"Winners", "Losers" and "Turnarounds" in the South African Agro-food and Fibre Industry

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"WINNERS", "LOSERS" AND "TURNAROUNDS" IN THE SOUTH AFRICAN AGRO-FOOD AND FIBRE INDUSTRY

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South African agribusinesses are now part of the global trading environment and must compete, despite the presence of highly "unequal economic playing fields". Competing under these conditions is hard, with South African agribusinesses involved in an exhausting race of "catch-up" with competitors. However, given a global regulatory environment that entrenches the notions of international competition (on both a regional and global level), to "catch-up" and compete is exactly what agribusiness has to do. An analysis of the agro-food and fibre complex reveals a remarkable achievement, namely that, despite difficult local conditions, the agricultural industry succeeded in operating more competitively for the last eight years. On the primarily level the sugar, groundnuts, oranges, apples, grapes and wool industries establish themselves as "winners" in the global trading environment. On the value added level the maize flour, apple juice, grape juice and raisins industries have distinguished themselves as "winners". Agribusinesses in these industries clearly started to focus on the "right stuff". Unfortunately, some "losers" also emerged, while some industries created a positive "turnaround" situations.

1. INTRODUCTION

It is by now well established that agribusiness are coming under increasing pressure as globalization blurs those boundaries between countries that have traditionally offered their industries some protection from competitive pressure. From the perspective of localized agribusiness, the global playing field is however anything but even – competitors draw on natural resources and labor pools with vastly different levels of quality, skill, and at different costs. Different countries also have regulatory environments that impact differently on their domestic agribusinesses (OECD, 1999). Access to finance, to technology and to knowledge also differs dramatically between countries. Competing under these conditions is hard, with South African agribusinesses (and particularly small and medium agribusinesses) involved in an exhausting race of "catch-up" with competitors. However, given a global regulatory environment that entrenches the notions of international competition (on both a regional and global level), "catch-up" and compete is exactly what South African agribusiness has to do.

In a paper published by Esterhuizen & Van Rooyen (1999: 744) the competitiveness of the agribusinesses in different agro-food commodity chains were determined for 1997. This was followed by determining the factors impacting on the competitiveness of the agro-food and fibre complex (Esterhuizen *et al*, 2001). This paper will build on the above mentioned papers and focus on a long-term trend analysis to determine if the industries, competing in the agro-food and fibre complex, are "winning", "catching-up" or being "lapped" by their opponents.

2. MEASURING TRENDS IN COMPETITIVENESS

Competitiveness is an indicator of the ability to supply goods and services at the location and in the form and at the time sought after by buyers, at prices that are as good as or better than those of potential suppliers, while earning at least the opportunity cost of returns on resources employed (Frohberg & Hartman, 1997). Thus, a competitive firm have the ability to satisfied the

consumer with a product of the right price, right quality, right packaging etc. Such a firm therefore beats the competitors for the scare Rand, Dollars, Ponds etc. of the consumer. In this article, we will define competitiveness therefore as "the ability of a sector to trade on a sustainable basis at competitive prices within the global environment". Thus, short-term features such as opportunistic "price wars" will not influence matters greatly.

The principle of comparative advantage is used in economic models to explain the composition and potential direction of trade (Worley, 1996). The principle states that under autarkic conditions a country could potentially export those goods and services, which it produces at lower costs, relative to other countries. While comparative advantage is a venerable economic concept, in a trading world it is difficult to estimate what costs would have been under autarky.

This led Bela Balassa (Balassa, 1989) to investigate trade patterns directly, without direct reference to underlying resources, productivity, subsidies, or prices. He argued that "revealed" comparative advantage (or competitive advantage) could be indicated by the sustained trade performance of individual commodities and countries in the sense that the commodity pattern off trade reflects relative market costs as well as differences in non-price competitive factors, such as government policies.

