects nearly a decade later. This section will provide such a preliminary analysis to demonstrate how trade data can be used to answer important policy questions.

2.1 Has bilateral trade since 2000 been trade widening or trade deepening?

In an earlier 2005 publication Kalaba et al examined this question. We have used the same framework to extent that work, as the 2005 paper concluded that perhaps insufficient time had elapsed to fully assess the TDCA. Basically, as outlined in the 2005 paper, trade widening takes place when new trade is created as a result of an FTA. It is defined as an expansion of trade in new areas that did not take place prior to the FTA. It is distinct from trade deepening, defined as an expansion of trade in the sectors as they were at the inception of the FTA. They emphasise that the development of new trade is difficult to capture using computer general equilibrium (CGE) models, as these model are based upon existing or extant trade and not potential or latent trade. It is development of the latter that that goes a long way to suggesting that an FTA has been a success, but Kalaba et al caution and we reiterate that that a related problem with FTA's is that preferences may merely divert trade away from lower-cost sources to the preferential sources and thus are not welfare enhancing. Readers are referred to the earlier "South Africa's way head" publications to see computer analysis of this phenomena in the suite of FTAs and potential FTAs examined in this more structured research.

The preliminary (but cautious and perhaps confusing) picture from Kalaba et al was that widening seemed to have occurred since 2000 but that there was "preceded by a period during the second half of the 1990s in which there was a clear trend of reverse widening (deepening)". Therefore, new or "relatively new" trade lines were being added to the bilateral basket, and furthermore these products were generally associated with a higher tariff phase-down.

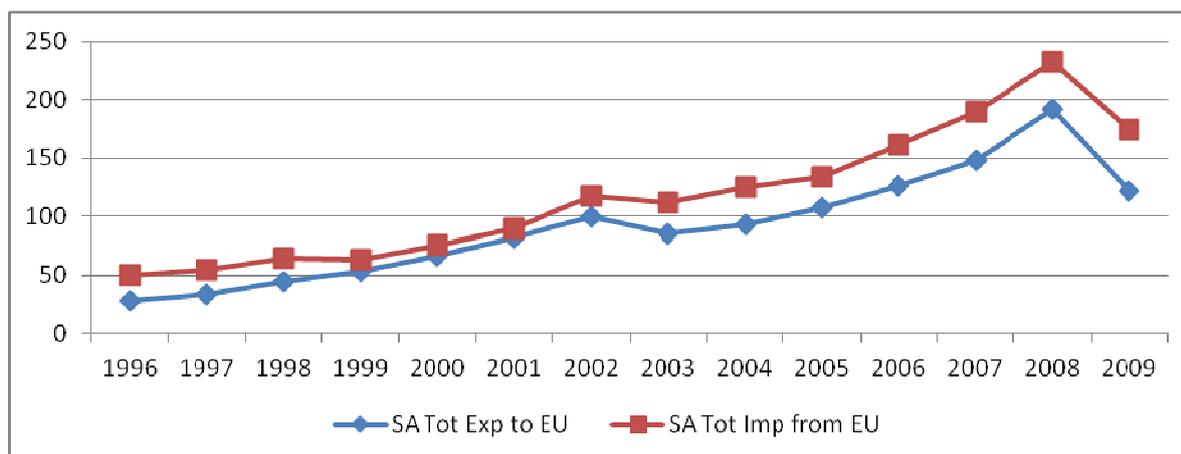
The **Methodology used was to take the bilateral annual trade data from 1996 – 2009** as reported by South Africa World Trade Atlas (WTA) and agree on a base year, in this case 2000 (TDCA inception year). The second step was to rank the HS6 product groups in terms of value for 2000. The third step involved segmenting the product groups into 10% deciles (10 groups of 10% each).

- An increase in the top 10% segment will represent trade deepening as it contains typically only a few product lines but with high values of trade.
- An increase in the bottom 10% segment represents trade widening as it contains a large number of product lines with low individual values of trade.
- The fourth step was to track the shares of the segments over time. Trade deepening will be seen when the total value of what represented the top 10% in 2000 has increased more than

proportionally over time. Trade widening will be seen when the total value of what represented the bottom 10% in 2000 has increased more than proportionally over time.

Figure 1 shows the big-picture of the bilateral trade from 1996, expressed in millions of South African rand. The data suggests that trade has been in favour of the EU since 1996 and this seems to have accentuated after 2000, and the impacts of the global crisis of 2009 is clearly shown.

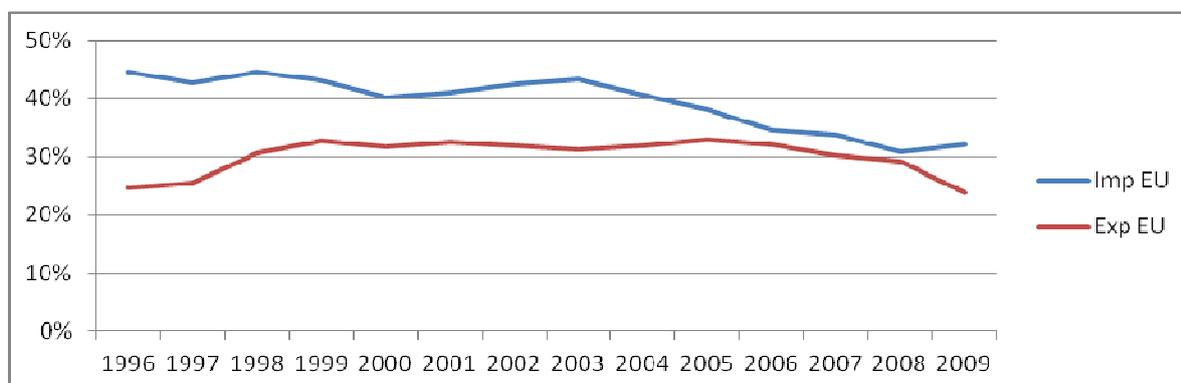
Figure 1: Bilateral EU-South African trade, 1996 to 2009 in R million



Source: WTA

Extending the analysis further Figure 2 shows the percentage of (a) South African global exports destined for the EU and (b) the percentage of South African imports sourced from the EU over the period. It is clear that the relative importance of the EU as an import source has steadily declined, while conversely, excepting for the perhaps abnormal 2009 year, the importance of the EU as an export destination has been very stable.

Figure 2: Relative importance of the EU as a trading partner for South Africa – percentage shares



