TRADE & INDUSTRIAL POLICY STRATEGIES

Analysis of Trade between South Africa and the EU and a Preliminary Attempt to Examine the Impact of the EU-SA FTA on Trade

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SECTION 1: Introduction

Although South Africa is a signatory of the Cotonou agreement, it only benefits from a limited membership, thus prompting the negotiation of a comprehensive Trade, Development and Co-operation Agreement (TDCA) with the European Union (EU) in October 1999. Having come into provisional effect on 1 January 2000, the agreement aims to introduce bilateral free trade over a 12-year transitional period, consistent with World Trade Organisation (WTO) rules. Accordingly, both parties have committed to tariff reductions based on the applied rates in existence on the day of entry into the agreement on trade in almost all sectors.

Under the TDCA, traded goods are divided into agricultural and industrial products. The EU is arguably favoured by the terms governing liberalisation in the former category, and South Africa in the latter. South Africa's tariff elimination for industrial products is heavily 'back loaded' with tariff reductions predominantly in the second half of a 12-year implementation plan. The observed asymmetry in liberalisation schedules for industrial products between South Africa and the EU is to allow for different respective levels of development. With this said, however, although the TDCA permits South Africa a longer transition period (12 years) than the EU (10 years), as well as requiring the EU to eliminate tariffs on a higher percentage of currently traded goods (95%) than is the case for SA (8%), taking the extent of improvement in current levels of market access offered by South Africa relative to the EU, a greater effort is arguably necessary of South Africa. Indeed, prescribed EU tariff changes affect only 25% of currently traded goods and their weighted average tariff is only 2.7%. South African tariff changes, on the other hand, will affect 40% of currently traded goods in a context of a weighted average tariff of 10%.

In addition, South Africa is to liberalise key sensitive sectors far more than the EU. By way of example, consider agriculture where the asymmetry in tariff elimination commitments is effectively reversed, despite the higher contribution agriculture makes to the gross domestic product of SA (get figures) relative to the EU. South Africa has committed to eliminating tariffs on 81% of EU agricultural exports to South Africa within 12 years, with an agreed 46% reduction within 5 years. The majority of EU agricultural products are 'back-loaded', with tariffs due to be eliminated towards the end of the 10-year transition period, and on only 62% of South African agricultural exports to the EU. While illustrating the sensitivity of trade in agricultural products for the EU, it is important to note that this is the first time the EU has included the agricultural sector in an FTA. Nevertheless, a number of regionally sensitive South African agricultural products are excluded but subject to review, including meat and preserved meat products, sugar and high sugar content processed products like chewing gum, cereal products, and dairy products. For the most part, the issue surrounding exclusion of liberalisation within these sectors has less to do with tariff elimination, than the extent and pattern of export subsidies that the EU provides as part of the Common Agricultural Policy (CAP).

In any case, in light of the impending trade liberalisation between South Africa and the EU, it is useful to assess the effects of tariff reduction on trade between these two economic areas, even though only three years has passed since the implementation of the FTA. Taking the study one step further, possible causes of the trade changes are reviewed, in order to form some assessment of whether the trade agreement itself is responsible.

This document therefore reports on, and evaluates, bilateral trade between these two trade partners over the past decade, where possible, up to the year 2003. The EU was recently enlarged with ten new member states, adding Latvia, Lithuania, Slovakia, Malta and Cyprus and the CEEC-5 of Poland, Hungary, the Czech Republic, Slovenia and Estonia (the Accession Countries or ACs).

Accession will increase the EU-15 population by about 20 percent, but GDP by only 8 percent when measured on a purchasing power parity basis.

The economic impact of the EU enlargement on South African bilateral trade with the EU was investigated at an earlier stage (albeit at a broad level) by Sandrey (2004) and expanded by van Seventer (2004). The results showed that this development is unlikely to have a major impact on SA-EU trade. However, there are considerable defensive interests to be considered in terms of those commodities most likely to be impacted.

This report consists of two parts. In Part A we describe various aspects of trade and tariff patterns of the recent past. We take a gradual approach within each section moving from an aggregated to more detailed level. This part proceeds as follows. Section 2 reviews basic trade flows between South Africa and the EU. Intra-industry trade is discussed next in Section 3, followed by insights offered from trade intensity calculations in Section 4. Section 5 attempts to identify areas of export potential for South Africa, tracking sectors (at both the HS 4- and 6-digit level) that concurrently exhibit high-value EU imports, high-value South African exports, but low-value South African exports to the EU. Of the 'priority' commodity groups identified, we then identify which of these are high import growth sectors in the EU, further evaluating a possible South African export growth strategy. A discussion of revealed trade barriers follows in Section 6, while Section 7 considers possible effects of existing tariffs on the bilateral trade flows described earlier. A synopsis of findings of this part is found in Section 8. The analysis of bilateral trade between South Africa and the EU now refers to trade with the enlarged entity.

In Part B we make a preliminary quantitative assessment of the impact of the FTA on South Africa's trade with the EU. In particular, the question is "to what degree has the phase down of EU tariffs had a positive impact on SA exports to the EU". The aim is to conduct an ex-post analysis over the years 2000-2003 where possible, and the EU refers here to the pre-enlarged area. This part will employ three distinct but related methodologies that are available to trade economists to examine this question. In section 9, the first methodology is to plot the relationship between the tariff reduction in the EU for imports from South Africa to enable a visual examination and then apply an ordinary least squares (OLS) regression analysis to that data. The working hypothesis is that there will be a relationship between the reduced tariffs and an increase in the share of exports from South Africa that are destined for the EU. The second approach is an empirical examination of the data to look at the major patterns by detailed product group and can be found in section 10. This is followed in section 11 by the final methodology which applies the relatively new concept of trade deepening versus trade widening; has trade widened into new areas or deepened in that it has increased in the areas that were being traded at the start of the period. We end with conclusions.

PART A – ANALYSIS OF TRADE PATTERNS

SECTION 2: BILATERAL TRADE BETWEEN SA AND THE EU

The aim of this section is to provide a first round analysis of commodities that feature prominently in trade flows between South Africa and the EU. It provides a descriptive analysis of trade between the two entities under review, assessing imports, exports, and total trade (defined as the sum of imports and exports), as well as measuring changes in trade patterns observed.

We begin with an aggregate view on imports, exports and total trade between South Africa and the EU for the period 1994 through 2003, followed by an analysis of trade patterns at increasingly disaggregated levels, beginning with the 23-chapter level. The data underpinning the macroeconomic and 23-chapter level is at current prices and of annual intervals, as obtained from Customs and Excise. At the HS4 level, use is made of the International Trade Centre's (ITC) South Africa Trade Map trade data system. It should be noted that trade in services could not be analysed because there is no detailed information. Our report therefore only refers to merchandise trade.

Section 2a: Trade flows at the aggregate level

Table 1 provides an aggregate analysis of merchandise trade between South Africa and the EU for the period 1994 to 2003. This includes imports, exports and total trade together with the EU's share in these flows. In row 1 it can be seen that South African imports from the EU have increased from R36 billion in 1994 to R109 billion in 2003 at current (Rand) prices. This constituted a 13% weighted annual average increase in nominal terms over the period. Total imports by South Africa increased by 14% over the same period of 10 years (row 4). The share of the EU's imports varied in the range of 39% to 46% in the ten year period dropping to its lowest levels of the period in the year 2000 and recovering, perhaps on the back of the EU – SA FTA, somewhat by the year 2003.

Exports from South Africa to the EU increased over the same period from R20 billion in 1994 to R80 billion in 2003 which constitutes annual average growth rate of 17% over this period. South Africa 's total exports increased by 14% per annum and the share of the EU's exports in total South African exports has therefore shown an increase. It rose from 24% in 1994 to 31% in 2003 with the highest levels recorded during 2001 and 2002, just after the inception of the EU – SA FTA.

Table 1: Aggregate imports and exports between SA and EU, 1994 – 2003 (R-million)

		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Ave94-03
1	SA imports from EU (Rm curr pr)	35,586	43,748	49,490	53,093	62,002	61,534	72,871	87,179	113,721	109,023	
2	Growth (%)		23	13	7	17	-1	18	20	30	-4	13.3
3	SA imports total (Rm curr pr)	77,826	101,054	116,903	129,834	143,976	147,383	188,064	215,441	274,458	258,431	
4	Growth (%)		30	16	11	11	2	28	15	27	-6	14.3
5	EU's share of SA imports (%)	45.7	43.3	42.3	40.9	43.1	41.8	38.7	40.5	41.4	42.2	
6	SA export to EU (Rm curr pr)	20,819	27,954	34,557	39,786	43,460	51,882	64,562	72,185	91,673	80,406	
7	Growth (%)		34	24	15	9	19	24	12	27	-12	16.9
8	SA exports total (Rm curr pr)	88,373	100,447	114,133	137,339	142,740	161,508	208,285	215,248	277,993	255,560	
9	Growth (%)		14	14	20	4	13	29	3	29	-8	13.7
10	EU's share of SA exports (%)	23.6	27.8	30.3	29.0	30.4	32.1	31.0	33.5	33.0	31.5	
11	SA trade balance with EU (Rm curr pr)	-14,767	-15,794	-14,933	-13,307	-18,542	-9,652	-8,309	-14,994	-22,049	-28,617	
12	SA trade with EU (Rm curr pr)	56,405	71,702	84,047	92,879	105,462	113,416	137,432	159,364	205,394	189,428	
13	Growth (%)		27	17	11	14	8	21	16	29	-8	14.8
14	SA total trade (Rm curr pr)	166,199	201,501	231,036	267,173	286,715	308,891	396,349	430,689	552,451	513,991	
15	Growth (%)		21	15	16	7	8	28	9	28	-7	14.0
16	EU's share of SA trade (%)	33.9	35.6	36.4	34.8	36.8	36.7	34.7	37.0	37.2	36.9	

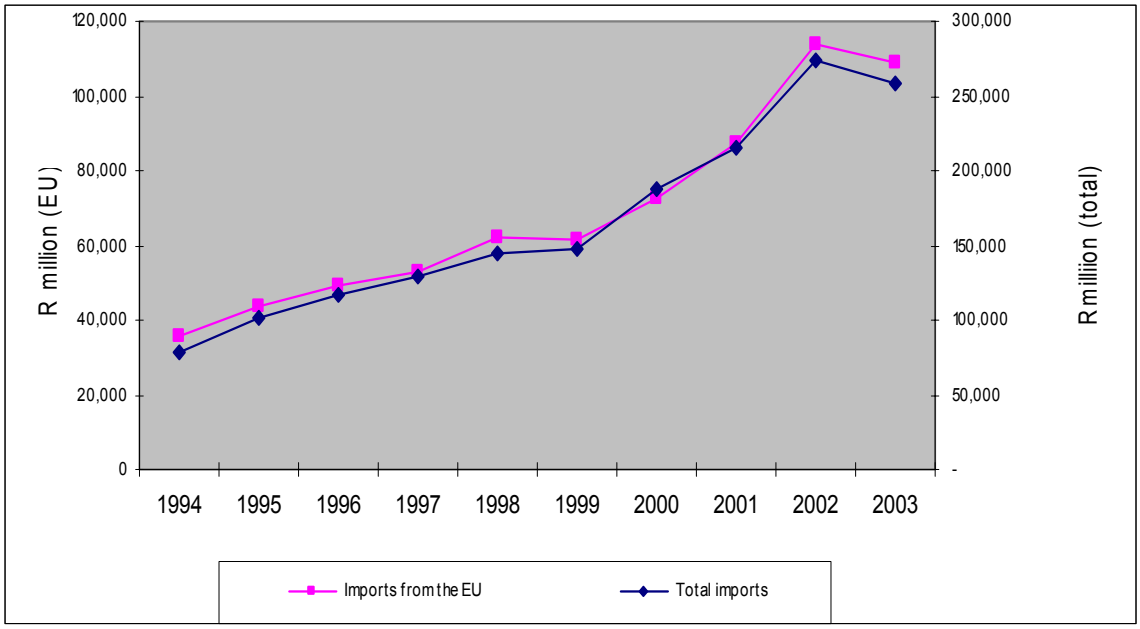
[Source: Customs & Excise]

Row 11 shows South Africa's trade balance with the EU, which has been in favour of the EU throughout the last 10 years. It can be seen that since the signing of the FTA between the two partners, South Africa's merchandise trade deficit with the EU worsened in nominal terms after it had improved somewhat during the late 1990s.

Rows 12 to 16 present the analysis of total. South Africa' s total trade has been increasing at annual average of 14% (row 15) and growth in trade between South Africa and the EU has been increasing at an annual rate of 15% (row 13). The EU's share in South African total trade has averaged around the 35% from 1994 to 2003 and is perhaps slightly higher the four years after 2000 compared to the four years prior.

Figure 1 shows that due to the large share, imports from both the EU and total imports have similar trends during the decade. Both increased steadily in nominal terms but experienced a drop in 2003. The growth path of the two variables is similar, as the correlation coefficient is close to 0.996.

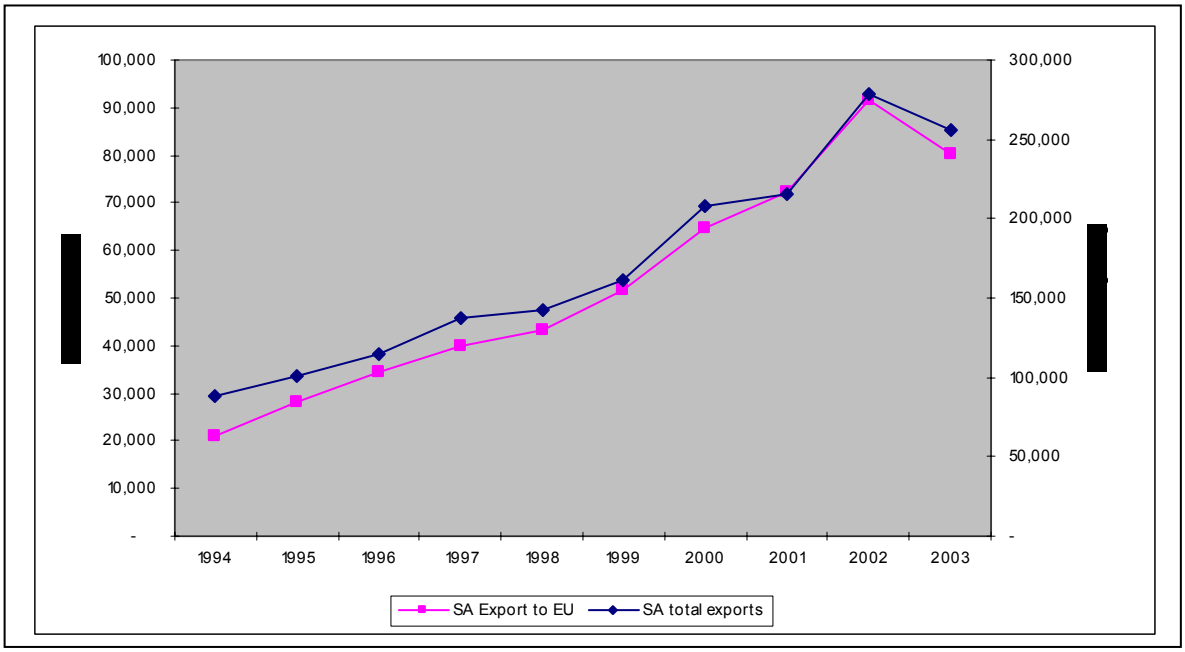
Figure 1: Pattern of imports from the EU and total imports



[Source: Customs & Excise]

South African exports to the EU and total exports show a similar trend to their counterpart, imports. The correlation coefficient is also similar to that of imports, estimated to be 0.996. South African exports to the EU and the world drop, as a result of the Rand strength and the general decline in global demand.

Figure 2: Pattern of SA exports to the EU and total exports



[Source: Customs & Excise]

Section 2 b: Trade flows at the 23-chapter level

The next table reports on nominal growth in imports and exports as well as the change in the patterns of trade at the slightly disaggregated level of 23 commodity chapters (or sections as they are sometimes labelled).

In the first three columns we report on imports from the EU. Growth rates recorded in column 1 vary from -2.7% to 43%. The composition of imports from the EU is measured in columns 2 and 3 for the first and second half of the 1994-2003 decade. Comparing columns 2 and 3 it can be seen that shares for a number of commodity groups have declined. Their share seems to be absorbed by "special classifications provisions", which doubled from the first period to the second. This section includes knock-down kits for the motor vehicle industry. In particular, machinery and paper products have seen a decline in their share of imports from the EU. Chemicals have maintained their share, while precious metals and vehicle imports from the EU has increased in importance.

Table 2: Growth and pattern of South African imports from, exports to trade with the EU

	Chapter	Import			Exports			Trade		
		average growth 1999-03	average distribution 1994-98	average distribution 1999-03	average growth 1999-03	average distribution 1994-98	average distribution 1999-03	average growth 1999-03	average distribution 1994-98	average distribution 1999-03
01	Live animals animal products	2.3%	1.0%	0.5%	24.0%	1.9%	2.2%	18.4%	1.3%	1.3%
02	Vegetable products	15.6%	0.8%	0.7%	10.7%	7.3%	5.5%	11.3%	3.5%	2.9%
03	Animal or vegetable fats & oils	10.2%	0.2%	0.2%	43.7%	0.1%	0.1%	15.8%	0.2%	0.1%
04	Prepared foodstuffs, beverages, tobacco	7.3%	1.8%	1.7%	23.2%	3.4%	3.8%	17.1%	2.5%	2.6%
05	Mineral products	17.6%	1.7%	1.1%	22.3%	17.8%	18.8%	22.0%	8.2%	9.0%
06	Products of chemical or allied industries	12.4%	13.4%	13.1%	15.2%	4.7%	4.0%	13.0%	9.9%	9.1%
07	Plastics and rubber	13.8%	5.0%	4.7%	22.8%	1.0%	1.4%	15.5%	3.4%	3.2%
08	Raw hides and skins, leather	-2.7%	0.3%	0.2%	7.2%	1.9%	1.1%	5.2%	1.0%	0.6%
09	Wood, cork, straw	21.4%	0.4%	0.5%	13.1%	0.6%	0.9%	16.2%	0.5%	0.7%
10	Pulp, paper & paperboard, books	8.9%	3.5%	2.8%	11.5%	3.4%	3.1%	10.0%	3.4%	2.9%
11	Textiles, fabrics, clothing	10.3%	2.3%	1.7%	19.3%	3.2%	2.7%	15.3%	2.7%	2.1%
12	Footwear, headgear, umbrellas	-0.5%	0.3%	0.2%	14.2%	0.2%	0.1%	4.3%	0.2%	0.1%
13	Articles of stone asbestos ceramics glass	5.6%	1.9%	1.7%	20.4%	0.7%	0.9%	9.7%	1.4%	1.3%
14	Precious metals	17.9%	2.2%	3.9%	8.8%	22.5%	14.4%	10.9%	10.4%	8.6%
15	Base metals	16.2%	5.2%	4.0%	14.1%	12.5%	11.4%	14.7%	8.2%	7.3%
16	Machinery, mechanical & electrical	12.4%	40.7%	34.3%	27.7%	6.4%	12.3%	15.4%	26.8%	24.4%
17	Vehicles, aircraft, ships	43.3%	8.3%	11.7%	2.8%	5.2%	10.2%	23.8%	7.0%	11.0%
18	Optical photograph measuring musical inst	15.9%	4.1%	3.8%	21.0%	0.6%	0.5%	16.4%	2.7%	2.3%
19	Unknown		0.0%	0.0%		0.0%	0.0%		0.0%	0.0%
20	Miscellaneous manufactured articles	11.6%	1.1%	1.3%	14.0%	4.4%	4.1%	13.3%	2.4%	2.5%
21	Works of art collectors pieces & antiques	6.5%	0.1%	0.1%	2.2%	0.1%	0.1%	3.5%	0.1%	0.1%
22	Other unclassified goods	34.7%	0.3%	0.1%	-92.8%	2.1%	2.5%	-61.5%	1.0%	1.2%
23	Spec class OEC	26.5%	5.5%	11.7%	10.9%	0.0%	0.0%	26.4%	3.3%	6.5%

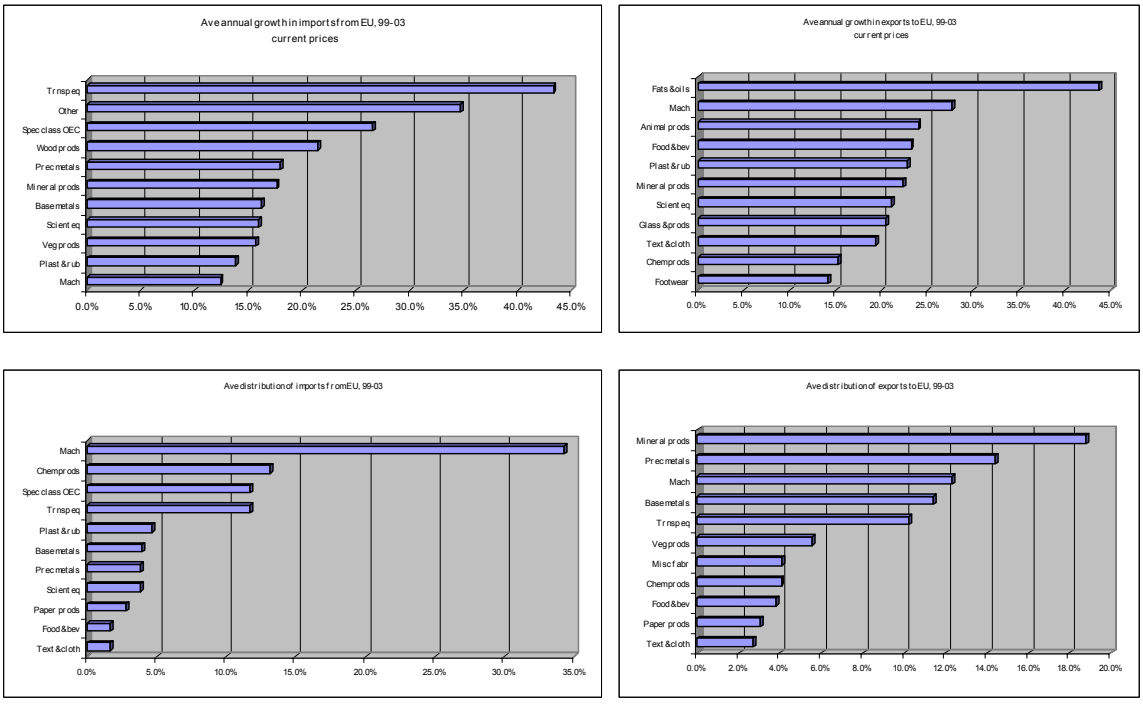
[Source: Custom & Excise]

In terms of exports (column 4-6) it can be seen that in particular the share of *machinery* and *vehicles* has increased over the decade, while the share of *precious metals*, showed a significant decline. Very high growth rates were reported for *fats and oils* and *machinery*. In terms of change in shares from first period to the second, precious metals dropped by eight percentage points, or over a third of it's previous share. Machinery and vehicles increased their shares from the first period to the second, with export shares of machinery almost doubling.

In the case of total trade, there no major movements in shares except the 4 percentage point jump by vehicles from 7% to 11%. The lowest total trade growth rates were recorded by other unclassified goods, with a decline of -61.5%, probably because platinum exports were reclassified as *precious metals* during the period under review. Special classification group had the highest growth rates in total trade of 26.4% followed by mineral products with 22%.

We summarize these findings in the following figure where we rank those commodities with above average growth in imports from and exports to the EU (top half), as well as the proportional contribution to imports from and exports to the EU (bottom half). The trade pattern between the two partners that appears, suggests that South African exports to the EU are biased towards primary products such as *minerals*, and *base metals*, while South African imports from the EU are more concentrated in *machinery* with some apparent intra-industry trade in the broad category of *transport equipment*.

Figure 3: Growth patterns of South African imports from and exports to the EU for selected sectors



[Source: Custom & Excise and own calculations]

Another way of identifying high growth, large share sectors is through plotting the sectors in a matrix. The parameters of the matrix are shown in Table 3 below. Sectors are characterised (arbitrarily) as medium growth if their average annual growth is between 10% and 20%. Obviously

low and high –growth sectors fall below and above these limits respectively. For the share analysis, the cut-off points are 5% and 10%.

Table 3: Identifying high-growth, large share sectors

	High	Medium	Low
Growth	>20%	20%< >10%	<10%
Classification	>10%	10%< 5%	<5%

Examining Table 4, there are two groups of commodities from the EU to South Africa that have fared very well by showing high growth rates and high share at the same time over the period. These include transport equipments (chapter 17) and special classification OEC (Chapter 23). Other chapters that have done fairly well are chemical products (Chapter 6) and machinery (Chapter 16) that have achieved medium growth and high shares.