Balassa's Revealed Comparative Advantage (RCA) method compares a country's share of the world market in one commodity relative to its share of all traded goods. In this article trends in the competitiveness of the agro-food and fibre complex and of selected food and fibre chains in South Africa were calculated for using FAO's trade data (FAO, 1999). In view of the open world economy the Relative Revealed Comparative Trade Advantage (RTA) [1] index,

[1] RTA is formulated as:

$$RTA_{ij} = RXA_{ij} - RMP_{ij} \quad \ldots 1$$

$$RXA_{ij} = (X_{ij}/\Sigma_{l,\, l\neq j}X_{il})/(\Sigma_{k,\, k\neq i}X_{kj}/\Sigma_{k,k\neq i}\,\Sigma_{l,\, l\neq j}\,X_{kl}) \quad \ldots 2$$

$$RMP_{ij} = (M_{ij}/\Sigma_{l,\, l\neq j}M_{il})/(\Sigma_{k,\, k\neq i}M_{kj}/\Sigma_{k,k\neq i}\,\Sigma_{l,\, l\neq j}\,M_{kl}) \quad \ldots 3$$

which is based on Balassa's original formula, was used to accommodate both in and export (ISMEA, 1999; Esterhuizen *et al*, 2001).

3. COMPETITIVENESS OF DIFFERENT SUPPLY CHAINS IN THE AGRO-FOOD AND FIBRE COMPLEX

The competitiveness index for the South African agro-food and fibre complex rose from 0.33 in 1998 to 0.41 in 1999. This index includes both the primary and value added industries in this complex. This upward trend has been taking place since 1992 when the index was negative at –0,16 (see Figure 1). Thus, despite difficult local conditions, the agricultural industry succeeded in operating more competitively for the last eight years. Possible reasons for this increase in competitiveness can be the sharpened business focus of agribusiness in South Africa; the deregulation of the agricultural sector which had eliminated non–competitive business; the weakening of the Rand against the American dollar and the British pound, which increase the profitability of exports; as well as an improvement of labor productivity in the agricultural sector. Indications are that this trend will persist.

In Table 1, the competitiveness of 18 food chains in the agro-food and fibre complex is shown for the past five years. Table 1 is summarized in Table 2 and Table 3 to indicate the status in competitiveness of each commodity group.

In equations 2 and 3, X (M) refers to exports (imports), with the subscripts i and k denoting the product categories, while j and l donate the country categories. The numerator is equal to a country's export (imports) of a specific product category relative to the exports (imports) of this product from all countries but the considered country. The denominator reveals the exports (imports) of all products but the considered commodity from the respective country as a percentage of all other countries' exports (imports) of all other products. The level of these indicators shows the degree of revealed export competitiveness/import penetration.

While the indices RXA and RMP are calculated exclusively based on either export or import values, the RTA considers both export and import activities. The RTA indicator implicitly weights the revealed competitive advantage by calculating the importance of relative export and relative import competitive advantages. Values below (above) zero point to a competitive trade disadvantage (advantage).