Source: WTA

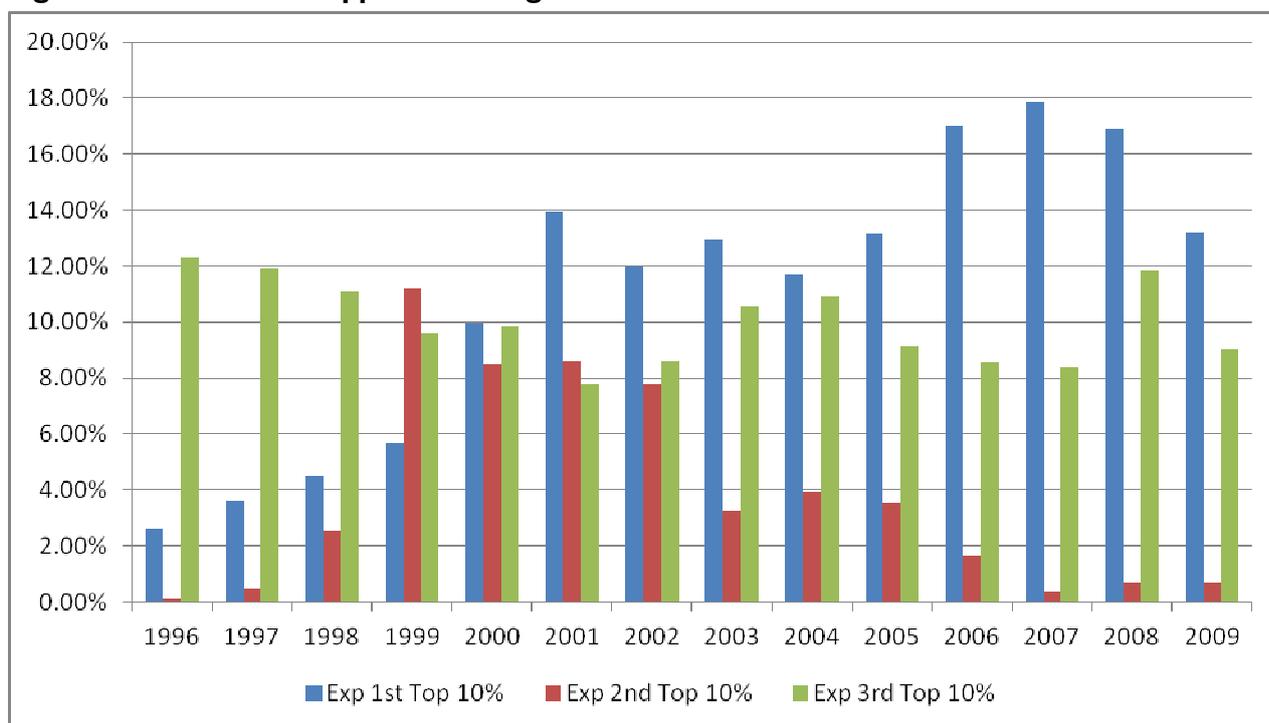
Following Kalaba et al we also examined the data and excluded exports of coal and fuel (HS25 – 27) as well as gold and diamond (HS71) from South Africa to the EU and imports of fuel (HS27) and special vehicle imports under the MIDP scheme (HS98). While these lines are highly significant in trade values, we assume that policy makers are not that interested in the performance of coal and precious minerals in the EU market as there are generally zero duties assessed on this trade, and similarly the importation of fuels and motor vehicles really only complicates an analysis trying to examine the bigger picture.

The results

RSA Exports to the EU

Figure 3 shows the data for the first three of the top-ten percentage trade shares (recall that the analysis excludes exports of minerals (HS25 – 27) as well as gold and diamond (HS71)). Note that these groups were not exactly aligned at 10 percent shares as of 2000, as rather than split the individual HS 6 digit lines we opted to approximate the desirable 10 percent shares with the closest approximation.

Figure 3: Shares in the upper three segments

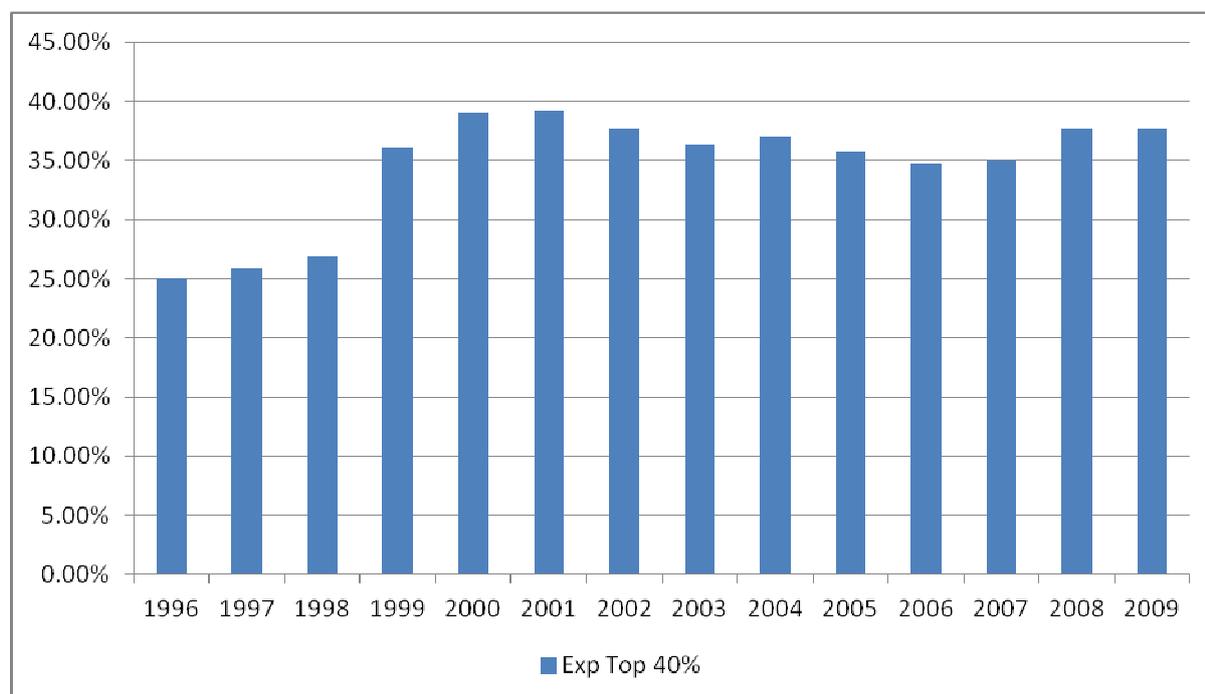


South Africa's 1st top 10% product group exports to the EU deepened from 1996 to 2001, just after the inception of the SA-EU FTA in 2000. This was exclusively caused by increase in exports of

filtering or purifying machinery as this was the only line in the group. However, these exports increased prior to 2000. **The 2nd top 10% exports product group** consists entirely of motor vehicles and an examination of the data suggests that perhaps a reclassification of trade between HS8703.21 – 8703.24 may have been taking place that is confusing the picture here although the combined overall trade in these four lines varied considerably between the years. Whatever, the share of this particular HS line deepened from 1996 until 1999 when it started to decline until the insignificant levels from 2007 to 2009. **The 3rd top 10% exports product group** consists of chromium and parts of seats, and the shares of these two products appear to be stable over time.

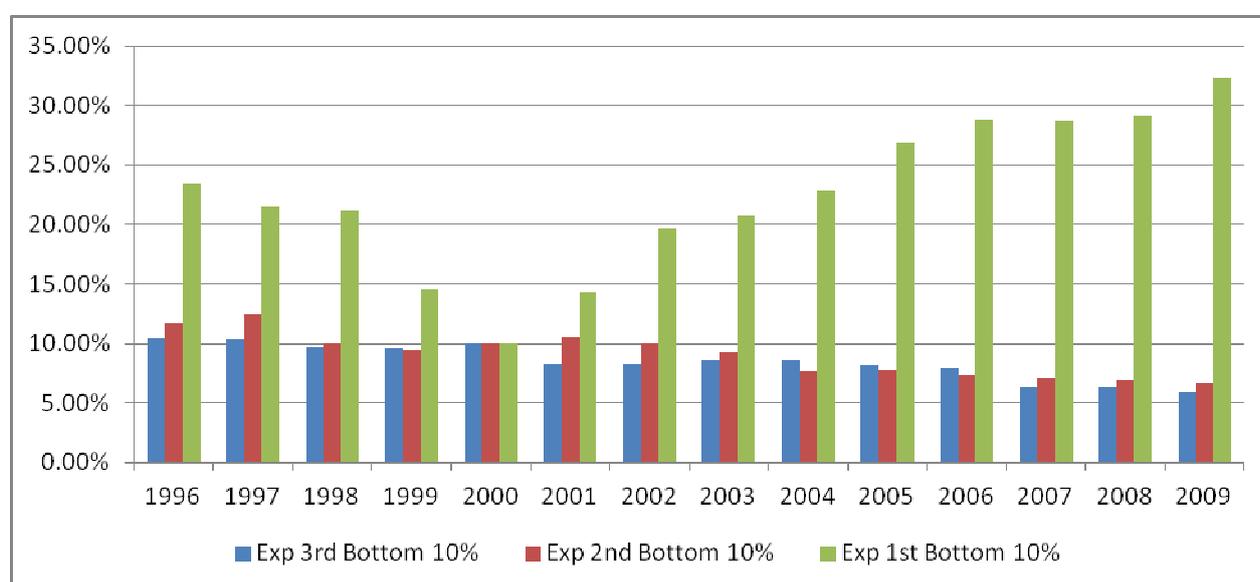
Next we extended the analysis to the top four categories or 40 percent of the trade at 2000. This is shown in Figure 4. Based on the graph of these four categories it can be deduced that South Africa's exports to the EU deepened between 1996 and 2000 but thereafter stabilized through until 2009. Much of this deepening can be attributed to increase in exports of filtering or purifying machinery as well as the share of this export increased from just two percent in 1996 to around ten percent in 2000. The conclusion supports Kalaba et al in that the TDCA has had little or no impact on deepening RSA's exports into the EU market since RSA's exports remained stable after its inception.