Table 4: Growth-share nexus of SA imports from the EU for 22 Chapters (annual average, 1999 – 2003)

	high growth	medium growth	low growth
high share	(17) Transport equipment, (23) Special classification OEC	(6): Chemical products, (16) Machinery	
Medium share			
	(9) Wood products, (22) Other	(2) Vegetable products, (3) Fats & oils, (5) Mineral products, (7) Plastics & rubber, (14) Precious metals, (15) Base metals, (18) Scientific equipment, (20) Miscellaneous fabrics,	(1) Animal prods, (4) Food & beverages, (8) Leather products, (10) Paper products, (12): Footwear, (13) Glass & products, (19) Unknown, (21) Art & antiques.
low share			

[Source: Customs & Excise, Note, based on weighted average annual growth rates and average shares over the period 1999-2003]

Commodity groups with high export shares do not all display high growth as can be seen in the first row of Table 5. In the first column it can be seen that there are seven groups that have reported high growth in the second half of the decade up to 2003 but most of them have low shares. Those with high shares and high growth rates include *machinery* and *mineral products*. The groups that had shown high growth rates but low shares include animal and other agricultural related products as well as others. This growth may be attributed to the SA-EU FTA negotiations which were concluded in 1999, and due to start in January of 2000 and could hint at trade widening as new product lines are being explored. Agricultural products were prominent in the negotiations and that may have stimulated growth in export to European markets.

Table 5: Growth-share nexus of SA exports to the EU for 22 Chapters (annual average, 1999 – 2003)

	high growth	medium growth	low growth
high share	(5)Mineral products, (16)Machinery,	(15)Base metal,	(14)Precious metal,
medium share		(2)Vegetable products,	(17)Transport equipments,
low share	(1) Animal products, (3)Fats & oils, (4)Food & beverages (7)Plastics & rubber, (13) Glass products, (18) Scientific equipments,	(6): Chemical products (9) Wood products, (10) Paper products (12): Footwear (20) Miscellaneous fabrics, (23) Special classification OEC	(8) Leather products, (19) Unknown, (21) Arts & antiques, (22) Other

[Source: Customs & Excise, Note, based on weighted average annual growth rates and average shares over the period 1999-2003]

Section 2c: Trade flows at the HS4 Commodity Level

The trends that were observed at the 23 Chapter level in the earlier subsection continue at the next level of disaggregation, that of the HS4 commodity groups. As can be seen in Table 6, we rank these more detailed commodity groups according to their values of South African imports from the EU. The proportion of total South African imports of those commodities is also considered. The third column shows growth rates over the last 5 years.

Most of high value imports from the EU are in the transport equipment and electronic products such as H9801 Original equipment components, H8703 Motor vehicles for transport of persons (except buses), H8802 Aircraft, spacecraft, satellites, H8525 Radio and TV transmitters, television cameras. The fact that H9801 and H8703 appear on this list is no surprise, given that the Motor Industry Development Programme (MIDP) was introduced in 1995 and has since been extended to 2007. The MIDP encourages imports of motor vehicle components and vehicles on a duty-free basis for the production and sale of these vehicles.

The growth rates of the top 50 products were fairly reasonable for most of the commodities. However, imports of H8802 Aircraft, spacecraft, satellites were the fastest growing commodities in the top 50 imports with growth rate of over 100% per annum in the five year period.

Imports of electric and electronic equipments from the EU report mixed growth rates during the recent five year period. *H8517 Electric apparatus for line telephony, telegraphy* and *H8542 Electronic integrated circuits and micro assemblies* are the only two commodity groups that had declining growth rates among the top 50 imported commodities. The decline in imports of *H8517 Electric apparatus for line telephony, telegraphy* could be explained by competition from mobile telecommunication sector in spite of the service obligations.

Table 6: South African imports from the EU – top 50 ranked by value (R million)

	Product Code	Product description	Value in 2003 (Rm)	Share in EU imports	Average annual growth in value, 1999-03	Share in total imports
		Total	109,023	100.0%	17.2%	42.2%
1	H9801	Original equipment components	13,807	12.7%	26%	57%
2	H8703	Motor vehicles for transport of persons (except buses)	7,190	6.6%	42%	66%
3	H8802	Aircraft, spacecraft, satellites	4,824	4.4%	105%	59%
4	H8525	Radio and TV transmitters, television cameras	4,492	4.1%	19%	69%
5	H7102	Diamonds, not mounted or set	3,760	3.4%	24%	82%
6	H3004	Medicaments, therapeutic, prophylactic use, in dosage	3,405	3.1%	15%	71%
7	H8471	Automatic data processing machines (computers)	2,559	2.3%	4%	39%
8	H8708	Parts and accessories for motor vehicles	2,455	2.3%	28%	66%
9	H8419	Machinery, non-domestic, involving heating or cooling	1,580	1.4%	71%	81%
10	H8411	Turbo-jets, turbo-propellers/other gas turbine engines	1,457	1.3%	44%	65%
11	H8517	Electric apparatus for line telephony, telegraphy	1,251	1.1%	-12%	48%
12	H8429	Self-propelled earth moving, road making, etc machines	1,081	1.0%	39%	38%
13	H8473	Parts, accessories, except covers, for office machines	1,030	0.9%	7%	27%
14	H8701	Tractors (other than works, warehouse equipment)	1,025	0.9%	45%	67%
15	H8906	Warships, lifeboats, hospital ships, vessels nes	935	0.9%	0%	100%
16	H8536	Electrical switches, connectors, etc, for < 1kV	860	0.8%	13%	60%
17	H8414	Air, vacuum pumps, compressors, ventilating fans, etc	802	0.7%	17%	58%
18	H8483	Shafts, cranks, gears, clutches, flywheel, pulleys etc	778	0.7%	15%	57%
19	H9018	Instruments etc for medical, surgical, dental, etc use	772	0.7%	19%	41%
20	H8481	Taps, cocks, valves for pipes, tanks, boilers, etc	767	0.7%	16%	60%
21	H8443	Printing and ancillary machinery	767	0.7%	2%	49%
22	H8421	Liquid, gas centrifuges, filtering, purifying machines	756	0.7%	25%	67%
23	H4810	Paper, board, clay, inorganic coated at least one side	681	0.6%	11%	60%
24	H8479	Machines nes having individual functions	679	0.6%	11%	64%
25	H8413	Pumps for liquids	621	0.6%	18%	58%
26	H9401	Seats (except dentist, barber, etc chairs)	613	0.6%	20%	70%
27	H8524	Sound recordings other than photographic equipment	610	0.6%	1%	61%
28	H2710	Oils petroleum, bituminous, distillates, except crude	592	0.5%	19%	35%
29	H4901	Printed reading books, brochures, leaflets etc	583	0.5%	14%	63%
30	H8704	Motor vehicles for the transport of goods	580	0.5%	41%	33%
31	H3811	Gasoline and oil additives	561	0.5%	7%	62%
32	H8431	Parts for use with lifting, moving machinery	559	0.5%	11%	48%
33	H3808	Insecticides, fungicides, herbicides etc (retail)	545	0.5%	15%	58%
34	H2208	Liqueur, spirits and undenatured ethyl alcohol <80%	545	0.5%	6%	76%
35	H8422	Machinery for dish washing, bottle washing, filling	538	0.5%	7%	78%
36	H3824	Prepr binder for foundry	537	0.5%	12%	75%
37	H3907	Polyacetals, polyether, polycarbonates, etc, primary	524	0.5%	16%	66%
38	H9032	Automatic regulating or controlling equipment	496	0.5%	19%	62%
39	H8477	Machinery for rubber, plastics industry	460	0.4%	16%	60%
40	H8409	Parts for internal combustion spark ignition engines	458	0.4%	22%	43%
41	H8542	Electronic integrated circuits and microassemblies	457	0.4%	-6%	43%
42	H4011	New pneumatic tyres, of rubber	456	0.4%	18%	35%
43	H2917	Polycarboxylic acid, derivatives	433	0.4%	40%	74%
44	H4811	Paper, board, etc coated, impregnated, coloured, nes	411	0.4%	14%	64%
45	H8529	Parts for radio, TV transmission, receive equipment	406	0.4%	8%	50%
46	H8482	Ball or roller bearings	405	0.4%	15%	41%
47	H8408	Compression-ignition engines (diesel etc)	402	0.4%	35%	61%
48	H8803	Parts of aircraft, spacecraft, etc	399	0.4%	11%	31%
49	H8474	Machinery to sort, screen, wash, etc mineral products	375	0.3%	29%	72%
50	H3920	Plastic plate, sheet, film not cellular, reinforced	369	0.3%	10%	49%

[Source: Own calculations based on Customs &Excise statistic]

We now switch our attention to the 50 largest export commodity groups at the HS4 level. The earlier observation that South African exports to the EU at 23 Chapters are concentrated in the primary commodity groups such as minerals, basic metals and chemicals is evident from Table 7.

Most of the top 20 commodity groups by value are represented by these categories in addition to some paper products, vehicles and horticultural produce.

Table 7: South African exports to the EU – top 50 ranked by value (R-million)

	Product Code	Product description	Value in 2003 (Rm)	Share in EU exports	Average growth in vale, 1999-03	Share in total exports
		Total	80,406	100.0%	13.1%	31.5%
1	H2701	Coal, briquettes, ovoids etc, made from coal	10,395	12.9%	27.34%	76.59%
2	H7102	Diamonds, not mounted or set	8,177	10.2%	5.67%	62.16%
3	H8421	Liquid, gas centrifuges, filtering, purifying machines	6,722	8.4%	34.64%	78.93%
4	H7202	Ferro-alloys	4,675	5.8%	17.00%	37.94%
5	H8703	Motor vehicles for transport of persons (except buses)	3,328	4.1%	-0.98%	20.38%
6	H9401	Seats (except dentist, barber, etc chairs)	2,748	3.4%	13.48%	88.82%
7	H2204	Grape wines(including fortified), alcoholic grape must	2,474	3.1%	28.77%	78.53%
8	H8708	Parts and accessories for motor vehicles	2,174	2.7%	9.27%	56.80%
9	H7110	Platinum, unwrought, semi-manufactured or powder forms	1,591	2.0%		18.41%
10	H7219	Rolled stainless steel sheet, width > 600mm	1,523	1.9%	23.57%	31.85%
11	H7112	Waste or scrap of precious metal	1,431	1.8%	11.82%	90.64%
12	H0806	Grapes, fresh or dried	1,281	1.6%	7.18%	78.17%
13	H2601	Iron ores and concentrates, roasted iron pyrites	1,236	1.5%	16.27%	34.79%
14	H0805	Citrus fruit, fresh or dried	1,153	1.4%	5.29%	43.31%
15	H0808	Apples, pears and quinces, fresh	945	1.2%	12.70%	65.69%
16	H2614	Titanium ores and concentrates	757	0.9%	21.98%	38.13%
17	H2615	Niobium tantalum vanadium zirconium ores, concentrates	663	0.8%	35.63%	60.50%
18	H2008	Fruit, nut, edible plant parts nes, prepared/preserved	639	0.8%	15.59%	48.96%
19	H4804	Uncoated kraft paper and paperboard	624	0.8%	40.73%	49.31%
20	H8609	Cargo containers designed for carriage of goods	609	0.8%	2.07%	63.54%
21	H4011	New pneumatic tyres, of rubber	602	0.7%	22.08%	44.09%
22	H4702	Chemical wood pulp, dissolving grades	581	0.7%	10.87%	26.74%
23	H5101	Wool, not carded or combed	575	0.7%	23.23%	89.38%
24	H9403	Other furniture and parts thereof	514	0.6%	14.77%	57.61%
25	H8407	Spark-ignition internal combustion engines	510	0.6%	146.91%	84.44%
26	H8704	Motor vehicles for the transport of goods	469	0.6%	52.34%	22.59%
27	H0307	Molluscs	450	0.6%	24.82%	75.58%
28	H0304	Fish fillets, fish meat, mince except liver, roe	446	0.6%	25.49%	66.12%
29	H8544	Insulated wire and cable, optical fibre cable	439	0.5%	13.55%	68.44%
30	H5105	Wool and animal hair, carded or combed	433	0.5%	11.38%	61.15%
31	H0302	Fish, fresh or chilled, whole	430	0.5%	22.04%	87.90%
32	H4418	Builders joinery and carpentry, of wood	358	0.4%	27.17%	63.14%
33	H0303	Fish, frozen, whole	356	0.4%	20.72%	63.38%
34	H8527	Radio, radio-telephony receivers	342	0.4%	45.54%	80.47%
35	H8409	Parts for internal combustion spark ignition engines	320	0.4%	26.07%	39.06%
36	H4703	Chemical wood pulp, soda or sulphate, not dissolving	318	0.4%	-4.45%	54.09%
37	H4102	Raw skins of sheep or lambs	316	0.4%	30.96%	77.01%
38	H6802	Worked monumental, building stone, articles thereof	312	0.4%	11.55%	65.85%
39	H7210	Flat-rolled iron/steel, >600mm, clad, plated or coated	305	0.4%	31.60%	27.97%
40	H8207	Interchangeable tools and dies for hand or power tools	281	0.3%	47.96%	52.37%
41	H2617	Ores and concentrates, nes	277	0.3%	17.70%	93.79%
42	H7208	Hot-rolled products, iron/steel, width>600mm, not clad	271	0.3%	10.98%	7.97%
43	H2602	Manganese ores, concentrates, iron ores >20% Manganese	264	0.3%	0.25%	29.30%
44	H6203	Men's or boys suits, jackets, trousers etc not knit	262	0.3%	22.57%	33.93%
45	H0804	Dates, figs, pineapple, avocado, guava, fresh or dried	261	0.3%	19.00%	91.16%
46	H0809	Stone fruit, fresh (apricot, cherry, plum, peach, etc)	253	0.3%	5.93%	79.43%
47	H8483	Shafts, cranks, gears, clutches, flywheel, pulleys etc	250	0.3%	26.99%	71.54%
48	H7606	Aluminium plates, sheets and strip, thickness > 0.2 mm	248	0.3%	98.03%	14.38%
49	H2712	Petroleum jelly, petroleum wax, other mineral waxes	242	0.3%	7.22%	42.82%
50	H2619	Waste, scale, dross, slag of iron or steel industry	241	0.3%	365.60%	86.18%

[Source: Own calculations based on Customs &Excise statistic]

The fastest growing commodity groups are H2619 Waste, scale, dross, slag of iron or steel industry, H7606 Aluminium plates, sheets and strip, thickness > 0.2 mm with 365% and 98% growth rates, respectively. The next two fastest growing commodity groups are in the motor industry or related to the motor industry including H8407 spark-ignition internal combustion engines and H8704 motor vehicles for the transport of goods with growth rates recorded at 146.9% and 52.3% respectively. Growth in the latter two commodities may also be associated with the MIDP as the programme also encourages exports of these categories.

SECTION 3: INTRA-INDUSTRY TRADE BETWEEN SA AND THE EU

The more common definition of Intra-industry trade is that, it refers to the exchange of similar products between the trading partners. The trade between countries at similar same levels of development is usually expected to be intra-industry and inter-industry when countries are at different level of development. Inter-industry is associated with reallocation of resources between industries, while intra-industry requires reallocation within industries. Therefore intra-industry trade is thought to have lower costs of factor market adjustments relative to inter-industry trade.

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. It is measured by using the well known Grubel-Lloyd index. The simplified version is stated as stated as follows:

$$IIT_j = 1 - \frac{|X_j - M_j|}{(X_j - M_j)}$$

where X_j and M_j are the value of exports and imports product in category j. The index varies between 0, indicating complete inter-industry trade and 1, implying complete intra-industry.

The results depend to a large extent on the degree to which one's data is disaggregated, with more disaggregation leading to less evidence of intra-industry trade. The table below reports the HS 4 commodity groups with the highest proportions of intra-industry trade.

Table 8: Intra-industry indices for SA trade with he EU and rest of the world, 2003

	HS4 code	HS4 description	SA Exports to the EU (R'000)	SA total Exports R'000)	SA Imports from the EU (R'000)	SA tot al imports ('000)	IIT with the EU	IIT with RoW	IIT EU / IIT RoW
	Total		80,405,556.42	255,560,038.75	109,022,743.25	258,430,752.97			
1	H7109	Base metals, silver, clad with gold, semi-manufactured	10,204.45	34,792,080.87	1,035.16	1,321.63	0.18	0.00	11,182.21
2	H7504	Nickel powders and flakes	1,827.78	1,827.79	6,382.01	6,671.44	0.45	0.00	7,159.90
3	H5904	Linoleum, floor covering with coating on textile back	16,264.26	50,108.81	2,295.85	2,296.73	0.25	0.00	4,730.64
4	H1511	Palm oil and its fractions, not chemically modified	32.17	101.36	92.15	734,237.71	0.52	0.00	2,745.21
5	H3825	Prepared binders for foundry moulds or cores	29,490.39	271,769.28	31.34	31.50	0.00	0.00	1,627.86
6	H7004	Drawn or blown glass, in sheets	656.84	22,149.96	570.62	580.64	0.93	0.00	997.64
7	H2711	Petroleum gases and other gaseous hydrocarbons	68,434.60	8,661,005.75	2,014.38	2,276.75	0.06	0.00	936.46
8	H2706	Tar from coal, lignite or peat, other mineral tars	19.19	853.90	244.21	244.28	0.15	0.00	800.17
9	H0701	Potatoes, fresh or chilled	79,463.73	90,040.64	1,554.41	1,554.95	0.04	0.00	376.51
10	H0814	Peel of citrus fruit or melons	19,385.71	60,458.55	1,532.18	1,541.29	0.15	0.00	330.46
11	H2808	Nitric acid, sulphonitric acids	485.83	31,161.93	465.21	515.48	0.98	0.00	298.97
12	H3201	Vegetable tanning extracts, tannins, salts and derivs	8,608.83	575,704.94	5,855.93	6,740.35	0.81	0.00	259.99
13	H7501	Nickel matte, interim products of nickel metallurgy	624.94	45,578.06	194.15	241.52	0.47	0.00	225.21
14	H7611	Aluminium reservoirs, vats, tanks, etc, capacity >300l	13,503.96	84,010.33	3,878.89	3,954.38	0.45	0.00	208.64
15	H7112	Waste or scrap of precious metal	4.90	219.30	1.11	236,515.85	0.37	0.00	203.93
16	H0702	Tomatoes, fresh or chilled	1,743.39	74,868.08	113.46	136.12	0.12	0.00	197.32
17	H8106	Bismuth, articles thereof, waste or scrap	5,331.59	60,554.93	260.57	274.00	0.09	0.00	191.66
18	H5001	Silk-worm cocoons suitable for reeling	12,882.17	76,385.26	2.22	2.28	0.00	0.00	168.18
19	H7906	Zinc tubes, pipes and tube or pipe fittings	48.64	9,708.25	46.39	76.46	0.98	0.01	157.32
20	H2704	Retort carbon, coke or semi-coke of coal, lignite, peat	41.79	692.91	205.26	573,873.14	0.34	0.00	149.19
21	H1510	Olive oil, fractions, blends, not chemically modified	581.68	2,994.83	526.94	535.95	0.95	0.01	127.91
22	H2205	Vermouth and other flavoured grape wine	2,474,220.49	3,150,804.47	4,885.27	4,896.74	0.00	0.00	116.22
23	H4108	Chamois (including combination chamois) leather	18,291.56	148,465.45	0.71	0.76	0.00	0.00	102.53
24	H2908	Derivatives of phenols or phenol alcohols	7,527.36	168,221.77	14,283.26	14,952.15	0.69	0.01	83.26
25	H4407	Wood sawn, chipped lengthwise, sliced or peeled	967.02	1,281.83	20,505.25	560,422.43	0.09	0.00	77.28
26	H2203	Beer made from malt	32,412.66	576,149.05	100,509.51	102,291.13	0.49	0.01	74.66
27	H7502	Unwrought nickel	402.12	2,636.92	2,989.81	1,128,529.82	0.24	0.00	59.83
28	H8904	Tugs and pusher craft	140.96	2,949.30	939.18	945.57	0.26	0.00	57.47
29	H2209	Vinegar and substitutes for vinegar from acetic acid	54,446.81	221,161.97	7,592.62	7,966.87	0.24	0.00	54.64
30	H7905	Zinc plates, sheets, strip and foil	142.33	4,601.95	111.24	151.44	0.88	0.02	49.11
31	H9706	Antiques older than one hundred years	771.52	785.67	19,792.84	36,294.20	0.08	0.00	43.77
32	H1104	Worked cereal grains except flour, groat, meal, pellet	2,234.56	91,962.30	5,582.49	6,264.31	0.57	0.02	37.90

	HS4 code	HS4 description	SA Exports to the EU (R'000)	SA total Exports R'000)	SA Imports from the EU (R'000)	SA tot al imports ('000)	IIT with the EU	IIT with RoW	IIT EU / IIT RoW
33	H2705	Coal gas, water gas, etc. (not gaseous hydrocarbons)	2.00	4,393.60	3.95	47.17	0.67	0.02	34.52
34	H2810	Oxides of boron, boric acids	1,780.96	665,087.46	3,180.77	10,202.93	0.72	0.02	34.26
35	H4822	Bobbins, spools, cops etc of paper pulp, paper, board	2,889.03	86,673.24	958.47	1,594.31	0.50	0.02	33.07
36	H0801	Coconuts, Brazil nuts and cashew nuts, fresh or dried	8,749.31	8,911.67	910.73	57,353.42	0.19	0.01	32.87
37	H2845	Isotopes, nes and their compounds	39,937.21	312,365.56	234.34	283.24	0.01	0.00	32.50
38	H6103	Men's, boys suits,jackets, trousers etc knit or crochet	9,461.31	9,859.21	4,183.81	45,641.10	0.61	0.02	32.25
39	H2715	Bituminous mix, mastic from asphalt, bitumen/tar/pitch	8,839.36	158,268.72	638.53	961.21	0.13	0.00	31.27
40	H7613	Aluminium containers for compressed or liquefied gas	4,020.25	121,299.94	2,330.18	3,739.10	0.73	0.02	30.91
41	H8104	Magnesium and articles thereof, waste or scrap	73.57	127.69	2,815.28	67,338.12	0.05	0.00	30.39
42	H8608	Signals etc for rail, tram, water-way, port, airfield	4,437.77	114,023.55	1,366.69	2,233.18	0.47	0.02	30.01
43	H6109	T-shirts, singlets and other vests, knit or crochet	38,324.32	39,933.32	10,573.41	231,876.90	0.43	0.01	29.96
44	H2201	Unsweetened beverage waters, ice and snow	24,064.49	281,010.51	4,517.77	6,045.99	0.32	0.01	26.73
45	H7309	Reservoirs, tanks, vats, etc, iron or steel cap >300l	104,915.85	968,519.83	20,792.81	26,176.94	0.33	0.01	26.70
46	H6906	Ceramic pipes, conduits, guttering and fittings	52.03	9,110.83	12.94	84.43	0.40	0.02	25.44
47	H2501	Salt (sodium chloride) including solution, salt water	262.87	85,367.66	662.65	1,700.64	0.57	0.02	23.57
48	H7405	Master alloys of copper	34,710.33	475,558.81	1,857.86	2,879.98	0.10	0.00	21.96
49	H6402	Footwear nes, with outer sole, upper rubber or plastic	2,923.65	21,995.16	2,876.46	810,286.18	0.99	0.05	21.49
50	H7215	Bar and rod of iron or non-alloy steel nes	8,779.88	188,105.41	18,842.66	21,716.04	0.64	0.03	20.15

[Source: Own calculations based on Customs &Excise statistic]

Given that EU is South Africa's main trading partner, it is no surprise that most commodities at HS4 level show high IIT compared to the rest of the world. Commodities showing high IIT with EU may point to the benefit of free trade due to low market adjustments relative to inter-industry trade. Some of those commodities include, H7109: Base metals, silver, clad with gold, semi-manufactured, H7504: Nickel powders and flakes, H5904: Linoleum, floor covering with coating on textile back and H1511: Palm oil and its fractions, not chemically modified. In terms of broad categories, most on the intra industry is evident in the beverages, spirits and vinegar as well as inorganic chemicals there are at least three commodities for each in the list.

