

SADC CUSTOMS UNION STUDY

**ASSESSMENT OF
COMPATIBILITY
OF NATIONAL TRADE POLICIES**

DRAFT FINAL REPORT

VOLUME I: MAIN REPORT
VOLUME II: EXECUTIVE SUMMARY
VOLUME III: ANNEXES

**SUBMITTED TO
SADC SECRETARIAT**

**BY
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ANNEX 1: TERMS OF REFERENCE

To provide:

- 1: Detailed Analysis of Member States Trade Policies
- 2: Comparative Analysis of SADC economies and Assessment of envisaged FTA
- 3: Profile of trade patterns in the region and assessment of impact of SADC FTA on intra-trade flows

Annex 2: Table : Number of Tariff Bindings to be renegotiated at World Trade Organization (WTO)

	Common External Tariff		
	0,5,15,30	0,10,25	0,10,20
Mozambique	0	0	0
Rwanda	160	125	72
SACU	1,897	1,314	1,070
Tanzania	0	0	0
Zambia	0	0	0
Zimbabwe	221	141	121
Mauritius	27	27	27
Malawi	1	0	0

Source: IMF

Annex 3: Table - Membership in the African Economic Community and Regional Economic Communities

Country	AEC	CEPGL	COMESA	EAC	ECCAS	IOC	MRU	SACU	SADC
Angola	?				?				?
Botswana	?							?	?
Congo, Dem. Rep	?	?	?		?				?
Lesotho	?							?	?
Malawi	?		?						?
Mauritius	?		?			?			?
Mozambique	?								?
Namibia	?							?	?
Madagascar	?		?			?			?
South Africa	?							?	?
Swaziland	?		?					?	?
Tanzania	?			?					?
Zambia	?		?						?
Zimbabwe	?		?						?

Source: Economic Commission of Africa, official various

Notes:

1. CEPGL = Economic Community of Great Lakes Countries
2. ECACAS = Economic Union of Central Africa States
3. MRU = Mano River Union

Annex 4 : SADC Questionnaire: INFORMATION COLLECTED AT COUNTRY LEVEL DURING MISSIONS

TREND FOR PAST 10 (TEN) YEARS: 1997-2007
EMPHASIZE LATEST DATA 2007, 2006

A: SOCIO-ECONOMIC: status in 2007 (fall back: 2006)

1. General information: physical area, population, distance to neighbouring country's capital, independence date, political system
2. Poverty situation: basic needs poverty, food poverty
3. Unemployment rate

B: ECONOMIC: TREND 1997-2007 (fall back: 2006)

1. Main features of the economy
2. Recent economic developments
3. Trade performance
4. Investment performance
5. Outlook
6. GDP, current prices and real/constant price
7. Per capita GDP: current price, constant price, US Dollars
8. Sectoral composition of GDP
9. Growth rates of sectors
10. Investment incentives to lead and priority sectors (2007)
11. Investment (US\$)
12. Gross Fixed Capital Formation

C: FISCAL AND MONETARY:TREND 1997-2007

1. Total revenue by sources
2. Total expenditure by detailed classification (recurrent and development)
3. Total public debt by source (external and domestic)
4. External debt composition (bilateral, multilateral, private)
5. Money supply (M2)
6. Inflation rate
7. Savings rate
8. Lending rate

D: INTERNATIONAL TRADE:TREND 1996-2006

1. Origin of imports - volume and value (US\$ and %)
2. Destination of exports excluding re-exports - volume and value (US\$ and %)
3. Destination of exports including re-exports - volume and value (US\$ and %)
4. Structure of imports - volume and value (US\$ and %)
5. Structure of exports (excluding re-exports) – volume and value (US\$ and %)
6. Structure of exports including re-exports - volume and value (US\$ and %)
7. Balance of payments (US\$)
8. Real Effective Exchange Rate

E: TARIFFS: 1997 -2007 (fall back 2006)

1. Tariff by ISIC Classification (Revision 2) 2007 (fall back 2006)
2. Evolution of tariff structure (rates, bands, top rates)
3. Tariff escalation by ISIC 2-digit industry, 2007
4. Structure of MFN tariffs (2007, fall back 2006)
5. Breakdown of applied MFN tariffs, 2007