Figure 4: Shares in the mid four categories



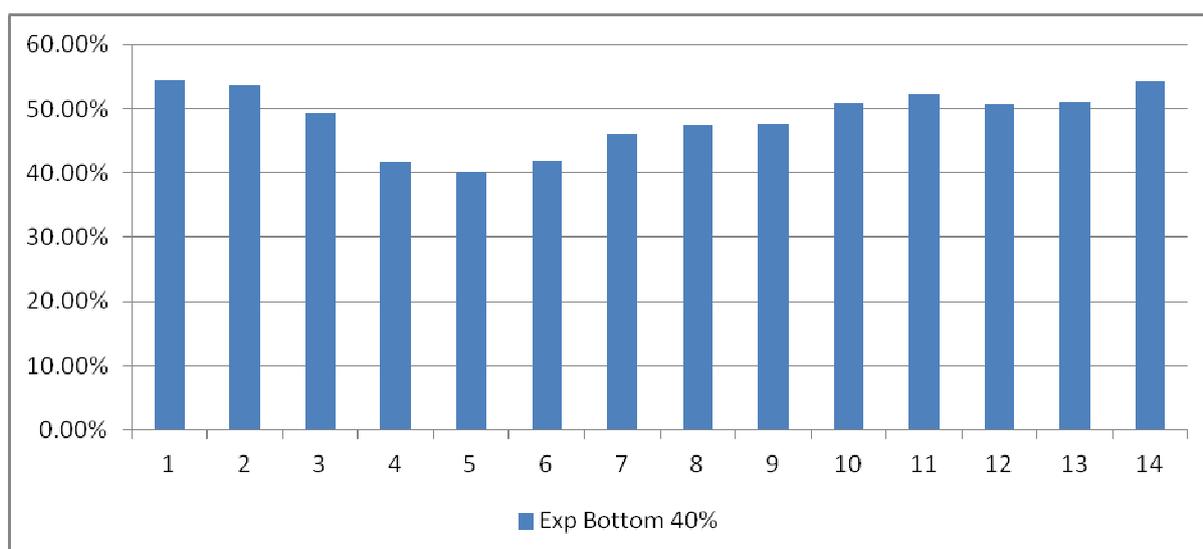
We then examined the three lowest of the 10th product segments of exports to the EU to assess whether trade has widened between 2000 and 2009 at this lower level. Shares of the lowest or 10th segment is depicted by an increase in the share of these product lines that represented 10% in 2000 to 32% in 2009 as shown in Figure 5, and implies that SA exports to the EU have widened by 22% from 2000 till 2009. However, again we note that exports in this group were declining prior to the inception of the TDCA. This could perhaps suggest that the TDCA revived these exports. Exports in both the second to bottom or 9th segment and the third to bottom or 8th segment show remarkably consistent trends – they were very stable through to 2000 but gradually declined from that point.

Figure 5: Shares in the lower three segments



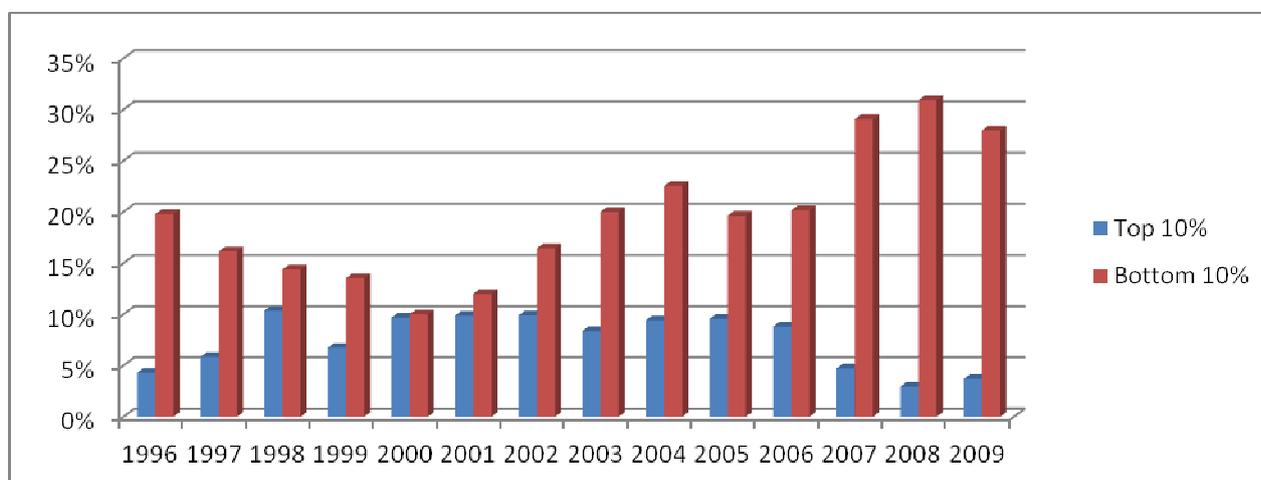
Source: WTA

Again, combining these three lower segments and adding the 7th or fourth to bottom segment (Figure 6) shows another stable pattern. The share of products constituting these four product segments decline from the 1996 pre-TDCA levels to our 10 percent criteria for the four (40 percent in total) at 2000 before increasing to almost exactly their 1996 levels. This, coupled the flat market share of the EU in South Africa's exports (Figure 6) reinforces the conclusion that there is little to suggest that the TDCA has promoted South African exports to the EU. We cannot of course test the corollary that the agreement may have arrested what otherwise may have been a greater decline.

Figure 6: Shares in the lower four segments

2.2 South African imports from the EU

We now turn to a comparable analysis of South African imports from the EU, and again recall that imports of HS27 (fuels) and HS98 (special vehicle imports) have been excluded.