SECTION 4: TRADE INTENSITIES BETWEEN SA AND THE EU

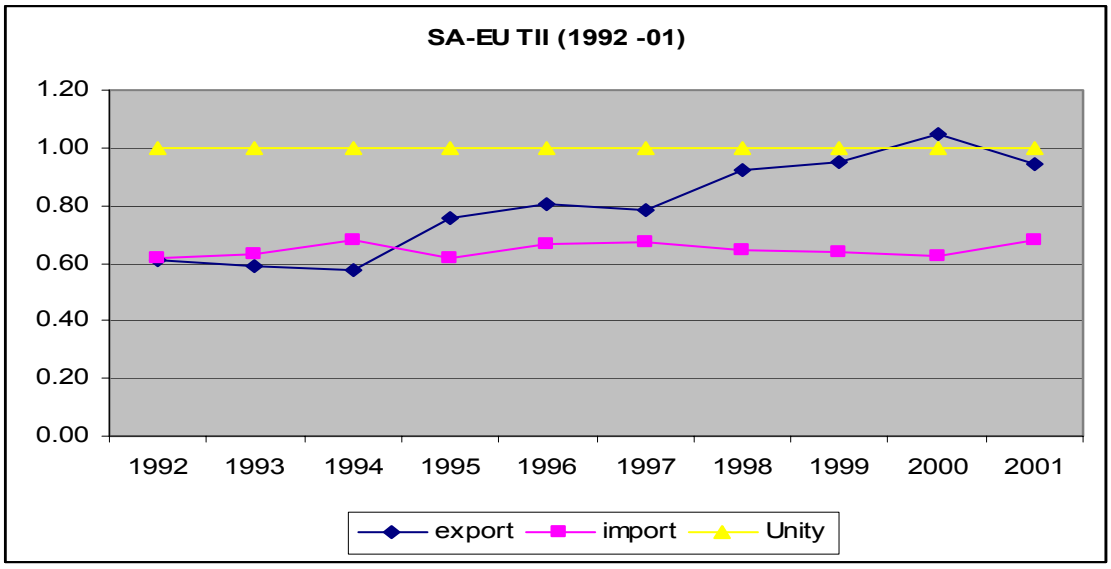
This section gives an evaluation of bilateral trade in relation to the respective country's export to the rest of the world. This is a measure of how much countries trade with one another, as opposed to the rest of the world. The effects of changes in trade patterns between South Africa and the EU are examined by calculating import and export intensities for the period 1992 - 2001. The import (export) intensity index is an indicator of intensity of EU (South Africa's) export trade with South Africa (the EU) relative to its exports to the rest of the world. For example, South African import intensity with the EU is the ratio of South African imports from the EU to South Africa's total imports relative to the EU's export share in global trade. Meanwhile, South Africa's export intensity is the ratio of South Africa's exports to the EU and South Africa's total exports relative to the EU's import share in global trade.

If the value of the index is greater than 1, it implies that greater intensity in the bilateral trading relationship between South Africa and the EU relative to the latter's trade with the rest of the world.

If the value of the index is equal to one, then it can be inferred that trade is not geographically biased, and therefore bilateral relations between the two partners is the same as their world trade.

An index value of less than one shows relatively low intensities in bilateral trade between the two partners.

Figure 4: Trade intensities between SA and EU



[Source: Own calculations based on World Trade Analyser]

The trade intensities can also be interpreted in terms of imports to partner countries. Countries who import at proportionally high levels from the same country to which they send most of their exports will have a high TII. Conversely, a country with diverse markets that is not reliant on any one country for their imports will have low TII. This is the case with South Africa- EU trade intensities. The export intensities index exceeded 1.0 in 2000 but there was a reversal in the final year under observation. There is an upward trend in the export intensities overtime even though it

is below one for most of the time. Import intensities seem to be rather stable at very low levels but the rising export intensity index during the sample period reveals that the trading relations between South Africa and the EU may be growing in strength. Apart from the last year, the EU has become a more and more important partner for South African exports ever since the mid 1990s, while at the same time, South Africa remains a less important market for EU exporters, as their trade is relatively more focussed on other markets.

SECTION 5: TARIFF BARRIERS

South Africa's trade reform consisted not only of the multilateral route but also of regional and bilateral trade arrangements that have, to a large extent, defined trade policy in the new democratic era. The two main types of agreements on the table were Free Trade Agreements (FTAs) with the European Union (EU) and with the Southern African Development Community (SADC). The EU-SA FTA came into effect in January 2000. On the other hand, the SADC Trade Protocol was concluded in August 1996, although it has taken some time for the majority of member states to ratify the treaty and as such, it only came into affect at the end of the decade.

The EU–SA FTA used the principle of asymmetry in the bilateral liberalisation, with the EU liberalising at a faster pace (three years compared to 12 for South Africa), and with a broader coverage (95% of all imports as compared with 86% for South Africa).

This section focuses on the tariffs that are applied by both partners in relation to bilateral trade. Tariffs are considered to be one of the means by which a country can use to protect its market from foreign competition and we will review the sectors of the domestic market that SA and the EU are trying to protect. We also review the general structure of tariffs and try to get an initial idea of the gains from trade SA could realise through an FTA with EU.

Section 5 a: SA imports from the EU

In Table 9 below, we reproduce the MFN schedule for 2000 and 2003 to provide some contrast to South Africa's EU commitments. The EU-SA FTA tariff schedule, as well as the general MFN schedule, consists of ad valorem and non-ad valorem tariffs. We have converted non-ad valorem tariffs of both schedules to ad valorem equivalents using the following rules:

Specific tariff: we multiply the specific rate through with the unit value of total imports. For MFN we ignore imports from the EU, SADC and SACU. If MFN or EU imports are zero, we take the unit value of total imports, i.e., including imports from the EU and SADC.

Combination tariff: a combination of a specific and an ad valorem tariff can occur in the following way:

Either or tariff: we adopt the ad valorem rate if it is the first component, likewise for the specific rate. The ad valorem equivalent of the specific rate is described in 1) above.

Additive tariff: we add the ad valorem equivalent of the specific component to the ad valorem component

If a maximum ad valorem or specific rate is specified in the combination tariff, this is ignored as we do not know whether or not this was relevant for individual shipments.

In columns 1-2 we show the number of commodity lines for a set of broad tariff ranges for the MFN and the EU schedule, followed in columns 3-4 by their distribution. In columns 5-6 the value of imports is presented with their distribution in the last two columns.

Comparing the MFN with the EU – SA FTA schedule, it can be seen in column 1-2 that the number of commodity lines in each broad range is more or less the same for the year 2000[1]. This, one would expect as the EU – SA FTA inception took place during this year. However, a somewhat

[1] But not quite, due to ad valorem equivalent computations.

higher proportion of imports were imported by South Africa from the EU that were faced with a 40% or higher tariff while the proportion of imports with low tariffs, below 10%, is also higher. EU imports seem to occur most in the 20-30% range, while imports from the rest of the world are more represented in the 30-40% range. The proportion of South African imports from the EU that were zero rated was also lower than imports from the rest of the world in 2000 but this gap seems to have been narrowed by 2003. At the inception of the FTA it would therefore seem that imports from the EU faced somewhat higher tariff barriers than three years later.

Table 9: South Africa's MFN, EU and SADC tariff schedule, 2003 – 2003 (number of commodity lines and value of imports, R billion current prices)

	1	2	3	4	5	6	7	8
	RoW / MFN # of lines	EU # of lines	RoW / MFN % of lines	EU % of lines	RoW / MFN Imports (Rbn)	EU imports (Rbn)	RoW / MFN % of imports	EU % of imports
	2000	2000	2000	2000	2000	2000	2000	2000
40%+	360	357	4.6%	4.6%	3,750	3,799	3.3%	5.3%
30%-39%	190	188	2.4%	2.4%	11,312	7,157	10.1%	10.1%
20%-29%	2,112	2,109	27.0%	27.0%	7,402	4,596	6.6%	6.5%
15%-19%	589	588	7.5%	7.5%	3,045	2,866	2.7%	4.0%
10%-14%	546	545	7.0%	7.0%	3,473	3,047	3.1%	4.3%
5%-9%	374	384	4.8%	4.9%	4,673	5,224	4.2%	7.3%
1%-4%	135	134	1.7%	1.7%	653	337	0.6%	0.5%
0%	3,518	3,517	45.0%	45.0%	78,071	44,071	69.5%	62.0%
Total	7,824	7,822	100.0%	100.0%	112,380	71,097	100.0%	100.0%
	2003	2003	2003	2003	2003	2003	2003	2003
40%+	306	49	3.9%	0.6%	6,028	7,262	4.1%	6.9%
30%-39%	207	450	2.6%	5.7%	14,213	13,932	9.8%	13.3%
20%-29%	2,151	782	27.2%	9.9%	8,569	5,552	5.9%	5.3%
15%-19%	673	1,876	8.5%	23.7%	4,924	4,262	3.4%	4.1%
10%-14%	573	607	7.2%	7.7%	6,636	3,535	4.6%	3.4%
5%-9%	407	329	5.1%	4.2%	4,764	2,848	3.3%	2.7%
1%-4%	132	205	1.7%	2.6%	1,630	1,434	1.1%	1.4%
0%	3,472	3,623	43.8%	45.7%	98,785	66,228	67.9%	63.0%
Total	7,921	7,921	100.0%	100.0%	145,549	105,054	100.0%	100.0%

*Source: **the dti** for tariffs and Customs & Excise for import values. Note: Non ad valorem tariffs for 2000 and 2003 have been converted to ad valorem equivalents by multiplying specific rates with unit values and by taking the ad valorem component of combination tariffs. The 2003 MFN schedule does not apply to imports from the SACU, EU and SADC. Not all commodity lines could be allocated to the respective tariff lines*

We report on 2003 results in the second half of Table 9 where it can be seen that the total number of commodity lines has increased by about 100. This suggests that a greater variety of products have become available. In column 4 it can be seen that the MFN schedule has stayed more or less the same, as only marginal changes can be observed. The EU schedule has also liberalized only marginally, with the proportion of zero rated commodity lines increasing by less than 1%. The main difference is a large shift of commodity lines from the 20-30% range to the 15%-20% range. Not shown in this table is that this involves mainly textiles. At the top end of the schedule it can be seen that there is also a significant shift from the 40%+ bracket to the range below. The main product group involved here (but not shown) is clothing.

Nevertheless, in terms of value of imports, by 2003, the EU schedule still appears to be more restrictive than the MFN schedule, in that a higher proportion of imports faces tariffs of 30% upwards, as can be seen in the last two columns. The EU schedule also still features a lower proportion of imports with zero rated tariffs.

Continuing with tariff peaks, we rearrange the above mentioned data in such a way that we present tariffs on imports from the EU and the associated imports at the HS2 commodity level. In the next table we present all HS2 product groups with unweighted average tariffs that are higher than 5%. It can be seen that only a few of these product groups matter in terms of value of imports, including (parts of) vehicles, rubber and plastic products and electrical machinery. In the case of the latter, the average tariff is at around 5%.

Table 10: Tariffs on South African imports from the EU for selected HS2 commodity groups (2003)

	HS code		1 Unweighted tariff	2 Max HS8 tariff	3 Weighted tariff	4 MFN tariff	5 # of HS8 lines>5%	6 Imps from EU (Rm)	7 All imps (Rm)
1	61	Apparel articles and accessories, knit or crochet	32.2	37.0	29.2	37.5	142	46	843
2	62	Apparel articles and accessories, not knit etc.	31.6	34.0	33.6	36.7	141	74	1,359
3	57	Carpets and other textile floor coverings	30.0	30.0	30.0	30.0	9	76	137
4	98	Special classification of parts for motor vehicles	30.0	30.0	30.0	30.0	23	13,277	24,254
5	63	Textile art NESOI; needlecraft sets; worn text art	27.0	60.0	39.4	27.2	78	61	344
6	42	Leather art; saddlery etc; handbags etc; gut art	25.2	30.0	24.8	25.2	21	45	490
7	66	Umbrellas, walking-sticks, riding-crops etc, parts	25.0	30.0	22.7	25.0	7	3	24
8	24	Tobacco and manufactured tobacco substitutes	24.8	45.0	8.5	27.9	12	67	630
9	64	Footwear, gaiters etc. and parts thereof	22.4	30.0	27.4	22.6	46	128	2,042
10	04	Dairy prods; birds eggs; honey; ed animal pr NESOI	21.8	96.7	33.3	25.2	21	180	317
11	65	Headgear and parts thereof	20.0	30.0	22.6	20.0	12	11	116
12	60	Knitted or crocheted fabrics	19.8	22.0	20.0	20.8	180	77	271
13	02	Meat and edible meat offal	18.7	140.5	0.9	16.6	33	108	896
14	55	Manmade staple fibres, incl yarns & woven fabrics	18.2	19.0	0.8	21.2	583	199	566
15	19	Prep cereal, flour, starch or milk; bakers wares	18.0	30.0	23.0	18.1	27	160	294
16	54	Manmade filaments, including yarns & woven fabrics	17.8	19.0	9.4	20.6	333	231	617
17	52	Cotton, including yarn and woven fabric thereof	17.7	20.0	17.6	21.1	435	25	808
18	67	Prep feathers, down etc; artif flowers; h hair art	17.5	20.0	11.6	17.5	7	2	47
19	46	Mfr of straw, esparto etc.; basketware & wickerwrk	16.7	20.0	20.0	16.7	5	1	37
20	58	Spec wov fabrics; tufted fab; lace; tapestries etc	16.5	25.0	16.9	17.9	46	40	206
21	56	Wadding, felt etc; sp yarn; twine, ropes etc.	14.8	20.0	13.1	15.0	41	158	270
22	20	Prep vegetables, fruit, nuts or other plant parts	14.3	55.0	14.0	15.6	60	93	274
23	94	Furniture; bedding etc; lamps NESOI etc; prefab bd	13.9	20.0	17.0	13.9	32	631	1,578
24	34	Soap etc; waxes, polish etc; candles; dental preps	13.5	20.0	14.0	13.5	21	389	642
25	22	Beverages, spirits and vinegar	13.2	43.5	5.2	15.0	36	757	1,074
26	21	Miscellaneous edible preparations	12.2	30.0	14.0	12.4	27	272	587
27	87	Vehicles, except railway or tramway, and parts etc	11.8	40.0	29.9	12.4	92	11,552	19,243
28	83	Miscellaneous articles of base metal	11.8	20.0	13.3	12.1	33	354	763
29	93	Arms and ammunition; parts and accessories thereof	11.8	15.0	0.0	11.8	22	0	0
30	59	Impregnated etc text fabrics; tex art for industry	11.6	25.0	7.3	12.6	49	301	544
31	43	Fur skins and artificial fur; manufactures thereof	10.7	30.0	25.7	10.7	7	0	1
32	03	Fish, crustaceans & aquatic invertebrates	10.2	30.0	2.0	10.3	91	67	303
33	82	Tools, cutlery etc. of base metal & parts thereof	10.0	30.0	3.1	10.0	60	511	1,460
34	33	Essential oils etc; perfumery, cosmetic etc preps	9.8	20.0	12.7	9.8	26	807	1,423
35	16	Edible preparations of meat, fish, crustaceans etc	9.7	40.0	5.3	10.4	47	21	256
36	07	Edible vegetables & certain roots & tubers	9.5	50.0	10.2	11.4	44	56	428

	HS code		1 Unweighted tariff	2 Max HS8 tariff	3 Weighted tariff	4 MFN tariff	5 # of HS8 lines>5%	6 Imps from EU (Rm)	7 All imps (Rm)
37	96	Miscellaneous manufactured articles	9.4	20.0	8.5	9.4	31	226	600
38	18	Cocoa and cocoa preparations	9.3	21.0	10.7	9.3	6	72	343
39	69	Ceramic products	8.6	30.0	4.6	8.6	11	806	1,570
40	40	Rubber and articles thereof	8.4	24.0	12.3	9.4	76	1,194	3,549
41	39	Plastics and articles thereof	8.2	20.0	6.5	8.2	174	3,395	6,483
42	44	Wood and articles of wood; wood charcoal	8.0	30.0	3.3	8.0	46	339	1,371
43	51	Wool & animal hair, including yarn & woven fabric	7.5	19.0	5.8	8.9	26	47	137
44	48	Paper & paperboard & articles (inc papr pulp artl)	7.3	20.0	7.0	7.3	88	988	1,928
45	17	Sugars and sugar confectionary	6.8	25.7	7.2	14.0	6	50	341
46	70	Glass and glassware	6.5	20.0	6.7	7.7	59	353	1,022
47	73	Articles of iron or steel	6.5	30.0	4.7	6.7	105	1,578	3,275
48	06	Live trees, plants, bulbs etc.; cut flowers etc.	5.8	20.0	0.1	8.3	5	28	44
49	76	Aluminium and articles thereof	5.7	30.0	5.1	6.0	37	395	734
50	13	Lac; gums, resins & other vegetable sap & extract	5.6	25.0	2.7	5.6	21	57	119
51	68	Art of stone, plaster, cement, asbestos, mica etc.	5.6	15.0	7.3	5.6	6	304	691
52	12	Oil seeds etc.; misc grain, seed, fruit, plant etc	5.6	20.0	1.0	6.4	24	83	392
53	11	Milling products; malt; starch; inulin; wht gluten	5.5	20.0	1.3	7.0	29	127	272
54	37	Photographic or cinematographic goods	5.4	15.0	4.3	5.4	20	426	779
55	85	Electric machinery etc; sound equip; TV equip; pts	5.3	25.0	2.0	6.1	143	12,020	25,706
68	84	Nuclear reactors, boilers, machinery etc.; parts	2.4	30.0	0.6	2.7	99	21,756	45,182
75	29	Organic chemicals	1.4	22.0	0.6	1.5	55	2,401	5,531
78	30	Pharmaceutical products	0.6	20.0	0.0	0.6	1	4,083	5,799
91	88	Aircraft, spacecraft, and parts thereof	0.0	0.0	0.0	0.0	0	5,217	9,818

Source: Customs & Excise (trade) and DTI (tariffs)

At the top of the table, we typically see a number of textiles and clothing and processed food product groups. The importance in terms of market share stands out for a few higher value textiles groups such as carpets, twines and ropes, as well as prepared flour and beverages. It can also be seen by comparing columns 1 and 4 that in general the phase down relative to the MFN schedule is small, with only a handful of HS2 product groups where the tariff on EU imports is more than 3% lower than the MFN tariff, including some textiles, but also beverages and sugar. In column 5 we report on the number of EU HS8 product lines which face tariffs when entering South Africa that are higher than 5%. Again, the significance of textiles and clothing is emphasised.

Towards the bottom of the table we also present a number of product groups that stand out in terms of value of imports for which the tariffs are less than 5%. These product groups include machinery, pharmaceuticals, specialised equipment, some chemicals and aircraft and the preference over the MFN tariff is minimal. In the last column it can be seen that the share of imports from the EU in South Africa's total imports for these product groups is substantial.

Section 5 b: EU Tariffs on SA exports

Examining the structure of the EU tariffs allows us to identify areas if high tariffs may be preventing SA exports from achieving greater market share. This section analyses EU tariffs as a first step to identifying such commodity groups. Before the EU – SA FTA agreement came into being, a number of commodity tariff lines were granted GSPs. What the conditions of these GSPs are is not clear but in many cases they offer better market access than the EU – SA FTA agreement, at least in 2003, our latest year of observation. Data can be obtained from the ITC's MacMap system of tariff schedules, which also offers ad valorem equivalents of non-ad valorem tariffs. In total, GSPs appear to have been granted for just over 286 HS6 commodity lines. Some of these commodity lines appear to have been allocated more than one tariff. We don't know what the rules are that apply when a GSP is granted and will therefore take the unweighted average between the minimum and maximum tariff. This can be contested on the basis of the argument that importers will know the rules best and will therefore manage to get the lowest possible rate. In that case we should have taken the minimum and not the average. On the other hand, one can argue that customs officials will try and maximise collection revenue and therefore the maximum rate would apply. We take the middle ground and assume that an unweighted average between the minimum and maximum is more likely. The results can be summarised at the HS2 level as follows.

Table 11: GSP for SA Exports to EU

			Unweighted average of AVE	Number of HS6 groups	Minimum AVE	Average of TDCA 2003 AVE	Preference granted	SA exports to EU 2003
1	02	Meat and edible meat offal	9.0%	1	9.0%	22.9%	13.9%	239
2	33	Essential oils etc; perfumery, cosmetic etc preps	0.0%	1	0.0%	11.0%	11.0%	315
3	16	Edible preparations of meat, fish, crustaceans etc	7.3%	11	2.0%	18.2%	10.9%	25
4	06	Live trees, plants, bulbs etc.; cut flowers etc.	6.0%	2	6.0%	16.8%	10.8%	251
5	19	Prep cereal, flour, starch or milk; bakers wares	2.0%	1	2.0%	12.8%	10.8%	8
6	22	Beverages, spirits and vinegar	12.5%	6	0.0%	20.8%	8.3%	2,622
7	08	Edible fruit & nuts; citrus fruit or melon peel	7.9%	24	0.0%	15.9%	8.0%	4,066
8	11	Milling products; malt; starch; inulin; wht gluten	8.1%	5	4.0%	15.3%	7.2%	5
9	03	Fish, crustaceans & aquatic invertebrates	3.6%	47	0.0%	10.4%	6.8%	1,731
10	20	Prep vegetables, fruit, nuts or other plant parts	19.5%	39	3.5%	24.2%	4.7%	896
11	76	Aluminum and articles thereof	1.0%	2	1.0%	5.5%	4.5%	586
12	73	Articles of iron or steel	0.0%	73	0.0%	4.1%	4.1%	627
13	29	Organic chemicals	2.0%	1	2.0%	6.0%	4.0%	826
14	72	Iron and steel	1.0%	7	0.0%	4.8%	3.8%	7,705
15	07	Edible vegetables & certain roots & tubers	8.8%	41	2.0%	11.4%	2.5%	120
16	28	Inorg chem; prec & rare-earth met & radioact compd	0.0%	3	0.0%	2.2%	2.2%	1,078
17	23	Food industry residues & waste; prep animal feed	0.0%	2	0.0%	0.0%	0.0%	8
18	87	Vehicles, except railway or tramway, and parts etc	8.3%	19	0.0%	7.2%	-1.1%	5,992
19	21	Miscellaneous edible preparations	8.0%	1	8.0%	4.6%	-3.4%	75

Source: ITC MacMap (GSPs), IDC (TDCA tariff phase-down schedule), Customs & Excise (trade)

At the bottom of the last column it can be seen that GSPs may apply to about R27 billion worth of South Africa's exports to the EU, which accounts for about one third of total exports to the EU. The main HS2 groups involved are iron & steel, beverages, fish, fruits & nuts, some aluminium products and chemicals. GSPs on motor vehicles appear to have run its course by 2003, as can be seen in row 18. Whether and to what degree these GSP actually apply in reality is difficult to ascertain. In the rest of this analysis we assume that they do apply and that they are taken up as described above. GSPs are combined with regular tariffs for the base year (2000) and the last year for which we have trade data (2003) and aggregated into a limited number of tariff bands. The results are shown in the next table.

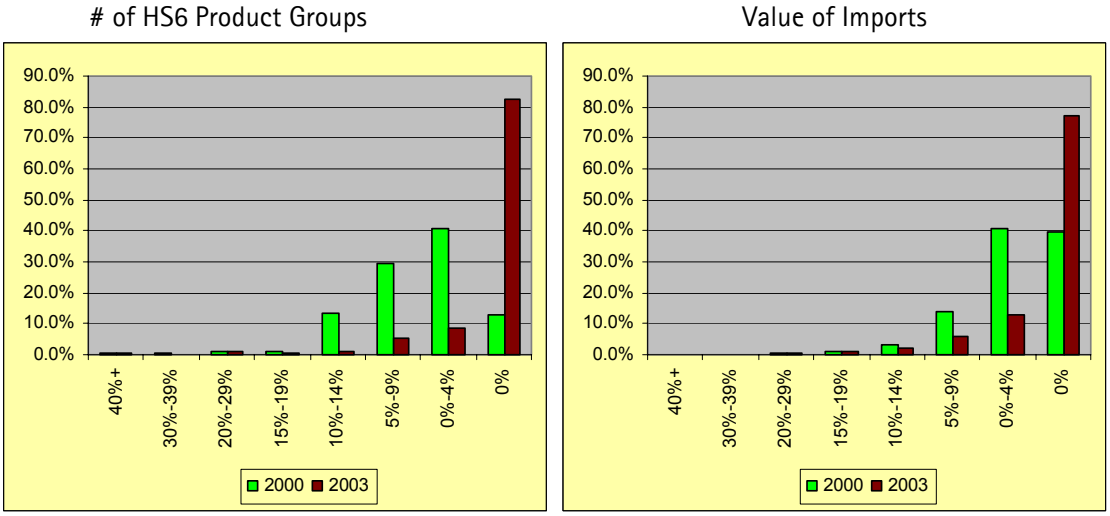
Table 12: Distribution of tariffs on EU imports from South Africa across broad tariff bands

	2000 # of HS6 groups	%	2000 value of SA exp to EU	%	2003 # of HS6 groups	%	2003 value of SA exp to EU	%
40%+	40	0.8%	92	0.1%	32	0.6%	41	0.0%
30%-39%	16	0.3%	63	0.1%	13	0.3%	114	0.1%
20%-29%	55	1.1%	319	0.5%	49	0.9%	612	0.7%
15%-19%	66	1.3%	852	1.3%	39	0.8%	1,000	1.2%
10%-14%	688	13.3%	2,042	3.1%	67	1.3%	1,593	1.9%
5%-9%	1,537	29.7%	9,144	14.1%	275	5.3%	4,795	5.7%
0%-4%	2,098	40.6%	26,617	40.9%	442	8.5%	10,896	13.0%
0%	670	13.0%	25,922	39.8%	4253	82.3%	64,870	77.3%
Total	5,170	100.0%	65,053	100.0%	5,170	100.0%	83,919	100.0%

Source: ITC MacMap (GSPs), IDC (TDCA tariff phase-down schedule), Customs & Excise (trade)

The table above shows that most HS6 groups with low tariffs were dropped to zero between 2000 and 2003, while at the high end, changes were less dramatic. It can be seen that by 2003 more than 80% of all HS6 product groups are zero-rated, compared with 13% in the base year. In terms of value of South African exports, the proportion of zero rated trade has increased from 40% to 77%. Figure 6 is a diagrammatic representation of the table above, emphasising the phasing down process.