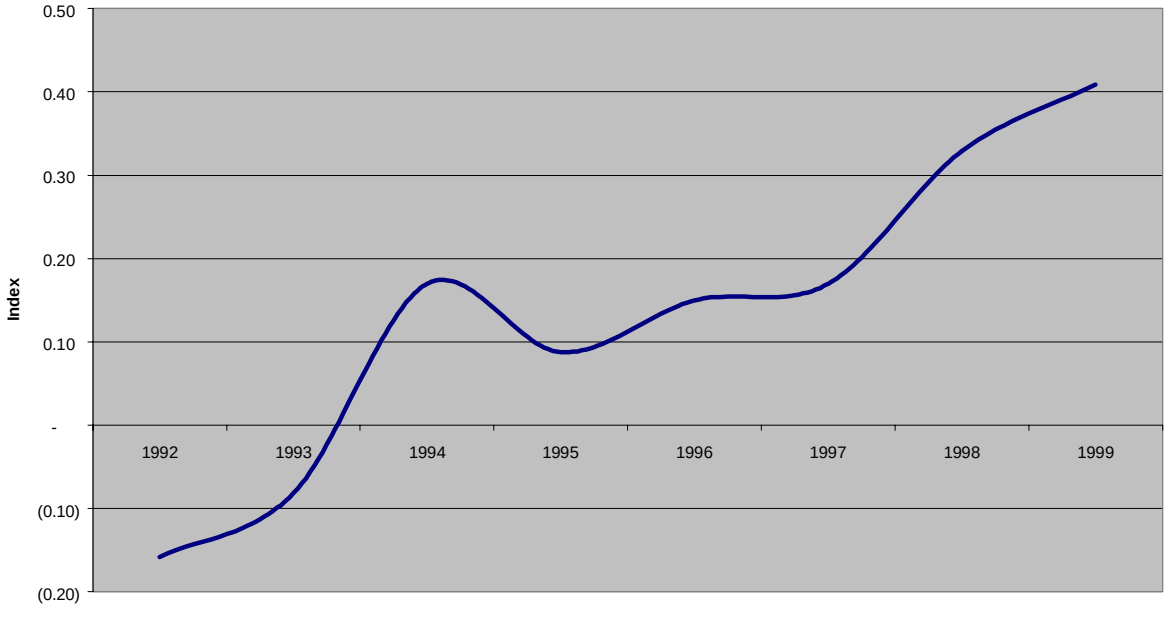

Figure 1: The competitiveness of the South African agricultural sector

Table 1: Competitive advantage of selected food chains in South Africa based on the Relative Revealed Trade Advantage (RTA) index

Chain	Product	RTA 1999	RTA 1998	RTA 1997	RTA 1996	RTA 1995
Wheat chain	Wheat	-0.54	-0.85	-0.77	-1.73	-1.56
	Flour	1.91	1.26	1.60	2.52	2.47
	Macaroni	-0.44	-0.49	-0.39	-0.63	-0.44
	Pastry	0.03	0.15	0.06	0.03	0.18
	Bread	-0.19	-0.13	-0.11	-0.16	-0.12
	Breakfast cereals	-0.27	-0.28	-0.20	-0.43	-0.09
Maize chain	Maize	0.59	2.44	3.72	4.47	1.04
	Maize meal	23.48	28.55	10.10	17.96	12.73
Potatoes chain	Potatoes	0.66	0.85	0.86	0.73	0.34
	Potatoes, frozen	0.13	0.07	0.05	0.13	0.08
Sugar chain	Sugar (Centrifugal, Raw)	6.01	8.88	3.00	2.17	1.76
	Sugar refined	3.83	2.08	1.86	1.97	0.83
	Sugar confectionery	0.50	0.32	0.39	0.36	0.27
	Maple sugar and syrups	0.01	-0.02	-0.03	-0.06	-0.04
Soybean chain	Soybeans	-0.06	0.17	-0.11	-0.23	-0.88
	Soybean oil	-0.47	-0.85	-0.43	-0.55	-0.37
	Soybean cake	-1.72	-1.62	-1.53	-1.54	-0.23
	Soya sauce	-0.29	-0.30	-0.27	-0.20	-0.23
Groundnut chain	Groundnuts unshelled	15.11	9.69	8.69	8.97	10.52
	Groundnuts shelled	2.04	1.51	5.12	2.27	-1.54
	Groundnut oil	4.40	4.71	4.17	4.05	6.61
	Prepared groundnuts	0.00	0.01	0.05	-0.06	-0.05