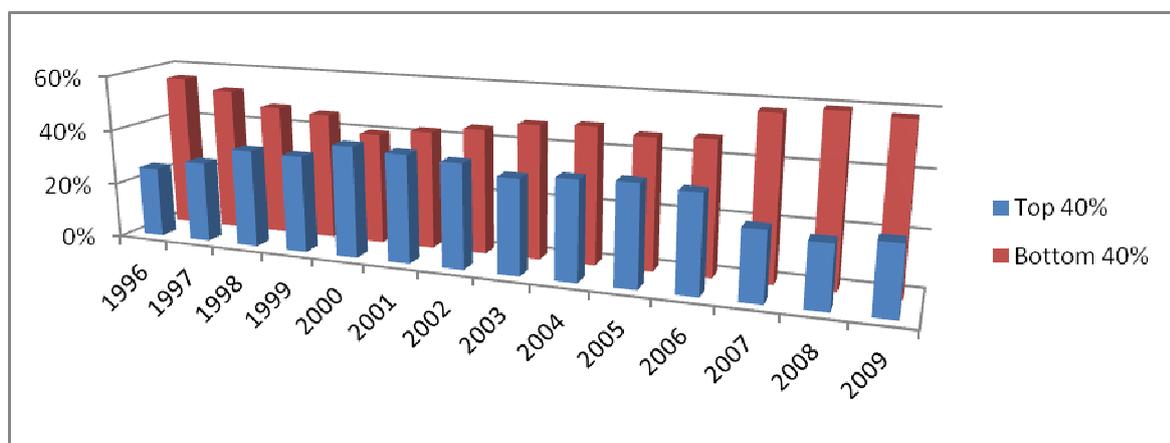
Figure 7: South African imports from the EU, 1st and 10th 10 percent-segments.

There is no clear picture with regard to deepening of South Africa's **top 10%** product group imported from the EU during the period under consideration. This segment increased through to 1998 and then stabilised until 2006 before declining. This segment consisted of only two products, with the top line at 2000 being communication machinery. Import of this product increased from just

R1.5 billion in 1996 to around R5 billion from 2002 to 2006 before declining to zero. The only other product was motor vehicles where imports increased from around half a billion in 1996 through to R8 billion in 2007 before declining to just under R6 billion. More encouragingly the **bottom 10%** import segment displays a clearer picture with regard to widening during the period under consideration. A widening can be seen between 2000 and 2004 and thereafter between 2006 and 2008, but again imports in this segment were declining prior to 2000. Again, the TDCA may again have arrested a decline immediately after 2000 as well as assisting with trade widening in the later years of the first decade of the new millennium.

Next we combine the top four segments and the bottom four segments as shown in Figure 8. Again we see the picture of some evidence of trade widening as indicated by the increase in the bottom four segments after 2000 but this evidence tempered by the decline from 1996 through to 2000. Similarly for the top 40 percent segments the imports steadily increased through to their high points in 2000 without the benefits of the TDCA before slowly declining to about exactly their 1996 initial levels. As with South African exports to the EU we concur with Kalaba et al and see no compelling evidence to suggest that the TDCA has manifestly impacted upon the bilateral trading relationship.

Figure 8: the top and bottom four segments of South African imports from EU at 2000.



Source: WTA

2.3 How well has South Africa performed in the EU market?

Perhaps of more importance is an examination of South Africa's relative performance in the EU market over this period. To assess this question we again used the World Trade Atlas data (but this time from the EU) for the two periods 2000 and 2009 December years (expressed in Rand millions) and examined South Africa's performance relative to its competitors at the detailed HS 6 digit lines.

This gave us over 5,000 lines to work with. The first step was to look at the overall performance of EU imports and then South Africa's overall performance. We found that the EU imports in Rand had increased by an average of 8.77 percent while those from South Africa increased by a lesser 6.93 percent, showing that overall South Africa was losing market share. Next we assessed each and every line to see how well that line was doing against its competitors. This gave us eleven separate categories to work from:

- Indeterminate, where there were no imports from South Africa in either 2000 or 2009 so we could not assess an increase. We note at the outset that this is a preliminary assessment, and changes to EU import classifications may have taken place which will exaggerate this category.
- The “gold stars”, where the line was increasing as a percentage of EU from both the world and South Africa, and furthermore the increase from South Africa was above the corresponding increase from the world – South Africa is gaining market share in a strongly growing EU market.
- The “stars”, where as above except that South Africa's share in these lines was above its overall import share but not above the comparable competitor share in this line. South Africa is doing very well in a growth EU market. Both “gold stars” and “stars” are doing well.

With the next set of seven categories we can assess the combinations of South African performance against competitor performance in EU markets that can be growing above the EU import average, below the EU import average, or where the EU import average is negative. These lines generally represent “battlers” where exporters are fighting a steady but sometimes lonely and perhaps losing battle.

- There are two combinations where the increases in the EU lines are above the EU average: (a) where the South African line increase is still positive but below the South African average and (b) where the South African increase is negative.
- Next there are three categories where the increases in the EU lines are still positive but below the EU average: (a) where the South African line increase is above the South African average, (b) where the South African increase is below the average but still positive and (c) where the South African increase is negative.
- These are followed by two combinations where the increases in the EU lines are negative: (a) where the South African line increase is above the South African average, and (b) where the South African line increase is negative.

Finally, there is the bottom category (real dogs) where this particular line is declining overall in both EU imports from the world and from South Africa. These exporters are engaged in more of a forlorn battle.

Data is presented for both all imports and then agricultural imports from South Africa into the EU. Table 2 firstly shows the agricultural imports. As with the all imports, we emphasise that while the starting year of 2000 roughly parallels the start of the RDC and the most recent end year of 2009 are used, given the variations in trade as demonstrated above in the widening and deepening exercise the choice of other years may give different result. This is therefore only a useful snap-shot. Encouraging, a very high percentage of the agricultural trade is assessed as being real stars” (37.2%) or “stars” (19.2%), indicating that South Africa is doing very well in the EU market. Similarly, an insignificant 1.0 percent is assessed as being “real dogs” that are fighting that forlorn battle and losing on all fronts (although we hasten to add that without a significantly more detailed analysis of the trade this is a generalisation as individual exporters may be finding these lines profitable).

Table 2: Agricultural imports from South Africa into the EU, 2009

Categories	Rand mill	% share	Import lines		
			first	second	third
Totals	21,372.5	100.0%			
Undetermined	955.1	4.5%	lemons	macadamia	chrysanthem
Real stars	7,954.7	37.2%	wine	wine	pears
Basic stars	4,102.2	19.2%	grapes	peaches	liqueurs
EU incr above av, RSA +ve below av	2,165.8	10.1%	avocados	plums	apricots
EU incr above av, RSA incr -ve	81.8	0.4%	nuts	frozen vege	
EU incr still +ve, RSA incr above av	3,713.5	17.4%	oranges	grapefruit	mandarins
EU incr still +ve, RSA incr below av	2,115.7	9.9%	apples	sheep skins	dried grapes
EU incr still +ve, RSA incr -ve	33.2	0.2%	coffee	noils wool	
EU incr -ve, RSA incr above av	10.9	0.1%	wool	peppers	
EU incr -ve, RSA incr still +ve	17.3	0.1%	animal fd	dried citrus	
Real dogs, both -ve	222.4	1.0%	wool	wool	wool

Source: WTA data, Data training week analysis

Next the overall imports are shown in Table 3, and again the overall theme is one where more than half of the imports by values are ‘real’ or ‘basic’ stars in that South Africa is increasing imports in lines at a rate above the average South African growth rates in lines where the overall imports into the EU is also increasing above the EU’s average import growth. Thus, the South African performance is again impressive.