Figure 5: Distribution of tariffs on EU imports from South Africa across broad tariff bands



Source: ITC MacMap (GSPs), IDC (TDCA tariff phase-down schedule), Customs & Excise (trade)

Table 13 shows the 20 HS2 sectors with the highest (unweighted average HS6) tariffs (see second column). It appears that the highest tariffs are mostly in the food, beverages and textiles and clothing sectors. In particular, the South African HS 2 commodity groups that face the highest tariffs are meat, prepared cereals, prepared vegetables and sugar. The values of trade are however modest, while groups with higher values of trade such as beverages, fish and fruits and nuts face moderate tariffs. For all of these processed food product groups, the unweighted average has not come down much during the period 2000-2003 (comparing columns 1 and 2). A somewhat more substantial tariff phase down can be reported for several textiles and clothing groups (see rows 15, 17 & 18) but the values of trade are very modest.

Table 13: Tariffs on South African exports to the EU at the HS2 level, ranked according to tariff (2003)

			Unweighted average of base rate 2000	Unweighted average of tariff 2003	SA exports to EU, 2003	Share of exports going to EU
1	02	Meat and edible meat offal	35.5%	34.0%	239	50.4%
2	19	Prep cereal, flour, starch or milk; bakers wares	28.1%	27.7%	8	3.5%
3	20	Prep vegetables, fruit, nuts or other plant parts	24.8%	18.4%	896	40.2%
4	10	Cereals	13.6%	13.3%	15	1.3%
5	17	Sugars and sugar confectionary	13.9%	13.3%	37	2.0%
6	11	Milling products; malt; starch; inulin; wht gluten	11.2%	11.1%	5	1.4%
7	18	Cocoa and cocoa preparations	15.0%	10.7%	2	1.2%
8	16	Edible preparations of meat, fish, crustaceans etc	11.2%	10.3%	25	18.9%
9	21	Miscellaneous edible preparations	13.7%	9.0%	75	13.4%
10	07	Edible vegetables & certain roots & tubers	9.2%	7.3%	120	36.8%
11	04	Dairy prods; birds eggs; honey; ed animal pr NESOI	8.5%	7.1%	20	6.1%
12	22	Beverages, spirits and vinegar	9.8%	6.5%	2,622	54.2%
13	03	Fish, crustaceans & aquatic invertebrates	6.3%	6.3%	1,731	63.0%
14	08	Edible fruit & nuts; citrus fruit or melon peel	6.8%	4.9%	4,066	60.6%
15	60	Knitted or crocheted fabrics	10.6%	4.0%	13	20.0%
16	01	Live animals	5.9%	3.8%	25	15.2%
17	57	Carpets and other textile floor coverings	8.6%	3.6%	56	33.2%
18	62	Apparel articles and accessories, not knit etc.	12.4%	2.6%	352	26.9%
19	35	Albuminoidal subst; modified starch; glue; enzymes	7.6%	2.6%	35	27.5%
20	23	Food industry residues & waste; prep animal feed	3.0%	2.6%	8	3.7%

Source: ITC MacMap (GSPs), IDC (TDCA tariff phase-down schedule), Customs & Excise (trade)

In the next table the same information is ranked according to the value of imports. It can be seen that most product groups with substantial exports to the EU are zero rated, with low tariffs on iron & steel and vehicles and moderate tariffs on edible fruits and beverages

Table 14: Tariffs on South African exports to the EU at the HS2 level, ranked according to value of trade (2003)

			Unweighted average of base rate 2000	Unweighted average of tariff 2003	SA exports to EU, 2003	Share of exports going to EU
1	71	Nat etc pearls, prec etc stones, pr met etc; coin	1.1%	0.0%	14,791	19.8%
2	27	Mineral fuel, oil etc.; bitumen subst; mineral wax	0.8%	0.0%	10,812	46.0%
3	84	Nuclear reactors, boilers, machinery etc.; parts	2.7%	0.0%	9,846	53.1%
4	72	Iron and steel	3.2%	2.0%	7,705	26.8%
5	87	Vehicles, except railway or tramway, and parts etc	6.1%	2.1%	5,992	26.2%
6	08	Edible fruit & nuts; citrus fruit or melon peel	6.8%	4.9%	4,066	60.6%
7	26	Ores, slag and ash	0.0%	0.0%	3,677	40.5%
8	94	Furniture; bedding etc; lamps NESOI etc; prefab bd	3.4%	0.0%	3,328	76.5%
9	22	Beverages, spirits and vinegar	9.8%	6.5%	2,622	54.2%
10	85	Electric machinery etc; sound equip; TV equip; pts	4.3%	0.0%	2,015	35.3%

Source: ITC MacMap (GSPs), IDC (TDCA tariff phase-down schedule), Customs & Excise (trade)

Table 15 lists the top 30 HS4 products with the highest tariffs. The table confirms the earlier impression that the agricultural sector in the EU is one of the most heavily protected. HS 0202: Meat of bovine animals, frozen and HS 0201: Meat of bovine animals, fresh or chilled and HS 0204 Meat of sheep and goats, fresh, chilled or frozen being the most protected with tariffs exceeding 100%. Most agricultural products were relegated to a reserve list, implying that they were excluded from the agreements, and negotiations are to be concluded at some later stages.

Table 15: EU tariffs on SA imports at HS4 level, ranked according to tariff (2003)

			Unweighted average of base rate 2000	Unweighted average of tariff 2003	SA exports to EU, 2003	Share of exports going to EU
1	2003	Mushrooms and truffles prepared or preserved NESOI	99.3%	15.7%	1,093	0.1%
2	2402	Cigars, cigarettes etc., of tobacco or substitutes	64.5%	0.0%	970,388	0.4%
3	2403	Tobacco & tobacco subst mfrs NESOI ; tob proces etc	55.3%	0.0%	262,866	0.3%
4	1101	Wheat or meslin flour	45.7%	45.7%	0	0.0%
5	0102	Bovine animals, live	42.3%	42.3%	0	0.0%
6	1904	Foods prep by swell cereal; cereal NESOI , grain fm	42.3%	42.3%	1,409,960	2.8%
7	1903	Tapioca and substitutes from starch in flakes, etc	41.5%	41.0%	482	0.1%
8	1701	Cane or beet sugar & chem pure sucrose, solid form	35.5%	35.5%	21,483,302	1.3%
9	1902	Pasta, prepared or not; couscous, prepared or not	30.8%	30.7%	110,348	0.6%
10	2007	Jams, fruit jellies, marmalades etc, cooked	30.6%	30.1%	19,796,099	50.0%
11	1006	Rice	29.6%	29.5%	67,563	0.2%
12	2207	Ethyl alcohol, undenat, nun80% alc; alcohol, denat	28.0%	28.0%	54,005,037	11.9%
13	2009	Fruit juice nt frtfd w vit/mnl veg juice no spirit	27.1%	26.5%	209,890,476	26.5%
14	2105	Ice cream and other edible ice, with cocoa or not	26.7%	26.7%	137,888	0.6%
15	0714	Cassava, arrowroot etc, fresh or dry; sago pith	26.4%	25.5%	8,639,812	98.2%
16	1517	Margarine; edible mixtures etc an or veg fat & oil	24.6%	14.1%	48,776	0.1%
17	0409	Honey, natural	23.8%	23.8%	48	0.0%
18	1806	Chocolate & other food products containing cocoa	23.6%	23.4%	2,109,447	1.2%
19	1704	Sugar confection (incl white chocolate), no cocoa	23.0%	22.8%	6,488,054	6.0%
20	1001	Wheat and meslin	22.5%	22.2%	0	0.0%
21	1905	Bread, pastry, cakes etc; comm wafrs, emp caps etc	21.9%	21.8%	6,405,925	7.9%
22	0210	Meat & ed offal salted, dried etc. & flour & meal	21.8%	20.7%	240,207	5.1%
23	3505	Dextrins etc; glues based on starches, dextrin etc	21.4%	19.7%	1,125	0.0%
24	2006	Veg/fruit/nuts/fruit-peel etc, preserved by sugar	21.0%	19.0%	877,169	46.7%
25	0401	Milk and cream, not concentrated or sweetened	21.0%	13.4%	24	0.0%
26	0702	Tomatoes, fresh or chilled	20.9%	20.9%	864,164	11.4%
27	0811	Fruit & nuts (raw or cooked by steam etc), frozen	20.0%	15.4%	14,196,987	70.0%
28	2003	Mushrooms and truffles prepared or preserved NESOI	99.3%	15.7%	1,093	0.1%
29	2402	Cigars, cigarettes etc., of tobacco or substitutes	64.5%	0.0%	970,388	0.4%
30	2403	Tobacco & tobacco subst mfrs NESOI ; tob proces etc	55.3%	0.0%	262,866	0.3%

SECTION 6: IDENTIFYING EXPORT POTENTIAL

Analysis of bilateral trade between South Africa and partners other than the EU undertaken by TIPS has included a section that attempts to identify sectors where SA exports to the rest of the world are performing well but not replicating this performance in the partner, perhaps because of tariff barriers or other barriers to trade. In the case of the EU this makes less sense as it is the main trading partner of South Africa and the analysis in the previous sections suggested that a wide range of products is exported to their markets. Nevertheless, we will pursue the analysis in the rest of this section.

Building on methodologies employed by the ITC (2001) and further adapted by TIPS for other bilateral trade studies we will attempt to identify commodities with high export potential to EU markets based on trade flow analysis. The approach attempts to reveal product groups which are exported by one country towards the other and rest of the world, and for which there is a significant import demand in another country.

The first concept that needs to be introduced is the notion of potential supply capacity, which determines the lesser of total EU import and total SA exports of a particular commodity. In other words, we determine the most that SA could export to the EU, constrained either by total export supply or import demand. From this we subtract actual current SA exports to the EU to arrive at indicative trade potential (ITP).

Indicative potential trade thus shows the size of the as yet untapped EU import market, thereby directing policy-makers towards identifying commodity groups offering substantial export potential for SA. We then rank all HS4 commodity groups according to the measurement of indicative potential trade.

Next, we introduce growth and size dimensions into the framework. Weighted average annual growth rates are calculated for SA exports to the EU and to the world and the EU imports from the world for the period 1999 to 2003 at the HS4 commodity group level. We chose this fairly aggregate level as it will allow us to match it up with the tariffs discussed in the earlier section. If trade is measured as zero for any of the observations during this period, we assign a zero growth rate to this commodity group. With three sets of growth rates – one for SA's total exports, one for SA's exports to the EU and one for EU total imports – and two possible solutions – either positive growth or negative/zero growth – six possible combinations can be identified. They are described below in what we think is an appropriate ranking for policy-makers.

To determine whether or not a sector shows these attributes, they are categorised according to the growth of SA exports to the world, EU imports from the whole world and EU imports from SA. Growth rates are calculated for the last five years on an average annual basis, essentially by fitting an Ordinary Least-Squares (OLS) curve to the observations. Using these criteria, commodity groups can be categorised according to Table 16 below.

Table 16: Classifying sectors according to export growth

Potential exports code	SA exports to EU	SA total exports	EU total imports	Comment
5	0 or -	+	+	High potential in EU but not realised by SA exports in that market, although significant SA exports elsewhere occur
4	+	+	+	High potential in EU, realised by SA exports in that market with significant SA exports elsewhere
3	+	0 or -	+	High potential in EU, realised by SA exports in that market but with export supply constraints elsewhere
2	0 or -	0 or -	+	High potential in EU, not realised by SA exports in that market and with export supply constraints elsewhere
1	+	+	0 or -	Low potential in EU, realised by SA exports in that market with significant SA exports elsewhere
0	0 or -	+	0 or -	Low potential in EU but not realised by SA exports in that market, although significant SA exports elsewhere occur

It can be argued that the highest priority should be given to those commodities that have shown high growth in the EU and for which SA has displayed high growth of exports to the world but not to the EU. We assign the potential export code 5 to these commodities. However, even if SA exports to the EU were to be positive instead of flat or negative, policy-makers would want to improve access to perhaps facilitate gain in market share in the EU (code 4). Commodities with negative or flat total export growth for SA may feature less on the radar screens of policy-makers (code 2), even if the EU market is expanding and SA exports to that market are positive (code 3). For all potential export codes discussed so far (2 to 5), a minimum market size of US$1m is required to trigger an offensive interest. Exports less than US$1m are considered to be less interesting. If the EU market is contracting, SA policy-makers may only consider an offensive interest if the size of the market is relatively large. For these commodity groups we have reserved codes 0 and 1, but only report those with US$25m worth of import demand during the year 2003. Finally, note that we ignore zero-rated commodity groups.

In this analysis, we choose to look at those commodities with codes 4 and 5, an ITP value of 1 US$ million and higher and a non-zero tariff. From a total of about 1250 HS4 commodities only 49 met the conditions set above. The motor industry has the highest potential of about US$1.5 billion as both HS 8703: Motor cars and other motor vehicles principally des and HS 8708: Parts and accessories of motor vehicles are making a top three list based on ITP values. On a sector basis, agricultural and agro-processing sectors are also showing significant potential as both wines, and horticultural sector feature prominently in the top list of these selected products. Products such as HS 2204: Wine of fresh grapes, including fortified wines; g, HS: 0805: Citrus fruit, fresh or dried., HS 0806: Grapes, fresh or dried, HS 0808: Apples, pears and quinces, and others in the two sectors are showing very high potential. The two sectors accounted for more than one third of the total commodities under codes 4 and 5 meeting the set conditions.

However, only a handful of these product groups exceeded US$1 million in 2003 trade. Furthermore, about half of the groups in the list were not exported to the EU in 2003. We already know (by definition of code 4 and 5) that supply is not the constraining factor for these products. This suggests that there may be possible constraints that are restricting these commodities from realising the potential in the EU market. These onstraints may range from export competitiveness, consumer preferences, transport costs, trade barriers (tariff and non-tariff), business cycles, and seasonal factors, as well as political and economic events.

Next we match the product groups up with tariff barriers discussed earlier, and we look into the possibility of those being the constraining factors. From the 49 identified commodities, 15 of them had a tariff of more than 10% imposed on them by the EU in 2003 The highest was 61.5% imposed

on HS 2207: Undenatured ethyl alcohol of an alcoholic strength, which unsurprising recorded no exports to the EU in the same year. Among the agricultural products, HS 0808: Apples, pears and quinces, fresh were faced with the highest tariff of about 40%. Despite that, there were still exports of US$ 2 billion in 2003. The implication here is that a further removal of the constraining factor will result in more commodities achieving high export performances and thus realising the potential.

Table 17: Category 4 and 5 commodities with Indicative Trade Potential greater than US$'000

	HS 4	Description	ITP 2003	Category	Tariff	SA X to EU (US$ '000)
1	8703	Motor cars and other motor vehicles principally de	1,178,243	4	7.1	7
2	2204	Wine of fresh grapes, including fortified wines; g	397,794	4	4.1	1,877
3	8708	Parts and accessories of the motor vehicles of hea	334,255	4	2.5	4,852
4	0805	Citrus fruit, fresh or dried.	331,035	4	20.2	10,442
5	0806	Grapes, fresh or dried.	156,657	4	10.5	15,911
6	6203	Men's or boys' suits, ensembles, jackets, blazers,	110,521	4	3.0	158
7	0808	Apples, pears and quinces, fresh.	103,833	4	37.8	1,908
8	6204	Women's or girls' suits, ensembles, jackets, blaze	76,057	5	3.1	16
9	0302	Fish, fresh or chilled, excluding fish fillets and	72,078	5	11.2	0
10	0809	Apricots, cherries, peaches (including nectarines)	61,898	4	15.2	646
11	6110	Jerseys, pullovers, cardigans, waist-coats and sim	49,168	4	5.8	25
12	2804	Hydrogen, rare gases and other non-metals.	47,286	5	0.3	0
13	2207	Undenatured ethyl alcohol of an alcoholic strength	38,126	5	61.5	0
14	2905	Acyclic alcohols and their halogenated, sulphonate	29,542	4	5.3	108
15	0804	Dates, figs, pineapples, avocados, guavas, mangoes	23,453	4	3.4	952
16	7326	Other articles of iron or steel.	19,419	4	3.8	210
17	6109	T-shirts, singlets and other vests, knitted or cro	18,416	4	1.3	55
18	7225	Flat-rolled products of other alloy steel, of a wi	16,440	5	3.0	0
19	0603	Cut flowers and flower buds of a kind suitable for	15,362	4	16.5	212
20	7320	Springs and leaves for springs, of iron or steel.	10,495	4	4.0	365
21	5702	Carpets and other textile floor coverings, woven,	9,749	5	3.8	1
22	0406	Cheese and curd.	8,359	5	8.0	0
23	0904	Pepper of the genus Piper; dried or crushed or gro	8,076	5	0.9	36
24	0709	Other vegetables, fresh or chilled.	7,422	5	8.1	3
25	2202	Waters, including mineral waters and aerated water	6,624	4	15.0	100
26	6106	Women's or girls' blouses, shirts and shirt-blouse	5,523	5	6.0	0
27	2103	Sauces and preparations therefor; mixed condiments	4,417	5	2.0	0
28	0811	Fruit and nuts, uncooked or cooked by steaming or	4,313	5	13.2	3
29	6303	Curtains (including drapes) and interior blinds; c	4,270	5	4.5	0
30	6302	Bed linen, table linen, toilet linen and kitchen l	3,939	5	4.7	1
31	2106	Food preparations not elsewhere specified or inclu	3,122	4	6.7	565
32	6206	Women's or girls' blouses, shirts and shirt-blouse	2,916	5	6.0	0
33	0714	Manioc, arrowroot, salep, Jerusalem artichokes, sw	1,654	5	28.0	2
34	2001	Vegetables, fruit, nuts and other edible parts of	1,427	5	8.2	2
35	7603	Aluminium powders and flakes.	1,294	5	5.5	0
36	2105	Ice cream and other edible ice, whether or not con	1,157	5	27.0	0
37	0706	Carrots, turnips, salad beetroot, salsify, celeria	1,013	4	13.2	2
38	6209	Babies' garments and clothing accessories.	890	5	5.0	0
39	0704	Cabbages, cauliflowers, kohlrabi, kale and similar	813	5	11.8	0
40	5607	Twine, cordage, ropes and cables, whether or not p	706	5	6.1	0
41	5514	Woven fabrics of synthetic staple fibres, containi	552	5	4.0	0
42	0702	Tomatoes, fresh or chilled.	470	5	20.9	1
43	5212	Other woven fabrics of cotton.	354	5	4.0	0
44	1102	Cereal flours other than of wheat or meslin.	262	5	14.7	0

[Source: UNCOMTRADE, Custom and Excise and own calculations]

There are only three HS 4 products falling under code 3 with the market size larger than US$1 million and none under code 2. All these three products have high potential in the EU market which is currently being realised by South Africa. The three products are, HS 2009: Fruit juices (including grape must) and vegetable, HS2208: Undenatured ethyl alcohol of an alcoholic strength and HS7208: Flat-rolled products of iron or non-alloy steel,. Of these three, only fruit juices had high tariffs applied on them, with a peak tariff of 36%. In this case, tariffs could be considered as one of the main barriers, while for the other two, some other barriers other than tariffs may apply since they both faced tariffs of less than 3%.

Table 18: Category 3 commodities with Indicative Trade Potential (US $'000 million)

	HS 4	Description	ITP 2003	Category	Tariff	SA X to EU (US$ '000)
1	2009	Fruit juices (including grape must) and vegetable	57,910	3	36.0	895
2	2208	Undenatured ethyl alcohol of an alcoholic strength	9,011	3	1.1	26
3	7208	Flat-rolled products of iron or non-alloy steel, o	59,961	3	2.9	94

SECTION 7: REVEALED TRADE BARRIERS

Up to now, attention has been given to those product groups with the fastest growing trade with the EU, those that face the high tariff barriers and those that show potential to increase market share. This section tentatively addresses the question of comparative advantage, and particularly, in which commodity groups SA would export if there were no tariff barriers. The concept of revealed comparative advantaged is used here to examine the degree to which the share of imports of a country in a particular product in the import basket of a partner is larger or smaller than the share of the partner's total imports of the same product.

The starting point of this analysis is the concept of revealed comparative advantage (RCA). A comparative advantage is 'revealed' in a particular commodity group if its share in the country's export basket is larger than the share of the commodity's world trade in total world trade; in other words, whether the commodity is more important to SA's exports than to world trade.

We can extend this type of analysis to calculate revealed trade barriers (RTBs). RTBs asks the question whether the imports of a particular commodity from SA are more or less important compared to total EU imports of that commodity from all sources. If so, and the RTB ratio is less than 1 (see Appendix B), we may conclude that SA is exporting a commodity relatively more to the rest of the world than it is to EU, possibly due to trade barriers in EU. Trade barriers can be in the form of tariffs or NTBs, such as transportation costs and other impediments to trade, RTBs indices make no distinction.

Section 7 a: SA exports to the EU

Table 19 shows the RCA for SA at the HS2 level. We examine comparative advantage for the period 1999 and 2003 to see whether there are any discernible changes.

Table 19: RCA for selected HS2 commodities of SA exports, 1999 & 2003

					Shares	
			ZAF	ZAF	ZAF	
			RCA03	RCA99	2003	
1	71	Nat etc pearls, prec etc stones, pr met etc; coin	13.9	15.1	27.6%	1
2	26	Ores, slag and ash	11.8	11.4	5.7%	2
3	08	Edible fruit & nuts; citrus fruit or melon peel	7.6	7.9	4.7%	3
4	72	Iron and steel	4.1	4.4	9.6%	4
5	51	Wool & animal hair, including yarn & woven fabric	3.2	4.4	0.7%	5
6	25	Salt; sulphur; earth & stone; lime & cement plaster	4.0	3.1	0.9%	6
7	81	Base metals NESOI; cermets; articles thereof	3.2	3.0	0.3%	7
8	47	Wood pulp etc; recovd (waste & scrap) ppr & pprbd	3.5	2.6	0.9%	8
9	22	Beverages, spirits and vinegar	1.6	2.6	1.7%	9
10	75	Nickel and articles thereof	5.1	2.6	0.4%	10
11	20	Prep vegetables, fruit, nuts or other plant parts	2.2	2.5	0.9%	11
12	36	Explosives; pyrotechnics; matches; pyro alloys etc	1.6	2.5	0.1%	12
13	76	Aluminium and articles thereof	2.7	2.3	2.4%	13
14	93	Arms and ammunition; parts and accessories thereof	1.5	2.3	0.1%	14
15	28	Inorg chem; prec & rare-earth met & radioact compd	2.3	2.0	1.4%	15
16	41	Raw hides and skins (no fur skins) and leather	2.5	1.9	0.6%	16
17	17	Sugars and sugar confectionary	4.7	1.9	0.4%	17
18	44	Wood and articles of wood; wood charcoal	1.0	1.7	2.0%	18
19	03	Fish, crustaceans & aquatic invertebrates	2.6	1.3	0.9%	19
20	94	Furniture; bedding etc; lamps NESOI etc; prefab bd	1.2	1.2	1.8%	20
21	66	Umbrellas, walking-sticks, riding-crops etc, parts	0.8	1.1	0.0%	21
22	87	Vehicles, except railway or tramway, and parts etc	0.5	1.0	10.0%	22
29	48	Paper & paperboard & articles (inc papr pulp artl)	0.6	0.6	0.9%	29
34	29	Organic chemicals	0.5	0.5	1.5%	34
36	73	Articles of iron or steel	0.5	0.5	0.8%	36
43	62	Apparel articles and accessories, not knit etc.	0.4	0.4	0.8%	43
46	84	Machinery etc.; parts	0.3	0.4	6.2%	46
53	61	Apparel articles and accessories, knit or crochet	0.4	0.3	0.5%	53
69	39	Plastics and articles thereof	0.3	0.2	0.7%	69
82	85	Electric machinery etc; sound equip; TV equip; pts	0.1	0.1	1.7%	82

[Source: UNComTrade (from WITS) and own calculations]

As one would expect, SA's comparative advantage remains with natural resource-based commodities or their immediate downstream products. Agricultural commodities add to the list of primary products that show relatively high comparative advantage. Motor vehicles is the only higher value-added product group that reports a revealed comparative advantage, which, as a matter of interest, also shows a marked improvement over the last 5 years.

Towards the bottom of Table 20, it can be seen that a number of other higher value product groups do not show a revealed comparative advantage or any major improvements in the last 5 years, including machinery, electrical machinery, inorganic chemicals, basic iron & steel, some paper products and plastic products.

In it can be seen that only a few South African HS2 product groups are not subject to revealed trade barriers in the EU and that these products groups are characterised by low value added. We also present unweighted average tariffs for these product groups and it can be seen that there is very little correlation with the RTB index. In some cases product groups are overtraded in spite of a relatively high tariff, while in other cases the tariffs are very low.