Chain	Product	RTA 1999	RTA 1998	RTA 1997	RTA 1996	RTA 1995
Sunflower chain	Sunflower seed	2.71	-0.16	-0.36	1.50	0.04
	Sunflower oil	-4.76	-6.91	-6.62	-4.42	-7.72
	Sunflower cake	-0.54	-1.91	-5.97	-4.65	-4.19
Tomatoes chain	Tomatoes	0.11	0.13	0.07	0.10	0.01
	Tomato juice	-0.08	0.36	-0.08	-0.07	0.00
	Tomato paste	-0.16	-0.07	-0.06	-0.14	-0.78
	Peeled Tomatoes	-0.53	-0.57	-0.78	-0.58	-0.84
Orange chain	Oranges	21.77	16.53	13.67	10.45	14.37
	Orange juice	1.35	1.01	0.39	0.14	0.33
Apple chain	Apples	7.90	10.08	6.62	5.24	7.13
	Apple juice	10.96	6.59	11.35	9.22	7.89
Grape chain	Grapes	15.45	14.07	10.29	8.35	11.31
	Grape juice	5.47	3.67	-1.29	-1.63	3.41
	Wine	1.60	2.40	2.49	2.73	3.23
Pineapple chain	Pineapples	1.52	1.41	0.90	1.31	1.64
	Pineapples, canned	4.18	7.41	7.18	4.70	5.59
	Pineapple juice	4.85	7.20	7.25	4.71	5.73
Beef chain	Cattle	-2.35	-1.46	-3.76	-4.03	-2.65
	Beef and veal	0.24	0.23	-0.13	-0.26	-0.58
Chicken chain	Chickens	-0.40	-0.27	-0.09	-0.49	-0.54
	Chicken meat	-1.05	-0.98	-1.15	-0.57	-0.79
	Canned chicken	0.52	0.14	0.03	-0.05	-4.06
Milk chain	Cow milk (whole, fresh)	0.14	0.43	0.27	-0.05	-0.07
	Butter from cow milk	0.29	0.22	-0.70	-0.38	-0.23
	Cheese	-0.15	-0.05	-0.24	-0.16	-0.14
Mutton chain	Sheep	-10.66	-8.60	-5.17	-5.49	-6.66
	Mutton and lamb	-1.71	-1.71	-1.73	-1.60	-0.81
Wool chain	Skin with wool	2.00	4.11	6.92	5.83	4.51
	Wool, greasy	7.10	6.09	2.76	4.05	3.70
	Wool, clean	3.74	2.66	2.10	2.00	1.73
Pork chain	Pigs	0.01	0.01	0.02	-0.01	-0.04
	Pork	-0.70	-0.39	-0.42	-0.67	-0.89
	Bacon-ham	-0.08	0.00	0.00	-0.04	-0.02

Source: Own calculation based on data from FAOSTAT 1999

Note: RTA > 0 = Competitive advantage; RTA < 0 = Competitive disadvantage

From these Tables it is clear that most of the primary products in the agro-food and fibre chains is either marginal or highly international competitive. With only beef and sheep not international competitive on primary level. Except for wheat, maize, apples, pineapples, beef and sheep chains there is a

decrease in competitiveness when moving from the primary to the processed product in the chains. This implies that beneficiation or "value adding" opportunities in South African agribusiness are limited. Farm production, on the other hand, is relatively or marginally competitive.

Table 2: Competitiveness of primary products in the agro-food and fibre complex

Competitive (+)	Marginal (=)	Not Competitive (-)
Maize; Sugar; Groundnuts; Oranges; Apples; Grapes; Pineapples; Wool	Wheat; Potatoes; Soybeans; Sunflower seed; Tomatoes; Milk; Pigs; Chicken	Beef; Mutton

Table 3: Changes in competitiveness in the movement from primary to processed products in the chain

Increase	Decrease
Wheat; Maize; Apples; Pineapples; Beef; Sheep;	Potatoes; Sugar; Soybeans; Groundnuts; Sunflower; Tomatoes; Oranges; Grapes; Pigs; Wool; Milk; Chickens

4. "WINNERS" AND "LOSERS"

Table 4 shows a matrix that describes the trends in the competitiveness of primary production in South Africa over time. The matrix is divided into six blocks. The competitiveness of the products in 1995 as the base year for comparison is shown on the vertical axis and the trend in competitiveness for the period 1995 to 1999 on the horizontal axis. If the competitiveness in 1995 was positive and there was an increase in competitiveness in the period from 1995 to 1999, the sector was classified as a "winner" and if a sector was not competitive in 1995, but there was an increase in competitiveness in the period 1995 to 1999 the sector was classified as a "turnaround", etc.