Table 3: Overall imports from South Africa into the EU, 2009

Categories	R mill	%share	Import lines		
			first	second	third
Totals	21,373	100.0%			
Undetermined	10,303	6.0%	platinum wast	fuels special	petroleum
Real stars	44,589	25.8%	filter mach	prec metals	wine
Basic stars	42,893	24.8%	coal	coal	platinum
EU incr above av, RSA still +ve	6,880	4.0%	seat parts	part filtering	avocados
EU incr above av, RSA incr -ve	1,382	0.8%	wood doors	anthracite	wood pulp
EU incr still +ve, RSA incr above av	24,544	14.2%	ferro-chrom	vehicles	oranges
EU incr still +ve, RSA incr below av	5,973	3.5%	apples	palladium	fish chilled
EU incr still +ve, RSA incr -ve	11,901	6.9%	gold	diamonds	aluminium
EU incr -ve, RSA incr above av	371	0.2%	prec amalgam	carboxylic	
EU incr -ve, RSA incr still +ve	22,544	13.0%	diamonds	granite	
Real dogs, both -ve	1,652	1.0%	vehicles	data parts	greasy wool

Source: WTA data, Data training week analysis

Conclusions

From this qualified analysis of (a) the effects of the TDCA using a trade widening-trade deepening exercise and (b) a detailed analysis of how well South Africa is doing in the EU market relative to its competitors we have concluded that (a) the TDCA does not appear to have opened new trade opportunities for South Africa and (b) that South Africa has done very well in the EU market since 2000. We have not assessed this latter performance against the TDCA though to see if tariff reductions have facilitated this performance. We also caution that the TDCA has a potential cost of trade diversion for South African imports insofar as the EU is not necessarily the world's lowest cost supplier of many import goods – in general, we must turn attention eastwards for that source. This also accentuates the reducing tariff collection and subsequent redistribution under the SACU revenue formula – not necessarily a direct problem for South Africa as much of this redistribution is effectively an aid grant to the BLNS but an increasingly severe problem for the BLNS countries.

3) Intra-industry trade

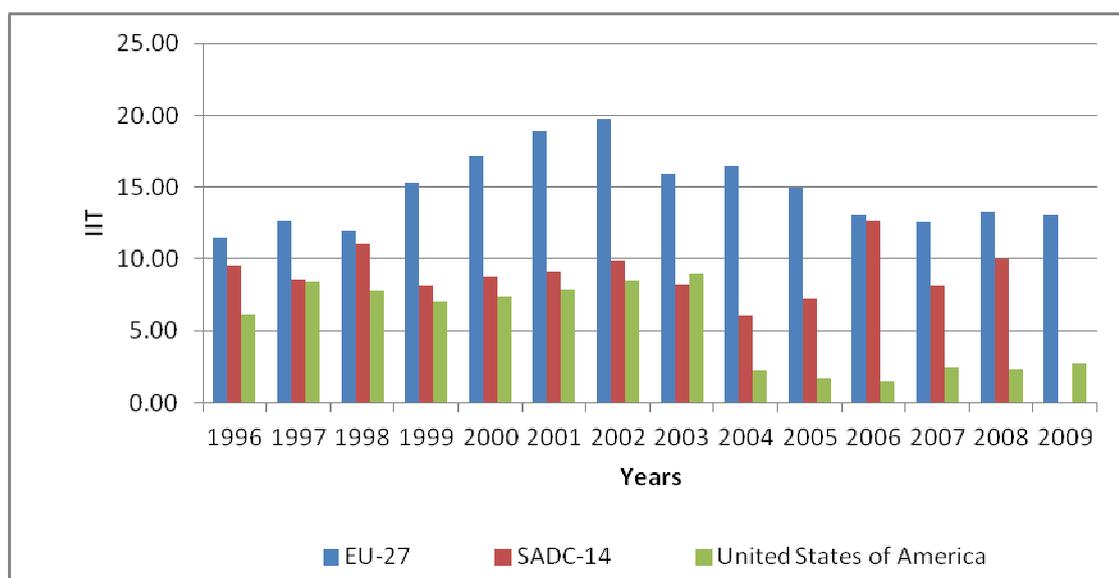
Traditional trade theory teaches that trade between partners will be governed by factor endowment and comparative advantages. However, recent findings are questioning this pattern as more and more trade is taking in similar products place between partners, and this has been defined Intra-industry trade. Inter-industry is associated with the traditional reallocation of resources between industries, while intra-industry requires reallocation within industries. The intra-industry trade (IIT) index is calculated by taking the difference between total trade and the absolute value of net trade, dividing

that by total trade of the commodity as defined by the Grubel-Lloyd index. As with Section 2 above, Kalaba et al examined this aspect of South Africa's trading performance in 2005. The simplified version of the formula is stated as Absolute value of $(X_j \text{ minus } M_j)$ divided by $(X_j \text{ plus } M_j)$ where X and M are the value of exports and imports product in detailed product j. This is then trade-weighted to give an overall figure, and if the original formula is multiplied by 100 the index varies between 0, indicating complete inter-industry trade and 100, implying complete intra-industry. In general, more disaggregation of the data is better as it gives a lower but more meaningful number of the intra-industry trade.

This section of the paper look at intra-industry trade between South Africa (RSA) and eight trading partners, namely, Brazil, China, European Union (EU-27), United States of America (USA), Common Market for Eastern and Southern Africa (COMESA), East Africa Community (EAC-5), Southern African Development Community (SADC). Results of the analysis found that in general.

- The higher the value, of total trade, the higher the level of intra-industry trade between RSA and a country concerned or vice versa.
- There is more intra-industry trade between RSA and EU compared to USA and SADC.
- There has been an increase in intra-trade industry between RSA and EU from 1996 to 2003 and a decrease from 2004.
- There is more intra-industry trade between RSA and SADC-14 compared to RSA and USA (see figure 9).
- The levels of intra-industry trade between RSA and USA from 1996 to 2003 are relatively high and reduced from 2004 to 2009.
- The levels of intra-industry trade between RSA and SADC are at an average of 6.00 from 1996 to 2009.

Figure 9: Intra-industry trade between RSA and EU, SADC and the USA.

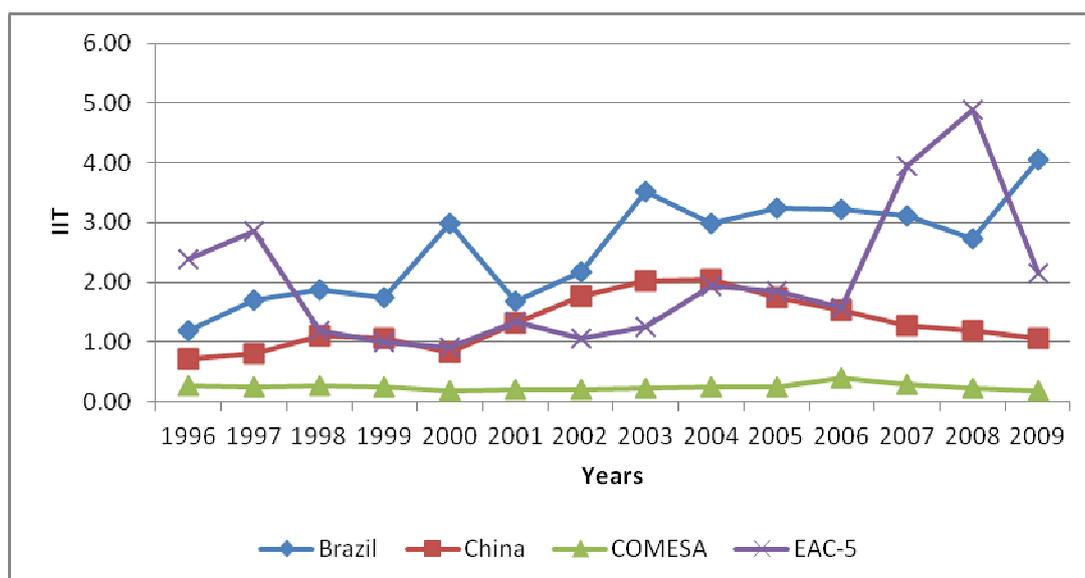


Source: WTA data, Data training week analysis

In the next set of calculations there are low levels of intra-industry trade between RSA, Brazil, China and EAC-5 from 1996 to 2009 as shown in Figure 10:

- There is an extremely low level of intra-industry trade between RSA and COMESA from 1996 to 2009 of almost zero.
- Intra-industry trade between RSA and EAC-5 fluctuates, with moderate levels in only 2008 and perhaps 2007.
- Intra-industry trade between RSA and China fluctuate between 1.0 and 2.0.
- Brazil was the only country to show an increasing intra-industry trend from 1996 to 2009.