Table 20: RTB index for exports of selected of HS2 commodities in the EU: 1999 & 2003

Rank	HS2		RTB 1999	RTB 2003	Share 2003	Tariff 1999	Tariff 2003	Tariff change
1	71	Nat etc pearls, prec etc stones, pr met etc; coin	16.6	16.7	28.5%	1.3%	0.0%	-1.3%
2	26	Ores, slag and ash	11.1	13.1	5.0%	0.0%	0.0%	0.0%
3	08	Edible fruit & nuts; citrus fruit or melon peel	9.2	7.7	6.7%	15.5%	13.3%	-2.2%
4	51	Wool & animal hair, including yarn & woven fabric	4.4	6.1	1.0%	4.2%	0.0%	-4.2%
5	22	Beverages, spirits and vinegar	2.1	3.7	3.0%	12.6%	9.2%	-3.5%
6	25	Salt; sulphur; earth & stone; lime & cement plaster	3.9	3.1	0.9%	0.3%	0.0%	-0.3%
7	72	Iron and steel	2.4	3.0	7.0%	3.2%	1.9%	-1.4%
8	41	Raw hides and skins (no fur skins) and leather	3.1	3.0	0.8%	1.9%	0.0%	-1.9%
9	94	Furniture; bedding etc; lamps NESOI etc; prefab bd	2.2	2.2	3.6%	3.4%	0.0%	-3.4%
10	28	Inorg chem; prec & rare-earth met & radioact compd	1.2	2.1	1.4%	5.7%	0.0%	-5.7%
11	66	Umbrellas, walking-sticks, riding-crops etc, parts	1.4	2.0	0.0%	4.9%	0.0%	-4.9%
12	47	Wood pulp etc; recovd (waste & scrap) ppr & pprbd	1.9	1.9	0.7%	0.0%	0.0%	0.0%
13	03	Fish, crustaceans & aquatic invertebrates	4.7	1.4	0.9%	10.4%	10.3%	-0.1%
14	20	Prep vegetables, fruit, nuts or other plant parts	1.7	1.4	0.7%	23.7%	19.4%	-4.3%
15	81	Base metals NESOI; cermets; articles thereof	2.8	1.3	0.1%	3.9%	0.0%	-3.9%
16	27	Mineral fuel, oil etc.; bitumen subst; mineral wax	1.7	1.3	10.7%	0.5%	0.0%	-0.5%
21	84	Nuclear reactors, boilers, machinery etc.; parts	0.4	0.7	9.1%	2.8%	0.0%	-2.8%
23	87	Vehicles, except railway or tramway, and parts etc	0.6	0.6	7.2%	7.1%	2.1%	-5.0%
34	73	Articles of iron or steel	0.3	0.4	0.7%	4.0%	2.7%	-1.3%
39	76	Aluminium and articles thereof	0.7	0.3	0.4%	6.5%	0.7%	-5.8%
53	85	Electric machinery etc; sound equip; TV equip; pts	0.2	0.2	2.2%	4.4%	0.0%	-4.4%
55	62	Apparel articles and accessories, not knit etc.	0.2	0.2	0.4%	11.2%	1.7%	-9.5%
57	29	Organic chemicals	0.2	0.2	0.6%	6.1%	0.1%	-5.9%
62	39	Plastics and articles thereof	0.1	0.2	0.6%	8.4%	0.0%	-8.4%

[Source: UNComTrade and own calculations]

As with the revealed comparative advantage observations the indices appear to be relatively stable over time and it can be seen that the higher value export product groups are typically "undertraded" in the EU market, with RTB indices lower than unity for groups such as machinery, electrical machinery and wearing. Low RTBs are recorded in spite of zero or very low tariffs and it would seem that they cannot be used anymore as a blanket scapegoat for underperforming exports in the EU. Other factors, be they barriers to trade or supply constraints, are obviously hindering further market access gains in the EU.

Section 7 b: EU exports to SA

In terms of EU exports to South Africa, we compute revealed trade barrier indices for 1999 and 2003 for the HS2 level of product group detail. As expected the list of EU HS2 export product groups that are "overtraded "in South Africa is much higher than trade in the opposite direction.

Table 21: RTB index for imports of selected of HS2 commodities from the EU: 1999 & 2003

	HS2		RTB 1999	RTB 2003	Share 2003	Tariff 2000	Tariff 2003	Tariff change
1	45	Cork and articles of cork	1.8	2.4	0.2%	0.0%	0.0%	0.0%
2	89	Ships, boats and floating structures	1.8	2.2	1.1%	2.4%	2.4%	0.0%
3	01	Live animals	1.2	1.9	0.1%	0.0%	0.0%	0.0%
4	71	Nat etc pearls, prec etc stones, pr met etc; coin	1.4	1.8	4.2%	4.6%	3.8%	0.7%
5	30	Pharmaceutical products	1.7	1.8	4.4%	0.3%	0.3%	0.0%
6	22	Beverages, spirits and vinegar	2.1	1.8	0.8%	12.2%	12.8%	-0.6%
7	32	Tanning & dye ext etc; dye, paint, putty etc; inks	1.6	1.6	1.3%	2.3%	2.0%	0.3%
8	06	Live trees, plants, bulbs etc.; cut flowers etc.	1.8	1.6	0.0%	8.3%	5.8%	2.5%
9	87	Vehicles, except railway or tramway, and parts etc	1.4	1.5	12.5%	11.6%	10.5%	1.1%
10	56	Wadding, felt etc; sp yarn; twine, ropes etc.	1.4	1.5	0.2%	15.8%	14.9%	0.9%
11	34	Soap etc; waxes, polish etc; candles; dental preps	1.5	1.5	0.4%	13.9%	13.3%	0.7%
12	59	Impregnated etc text fabrics; tex art for industry	1.1	1.5	0.3%	11.7%	10.9%	0.9%
13	48	Paper & paperboard & articles (inc papr pulp artl)	1.6	1.5	2.2%	8.5%	7.7%	0.8%
14	49	Printed books, newspapers etc; manuscripts etc	1.4	1.5	0.7%	3.5%	3.2%	0.3%
15	38	Miscellaneous chemical products	1.5	1.4	2.6%	2.1%	2.1%	0.1%
16	04	Dairy prods; birds eggs; honey; ed animal pr NESOI	1.3	1.4	0.2%	24.7%	22.6%	2.1%
17	33	Essential oils etc; perfumery, cosmetic etc preps	1.4	1.4	0.8%	9.7%	9.7%	0.0%
18	57	Carpets and other textile floor coverings	1.1	1.4	0.1%	30.0%	30.0%	0.0%
19	37	Photographic or cinematographic goods	1.3	1.3	0.4%	4.4%	4.3%	0.2%
20	19	Prep cereal, flour, starch or milk; bakers wares	1.5	1.3	0.2%	19.7%	20.1%	-0.5%
21	76	Aluminium and articles thereof	0.9	1.3	0.4%	5.8%	5.7%	0.1%
22	88	Aircraft, spacecraft, and parts thereof	0.3	1.3	5.5%	0.0%	0.0%	0.0%
23	39	Plastics and articles thereof	1.3	1.3	3.6%	8.4%	8.1%	0.2%
24	69	Ceramic products	1.5	1.3	0.8%	8.6%	8.6%	0.0%
25	84	Nuclear reactors, boilers, machinery etc.; parts	1.2	1.2	23.6%	1.3%	1.2%	0.1%
26	73	Articles of iron or steel	1.1	1.2	1.7%	7.0%	6.7%	0.3%
27	35	Albuminoidal subst; modified starch; glue; enzymes	1.2	1.2	0.3%	1.5%	1.4%	0.1%
28	11	Milling products; malt; starch; inulin; wht gluten	1.4	1.2	0.1%	10.5%	6.4%	4.1%
29	85	Electric machinery etc; sound equip; TV equip; pts	1.3	1.2	13.0%	4.8%	4.3%	0.5%
30	83	Miscellaneous articles of base metal	1.2	1.2	0.4%	13.1%	12.8%	0.3%
31	21	Miscellaneous edible preparations	1.3	1.1	0.3%	12.3%	12.1%	0.3%
32	14	Vegetable plaiting materials & products NESOI	0.2	1.1	0.0%	0.8%	0.6%	0.2%
33	72	Iron and steel	1.2	1.1	1.2%	3.2%	3.1%	0.0%
34	68	Art of stone, plaster, cement, asbestos, mica etc.	1.4	1.1	0.3%	4.7%	5.5%	-0.7%
35	90	Optic, photo etc, medic or surgical instruments etc	1.0	1.1	4.2%	0.3%	0.3%	0.0%
36	13	Lac; gums, resins & other vegetable sap & extract	1.1	1.1	0.1%	4.4%	4.4%	0.0%
37	29	Organic chemicals	1.2	1.1	2.6%	1.4%	1.3%	0.1%
38	82	Tools, cutlery etc. of base metal & parts thereof	0.9	1.0	0.6%	8.4%	8.4%	0.0%

	HS2		RTB 1999	RTB 2003	Share 2003	Tariff 2000	Tariff 2003	Tariff change
39	94	Furniture; bedding etc; lamps NESOI etc; prefab bd	1.3	1.0	0.7%	15.1%	15.1%	0.0%
40	81	Base metals NESOI; cermets; articles thereof	1.5	1.0	0.1%	0.0%	0.0%	0.0%
43	40	Rubber and articles thereof	0.9	0.9	1.3%	9.8%	8.5%	1.3%
61	28	Inorg chem; prec & rare-earth met & radioact compd	0.5	0.5	0.9%	0.9%	0.9%	0.0%
52	60	Knitted or crocheted fabrics	0.5	0.6	0.1%	22.9%	20.1%	2.8%
53	55	Manmade staple fibres, incl yarns & woven fabrics	0.8	0.6	0.3%	19.0%	14.9%	4.0%
60	54	Manmade filaments, including yarns & woven fabrics	0.5	0.5	0.3%	16.5%	14.3%	2.2%
65	63	Textile art NESOI; needlecraft sets; worn text art	0.4	0.4	0.1%	32.1%	28.1%	4.0%
74	02	Meat and edible meat offal	0.7	0.3	0.1%	18.8%	19.3%	-0.5%
81	52	Cotton, including yarn and woven fabric thereof	0.3	0.2	0.1%	21.2%	15.1%	6.1%
86	61	Apparel articles and accessories, knit or crochet	0.2	0.1	0.0%	38.6%	33.1%	5.5%
87	62	Apparel articles and accessories, not knit etc.	0.2	0.1	0.1%	38.4%	32.6%	5.8%

[Source: UNComTrade (from WITS) and own calculations]

The correlation with tariffs again seems limited. Some product groups such as beverages, vehicles, some chemicals and specialised textiles are overtraded in spite of high tariff barriers. The large ticket items such as EU exports of machinery, electrical machinery and specialised equipments are all well represented in South Africa and face very low (unweighted average) tariffs. Towards the bottom of the table we report on a number of seemingly undertraded products with high tariff barriers, especially in the clothing and basic textiles groups.

SECTION 8: THE POTENTIAL IMPACT OF TARIFF REDUCTION

The purpose of this section is to estimate in a rudimentary way what the potential impact of further reduction in tariff barriers on trade between the EU and South Africa for all commodities traded between the EU and South Africa. This would give some idea of the sort of producer gains and losses that could result from an FTA with the EU. We approach this task by quantifying the benefits of greater exports. The first simulation is the maximum benefit that could be gained. This would occur if all SA and EUS tariffs were reduced to zero. In this section we first consider market access gains for EU exporters to SA, followed by a view on potential gains to SA exporters.

To explore in a quantitative way the potential benefits of the EU-SA FTA to EU exporters or in-roads into the SA markets following a full liberalisation of tariffs on imports from the EU, we make use of a very simplistic notion of market access gains, which is based on the concept of the price elasticity of import demand. Rewriting the definition of the price elasticity of the demand for imports leads to the following formulation:

Equation 1

$$\text{MarketAccessGains}_{i}^{EU} = \varepsilon_i \frac{t_{i,MFN}^{2003} - t_{i,EU}^{2003}}{\left(1 + t_{i,MFN}^{2003}\right)} \text{Imports}_{i}^{EU}$$

in which ε_i is the elasticity of demand for commodity *i* imported, and t_i the (unweighted) tariff of commodity group *i*, in the relevant year from the relevant source. We evaluate the potential market access gains of the EU-SA FTA only, i.e., the impact of the difference in the tariffs of the EU-SA FTA schedule and the MFN schedule. The computations are conducted at the HS8 level of product line detail and subsequently aggregated up the HS2 product groups as shown in the next table.

Section 8a: Market access gains for EU exporters to SA

It can be seen that in spite of the low weighted average tariff, electrical machinery exporters from the EU have had the highest potential to expand their market in South Africa with R123 million, followed by vehicles with R67 million, diary products with R35 million, rubber products, machinery and beverages with R30 million, R23 million and R15 million respectively. The total market access gains amount to almost R400 million in 2003 prices.

Table 22: Market access gains for EU exporters to South Africa for selected HS2 commodity groups (2003)

			1	2	3	4
	HS code		Market access gains	Weighted tariff on imports from EU	Imports from EU	Total imports
1	85	Electric machinery etc; sound equip; TV equip; pts	125	2.0%	12,020	25,706
2	87	Vehicles, except railway or tramway, and parts etc	67	29.9%	11,552	19,243
3	04	Dairy prods; birds eggs; honey; ed animal pr NESOI	36	33.3%	180	317
4	40	Rubber and articles thereof	30	12.3%	1,194	3,549
5	84	Nuclear reactors, boilers, machinery etc.; parts	23	0.6%	21,756	45,182
6	22	Beverages, spirits and vinegar	15	5.2%	757	1,074
7	10	Cereals	14	11.7%	292	2,717
8	24	Tobacco and manufactured tobacco substitutes	11	8.5%	67	630
9	70	Glass and glassware	9	6.7%	353	1,022
10	62	Apparel articles and accessories, not knit etc.	6	33.6%	74	1,359
11	59	Impregnated etc text fabrics; tex art for industry	6	7.3%	301	544
12	76	Aluminium and articles thereof	6	5.1%	395	734
13	01	Live animals	5	0.0%	56	72
14	15	Animal or vegetable fats, oils etc. & waxes	5	7.5%	158	1,976
15	32	Tanning & dye ext etc; dye, paint, putty etc; inks	4	2.4%	1,177	1,837
16	08	Edible fruit & nuts; citrus fruit or melon peel	4	6.7%	54	216
17	83	Miscellaneous articles of base metal	4	13.3%	354	763
18	54	Manmade filaments, including yarns & woven fabrics	3	9.4%	231	617
19	61	Apparel articles and accessories, knit or crochet	3	29.2%	46	843
20	58	Spec wov fabrics; tufted fab; lace; tapestries etc	2	16.9%	40	206
21	25	Salt; sulphur; earth & stone; lime & cement plaster	2	0.0%	164	709
22	74	Copper and articles thereof	2	5.2%	109	322
23	39	Plastics and articles thereof	2	6.5%	3,395	6,483
24	29	Organic chemicals	2	0.6%	2,401	5,531
25	21	Miscellaneous edible preparations	1	14.0%	272	587
26	41	Raw hides and skins (no fur skins) and leather	1	6.3%	101	723
27	16	Edible preparations of meat, fish, crustaceans etc	1	5.3%	21	256
28	55	Manmade staple fibres, incl yarns & woven fabrics	1	0.8%	199	566

Source: Customs & Excise (trade) and DTI (tariffs)

Market access gains in "sensitive" sectors such as textiles and clothing are relatively small. However, with "other" dairy products and cereals, processed food is somewhat negatively effected by the tariffs preferences introduced with the EU-SA FTA.

Section 8b: Market access gains for South African exporters to the EU

Investigating market access gains for SA exporters to the EU requires a detailed phase-down schedule of the EU-SA FTA, specifically for SA exports to the EU. To explore in a quantitative way the potential benefits of the EU-SA FTA to SA exporters, we make use of the same concept of market access gains as in Equation 1 and assume that the elasticity of EU import demand is 2. We compare the preferential 2003 schedule with the EU base schedule of 2000 as discussed in section 5b above while assuming that no other tariff phase down has occurred in the mean time. The difference between these two tariffs will be the driver of the market access gains computations. We undertook the computations at the HS4 level but report at the HS2 level of broad product groups.

In the first column we present the HS2 MFN tariff as an unweighted average of the base HS6 tariffs, including the GSPs as discussed in section 5b, while column 2 shows the EU-SA FTA tariff that is meant to be in operation in 2003 and in column 3 the weighted average tariff, both again accounting for GSPs. The difference between the unweighted average MFN and EU-SA FTA tariff is an indication of the preference that South African exporters enjoy over exporters from other countries with no preferential access. This preference gives rise to a market access gains as

calculated in column 4, while the total EU imports from South Africa are shown in column 5. Total market access gains amount to about R2.3 billion, which can be compared to the market access gains for EU exporters in the South Africa market, which we had calculated to be about R400 million. This suggests that if all preferences were indeed realised, South Africa was expected to gain more from the FTA than the EU, at least in 2003. The tariff phase down on the South African side is meant to be taking place at a later stage, so that we are not making a fair comparison at this stage. Nevertheless, it is worth noting that due to front loading, the EU tariffs on South African imports will not phase down much further and not much of the market access gains reported here will materialise in the context of the FTA. Meanwhile, back loading on the South African side will result in at least a proportion of the EU's market access gains being realised in the next few years.

Table 23: Market access gains for South African exporters in the EU, 2003

	HS2		1 Unweighted ave of MFN Tariff 2000	2 Unweighted ave tariff of EU-SA FTA 2003	3 Mark acc gains 2003 (R million)	4 EU imports from SA 2003 (R million)	5 Share of exports destined for EU
1	84	Nuclear reactors, boilers, machinery etc.; parts	2.7%	0.0%	492	9,846	53.1%
2	94	Furniture; bedding etc; lamps NESOI etc; prefab bd	3.4%	0.0%	213	3,328	76.5%
3	85	Electric machinery etc; sound equip; tv equip; pts	4.3%	0.0%	188	2,015	35.3%
4	87	Vehicles, except railway or tramway, and parts etc	6.1%	2.1%	138	5,992	26.2%
5	28	Inorg chem; prec & rare-earth met & radioact compd	5.7%	0.0%	123	1,078	24.9%
6	48	Paper & paperboard & articles (inc papr pulp artl)	6.4%	0.0%	111	1,128	31.5%
7	39	Plastics and articles thereof	8.5%	0.0%	70	494	16.4%
8	76	Aluminum and articles thereof	6.7%	0.4%	66	586	7.5%
9	40	Rubber and articles thereof	3.1%	0.0%	66	865	41.5%
10	62	Apparel articles and accessories, not knit etc.	12.4%	2.6%	66	352	26.9%
11	29	Organic chemicals	5.8%	0.2%	62	826	21.5%
12	38	Miscellaneous chemical products	6.3%	1.0%	50	441	18.3%
13	72	Iron and steel	3.2%	2.0%	48	7,705	26.8%
14	71	Nat etc pearls, prec etc stones, pr met etc; coin	1.1%	0.0%	47	14,791	19.8%
15	61	Apparel articles and accessories, knit or crochet	12.8%	2.2%	45	233	24.6%
16	54	Manmade filaments, including yarns & woven fabrics	8.7%	0.0%	42	282	37.6%
17	44	Wood and articles of wood; wood charcoal	3.9%	0.0%	36	767	23.2%
18	02	Meat and edible meat offal	35.5%	34.0%	30	239	50.4%
19	08	Edible fruit & nuts; citrus fruit or melon peel	6.8%	4.9%	30	4,066	60.6%
20	73	Articles of iron or steel	1.9%	0.1%	28	627	19.4%
21	90	Optic, photo etc, medic or surgical instrments etc	3.6%	0.0%	25	412	27.7%
22	82	Tools, cutlery etc. of base metal & parts thereof	4.3%	0.0%	23	331	41.6%
23	51	Wool & animal hair, including yarn & woven fabric	4.9%	0.0%	21	928	60.5%
24	27	Mineral fuel, oil etc.; bitumen subst; mineral wax	0.8%	0.0%	21	10,812	46.0%
25	86	Railway or tramway stock etc; traffic signal equip	2.8%	0.0%	20	625	55.1%
26	33	Essential oils etc; perfumery, cosmetic etc preps	3.8%	0.0%	20	315	27.8%
27	70	Glass and glassware	5.8%	0.0%	20	281	46.2%
28	06	Live trees, plants, bulbs etc.; cut flowers etc.	7.3%	0.9%	19	251	72.6%
28	06	Live trees, plants, bulbs etc.; cut flowers etc.	7.3%	0.9%	19	251	33.3%
29	63	Textile art NESOI; needlecraft sets; worn text art	10.8%	2.4%	15	102	50.9%
30	41	Raw hides and skins (no furskins) and leather	2.1%	0.0%	15	652	45.6%
31	68	Art of stone, plaster, cement, asbestos, mica etc.	2.1%	0.0%	14	363	54.2%
32	22	Beverages, spirits and vinegar	9.8%	6.5%	13	2,622	61.1%
33	56	Wadding, felt etc; sp yarn; twine, ropes etc.	7.7%	1.7%	12	112	11.5%
34	32	Tanning & dye ext etc; dye, paint, putty etc; inks	6.3%	0.0%	11	115	19.9%
35	74	Copper and articles thereof	3.7%	0.0%	10	253	9.4%
36	31	Fertilizers	4.5%	0.0%	10	103	
28	06	Live trees, plants, bulbs etc.; cut flowers etc.	7.3%	0.9%	19	251	
29	63	Textile art NESOI; needlecraft sets; worn text art	10.8%	2.4%	15	102	
30	41	Raw hides and skins (no furskins) and leather	2.1%	0.0%	15	652	
31	68	Art of stone, plaster, cement, asbestos, mica etc.	2.1%	0.0%	14	363	
32	22	Beverages, spirits and vinegar	9.8%	6.5%	13	2,622	
33	56	Wadding, felt etc; sp yarn; twine, ropes etc.	7.7%	1.7%	12	112	
34	32	Tanning & dye ext etc; dye, paint, putty etc; inks	6.3%	0.0%	11	115	
35	74	Copper and articles thereof	3.7%	0.0%	10	253	
36	31	Fertilizers	4.5%	0.0%	10	103	

Source: ITC MacMap (GSPs), IDC (TDCA tariff phase-down schedule), Customs & Excise (trade)

At the top of the table it can be seen that the main beneficiaries of the tariff phase down are South African exporters of machinery, including electrical, vehicles, furniture, iron & steel paper, chemicals, plastics, and a few textiles and clothing groups. Processed food and agricultural products are the notable absentees in the table, except for edible and prepared fruits. Beverages also disappoint to some extent, given the high value of its exports to the EU (see row 32). A number of processed food and agricultural products did not make it into the table, as we imposed a cut-off at R10 million.

PART B: MEASURING THE IMPACT OF EU – SA FTA ON TRADE

SECTION 9: INTRODUCTION TO ANALYSING THE IMPACT OF THE EU – SA FTA ON TRADE

The European Union (EU) – South Africa (SA) Free Trade Agreement (FTA) has been in force since 2000. A feature of the agreement is that the negotiated tariff phase down between the two regions is asymmetrical. The EU will reduce tariffs to zero on a higher proportion of imports (95% as measured at inception) at a faster pace (3 years) than South Africa, which is reducing its tariffs on imports from EU (86% in 12 years) with most reductions taking place towards the end (that is, back loading).

With the latest trade data available for the year 2003 we can now make a preliminary quantitative assessment of the impact of the FTA on South Africa's trade with the EU. In particular, the question is "to what degree has the phase down of EU tariffs had a positive impact on SA exports to the EU". Part B will employ three distinct but related methodologies that are available to trade economists to examine this question.

The first methodology is to plot the relationship between the tariff reduction in the EU for imports from South Africa to enable a visual examination and then apply an ordinary least squares (OLS) regression analysis to that data. The working hypothesis is that there will be a relationship between the reduced tariffs and an increase in the share of exports from South Africa that are destined for the EU.

The second approach is an empirical examination of the data to visually look at the major patterns by detailed product group.

The final methodology applies the relatively new concept of trade deepening versus trade widening; has trade widened into new areas or deepened in that it has increased in the areas that were being traded at the start of the period.

When considering the impact of tariff phase down on South Africa's export performance to the EU one should also account for general supply from South Africa and international demand considerations. In particular, it may make sense to control for South Africa's global exports and EU's total imports. For each product group the issue can then be examined as the impact of the EU tariff phase down on imports from South African from the EU perspective and South Africa's exports to the EU expressed as a share of the Republic's global exports on the other hand. In the case of the latter we are evaluating possible shifts of exporters towards the EU, while in the case of the former we look at the link between increased share in the EU market for South African products and the phase down of tariffs.

The following data sources are used:

- Tariff phase down schedule obtained from the IDC, available at HS8 product group level. Ad valorem equivalents have been incorporated by the IDC but they are computed on the basis of trade flows of the mid - late 1990s.
- South African export data from Customs & Excise, available at HS8 product level; and
- EU import data from UNComTrade, available from WITS at HS6 product group level
- GSP tariffs are available from the International Trade Centre's (ITC's) Market Access Map (MacMap) trade and tariff system at the HS6 level of product groups

A number of data manipulations are worth mentioning at this stage.