Table 4: Trends in the competitiveness of primary agricultural production, 1995-99

Trend in competitiveness 1995 – 1999				
		Increase	**Constant**	**Decrease**
Competitiveness in 1995	**Competitive**	Winners: Sugar, Groundnuts, Oranges, Apples, Grapes, Wool	Steady high performers: Pineapples	Declining high performers: Maize
	Marginal	Rising moderate performers (catch-up): Potatoes, Sunflower, Tomatoes, Milk, Soybeans	Steady moderate Performers: Pigs, Chickens	Declining moderate Performers:
	Not Competitive	Turnaround: Wheat	Steady underperformers: Cattle	Chronic underperformers (losers): Sheep (mutton)

Sugar, groundnuts, oranges, apples, grapes and wool can be classified as the "winners" in the agro-food and fibre complex. What is alarming is that maize is classified as a "declining high performer". However, most of the primary products in the complex have either increased their competitiveness or remained constant over the last five years. The wheat industry shows a positive "turnaround" in its competitiveness and sheep (mutton) is classified as a "loser" (this is mainly due because of cheap imports and large numbers of stock theft).

In Table 5, the value-added products are divided into the various categories. Most of the value added products also reveal either a constant or an increasing trend in competitiveness over the last five years. Maize flour, apple juice, raisins and grape juice can be classified as “winners”. Sunflower oil and cake, and canned chicken shows a positive “turnaround” in competitiveness. Wheat flour and wine are declining high performers. No “losers” were identified.

Table 5: Trends in competitiveness of value added in the agro-food and fibre complex

Trend in competitiveness 1995 – 1999				
		Increase	**Constant**	**Decrease**
Competitiveness in 1995	**Competitive**	Winners: Maize flour, Apple juice, Raisins, Grape juice	Steady high performers: Processed groundnuts, Canned pineapple and pineapple juice	Declining high performers: Wheat flour, Wine
	Marginal	Rising moderate performers (catch-up): Processed sugar, Orange juice, Beef, Butter	Steady moderate Performers: Macaroni; Breakfast cereals; Bread; Frozen potatoes; Soya bean oil; Tomato paste and juice; Cheese; Pork	Declining moderate Performers: Soybean cake, Mutton
	Not Competitive	Turnaround: Sunflower oil and cake; Canned chicken	Steady underperformers:	Chronic underperformers (losers):

5. CONCLUSIONS – THE RACE CONTINUE

It is clear that agriculture and agribusiness globally are experiencing far-reaching changes. South Africa is part of this global environment and an appropriate slogan for the South African agro-food and fibre complex could well be “adapt or die”; this despite the presence of highly “unequal economic playing fields” in the global economy.

The trend analysis of the agro-food and fibre complex reveals a remarkable achievement, namely that, despite difficult local conditions, the agricultural industry generally succeeded in operating more competitively for the last eight years. On the primarily level the sugar, groundnuts, oranges, apples, grapes and wool industries establish themselves as “winners” in the global trading environment. The wheat industry shows a positive “turnaround” in its competitiveness. On the value added level the maize flour, apple juice, grape juice and raisins industries have distinguished themselves as “winners”. Sunflower oil and cake, and canned chicken shows a positive “turnaround” in competitiveness.

Agribusinesses in these industries clearly started to focus on the “right stuff”. This included the production of differentiated products to serve consumer preferences more effectively in “niche” markets, effective production systems, etc. Some of the major outcomes of such a situation is that the industry indeed became “leaner”, but with many inefficient firms and farmers “biting the dust”. We can expect more of this – the race will continue.

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