Figure I0: Intra-industry trade between RSA and EU, SADC and the USA.



Source: WTA data, Data training week analysis

4. An assessment of the agribusiness opportunities in Africa for South African agricultural exporters.

This section of the paper presents an initial analysis of opportunities for South African agribusiness traders in Africa. As such, it provides a background base for and an indication of the more detailed analysis that tralac will undertake as part of the “Cape to Cairo” project for the NAMC. Data was sourced from the UN Food and Agricultural Organisation (FAO) website and analysed as below. In addition, a preliminary “eyeballing” of the WTA data for South African exports was used to shed more light on export opportunities. While the FAO database provides a superb set of data on African production and trade in several hundred agricultural and agricultural related products it does have some limitations for this particular analysis. Those limitations are:

- there is no bilateral trade data, so although the African aggregate and indeed individual country trade is provided it is not possible to get information on issues such as the share of South African exports going to Africa; and
- Associated with this is that the HS codes applicable to the FAO definitions are not readily available so that they can be reconciled with the WTA data on South African exports; and
- Note that we have defined agribusiness here as the FAO agricultural products minus those classified by the FAO as “crops” (wheat, maize, soybeans per se etc.).

Notwithstanding these limitations the analysis is presented as it represents a valuable contribution to a potential growth export area of higher-valued trade from South Africa to the wider region. Table 4 starts with a listing of the top agribusiness imports into Africa for the 2007 year – the most recent comprehensive year available. The central segment shows African imports by value (US dollar 1000s) for 2007, the totals from 2000 to 2007 inclusive to provide some indication of the variability in these imports, and the annual rate of change at 2007 from 2000. The right hand side segment shows comparable South African exports of these same products using the same formats. Thus, along with details of the main African imports some indication can be gleaned of the potential for South Africa to export these products.

Table 4: Top 25 African imports

item	African Imports \$1000			RSA Exports \$1000		
	2007	totals	Change %	2007	total	Change %
Palm oil	2,400,044	10,214,409	20.6%	930	8,402	-13.7%
Rice Milled	2,108,299	12,057,469	9.3%	2,153	27,387	-2.9%
Sugar Refined	1,547,466	9,634,138	9.0%	79,873	648,546	1.4%
Milk Whole Dried	1447043	7,071,090	15.4%	5,589	88,429	-10.4%
Soybean oil	1,343,487	6,100,404	15.8%	551	46,343	-38.5%
Food Prep Nes	1,276,266	7,137,348	10.8%	129,522	606,541	14.0%
Sugar Raw Centrifugal	1,209,224	5,480,663	16.8%	200,429	1,504,698	-2.0%
Beef & Veal	789605	3,468,173	13.7%	10,577	54,442	8.7%
Flour of Wheat	773,415	4,915,260	5.6%	2,474	87,189	-26.4%
Milk Skimmed Dry	747,883	3,565,318	11.5%	4,612	25,291	9.0%
Rice Broken	713,287	3,555,779	20.4%	1,211	10,910	21.1%
Crude Materials	692,604	2,920,579	18.9%	99,364	396,110	
Cake of Soybeans	682,104	4,521,865	5.7%	1,944	10,134	0.2%
Chicken meat	679731	2,977,846	16.7%	3,870	54,097	-11.9%
Cigarettes	540,391	3,679,786	5.7%	70,725	494,927	-0.7%
Beverages Dist. Alc	512,215	2,412,776	15.3%	59,791	296,857	7.7%
Beer of Barley	390,689	1,644,265	21.5%	9,786	188,530	-15.2%
Wine	390,612	1,703,694	17.2%	668,629	3,504,062	15.4%
Paste of Tomatoes	379,825	1,980,929	13.9%	254	2,625	12.1%
Sunflower oil	374,935	2,263,867	3.0%	8,809	89,535	-2.1%
Beverage Non-Alc	349,509	1,540,012	16.6%	50,963	370,757	4.8%
Malt	340,624	1,764,477	12.0%	2,218	6,391	35.5%
Infant Food	323,779	1,146,801	20.3%	8,878	41,243	4.3%
Cheese of Whole Cow Milk	319,406	1,393,865	12.8%	4,644	42,926	12.7%
Pastry	313,959	1,276,726	20.4%	10,555	73,349	6.7%

Source FAO data, Data training week analysis

The key points from the table are:

- Wine is one of the top products in South African exports. In 2007 South Africa's (RSA) exports for wine were \$668 million and Africa imports were \$390 millions. RSA's exports are significantly above Africa's demand for wine, but an examination of the WTA data shows that South Africa exported only about 7% of its wine to Africa in 2007.
- South Africa exports considerable amounts of sugar, food preparations, 'crude materials', cigarettes and other beverages that potentially match with African imports, but few other products appear to present opportunities. Also note that demand for agricultural products is increasing each year in Africa while conversely exports from South Africa in many of these high-demand African imports are declining.

Next table 5 ranks the top 25 South African exports against the comparable African imports to glean some information on the potentials. Products such as raisins, game meat, beverage non alcohol, orange juice single strength and apple juice concentrated are highly demanded in Africa. Examining the WTA data on South African exports for these products we found that are also increasing slightly, and that about 39% of fruit juice, 40% of beverage and non alcohol beverages, and 20% of game meat were supplied to Africa in 2007. Conversely, at the other extreme South Africa exported some \$145 million during 2007 while Africa as a whole imported only \$2 million; Demand for agricultural products in Africa has increased since 2000 and Africa appears to be sourcing more of agribusiness products from other continents.

Table 5: Top 25 SA Exports

Items	SA Exports (\$1000)			African Imports (\$1000)		
	2007	total	Change %	2007	totals	Change %
Wine	668,629	2,835,433	15.4%	390,612	15,155,329	17.2%
Sugar Raw Centrifugal	200,429	1,304,269	-2.0%	1,209,224	32,892,563	16.8%
Wool, greasy	145,655	426,006	22.1%	2,150	1,695,241	-9.2%
Food Prep Nes	129,522	477,019	14.0%	1,276,266	26,447,814	10.8%
Crude Materials	99,364	296,746	0	692,604	2,920,579	18.9%
Sugar Refined	79,873	568,673	1.4%	1,547,466	33,980,533	9.0%
Cigarettes	70,725	424,202	-0.7%	540,391	15,289,043	5.7%
Beverages Dist.Alc	59,791	237,066	7.7%	512,215	8,881,411	15.3%
Raisins	55,698	206,149	14.1%	15,178	1,278,747	7.0%
Game meat	54,993	208,607	5.0%	2,645	771,514	6.7%
Tobacco Products Nes	54,954	198,645	46.1%	166,180	5,122,071	1.7%
Beverage Non-Alc	50,963	319,794	4.8%	349,509	7,023,607	16.6%
Fruit Juice Nes	43,654	256,456	12.4%	109,550	2,923,344	14.1%
Hair Carded/ Combed	38,373	200,524	8.1%	5,007	1,024,075	8.0%
Skinsdry Sltsheep	37,199	239,289	3.7%	314	1,138,418	-10.6%
Veg.Prod.Fresh Or Dried	25,080	79,099	38.3%	6,468	939,395	16.9%
Chocolate Prsnes	22,981	158,827	1.4%	236,862	4,858,464	20.6%
Grapefruit juice, conc	21,665	67,963	0	808	2,715	41.6%
Hides Wet Salted Cattle	19,406	134,850	1.7%	4,572	1,481,398	-25.6%
Skins With Wool Sheep	18,966	74,894	18.1%	1,774	8,359	21.4%
Hides Nes	17,430	90,839	8.4%	6,969	613,984	9.2%
Orange juice, single strength	16,526	28,387	0	26,289	112,593	12.2%
Apple juice, concentrated	14,897	40,332	0	35,454	67,829	62.1%
Wool Degreased	14,673	124,982	-2.2%	12,906	685,428	2.7%
Oil Essential Nes	14,462	102,763	1.7%	37,723	2,012,230	4.0%
Sugar Confectionery	13,494	114,119	-6.4%	274,159	5,855,577	17.5%

Source FAO data, Data training week analysis

Finally, in table 6 we have taken a selection from Table 1 of the top African imports where South Africa may have export potential. These are shown alongside South African exports to the world in the central columns and South African imports from the world in the right hand columns. Again, South African exports to the world will include exports to Africa. Total trade from 2000 to 2007 inclusive is shown in US dollar 1000s. The “usual suspects” as discussed above appear in the table.