- HS8 tariff phase down data was constructed from the EU-SA FTA documentation by the IDC during the mid - late 1990s. The HS format that was used at the time (HS1996) is different to the HS format that is currently used (HS2002).
- Trade data for the years 2000 and 2003 are reported in a HS combined format, with trade data for the year 2000 in the HS1996 format and trade data for the year 2003 available in the HS 2002 format.
- A bridge between the HS1996 and HS2002 format is available from WITS but only at the HS6 level.
- It was not possible to reconcile the HS8 codes of the tariff data with the trade data in a reasonable way as there appeared to be to many miss matches..
- The first 6 digits of the HS8 tariff phase down data were converted to the HS 2002 format and subsequently aggregated to the HS6 level using unweighted averages. Mismatches were dealt with in an ad-hoc manner.
- Similarly, the first 6 digits of the HS8 trade data were converted to the HS 2002 format and subsequently aggregated to HS6 level. Mismatches were dealt with in an ad-hoc manner.
- Matching of trade and tariff data now proceeded with mismatched HS6 trade groups assigned unweighted averages tariffs at the HS4 and if necessary the HS2 level.
- EU imports are available from WITS in the HS 1996 format and were converted to the HS 2002 format and matched to the tariff data in the same way as described in Section 7 above.
- GSPs have been granted for a number of products. Information on the GSP tariffs are available from the International Trade Centre's (ITC's) Market Access Map (MacMap) trade and tariff system at the HS6 level of product groups. These GSPs were granted in the late 1990s and still appear to be in force. At this stage we don't know what requirements are attached to the granting of these GSPs. For reasons of convenience we assume that they are approved to all applicants. GSPs are available to almost 300 HS6 product groups, with some HS6 lines having multiple GSP rates. In the case of multiple GSP rates we assume that an unweighted average applies. As explained in Part A. for a number of commodity lines, the GSP rate is lower than the preferential rate. In this case, we assume that the preference offered by the EU – SA FTA is equal to zero

With the trade and tariff data lined up we can now proceed with our analysis, firstly be examining South Africa's exports to the EU (and the world) and secondly EU imports from South Africa (and the world).

SECTION 10: SOUTH AFRICA'S CHANGING EXPORT SHARE TO THE EU SINCE 2000

First we assess the relationship between the EU tariff phase down and the share of South African exports destined for the EU. This is examined at the HS6 level of product groups as discussed above. The following macro statistics apply:

Table 24: Macro statistics for South African exports to the EU and their tariffs

	2000	2003
South African exports to EU (Rm curr pr)	65,053	83,919
South African exports to EU % of total exports	31.1%	30.8%
Unweighted average tariff on exports from South Africa to EU	6.0%	2.0%
Weight average tariff on exports from South Africa to EU	2.8%	2.5%
% of exports with tariff preference	40.8%	39.4%

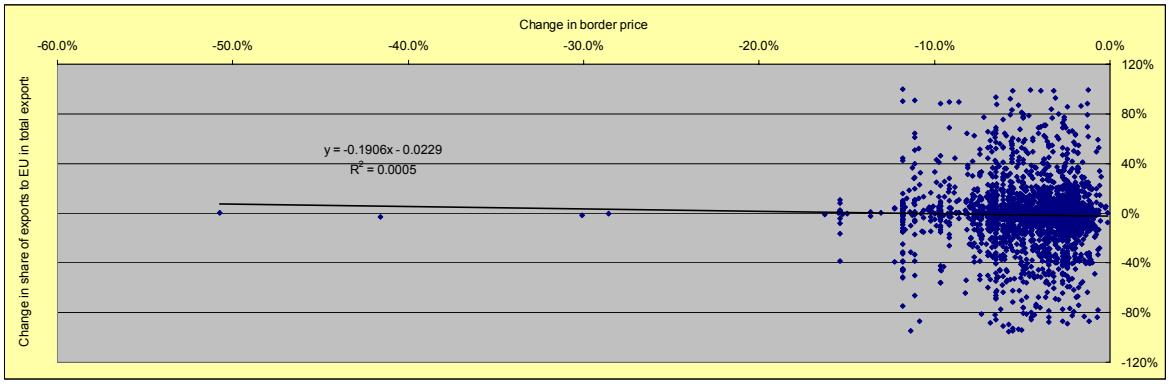
Source: IDC (tariffs), Customs & Excise (trade).

It can be seen that, although South African exports to the EU have risen in nominal rand terms, the share of total exports has declined marginally, in spite of the decline in the unweighted average tariffs. Note that the weighted average tariff was already low in 2000 and has not come down as much by 2003. More remarkable is that the tariff lines which received tariff preferences over the period of observation represented about 41% of exports in 2000 which declined to just under 40% in 2003. In the rest of the document we examine only non-zero exports and tariff lines where there has been a reduction in applied tariffs on EU imports from South Africa. This turns out to be 2,405 HS6 product lines out of a maximum of 5,170.

Overview of HS4 level exports shares

Figure 1 shows a scatter diagram with the relative changes in the border price on the horizontal axis and the absolute change in the share of total exports destined for the EU on the vertical axis. The graph shows that there is a very weak relationship between the two variables, albeit of the expected sign. The relationship is, however, statistically not different from zero. It can also be seen that there are a large number of negative changes in the shares in spite of tariff reductions. These are displayed in the lower half of the graph. Omitting mineral products (HS25-27 and HS71) and gold & diamond products does little to improve the statistical results.

Figure 6: Change between 2000 and 2003 in the share of exports in total SA exports measured against the reductions in EU tariffs



Source: IDC (tariffs), Customs & Excise (trade)

Patterns of export shares by major product group

Despite of the insignificant correlation between tariff reduction and increases in the share of South Africa's exports to the EU we will examine some aspects of the relationship between these two variables in a less formal manner. Table 1 displays the relationships at the very broad Ch 23 product group level. It shows:

- The percentage point changes in the share of South African exports to the EU over the implementation period;
- The relative change in EU border price ;
- The proportion of South African exports in this category destined for the EU in 2003;
- The values of those exports in 2003 (in R-million); and
- The share of those exports in South African exports to the EU in 2003.

Table 25: Tariff reductions and changes in ratio of SA exports to EU and total exports, 2000-2003, Ch23

	Ch23 code	Description	% point change in share of exports to EU in total exports	% change in EU border price	% of SA export to EU in total exports, 2003	SA exports to EU in curr Rm, 2003 pr	Share in SA exports to EU 2003
		"right way"	1	2	3	4	5
1	C01	Live animals, animal products	14.3%	-6.4%	59.6%	229	0.7%
2	C03	Animal or vegetable fats & oils	10.3%	-8.2%	50.5%	45	0.1%
3	C12	Footwear	4.4%	-7.9%	35.7%	94	0.3%
4	C13	Non-metallic minerals	3.7%	-2.8%	41.7%	683	2.1%
5	C16	Machinery	3.6%	-2.7%	49.6%	11,834	35.8%
6	C11	Textiles & clothing	2.2%	-6.6%	35.2%	1,723	5.2%
20	C06	Chemical products	0.3%	-5.5%	21.2%	2,548	7.7%
		"wrong way"					
7	C08	Raw hides	-0.1%	-4.2%	50.9%	180	0.5%
8	C05	Mineral products	-0.3%	-2.7%	3.8%	362	1.1%
9	C15	Base metals	-0.3%	-3.9%	21.0%	1,933	5.8%
10	C02	Vegetable products	-1.0%	-3.1%	53.5%	1,032	3.1%
11	C20	Misc manufact articles	-1.1%	-3.2%	74.3%	3,382	10.2%
12	C10	Paper products	-2.7%	-5.3%	22.9%	565	1.7%
13	C04	Food, beverages & tobacco	-4.0%	-8.9%	9.6%	270	0.8%
14	C18	Specialised equipment	-6.1%	-3.2%	28.5%	412	1.2%
15	C09	Wood products	-6.7%	-3.1%	50.9%	639	1.9%
16	C14	Precious stones and metals	-11.1%	-0.9%	16.8%	2,351	7.1%
		"no change"					
21	C17	Transport equipment	0.0%	-2.0%	38.3%	3,558	10.8%
22	C07	Plastic products	0.0%	-5.4%	27.7%	1,207	3.7%

Source: IDC (tariffs), Customs & Excise (trade), Note zero changes in unweighted tariffs are accounted for. Note: only HS6 product groups with positive trade and tariff phase down are considered.

Table 25 is segmented into three categories: the 'right way", whereby the border prices decreased as a result of the tariff phase down and exports increased as measured by the percentage share destined for the EU; the "wrong way", where border prices decreased but so did the export share destined for the EU; and a minor category that is not relevant as the shares did not change. The first two major categories are somewhat biased at this aggregate level towards the "wrong way".

The "right way" or the expected relationship includes 6 categories where the border prices decreased on average by 2 percent or more, of which only two are noteworthy in terms of size. These are the major trade categories of machinery and textiles & clothing and to a lesser degree chemical products.

For a number of product groups it can be seen that the EU as a destination became less important during the period 2000-2003 despite a reduction in tariffs (the "wrong way"). This is the case for product groups in the minerals and base metals groups, although this is probably less related to the tariff phase down. More importantly it also includes broad categories such vegetable products, processed food and beverages and paper and wood products. In all these cases it can be seen in column 3 that the EU remains an important market for South African exports despite the reductions in share over the period.

For two important categories no significant change in the share of total exports destined for the EU could be observed over the period of study, in spite of significant changes in the border prices, notably for plastic products and transport equipment. Trade in the latter may well be driven by global supply chain considerations and less to by changes in tariffs.

Detailed HS6 analysis of export shares

Next we take a closer look at the more disaggregated HS6 commodity lines in terms of the change in the share of total exports destined for the EU and match this with the change in tariffs between 2000 and 2003, the share of total export destined for the EU and the value of exports to the EU in 2003. There are several options to present the data. Appendix A reports on the top 80 HS6 product groups ranked according to:

- Change in tariffs;
- Change in export share; and
- Value of exports.

Here we limit our exposition to the top HS6 export product groups with large values that enjoy relatively large tariff preferences in the EU. Out of a total of 2405 HS6 lines with non-zero exports to the EU that were part of the tariff phase down process (i.e., had recorded a positive tariff phase down over the period) 165 recorded a tariff phase down of more than 5% and their value of exports to the EU exceeded R5 million.

Table 26 shows those HS4 product lines with exports larger than R5 million in 2003 which reported a significant shift in their exports to the EU which took place while import tariffs in the EU were phased down by more than 5%.

Table 26: Tariff reductions and positive changes in ratio of SA exports to EU and total exports, 2000-03, HS6

			% change in exports to EU as share of total exports	%point change in tariff due to EU phase down >3%	Proportion of SA exp to EU in total exports, 2003	2003 SA exp to European Union in Rm curr pr > Rm1
1	610230	W/g overcoats carcoats & similar art mmf, knit	99.7%	-11.8%	99.9%	9,453,528
2	390290	Polymers of propylene or other olefins nesoi, p fm	88.2%	-9.7%	88.8%	15,687,452
3	630110	Blankets, electric	87.8%	-6.5%	92.4%	8,949,080
4	280800	Nitric acid, sulfonitric acids	87.2%	-5.2%	87.2%	30,007,631
5	540761	Wov fab cont 85% or > by wgt nontextured poly fila	68.7%	-9.2%	90.6%	35,976,528
6	620323	Men's or boys' ensembles synthetic fibers, nt knit	68.6%	-6.5%	95.9%	9,515,676
7	901310	Telescopic sights f arms; periscope f optical, etc	67.5%	-5.1%	80.2%	9,390,247
8	620312	Men's or boys' suits of synthetic fibers, not knit	66.9%	-6.5%	94.5%	12,038,997
9	760820	Aluminum alloy tubes and pipes	64.2%	-6.0%	86.4%	5,408,743
10	610520	Men's or boys' shirts of manmade fibers, knitted o	64.2%	-6.7%	64.8%	16,202,115
11	291211	Methanal (formaldehyde)	62.7%	-5.9%	62.7%	6,458,947
12	851999	Sound reproducing apparatus except cassette, nesoi	62.5%	-7.7%	63.8%	7,440,167
13	854270	Electronic microassemblies	61.1%	-6.5%	76.7%	6,024,097
14	284210	Double or complex silicates	59.4%	-5.2%	97.0%	13,820,135
15	282611	Fluorides of ammonium or of sodium	58.5%	-6.8%	99.7%	93,170,358
16	901390	Pts of liq crystal device, laser&oth optical,nesoi	58.1%	-5.6%	62.2%	6,521,058
17	410449	Tanned or crust hides and skins of bovine	56.2%	-6.3%	95.6%	28,333,790
18	330749	Preparations for perfuming/deodorizing rooms nesoi	53.4%	-6.1%	69.9%	20,233,187
19	550320	Syn stp fib nt crd, cmb or prsd spng, of polyester	52.8%	-6.1%	79.3%	44,733,704
20	611599	Socks & other hosiery textile materials nesoi, kt	50.6%	-11.1%	50.8%	5,843,018

Source: IDC (tariffs), Customs & Excise (trade)

It can be seen from Table 26 that the main product lines that appear to have shifted their exports to the EU, while at the same time reported a phase down in their tariffs in these markets, are clustered around the clothing and chemicals products and a few electrical machinery and specialised equipment, plastics and textiles product groups.

As the scatter diagram suggests, tariff phase down has also coincided with lower ratios of exports to the EU to total exports. In Table 27 we apply the same criteria, i.e., value of exports in 2003 is larger than R5 billion and the tariff phase down on EU imports from South Africa is more than 5% but now we present those product groups that saw their proportion of exports to the EU decline.

Table 27: Tariff reductions and negative changes in ratio of SA exports to EU and total exports, 2000-03, HS6

	HS6 Code		% change in exports to EU as share of total exports	% point change in tariff due to EU phase down >3%	Proportion of SA exp to EU in total exports, 2003	2003 SA exp to European Union in Rm curr pr > Rm1
1	293212	2-furaldehyde (furfuraldehyde)	-50.6%	-6.1%	36.8%	12,583,294
2	610990	T-shirts, singlets etc, knit etc, textiles nesoi	-46.6%	-9.6%	34.6%	9,290,322
3	620341	M/b trouser overalls breeches shorts wool, nt knit	-44.7%	-11.8%	51.8%	17,916,551
4	620463	Women's or girls' trousers etc not knit, syn fiber	-38.9%	-11.8%	29.0%	5,091,781
5	620343	Men's or boys' trousers etc, not knit, synth fiber	-38.6%	-11.8%	53.2%	65,597,410
6	620311	Men's or boys' suits of wool, not knit	-37.0%	-6.5%	37.5%	19,008,862
7	410441	Full grains, unsplit; grain splits	-36.8%	-6.1%	35.5%	14,256,087
8	620331	M/b suit-type jackets and blazers of wool, nt knit	-35.5%	-6.5%	23.0%	28,549,848
9	081310	Apricots, dried	-34.0%	-6.1%	17.2%	5,407,476
10	851780	Electric telephonic & telegraphic apparatus, nesoi	-31.5%	-7.0%	11.0%	7,301,186
11	284990	Carbides, nesoi, chemically defined or not	-31.1%	-5.3%	15.3%	6,421,744
12	611030	Sweaters, pullovers etc, knit etc, manmade fibers	-26.9%	-6.6%	59.5%	17,315,552
13	482010	Registers/acct bks/notebks/letter pad etc ppr/pbrd	-25.2%	-8.0%	38.9%	6,862,027
14	852790	Reception appr radio-telephon/telegraph etc nesoi	-23.6%	-6.5%	15.6%	9,059,396
15	741129	Tubes & pipes, of copper alloys nesoi	-22.1%	-5.0%	70.3%	5,703,633
16	392290	Bidets, lavatory pans, similr sanit ware, plastic	-21.2%	-6.8%	33.9%	5,174,719
17	291819	Carbox acids with alcohol funct etc nesoi	-21.0%	-6.0%	67.2%	16,184,007
18	540791	Wov fabric synth filament yarn nesoi unbl bleached	-19.6%	-9.2%	79.9%	6,014,610
19	761090	Aluminum structures and parts, nesoi	-19.6%	-6.3%	12.9%	6,598,707
20	854229	Electronic integrated circuits and microassemblies	-18.8%	-6.5%	23.8%	7,627,974

Source: IDC (tariffs), Customs & Excise (trade)

This more detailed analysis confirms the aggregated result from Table 25 that the tariff phase down is not necessarily always associated with an increase in the importance of the EU as market (the "right way"). Moreover, it appears that there are winners and losers within broad product groups such as clothing and chemicals. In particular, in a number of clothing groups and some chemicals and electrical machinery groups exporters have shifted their exports away from the EU towards the rest of the world in spite of the tariff preferences offered by the EU. Other isolated occurrences at this level of detail are metal and food products.

SECTION 11: SOUTH AFRICA'S SHARE IN THE EU MARKET SINCE 2000

Next, we examine the mirror, and look at South Africa's market shares in the EU following the inception of the FTA in 2000. Internationally, data reconciliation is a problem, and although we do not attempt to undertake a reconciliation exercise here it is instructive to examine the EU data. In general, import data is considered to be more reliable than export data, as import data tends to be scrutinized more than export data given the import duty incentive. Thus, there is not necessarily a one-for-one mapping with the observations described in the previous tables and figure of Section 1.

Starting again with a macro overview, we can see in the next table that EU imports from South Africa total about US$12 million and it has been stable, if not declining slightly over the period, following the strong appreciation of the Rand during 2003. The unweighted average tariff are very similar to those reported in Table 24 above and the weighted average based on import shares is also very similar to the one reported earlier. The large decline in the unweighted average tariff relative to the weighted tariff, which remained more or less constant, may suggest that the EU reduced tariffs in areas that are of limited relevance to SA.

Table 28: Macro statistics for EU imports from South Africa and their tariffs

	2000	2003
EU Imports from South Africa (US$ million curr pr)	12,643	12,206
EU Imports from South Africa as % of EU total imports	0.60%	0.59%
Unweighted average tariff on exports from South Africa to EU	5.9%	1.9%
Weighted average tariff on EU imports from South Africa	2.2%	2.4%
% of imports with tariff preference	24.6%	29.2%

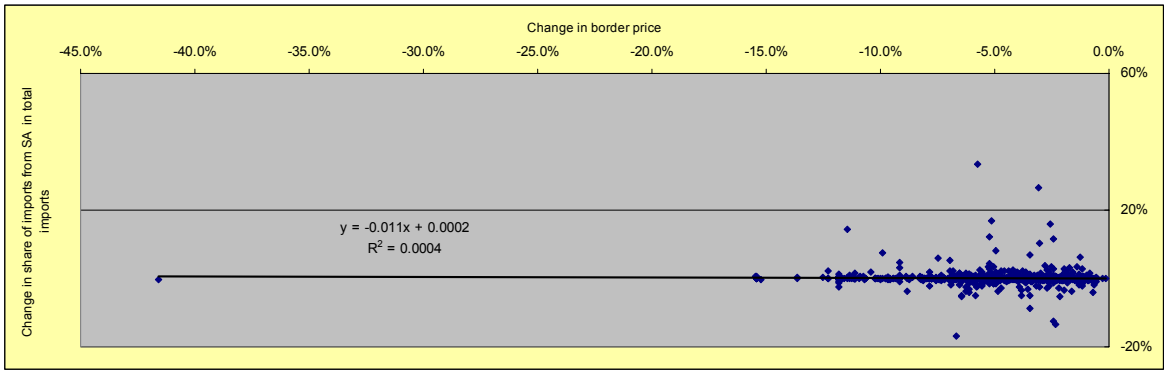
Source: IDC (tariffs), UNComTrade (trade).

The proportion of total imports for those tariff lines that received tariff preferences over the period is, however, much lower when trade is recorded on the EU side although the proportion of the preferenced product groups has risen, from 25% to almost 30%. This is in somewhat stark contrast with the observations made in Table 24 where this proportion remained stable at around 40%.

Overview of HS6 level market shares

Using the same format as in Section 1 we start by plotting the tariff phase-down between 2000 and 2003 and the share of imports from South Africa in the EU's total import basket for all HS6 product groups.

Figure 7: Plotting changes in tariffs on EU imports from SA and the change in the share of these imports in total imports, 2000-2003



Source: IDC (tariffs), UNComTrade (trade). Note: only non-zero trade and positive tariff phase downs are reported

As before, all HS6 product groups with zero tariff changes and zero exports in any of the two years (2000 and 2003) have been omitted.

Figure 7 shows that the relationship between the two variables of tariff reductions and changes in import share into the EU is not conclusive. The correlation coefficient is a low -1.4% and although the sign of the coefficient is correct, the t statistic is no significant and the R2 is also very low. Omitting mineral products (HS25-27, HS71) does not improve these results. Combined with our earlier results we can now conclude in the interim that there is not only very weak evidence that South African exporters are indeed shifting to the EU markets but this has also not resulted in significant increases in market shares in the EU following the tariff preferences offered.

Patterns of import shares by major product group

We will continue exploring the latter in more detail below using the same format as before, starting with a summary at the 23 product aggregate group level. This is shown in Table 29 below. As with Table 25, the aggregated products are classified into "right way", wrong way" and "no change". Overall, the share of South African exports in the EU market (column 3) is very small, and therefore the change in South Africa's share in the EU market is also less compared to Section 1 as the EU is much more important to South Africa than South Africa is to the EU. Since we omit those HS6 product groups where there has been no tariff preference granted over the 2000-2003 period, mineral products are not represented in the table. Given these constraints, only animal and vegetable products enjoyed a market share of above 1 percent.

Table 29: Tariff reductions and positive changes in ratio market share SA exports in EU, 2000-03, HS4

			% change in share of imports from SA in EU total imports	% change in border price due to EU phase down	Proportion of EU imp from SA of total imports 2003 (market share)	Proportion of SA exp to EU in total exports, 2003	2003 SA exp to European Union in Rm curr pr
		"right way"	1	2	3	4	5
1	C01	Live animals, animal products	0.50%	-6.4%	1.7%	59.6%	229
2	C10	Paper products	0.17%	-4.9%	0.4%	22.9%	565
3	C16	Machinery	0.09%	-2.7%	0.3%	49.6%	11,834
4	C13	Non-metallic minerals	0.09%	-3.3%	0.3%	41.7%	683
5	C17	Transport equipment	0.09%	-2.3%	0.3%	38.3%	3,558
6	C20	Misc manufact articles	0.08%	-3.2%	0.9%	74.3%	3,382
7	C14	Precious stones and metals	0.06%	-2.4%	0.2%	16.8%	2,351
8	C03	Animal or vegetable fats & oils	0.06%	-7.6%	0.5%	50.5%	45
9	C11	Textiles & clothing	0.02%	-6.9%	0.2%	35.2%	1,723
		"wrong way"					
13	C04	Food, beverages & tobacco	-0.01%	-6.6%	0.1%	9.6%	270
14	C18	Specialised equipment	-0.01%	-3.2%	0.1%	28.5%	412
15	C09	Wood products	-0.03%	-2.8%	0.4%	50.9%	639
16	C02	Vegetable products	-0.03%	-2.2%	1.2%	53.5%	1,032
17	C15	Base metals	-0.04%	-3.6%	0.3%	21.0%	1,933
18	C06	Chemical products	-0.05%	-5.4%	0.3%	21.2%	2,548
19	C08	Raw hides	-0.09%	-7.5%	0.5%	50.9%	180
20	C05	Mineral products	-0.63%	-2.0%	0.0%	3.8%	362
		"small change"					
11	C07	Plastic products	0.01%	-5.8%	0.2%	27.7%	1,207
12	C12	Footwear	0.01%	-6.6%	0.1%	35.7%	94

Source: IDC (tariffs), Customs & Excise and UNComTrade (trade). Note: only HS6 product groups with positive trade and tariff phase down are considered.

The most important broad product groups that recorded a small (but perceptible) increase in their market share are machinery and transport equipment. Both groups saw their market share increase by 0.1% while the border price that they faced in the EU dropped due to tariffs by around 2.5%. However, a number of product groups lost market share in the EU while facing lower tariffs, including food and beverages, vegetables, base metals, chemicals and wood products. Footwear as well as plastic products remained more or less constant in spite of enjoying considerable tariff preferences.

Detailed HS6 analysis of export shares

Next we take a closer look at the more disaggregated HS6 commodity lines in terms of the change of the share of South African exports in the EU market and match this with the change in tariffs between 2000 and 2003, the share of South African exports in the EU market and the value of exports to the EU in 2003. As before there are several options to present the data and Appendix B reports on the top 80 HS4 product groups ranked according to various criteria.

Here we limit our exposition to HS6 export product groups with large values that enjoy relatively large tariff preferences in the EU. Out of a total of 2018 HS6 lines with non-zero EU imports from South Africa that were part of the tariff phase down process 167 recorded value of more than US$500 000 or higher and a tariff phase down of more than 5%.

Table 30 shows those HS4 product lines with EU imports with a value of more than US$500 000 or higher and which reported a significant increase in their market share in the EU while their tariff was phased down by more than 5%.