6. Products for which applied MFN rates may be higher than the final bound rate
7. Import tariffs
8. "Sensitive" products subject to high tariffs (2007)

F: LEGAL ASPECTS OF TRADE

1. GATS specific commitments (by sector, limitations on market access, limitations on national treatment, additional commitments)
2. Trade Policies by sector (agriculture, mining, energy, manufacturing, services – banking, telecommunications, postal services, transport, insurance and indicators)
3. Notifications to the WTO as of 2007
4. Trade-related laws and legislations, as of 2007
5. Investments and double taxation treaties as of 2007

G: TRADE POLICIES AND PRACTICES BY MEASURE

1. Customs procedures
2. Tariffs and other duties and charges
3. Contingency measures
4. Import prohibitions, restrictions and licensing
5. Standards and other technical requirements
6. Export prohibitions, restrictions and licensing
7. Export assistance
8. Competition policy and regulatory issues

E: ISSUES OF AWARENESS AND LEGITIMACY

1. Is the general public aware of the SADC integration agenda
2. What have been the processes at the national level
3. Has the Parliament debated and given a go ahead with the SADC agenda?
4. What are the general views of the private sector and CSOs?
5. What are the general views of key stakeholders in agriculture?
6. What are the general views of key stakeholders on rules of origin?

F: DOCUMENTS TO COLLECT [LATEST]

1. 2006/07 Economic Survey (state of the economy)
2. 2006 Annual Report of Central Bank
3. 2007 1st /2nd quarter reports of Central Bank
4. Investment Policy
5. Trade policy
6. Industrial policy
7. Agricultural policy
8. Poverty Reduction Strategy
9. Reports of country National Customs Union Task Force
10. MDG 2005/06 country Progress Report
11. WTO Trade Review of the particular country (2006/07)

II: INFORMATION ON REGIONAL BLOCKS FROM SADQ HQ/STATISTICAL UNIT

1. Intra-SADC trade flows by commodities and sectors
2. Intra-EAC trade flows by commodities and sectors
3. Intra-COMESA trade flows by commodities and sectors
4. CMA trade flows
5. Intra-SADC CBI trade flows
6. Intra COMESA trade flows

7. Trade between SADC and other regional integrations in Africa (by commodities, sectors; volume and value)

Annex 5: Results: Revealed Comparative Advantage (RCA) for SADC countries: top 10 commodities

Botswana - World Product	Index value
Nat etc pearls, prec etc stones, pr met etc; coin	37.9
Copper and articles thereof	18.8
Meat and edible meat offal	2.8
Sugars and sugar confectionary	1.3
Explosives; pyrotechnics; matches; pyro alloys etc	0.9
Apparel articles and accessories, knit or crochet	0.7
Prep cereal, flour, starch or milk; bakers wares	0.7
Carpets and other textile floor coverings	0.5
Textile art NESOI; needlecraft sets; worn text art	0.5
Milling products; malt; starch; inulin; wht gluten	0.4

Botswana -SADC Product	Index value
Copper and articles thereof	41
Sugars and sugar confectionary	13.5
Explosives; pyrotechnics; matches; pyro alloys etc	8.8
Prep cereal, flour, starch or milk; bakers wares	6.7
Carpets and other textile floor coverings	5.1
Textile art nesoi; needlecraft sets; worn text art	4.7
Vehicles, except railway or tramway, and parts etc.	3.9
Articles of iron or steel	3.2
Apparel articles and accessories, knit or crochet	3.2
Milling products; malt; starch; inulin; wht gluten	2.4

Lesotho - World Product	Index value
Animal or vegetable fats, oils etc. & waxes	3.4
Apparel articles and accessories, knit or crochet	1.1
Apparel articles and accessories, not knit etc.	42.6
Beverages, spirits and vinegar	9.2
Ceramic products	1.3
Cereals	1.3
Footwear, gaiters etc. and parts thereof	3.7
Milling products; malt; starch; inulin; wht gluten	9.7
Umbrellas, walking-sticks, riding-crops etc, parts	10.5
Wool & animal hair, including yarn & woven fabric	1.1