Table 6: Potential for SA market in Africa

item	African Imports (\$1000)		SA Exports (\$1000)		SA Imports (\$1000)	
	totals	Change %	total	Change %	Totals	Change %
Sugar Refined	9,634,138	9.0%	648,546	1.4%	20,707	16.9%
Food Prep Nes	7,137,348	10.8%	606,541	14.0%	805,789	14.9%
Sugar Raw Centrifugal	5,480,663	16.8%	1,504,698	-2.0%	74,697	62.2%
Cigarettes	3,679,786	5.7%	494,927	-0.7%	57,177	27.2%
Crude Materials	2,920,579	18.9%	396,110	0.0%	456,165	0.0%
Beverages Dist. Alc	2,412,776	15.3%	296,857	7.7%	1,109,829	18.8%
Wine	1,703,694	17.2%	3,504,062	15.4%	88,443	13.0%
Beer of Barley	1,644,265	21.5%	188,530	-15.2%	139,946	42.3%
Beverage Non-Alc	1,540,012	16.6%	370,757	4.8%	195,415	16.9%
Sugar Confectionery	1,308,193	17.5%	127,613	-6.4%	252,521	21.8%

Source FAO data, Data training week analysis

In general, we find that in the products demanded by Africa, South Africa is not a major exporter and except for sugar, wine and other beverages and cigarettes South Africa is importing more than it is exporting. Furthermore, in general South African imports as shown in Table 6 are increasing dramatically while exports are conversely increasing at a much lower rate or even declining in four instances. We will need to drill down the tables and examine the detailed export data from South Africa to Africa further to assess niche opportunities, reinforcing that this is a preliminary analysis.

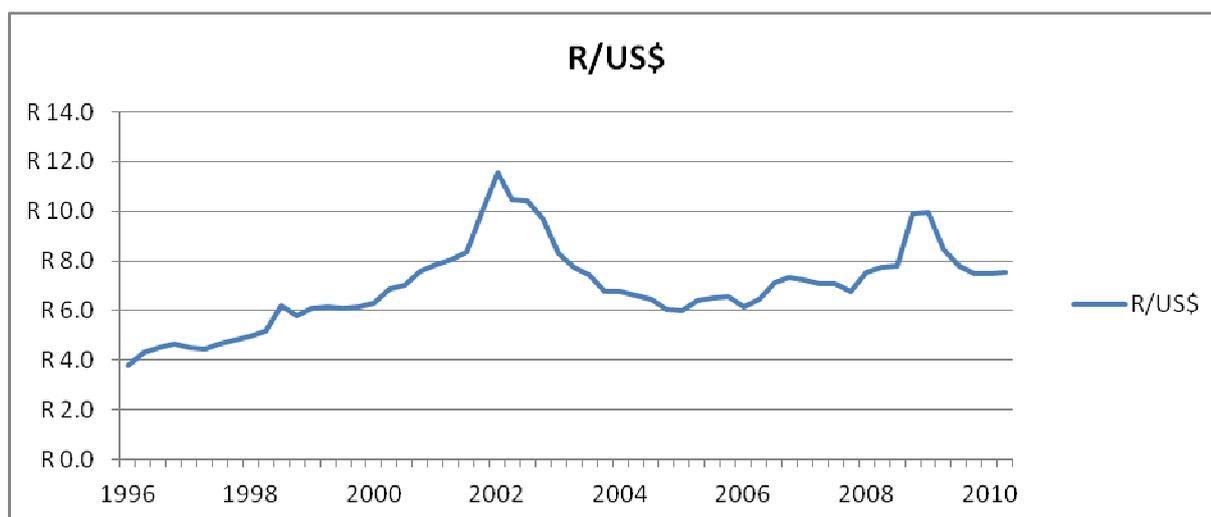
5. An assessment of the impact of the late 2007-early 2008 commodity price boom on South African exports and imports of agricultural products

The commodity boom of the late 2007 – early 2008 period had a dramatic impact upon global markets, and many but not all agricultural products featured in this boom. The objective for this section is to analyse the impacts of the boom on South African agricultural trade, and in particular assess the relative effects on both exports and imports as measured by their prices changes as measured quarter-on-quarter. Data is sourced from the WTA and trade-weighted to give an overall rate of change, with the data assessed from 1996 through to and including second quarter 2010 with the data expressed in South African Rand as distinct from US dollars.

We start by showing how well the rand has performed over the period against the US dollar. While the dollar itself has been a weak performer in recent years and it can be argued that much of South African exports are destined for the EU and therefore not especially exposed to the dollar we argue that many commodities such as wheat, rice and, soybeans and sugar are generally denoted and traded

in dollars. From an initial start at 3.8 rand to the dollar it steadily rose to a high point of 11.5 in the first quarter of 2002 before declining again to just over 6 and reaching a second high of 9.9 in first quarter 2009 (Figure 11). The use of Rand will accentuate the US dollar global market changes when the Rand is low but mitigate the changes when the rand is low, and we expect to see this reflected in the index values later.

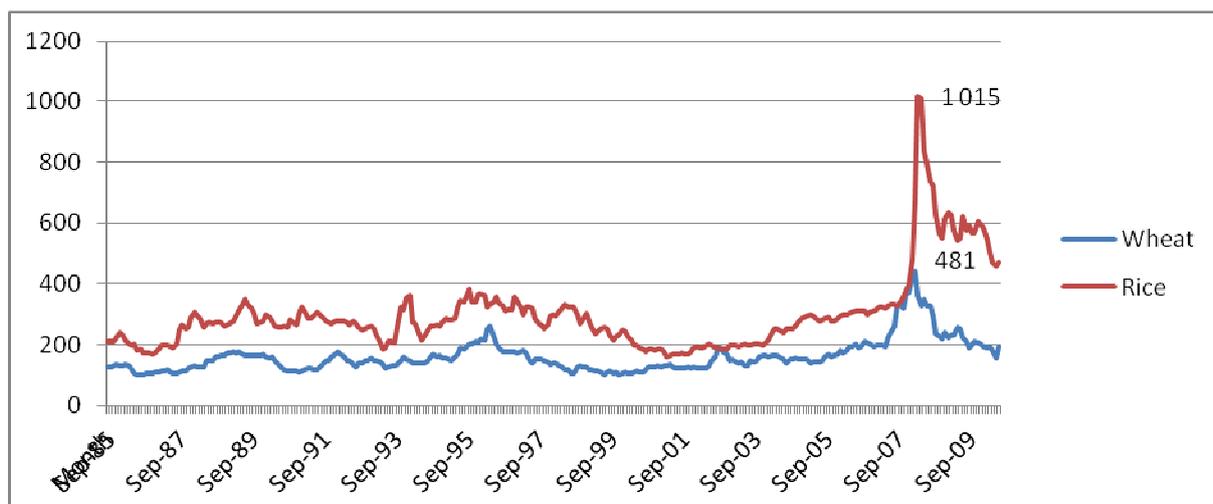
Figure 11: the Rand against the dollar, 1996 to June 2010.