Table 30: Tariff phase down & positive changes in ratio of EU imports from SA to total imports, 00-03, HS6

	HS6 code	HS6 description	Change in share	Change in border price	% of EU import from SA in total EU imports, 2003	EU imports from SA in US$'000 curr 2003 pr
1	282010	Manganese dioxide	33.4%	-5.0%	49.0%	18,566
2	282530	Vanadium oxides and hydroxides	26.6%	-5.2%	51.5%	4,678
3	284130	Sodium dichromate	16.8%	-9.3%	40.6%	16,133
4	630110	Blankets, electric	14.4%	-6.5%	14.5%	1,149
5	281910	Chromium trioxide	7.4%	-9.9%	14.1%	4,187
6	540252	Polyester fila yn twist >50 turns/m nt retail sale	5.4%	-7.0%	7.9%	3,404
7	540791	Wov fabric synth filament yarn nesoi unbl bleached	4.5%	-9.2%	4.8%	755
8	284190	Salts of oxometallic or peroxometallic acids nesoi	4.3%	-5.2%	6.6%	1,793
9	540710	Wov fab syn fil hi ten nylon etc and polyester	3.2%	-9.2%	3.9%	7,370
10	020830	Meat & edible offal NESOI , fresh, chilld or frozen	2.8%	-6.9%	9.2%	23,838
11	284210	Double or complex silicates	2.8%	-5.2%	2.9%	2,129
12	480512	Paper & paperboard, uncoat, NESOI , rolls or sheets	2.6%	-5.7%	2.7%	14,887
13	282090	Manganese oxides, except manganese dioxide, nesoi	2.3%	-5.7%	13.8%	1,765
14	392210	Baths, shower baths & washbasins, of plastics	2.3%	-6.8%	6.3%	23,753
15	540110	Sewing thread synthetic filaments, retail or not	2.2%	-6.5%	2.6%	3,900
16	852790	Reception appr radio-telephon/telegraph etc nesoi	2.1%	-6.5%	2.2%	2,958
17	560313	Nonwovens, of mmf weighing > 70 g/m2 but <150 g/m2	2.0%	-5.6%	2.9%	8,139
18	060499	Foliages, branches etc drid/dyed/blachd/impreg etc	1.8%	-8.1%	6.8%	4,340
19	760692	Aluminum alloy plates etc, over .2 mm thick, nesoi	1.7%	-7.8%	1.8%	5,689
20	611591	Socks & ot hosry & ftwr w/out appld sls wool, knit	1.7%	-11.1%	1.8%	1,137

Source: IDC (tariffs), Customs & Excise and UNComTrade (trade).

It can be seen in the top 10 of Table 31 that the broad product groups that managed to increase their market share significantly are mainly inorganic chemicals, and textile products and a single clothing products groups (electric blankets). Further down the table a range of additional HS6 product groups appear to have increased their market share moderately, including meat products, paper products and plastic products. Only one single machinery product group is represented here, although the broad machinery group as a whole performed much better.

Table 31: Tariff phase down & negative changes in ratio of EU imports from SA to total imports, 00-03, HS6

	HS6 code	HS6 Description	Change in share	Change in border price	% of EU import frm SA in total EU imports, 2003	EU imports frm SA in US$'000 curr 2003 pr
1	630319	Curt & intr blnd curt/bd val kt/croc nesoi tex mat	-17.0%	-6.3%	16.8%	1,707
2	293212	2-furaldehyde (furfuraldehyde)	-5.3%	-6.1%	2.2%	574
3	293213	Furfuryl alcohol and tetrahydrofurfuryl alcohol	-5.0%	-6.5%	9.3%	2,208
4	381400	Organic composite solvents & thinners, nesoi	-3.9%	-6.1%	0.7%	1,393
5	760691	Aluminum nonalloy plates etc, ov .2mm thick, nesoi	-2.3%	-7.8%	1.0%	1,223
6	291413	4-methylpentan-2-one (methyl isobutyl ketone)	-1.7%	-5.6%	1.3%	627
7	291411	Acetone (propanone)	-1.5%	-5.6%	0.4%	1,284
8	410419	Bovine or equine leather, no hair NESOI	-1.4%	-9.6%	1.9%	25,821
9	381512	Supported catalysts w prec metal/prec mtl compnd	-1.2%	-6.1%	2.0%	13,257
10	290512	Propyl alcohol and isopropyl alcohol	-1.0%	-5.7%	0.8%	1,416

Source: IDC (tariffs), Customs & Excise and UNComTrade (trade).

Finally, we present HS4 product group detail where market shares declined in spite of tariff preferences. Interestingly, a number of organic chemicals product lines lost market share.

SECTION 12: TRADE DEEPENING AND WIDENING

Background

A related question that can be raised is whether trade between South Africa and the EU has intensified in existing product lines (deepening) and/or in new product lines (widening) following the inception of the FTA. 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. In order to explore this question in a quantitative way we follow suggestions by Kehoe & Ruhl (2002)[2] as further developed by Sandrey (2004)[3].

Trade widening is a feature of FTAs that will be difficult to capture by traditional computer general equilibrium (CGE) models. These CGE models operate at the margin, with output predicated upon existing production and trade relationships. Although these models can conceivably allow for the development of new trade, or trade expansion based upon pre-existing but limited trade, such analysis does extrapolate further than a marginal analysis, and model results must be treated with caution once they move outside of the realm of marginal analysis. At the same time one must exercise caution in that trade patterns change over time for a variety of reasons such as taste and preference changes and developments in technology. In short, change cannot be attributed to tariff liberalisation alone.

Another related but equally crucial issue associated with FTAs is whether they create new trade or divert trade away from the benchmark world least-cost suppliers. The former is welfare enhancing, while the latter is not. Recent research (the Australian Productivity Commission, 2003[4], for example) has cast doubts on many FTAs in this respect. The important question therefore becomes: "is more trade better trade?" If that trade is merely trade diversion away from least-cost suppliers, the answer may well be no. This aspect is not explored in the current paper, although given the levels of many of South Africa's tariffs and subsequent preference levels granted to the EU this is a valid question to ask. In many cases it evolves around the issue of whether or not the EU is at or close to the world's most efficient producer of these goods.

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[2] Their results found a strong relationship between the initial trade composition and its post-liberalisation growth. The set of goods that accounted for the lowest 10 percent of trade (segment) following liberalisation accounted for as much as 40 percent subsequently. This finding applied to all 26-country pairs associated with the EU Single Market and the North American Free Trade Agreement (NAFTA) countries. The average increase was from the initial 10 percent to 16 percent, with the extreme of 41.5 percent being exports from Canada to Mexico.

[3] "Has the New Zealand/Australian Closer Economic Partnership (CER) been Trade Widening or Deepening?", unpublished internal paper by Ron Sandrey, Ministry of Foreign Affairs and Trade, Wellington, New Zealand, 2004. The study found that export trade widened rather than deepened as a result of the CER trade agreement with Australia. Relative to trade with the rest of the world, CER trade has expanded in those products that were not heavily traded prior to the agreement as opposed to an expansion of "traditional" exports that were traded at the start of the agreement.

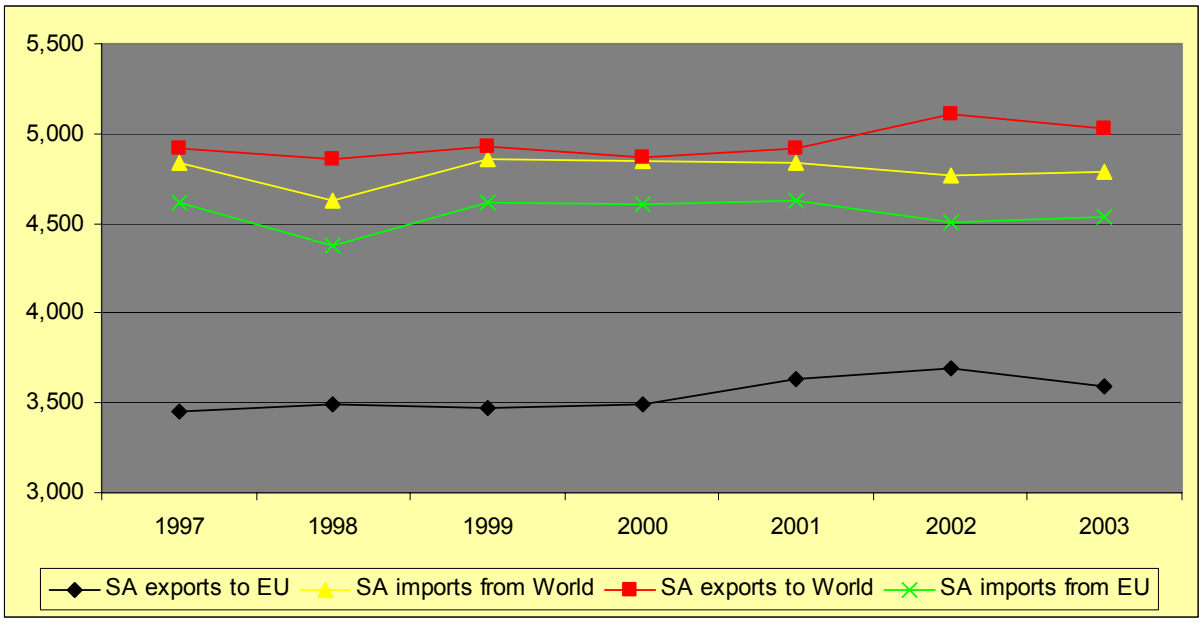
[4] Adams, R., Dee, P., Gali, J. and McGuire, G. 2003, "The Trade and Investment Effects of Preferential Trading Arrangements – Old and New Evidence", Productivity Commission Staff Working Paper, Canberra, May. Note that this analysis examines the econometric results of both the trade and investment flows post-liberalisation, but makes no judgements on the implications of these for economic welfare.

The analysis

While the original application of the methodology was applied to the SITC 4 digit level of US – EU bilateral trade, the subsequent unpublished application to New Zealand – Australia analysed bilateral trade using the SITC 5 digit level of product groups. The main problem to overcome is to ensure a consistency in the definitions and trends of the relevant level of aggregation over time. In our case, we apply the methodology to HS6 level product groups, which in turn are aggregated up from SA Customs and Excise HS8 product level trade data. For South African exports to the EU we confirm the results with the same computations based on UNComTrade HS6 data as reported by the EU in the HS1996 format.

Figure 8 below shows how many HS 6 commodity groups are involved in trade between South African and the EU between 1997 and 2003. We also report on the total number of commodities with non-zero trade for South Africa with the world as a whole. Firstly, it can be seen that South Africa is importing a much larger number of HS6 commodities from the EU than it exports to the EU (by comparing the green and the black lines) and it remains about 70% of the total number of commodities trade.

Figure 8: The number of exporting and importing HS 6 commodity groups, 1997-2003



Source: Customs and Excise and own calculations

Secondly, we observe an increase in the number of commodities exported to the EU since 2000 and a drop in the number of commodities imported from the EU. This, more or less, coincides with the start of the EU – SA FTA (almost 6% between 2000 and 2002). However, back loading of the phase down on the South African side implies that in terms of import the relationship with the agreement is not clear.

The first step in the procedure is to rank the HS6 product groups in terms of value of trade for a benchmark year, chosen to be the year 2000 as it marks the inception of the EU – SA FTA. The second step involves segmenting the product groups into deciles with the "top" segment

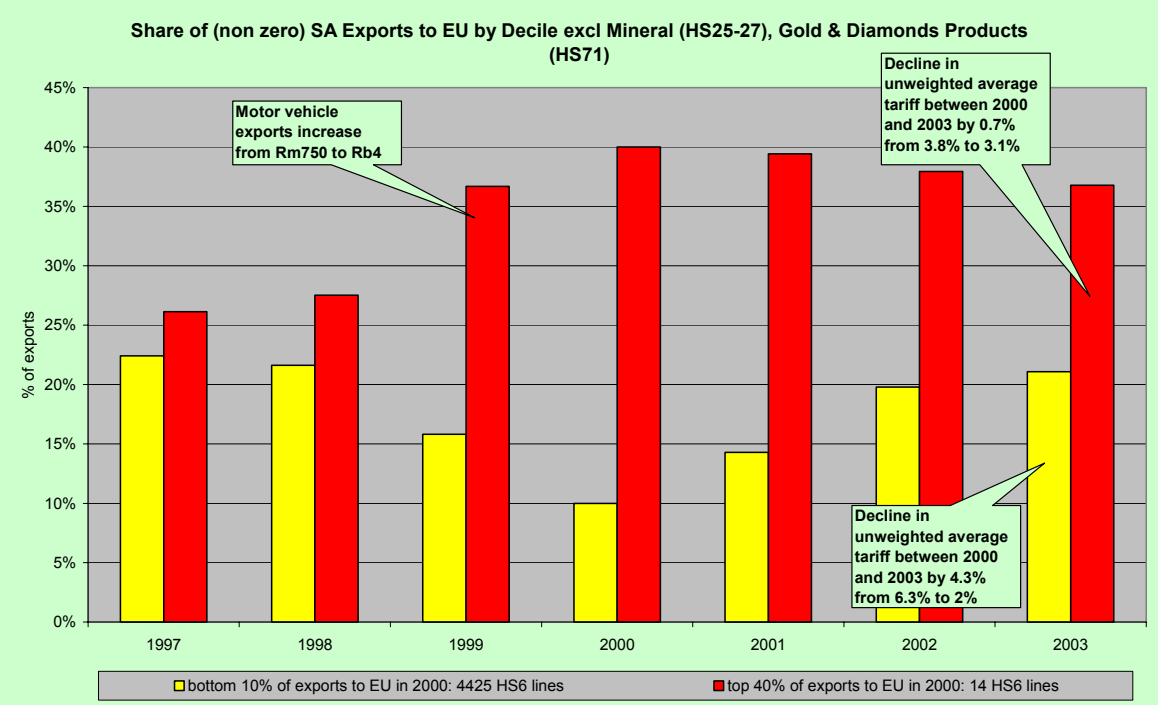
representing "deep trade" as it contains typically only a few product groups with high values of trade. The "bottom" segment represents "wide" trade in that it contains a large number of product groups with low individual values of trade. We then track the value of these products over time. If the total value of what represents the bottom 10% in 2000 has increased more than proportionally it can be argued that trade has "widened". Similarly, if the top 10%, or as is the case in our computations, the top 40% in 2000 has increased its value, it is said that trade has "deepened".

The results

Since we think that policy makers are not overly concerned with the export prospects of mineral products, we "clean" the data by omitting HS25-27 as well as HS71. The latter mainly involves gold and diamond products. The results are shown in the next set of figures, starting in Figure 9 with South African exports to the EU and Figure 4 with South African exports to the rest of the world.

It can be seen from Figure 3 that South African exports to the EU became narrower (deepened) during the second half of the 1990s, just before the inception of the FTA. The reference point of the bottom 10% of the total value of trade in 2000 (comprising 4,425 HS6 product lines) represented a much more substantial 22% of the exports in 1997. Conversely, the share of exports of the top 40% in 2000 represented only just over 25% in 1997. Interestingly these patterns reversed after 2000 with a marked trade widening taking place: the HS6 product lines that represented the bottom 10% of the value of trade in 2000 accounted for more than 20% in 2003. This coincided with the unweighted average tariff on imports from South Africa in these products in the EU phasing down by about two thirds from 6.5% to 2%. Again, conversely, the 14 HS6 product groups that represented the top 40% of South African exports to the EU in 2000 decreased proportionally to account for just over 30% of the exports to the EU in 2003. The unweighted tariff on these 14 HS6 product groups phased down from 5.8% to 4.2%.

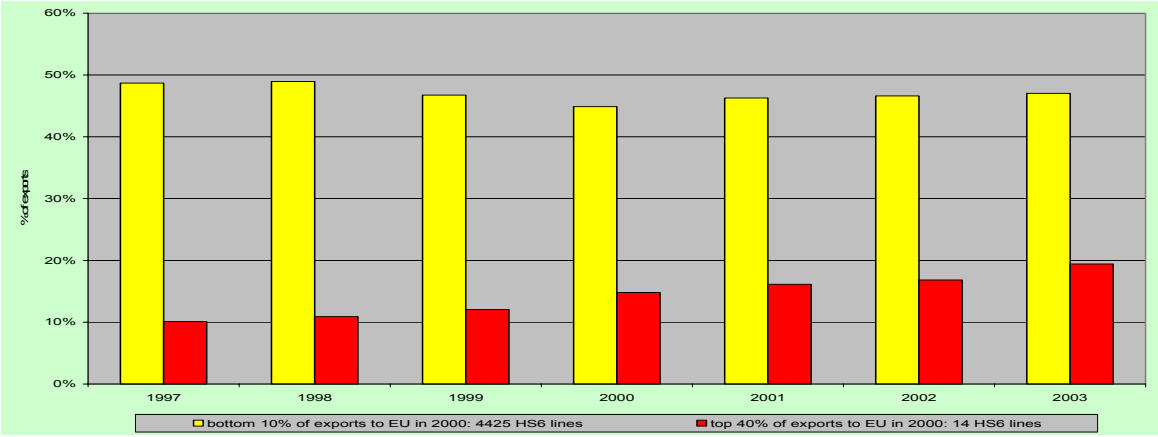
Figure 9: Share of (non-zero) SA exports to the EU by decile, excluding Mineral (HS25-27), Gold & Diamond Products (HS71)



Source: Customs & Excise and own calculations

This result raises some interesting analytical questions. In particular what is needed is to ascertain the main product lines that caused exports deepened between 1997 and 2000 before subsequently responding to tariff reductions and widening (as hypothesized) by 2003. Results not shown here indicate that from 1998 to 1999 exports of motor vehicles (HS870323) increased from R750 million to almost R4 billion. In doing so, its share in total exports to the EU increased significantly, from 1.7% to 7.3%, thereby reducing the shares of all other commodities, including the bottom 10%.

Figure 10: Share of (non-zero) SA exports to RoW by decile (of SA exports to EU, 2000) excluding Mineral (HS25-27), Gold & Diamond Products (HS71)



Source: Customs & Excise and own calculations

The trade widening and reverse deepening of South Africa with the EU needs to be seen in the context of trade patterns with the rest of the world (Row) over the same period. The HS6 product groups that represented the bottom 10% of South African exports to the EU in 2000 account for more than 40% of exports to the rest of the world, while the top 40% to the EU accounted for les than 15% of global exports. Thus, South African exports to the rest of the world are more diverse (less concentrated) than to exports to the EU, and overall patterns of exports to the rest of the world are more stable compared with exports to the EU. Figure 4 shows that exports to Row widened from the 1997 base year through to 2003 as these exports diversified.

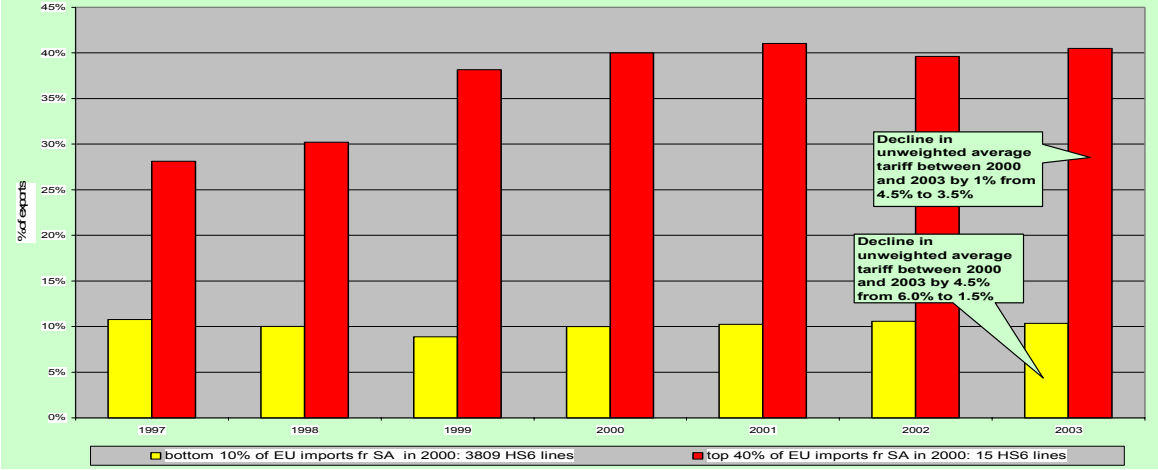
The mirror statistics: EU import data

Trade reconciliation between partners can often be a major problem. Exports from one partner, for a variety of reasons, will not agree with imports into the partner. Trade can easily be classified differently when the goods arrive at the country of destination: while internationally the HS classifications are supposed to be consistent to the HS 6 level, this does not always seem to be the case in practice. In addition, trade may be diverted to other destinations after leaving South Africa's shores, the timing of shipments may be a factor in the short run, and in particular valuations in a time of exchange rate volatility can influence the reported data.

We therefore employ the mirror statistics of the EU to double check the results presented in Figure 9, using the same exceptions as before (non zero exports, minerals). With EU imports from South Africa there appears to be hardly any evidence of the trade widening patterns reported above. The width of trade is remarkably stable (as, conversely, is the depth) after 2000, in spite of the tariff phase down during the 2000-2003 period[5]. During the late 1990s there is, however, a sharp rise in the depth of EU imports from South Africa (as shown in Figure 5 by the increase in the percentage of exports contained in the top 40% of trade in 2000 increasing over the previous three years from around 26% in 1997).

[5] Unweighted average tariffs are different due to different classifications of trade across HS6 product groups

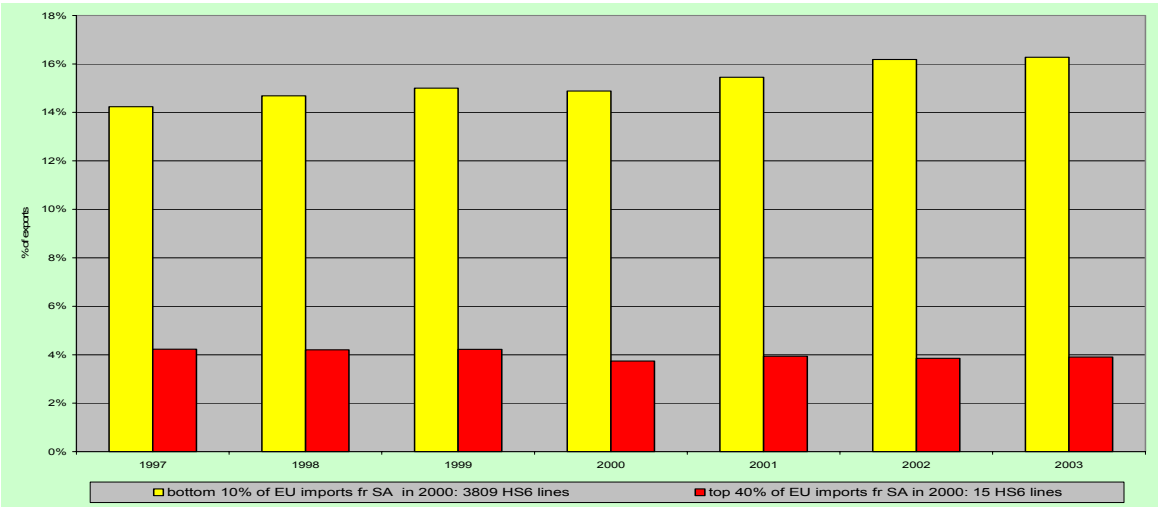
Figure 11: Share of (non-zero) EU imports from SA by decile, excluding Mineral (HS25-27), Gold & Diamond Products (HS71)



Source: UNComTrade and own calculations

In contrast to imports from South Africa EU, imports from the rest of the world (Figure 6) are considerably wider. Those products that accounted for a consistent bottom 10% of total imports from South Africa accounted for a greater 14-16% of the value of imports from the rest of the world.

Figure 12: Share of EU Imports from RoW by decile (of EU imports from SA, 2000), excluding Mineral (HS25-27), Gold & Diamond Products (HS71)



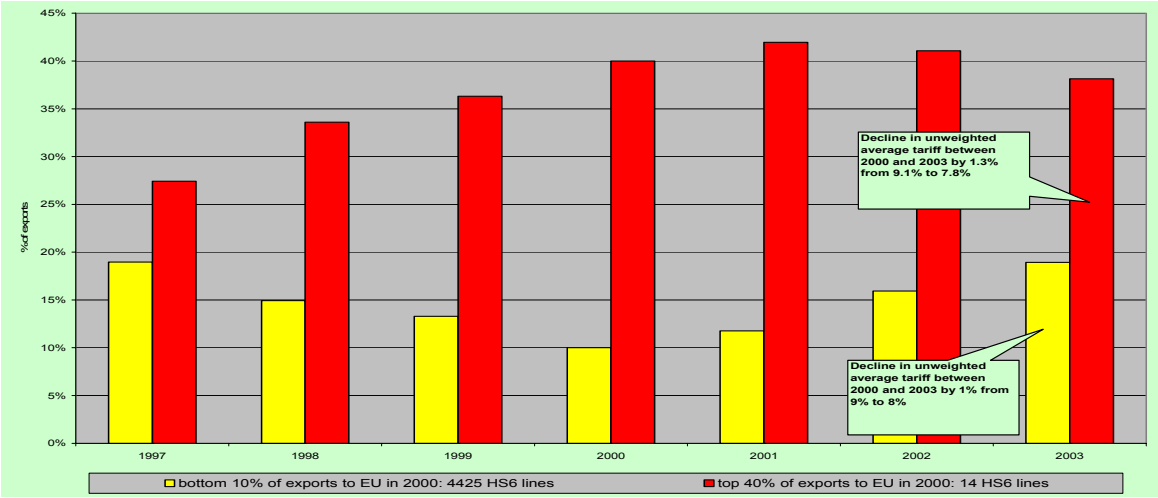
Source: UNComTrade and own calculations

On the other hand, EU imports of those commodities that represent the top 40% of imports from South Africa in 2000 (and which remained around that level for the period 2000-2003) only accounted for only around 4% of EU's imports from the rest of the world.