Source: South African Reserve Bank

An indication of the possible effects upon import prices can be gleaned from Figures 12 below that show that shows global rice and wheat prices from September 1985 through to July 2010. This data is crucial, as rice and wheat are two major imports into South Africa (19.2% of agricultural imports in 2008). Note the dramatic changes in the rice price which peaked at 1,015 in April 2008 and the similar but not as spectacular rise in wheat prices around the same time. Note also that while wheat has declined to the more normal level rice is still above its longer term trend.

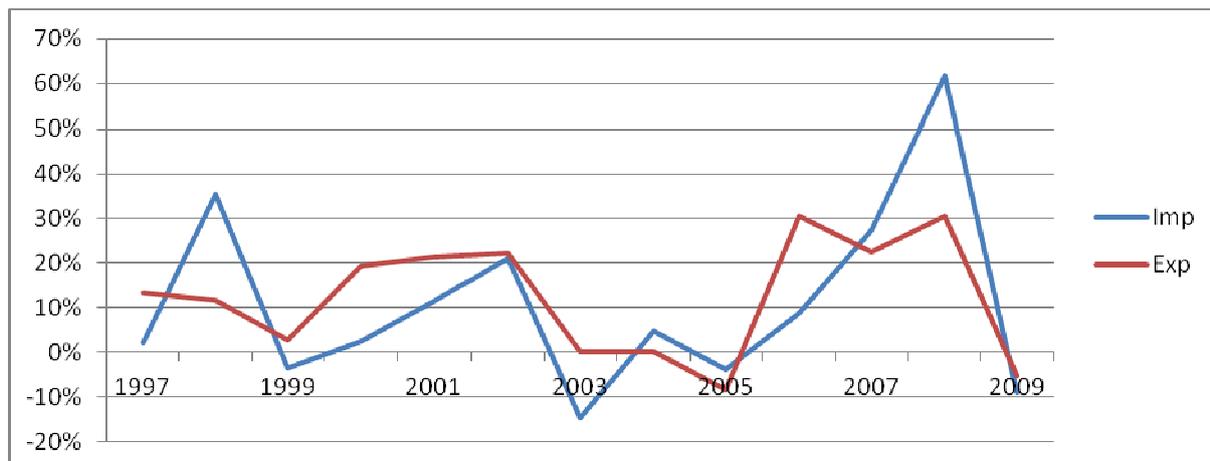
Figure 12: Global wheat and rice prices (Mundi Index)



Source: Mundi etc etc

Preliminary analysis is shown in Figure 13 of the trade-weighted average annual changes to both export and import prices. The data is assessed using the top-20 exports and imports by value at December 2009, where these top-20 exports represented 64 percent of the total exports and the top-20 imports represented 60 percent of the total imports at December 2009. We have used this annual data as an interim measure while we further assess the variability of the price data as shown by the WTA. Note in particular (a) the big changes around the 2002 period when the rand was weak and (b) the changes at the end of the period when global commodity prices were peaking. Also note that annual changes will mitigate some of the fluctuations that may well show up in quarterly data. The graph clearly shows how, during the commodity boom, the average import price change was significantly above the average export price change but how both had retreated significantly during 2009.

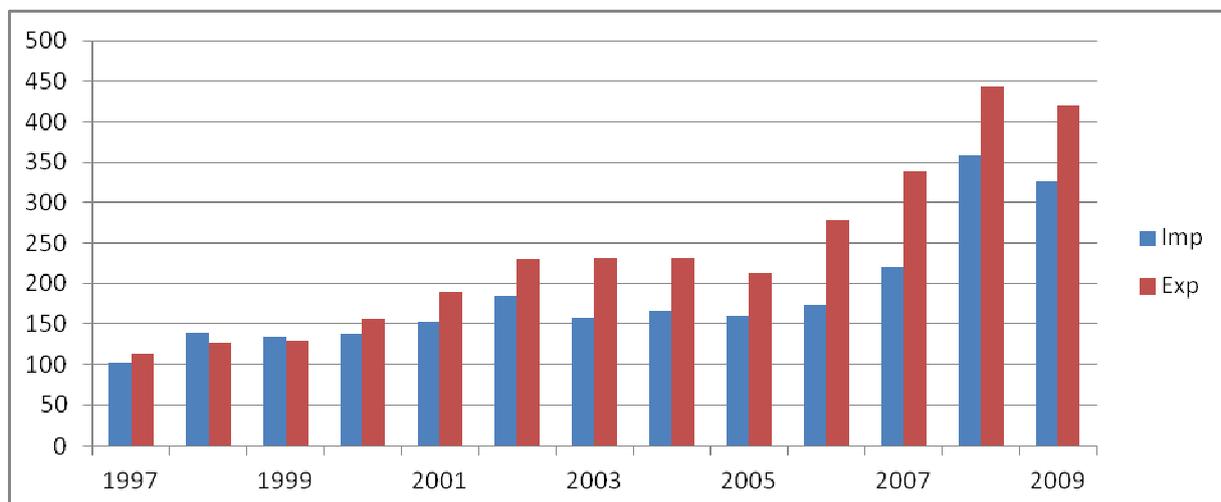
Figure 13: Trade-weighted annual percentage change in South African agr main exports & imports



Source: WTA, Data training week analysis

Another way to display the annual changes is to index them to the starting period and show the resultant index values for these cumulative increases. These are shown below in Figure 14, and note how the increased export prices above import prices around 2000 was sufficient to keep that Index above the import Index over the period. Reconfiguring these graphs for US dollars instead of rand is likely to show a different overall figure but the same relativities.

Figure 14: Cumulative changes to South African export and import prices for main products.



Source: WTA, Data training week analysis

Table 7 shows the main import and export lines that comprise these top-20 lines for South Africa as ranked at 2009 and their associated annual % changes in prices 1996 to 2009. Again, note that this analysis is a first and last year comparison, so the variability in the data will not be apparent.

Table 7: Main trade lines and associated annual % changes in prices 1996 to 2009

Exports	Change %	Imports	Change %
Wines	6.4%	Rice	9.7%
Maize	7.4%	Soya Bean Cake	8.3%
Oranges	6.8%	Wheat	6.9%
Grapes	7.3%	Palm Oil	8.0%
Raw Sugar	6.9%	Whiskies	9.8%
Apples	16.9%	Tobacco,	8.7%
Wines Including Fort	6.4%	Chicken	6.1%
Wool	7.8%	Beer	4.3%
Pears	8.8%	Food Preps Nes	8.6%
Refined Sugar	5.9%	Sunflower Oil	7.5%
Tobacco	1.9%	Malt	7.3%
Ethyl Alcohol	4.6%	Soya-Bean Oil	5.0%
Food Preps Nes	6.6%	Offal	1.6%
Grapefruit	2.5%	Kidney Beans	7.4%
Cigarettes	-2.8%	Cotton	2.7%
Lemons		Soya-Bean Oil	9.2%
Mandarins	9.7%	Pork	4.7%
Soya Beans	2.4%	Tea	6.8%
Peaches	7.9%	Coffee	5.3%
Water	7.6%	Confectionery	1.0%

Source: WTA, Data training week analysis

Overall, initial analysis suggests that import prices have risen above export prices for the top-20 South African trade lines over the period. Thus, based upon this analysis, the terms of trade have gone against the Republic.

References

Mmatlou Kalaba, Ron Sandrey and Dirk Ernst van Seventer, 2005. *Analysis of Trade between South Africa and the EU and a Preliminary Attempt to Examine the Impact of the EU-SA FTA on Trade*. Trade & Industrial Policy Strategies (TIPS), January 2005