South African imports from the EU

Finally, we consider South Africa's imports from the EU. Based on import data from Customs & Excise we benchmark on the year 2000 as before. This time, we only exclude imports of oil. In Figure 13 we can see the same patterns emerging as for South Africa's exports to the EU, with a decline in the width during the late 1990s and an increase subsequently from 2000-2003. The widening of South African imports from the EU comes on the back of a small decline in tariffs from those products that accounted for the bottom 10% in 2000. This trend is confirmed (but not shown here) when using UNComTrade data[6] sourced from Customs & Excise.

Figure 13: Share of (non-zero) SA imports from EU by decile, excluding Oil

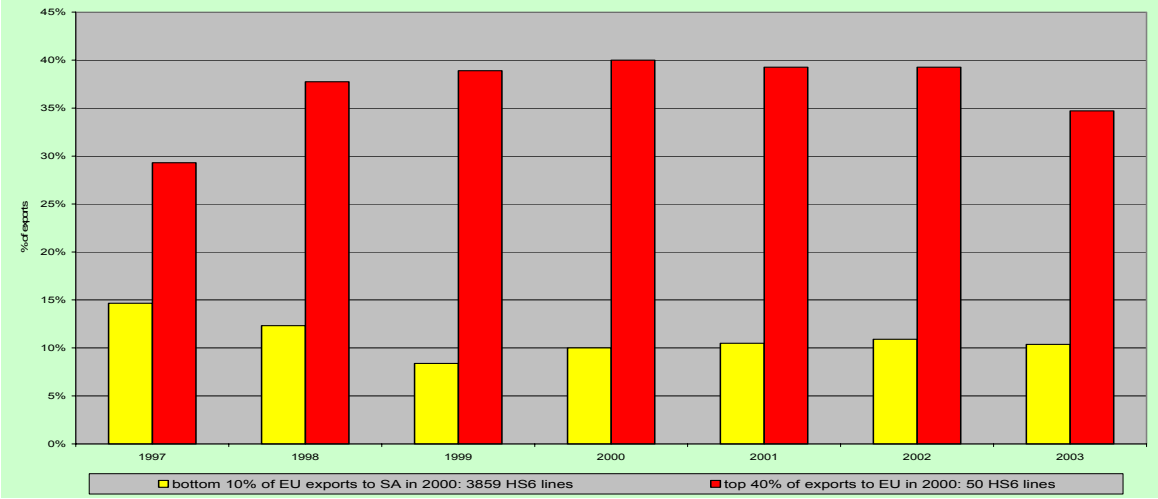


Source: Customs & Excise and own calculations

This suggests that the adjustments made by UNComTrade do not materially alter the picture. The picture does, however, change somewhat when we use EU recorded export data from UNComTrade. The picture that appears is shown in Figure 8, and it can be seen that far less trade widening is apparent compared to what is contained in the Customs & Excise data. The same conclusion was obtained with regard to South Africa's exports to the EU in a comparison of South African recorded and EU recorded data. The interim observation is that it would appear that the South African HS6 classification is more fluid than the EU classification, with the latter perhaps being more stable. However, the decline in the widening of EU exports to South Africa remains a feature, regardless of where the recording of the trade takes place.

[6] Which in any case is based on the same data sourced from Customs & Excise but processed at the UN Statistical Offices.

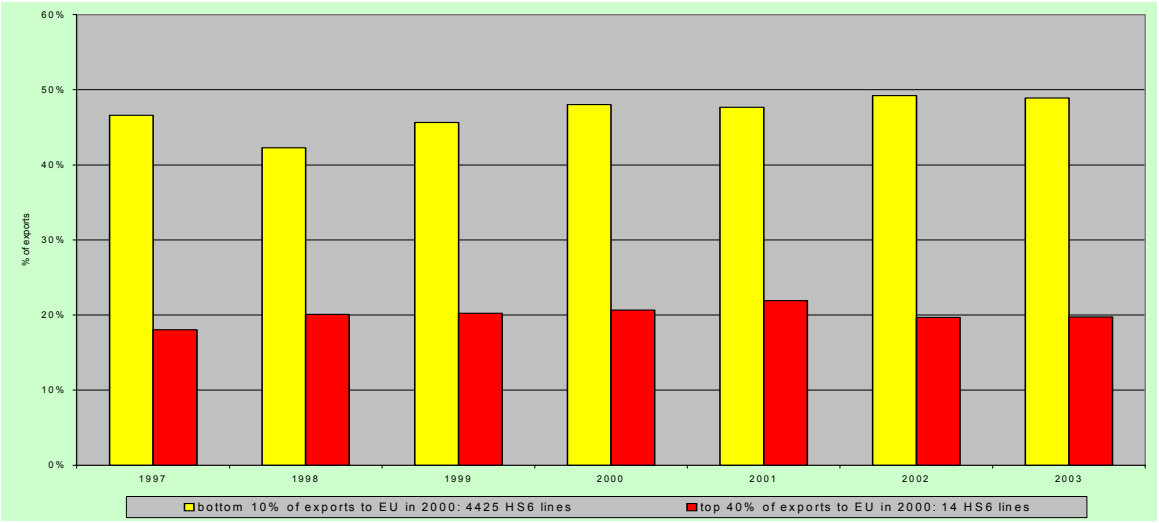
Figure 14: Share of (non-zero) EU exports to SA by decile



Source: UNComTrade

Going back to Figure 13, the depth of South African imports from the EU undergoes a steep rise during the late 1990s from just over 25% to more than 40% in 2001 after which it comes back slightly[7]. A similar albeit less dramatic rise is observed when using Tariffs on these commodities do not seem to influence matters much as their unweighted average only drops from 9% to 8%.

Figure 15: Share of (non-zero) SA imports from RoW by decile (of SA exports to EU, 2000), excluding Oil



Source: Customs & Excise and own calculations

The patterns on imports from the rest of the world appear to be very stable according to Figure 15, with considerably more width and less depth.

[7] Again, this is more or less consistent when employing UNComTrade data, except for the years 1999 and 2001.

The short summary of our exploration into widening and deepening of trade between South Africa and the EU is that the former seem to have occurred since 2000 both ways, perhaps slightly more so when trade is measured on the South Africa's side compared to the EU side. This period of trade widening is preceded by a period during the second half of the 1990s in which there is a clear trend of reverse widening (deepening), which is again most prominent when considering the South African trade data and weakly confirmed by the UNComTrade data. This means that new or relatively new trade lines have increasingly been added to the bilateral trade basket. These product lines are in general associated with a higher phase down than any other segment of bilateral trade

The depth of trade between South African and the EU on the other hand has declined since 2000 (i.e., trade has widened), except for EU imports from South Africa measured in the EU in which case it is more or less stable. This means that the mainstays of bilateral trade, those product lines that have featured most in terms of value of trade, have become less important since 2000. These product lines saw their tariffs in the EU phased down by less than the tariffs of the product lines involved in the trade widening. Moreover deep trade increased their depth in the three years prior to 2000 regardless of the database used after which the process was reversed.

South African trade with the rest of the world on the other hand is generally much wider in that the same products that represent the bottom 10% of trade with the EU, account for a much higher proportion of trade. At the same time trade with the rest of the world is much less deep in that the HS6 product lines that account for the top 40% of exports to the EU, only contribute a fraction of that proportion to trade with the rest of the world.

SECTION 13: CONCLUSIONS

TIPS' analysis of bilateral trade for potential FTAs has developed into a standardised format. We apply this format to bilateral trade between South Africa and the EU. The EU – SA FTA was established in 2000 and allows us to analyse, albeit tentatively, the impact of this agreement on trade between the two partners. The report therefore consists of two parts: A standard bilateral trade analysis is presented in Part A, while we report on aspects of the impact of the EU – SA FTA on trade between the two partners in Part B.

PART A: ANALYSIS OF BILATERAL TRADE

The aim of this part of the report was to evaluate bilateral trade trends between South Africa and the EU. We began with an aggregate view on imports, exports and total trade between South Africa and the EU for the period 1994 through 2003. There it was shown that South African imports from the EU have increased from R36 billion in 1994 to R109 billion in 2003. This was equivalent of 13% weighted annual average increase in nominal terms over the period. On the export side, South Africa 's exports to the EU increased over the same period from R20 billion in 1994 to R80 billion in 2003 which constitutes annual average growth rate of 17% over this period. Therefore, South Africa's trade balance with the EU has been in deficit throughout the period. Both imports and exports started showing some acceleration since the implementation on the FTA in 2000.

The analysis of total trade, sum of imports and exports also showed an improved trade over the period. South Africa's total trade increased at annual average of 14% while the growth in trade between South Africa and the EU increased at 15%. The share of EU in South African total trade has averaged around the 35% from 1994 to 2003. Most of this share was high in the last three years, after the implementation of the FTA. The average share for the three years is 37%, once again showing the probable impact of such an agreement.

The slightly disaggregated level of 23 commodity chapters showed on nominal growth in imports and exports as well as the change in the patterns of trade. The imports growth rates varied from -2.7% to 43%. *Raw hides, and skins, leathe*r were poor performers while *vehicles, aircraft, ships* were doing so well. In terms of export growth rates, products such as *animal or vegetable fats and oils* and *machinery, mechanical and electric* came up winners. In the case of total trade, there no major movements in shares except the 4% jump by the vehicles from 7% to 11%. The lowest total trade growth rates were recorded by *other unclassified goods*, with a decline of -61.5. *Special classification group* had the highest growth rates in total trade of 26.4% followed by *mineral products* with 22%.

The next level of disaggregation that we considered was HS4 commodity groups where we ranked a more detailed commodity groups according to their values of South African imports from and exports to the EU. The high value imports from the EU were found to be in the transport equipments and electronic products such as *H9801 Original equipment components, H8703 Motor vehicles for transport of persons (except buses), H8802 Aircraft, spacecraft, satellites and H8525 Radio* and *TV transmitters, television cameras. H9801 Original equipment components, H8703 Motor vehicles for transport of persons.*. At the same time, the growth rates of the top 50 products were fairly reasonable for most of the commodities, with, imports of *H8802 Aircraft, spacecraft, satellites* being one of the fastest growing commodities in the top 50 imports recording growth rates of over 100% per annum in the five year period.

On the 50 largest export commodity groups, the concentration is more on primary commodity groups like minerals, basic metals and chemicals. The fastest growing commodity groups are *H2619 Waste, scale, dross, slag of iron or steel industry, H7606 Aluminium plates, sheets and strip, thickness > 0.2 mm, H8407 spark-ignition internal combustion engines* and *H8704 motor vehicles for the transport of goods.* The high growth rates of both imports and exports of motor cars and motor-related products may be a reflection of the impact of MIDP

In section 3 we examined intra-industry trade, which is trade of similar products between the trading partners. The high intra industry value implies that the two partners trade more in similar products than in different and complementary products. Some of those commodities that showed high IIT include, *H7109: Base metals, silver, clad with gold, semi-manufactured, H7504: Nickel powders and flakes, H5904: Linoleum, floor covering with coating on textile back* and *H1511: Palm oil and its fractions, not chemically modified.* However, in general South African commodities showed higher levels of IIT with the rest of the world than with EU, thus implying that more trade between SA and EU is taking place with varying commodities than similar.

The section on trade intensities gave an evaluation of bilateral trade in relation to the respective country's export to the rest of the world. Countries who import at proportionally high levels from the same country to which they send most of their exports will have a high TII. Conversely, a country with diverse markets that is not reliant on any one country for their imports will have low TII. Both import and export intensities of South Africa- EU are relatively low, most below a benchmark level of 1.0, which determines whether imports or exports are biased towards the trading partner of rest of the world. In this case it more towards the rest of the world than it is to the EU.

The section on tariff barriers examined the tariffs that are applied by both partners as well as the trade taking place within the set tariffs. In 2003 South African tariffs at the HS 4 level had about 700 zero rated tariff lines. Imports worth about R40 billion from the EU and R120 billion from the rest of the world were realised. As for the maximum tariff, there was just one line worth about R17 million for EU imports and R38 million in total. The value of zero rated imports from the EU and world represented about 40% of South Africa's total imports. In contrast, imports from the world and EU that face tariffs of 40% and more represent less than one percent. This shows that as trade barriers are reduced or removed, then trade will increase.

This is emphasised at the HS 2 level, where we showed that the highest unweighted average HS2 tariffs represent a very small proportion of EU exports to SA, below one percent of total EU exports. However, as for the SA imports, they represented of South Africa's total imports. Most of the South African imports from the EU represent less than a percent of total export by the latter. The only exception is with *HS 94 Furniture; bedding, mattress, matt* that contributed more than 2% of total EU exports in this category.

On the EU tariff side, it is clear that there has been a move towards substantial liberalisation from the base year (1996) to 2003. However, EU has moved very slowly in the past eight years to reduce the number of tariff lines for the highest tariff rates. Especially at the top for tariff rates at 40% and higher, only two lines were dropped for the entire period. However, tariff lines below 15% have been dropped throughout considerably, while the number of zero-rated commodity lines has increased six-folds, from 670 in 2000 to 4253 in 2003. Basically what happened is that most of low tariff lines were dropped to zero, while majority of the higher changed marginally or were left unchanged.

The highest tariffs are mostly in the food and beverages sectors. The South African HS 2 commodity groups that face the highest tariffs are *Meat and edible meat offal, Preparations of cereal, flour,*

starch/milk; and Prep of vegetable, fruit, nuts or o. Nevertheless, some *Preparations of cereal, flour, starch/milk*; and *live animals* sectors export significant shares of their world exports to the EU, despite high tariffs that are imposed on them. These two sectors had export shares to EU of about 50% each in 2003

In section 6 we introduced a methodology to identify products with a potential for trade expansion based on trade flow analysis. This approach, called indicative trade potential, reveals a group of products which are exported by one country towards the other and rest of the world, and for which there is a significant import demand in another country. We assign the potential export codes 4 and 5 to these commodities.

For South Africa's exports to the EU of these products, only a handful exceeded US$1 million in 2003 trade. Furthermore, about half of the commodities in the list were not exported to the EU in 2003. In the absence of supply constraints, it become clear that there exist other constraints that are restricting these commodities from realising the potential in the EU market these constraints may range from export competitiveness, consumer preferences, transport costs, trade barriers (tariff and non-tariff), business cycles, and seasonal factors, as well as political and economic events.

We were able to identify products that were constrained by tariff barriers. From the 49 identified commodities, 15 of them had a tariff of more than 10% imposed on them by the EU in 2003 The highest was 61.5% imposed on *HS 2207: Undenatured ethyl alcohol of an alcoholic strength*, which unsurprising recorded no exports to the EU in the same year. Among the agricultural products, *HS 0808: Apples, pears and quinces, fresh*. were faced with highest tariff of about 40%. Despite that, there were still exports of US$ 2 billion in 2003. The implication here is that a further removal of the constraining factor will result in more commodities reaching for high export performances and thus realising the potential.

We also looked at the concept of revealed comparative advantaged (RCA), which seeks to address concerns around the degree to which the share of imports of a country in a particular product in the import basket of a partner is larger or smaller than the share of the partner's total imports of the same product. The analysis was further extended to calculate revealed trade barriers.

South Africa's RCA is with *natural resource-based* commodities or their immediate downstream products. Agricultural commodities add to the list of primary products that show relatively high comparative advantage. There are also some *manufacturing* commodity groups present, but all of these industries would fall under *basic processing.* The possible presence of NTBs could be prohibiting some trade in the EU market.

The analyses of EU's comparative advantage show a number of commodity groups with a reasonable advantage the average RCA for EU exports to SA is less than that of SA products. A wide variety of commodity groups appear in the table, ranging from *agricultural* products to *manufactured* goods. Even though the EU has a comparative advantage in these goods, most of the exports to SA are fairly small. This suggests either barriers to trade or that these goods are not demanded by SA.

In the last section we attempted to estimate market access gains for all commodities in the EU and South Africa to get some idea on producer gains and losses that could result from an FTA with the EU. Based on 2003 tariffs, it is estimated that market access gains of about R400 million can be gained by EU exporters upon full tariff liberalisation of their exports to South Africa while South African exporters can expect gains of about R2.3 billion. It is worth noting in this regard that due to front loading the EU tariffs on South African imports will not phase much further and not much of the market access gains reported here will materialise in the context of the EU – SA FTA, as most of

this has already taken place. Meanwhile back loading on the South African side will result in at least a proportion of the EU's market access gains being realised in the next couple of years.

On the South African import side the HS4 commodity lines that stand out immediately are from the broad groups of *vehicles*. Here, both imports and tariffs are relatively high, and consequently in-roads in the domestic market are expected to be significant. This is especially the case in the *HS 0201: Meat of bovine animals, fresh or chilled* and *HS 0202: Meat of bovine animals, frozen* with tariffs were recorded to be above 100% In the case of *motor cars and other motor vehicles, principally de,* (HS8703), the tariff is at 7.09% on average, much lower than those in the *Meat of bovine animals* HS4 lines by 20 times, where the tariff is over 100%.

In terms of South African exports, products such as machinery, furniture, electrical machinery, motor vehicles, inorganic chemicals and plastics will realise these gains more than others if further liberalisation of EU tariffs on imports from South African are achieved.

It should be noted that the notion of market access gains is very simplistic and can only be considered as a first-cut impact analysis. This is mainly because there are many assumptions imposed on it, particularly as we ignore supply responses in the EU as well as the potential for imperfect substitution by local consumers, whether for final or intermediate use. Moreover, the possible welfare losses due to trade diversion, where potentially less efficient suppliers from the EU obtain an edge over more efficient suppliers from elsewhere, are ignored.

PART B: MEASURING THE IMPACT OF THE EU – SA FTA ON TRADE

With the latest trade data available for the year 2003 we can now start making a preliminary quantitative assessment of the impact of the FTA on South Africa's trade with the EU. In particular, the question is "to what degree has the phase down of EU tariffs had a positive impact on SA exports to the EU". The second part of the report will employ three distinct but related methodologies that are available to trade economists to examine this question.

The first methodology is to plot the relationship between the tariff reduction in the EU and imports from South Africa to enable a visual examination. The working hypothesis is that there will be a relationship between the reduced tariffs and an increase in the share of exports from South Africa that are destined for he EU. The second approach is detailed examination of the data to look for major patterns by product group. The final methodology applies the relatively new concept of trade deepening versus trade widening; has trade widened into new areas or deepened in that it has increased in the areas that were being traded at the start of the period.

By way of background, we start with a reporting on some macro indicators, which shows that the EU's unweighted average tariff on imports from South Africa has declined from 6% to 2% while the weighted average remained more or less constant. The large decline in the unweighted average tariff relative to the weighted tariff may suggest that the EU reduced tariffs in areas that are of limited relevance to SA. This is confirmed by the high market access gains, mentioned above, that South African exporters could realise if further tariff liberalisation is considered by the EU.

We report very weak evidence that supports the claim that changes in the border price of South African exports in the EU as a result of the tariff phase down has actually increased the share of these exports in the total export basket. In particular we noted that broad categories such as textiles and clothing and machinery moved in the "right way" but a number of other categories saw their share decline in spite of more favourable border prices, including vegetable products, processed food and beverages and paper and wood products. For a number of important categories

no significant change in the share of total exports destined for the EU could be observed over the period of study, in spite of significant changes in the border prices, notably for chemicals and plastic products and to a lesser degree transport equipment. Trade in the latter may well be driven by global supply chain considerations and less to by changes in tariffs. More detailed analysis confirms the aggregated result that the tariff phase down is not necessarily always associated with an increase in the importance of the EU as market (the "right way"). In particular, in a number of clothing groups and some chemicals and electrical machinery groups exporters have shifted their exports away from the EU towards the rest of the world in spite of the tariff preferences offered by the EU. Other isolated occurrences at this level of detail are metal and food products.

Using EU import data we shift our attention to the relationship between the EU phase down on imports from South Africa and the share that these imports have in the EU market. The first observation to make is that the shares of South African exports in the various markets for HS product groups is very small, often not more than 0.1%. Combined with our earlier results we concluded that there is very weak evidence that South African exporters are shifting to the EU markets but this has not resulted in significant increases in market shares in the EU following the tariff preferences offered. At the HS2 level, machinery and transport equipment exports by South Africa are the only product groups of significance that have increased their market share in the EU. Food product, chemicals, wood product and base metals all lost market share in the EU, in spite of tariff preferences, while textiles and clothing and plastic products just managed to maintain their position.

The question can be raised whether trade between South Africa and the EU has intensified in existing product lines (deepening) and/or in new product lines (widening). We show that South African exports to the EU became more narrow during the second half of the 1990s, just before the inception of the FTA. This means the largest product groups represented a rising share of the export basket to the EU. Interestingly these patterns reversed after 2000, with a marked trade widening taking place while it became more shallow. The HS6 product lines that represented bottom 10% of the value of trade in 2000 doubled their share in 2003. This coincided with the unweighted average tariff on imports from South Africa in these products in the EU phasing down by about two thirds from 6.5% to 2%. The top 40% of South African exports to the EU is carried by not more than 14 HS6 product groups in 2000 and they accounted for just over 30% in 2003. The unweighted tariff on these 14 HS6 product groups phased down at a considerably lower pace, from 5.8% to 4.2%.

The trade widening and reverse deepening of South Africa with the EU can be seen in the context of trade patterns with the rest of the world over the same period. The same HS6 product groups that represented the bottom 10% of South African exports to the EU in 2000 account for more than 40% of exports to the rest of the world while the top 40% accounted for less than 15%. This includes a large number of product groups with zero exports to the EU and suggest that South African exports to the rest of the world is much wider and much less deep compared to exports to the EU. Trade to the rest of the world widened a little but deepened considerably after 2000.

Next we employ the mirror statistics of the EU to double check our results. There appears to be hardly any evidence of the trade widening patterns reported above. The width of trade is remarkably stable as is the depth after 2000, in spite of the tariff phase down during the 2000-2003 period. During the late 1990s there is, however, a sharp rise in the depth of EU imports from South Africa. This can be related to the significant increase of South African motor vehicle exports to the EU which rose from R750 million to R4 billion in the late 1990s.

To summarise this part of the analysis, it would appear that after 3 years there is very little evidence of the EU – SA FTA having a positive impact on trade directly. There may be isolated cases in

particular in machinery and textiles and clothing where there has been a shift by South African exporters to the EU away from the rest of the world but such shifts have also taken place the other way around. We do notice a trend toward a wider basket of products being exported to the EU since the inception of the FTA. New, smaller product groups also turn out to benefit from more tariff preference than the top product groups in terms of value.

APPENDIX A: TRADE INTENSITY INDEX METHODOLOGY

The trade intensity index is an index of intensity of the US' export trade with SA relative to its exports to the rest of the world and can be defined as:

Equation A 1

$$m_{ij} = \left[\frac{M_{ij}}{M_i}\right] \Big/ \left[\frac{X_j}{(X_w - X_i)}\right]$$

where

M_{ij} = SA imports from the US

M_i = total imports of SA

X_w = total world exports (trade)

X_i, X_j = total SA export and total export of US respectively

The index of intensity of the US' import trade with SA is defined as:

Equation A 2

$$x_{ij} = \left[\frac{X_{ij}}{X_i}\right] \Big/ \left[\frac{M_j}{(X_w - M_j)}\right]$$

where

X_{ij} = SA exports to the US

X_w = total world imports (trade)

M_j = total US imports

APPENDIX B: REVEALED TRADE BARRIER METHODOLOGY

The starting point of revealed trade barriers is the theory of revealed comparative advantage. This theory suggests that a country's exports show a revealed comparative advantage in a particular commodity if its share in the country's export basket is larger than the share of the commodity's world trade in total world trade. In other words, is the commodity more important to SA's exports than to world trade. Formally:

Equation B 1

$$RCA_{ik} = \frac{X_{ik}}{\sum_{k} X_{ik}} \Bigg/ \frac{\sum_{i} X_{ik}}{\sum_{i}\sum_{k} X_{ik}}$$

In which X_{ik} is equal to exports of country *i* in product *k*. This construction can be extended to evaluate revealed trade barriers (RTBs). With regard to US' imports, the question then is to what degree a commodity's share of imports in the import basket from SA is larger or smaller than the share of total imports of that commodity in the US' total import basket (summed over all products). In other words, are the imports of a particular commodity from SA relatively more or less important compared to the US' total imports from all sources of that commodity. Formally:

Equation B 2

$$RTB_{ik}^{j} = \frac{M_{ik}^{j}}{\sum_{k} M_{ik}^{j}} \Bigg/ \frac{\sum_{i} M_{ik}^{j}}{\sum_{i}\sum_{k} M_{ik}^{j}}$$

In which M_{ik}^{j} is country *j*'s imports from country *i* of product *k*. If the ratio is less than 1 we may conclude that SA is exporting a commodity relatively more to the rest of the world than it is to the US, possibly due to trade barriers in the US.

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