Lesotho-SADC Product	Index value
Umbrellas, walking-sticks, riding-crops etc, parts	54.3
Milling products; malt; starch; inulin; wht gluten	49.9
Beverages, spirits and vinegar	47.4
Footwear, gaiters etc. and parts thereof	18.9
Animal or vegetable fats, oils etc. & waxes	17.6
Cereals	6.6
Ceramic products	6.5
Apparel articles and accessories, knit or crochet	5.6
Wool & animal hair, including yarn & woven fabric	5.5
Cotton, including yarn and woven fabric thereof	5.4

Malawi- World Product	Index value
Tobacco and manufactured tobacco substitutes	205.65
Sugars and sugar confectionary	57.07
Coffee, tea, mate & spices	53.59
Apparel articles and accessories, not knit etc.	2.05
Edible fruit & nuts; citrus fruit or melon peel	1.81
Edible vegetables & certain roots & tubers	1.73
Oil seeds etc.; misc grain, seed, fruit, plant etc	1.23
Live trees, plants, bulbs etc.; cut flowers etc.	1.22
Apparel articles and accessories, knit or crochet	1.2
Cotton, including yarn and woven fabric thereof	1.11

Malawi-SADC Product	Index value
Coffee, tea, mate & spices	72.3
Tobacco and manufactured tobacco substitutes	36.8
Sugars and sugar confectionary	26.4
Apparel articles and accessories, not knit etc.	14.7
Cotton, including yarn and woven fabric thereof	13.7
Oil seeds etc.; misc grain, seed, fruit, plant etc	10.3
Apparel articles and accessories, knit or crochet	6.8
Rubber and articles thereof	3.4
Edible fruit & nuts; citrus fruit or melon peel	2.4
Edible vegetables & certain roots & tubers	2.1

Mauritius - World Product	Index value
Sugars and sugar confectionary	87.71
Apparel articles and accessories, knit or crochet	20.25
Edible preparations of meat, fish, crustaceans etc	16.07
Apparel articles and accessories, not knit etc.	9.03
Live animals	6.55
Aircraft, spacecraft, and parts thereof	4.23
Nat etc pearls, prec etc stones, pr met etc; coin	3.28
Clocks and watches and parts thereof	2.61
Milling products; malt; starch; inulin; wht gluten	1.92
Cotton, including yarn and woven fabric thereof	1.79

Mauritius-SADC Product	Index Value
Oil seeds etc.; misc grain, seed, fruit, plant etc	45.17
Apparel articles and accessories, knit or crochet	14.54
Edible fruit & nuts; citrus fruit or melon peel	14.3
Fertilizers	14.02
Textile art NESOI; needlecraft sets; worn text art	10.35
Soap etc; waxes, polish etc; candles; dental preps	10.26
Wool & animal hair, including yarn & woven fabric	9.66
Veg text fib NESOI; veg fib & paper yns & wov fab	7.74
Cotton, including yarn and woven fabric thereof	7.26
Tobacco and manufactured tobacco substitutes	5.88

Mozambique -World Product	Index value
Aluminium and articles thereof	50.07
Fish & crustacean, mollusc & other	17.57
Residues & waste from the food industry	6
Sugars and sugar confectionery	5.09
Cotton	4.76
Tobacco and manufactured tobacco	4.07
Edible fruit and nuts; peel of citrus	3.18
Animal/veg fats & oils & their cleavage products	2.83
Knitted or crocheted fabrics	2.74
Other vegetable textile fibres	2.32

Mozambique-SADC Product	Index value
Ores, slag and ash	2.9
Fish & crustacean, mollusc & other	2.9
Live animals	2.9
Vegetable plaiting materials	2.9
Tobacco and manufactured tobacco	2.9
Lead and articles thereof	2.9
Live tree and other plant; bulb, root	2.9
Pulp of wood/of other fibrous cellulose	2.8
Other vegetable textile fibres	2.8
Iron and steel	2.7

Namibia- World Product	Index value
Fish, crustaceans & aquatic invertebrates	54.5
Zinc and articles thereof	35.9
Inorg chem; prec & rare-earth met & radioact compd	13.8
Meat and edible meat offal	12.1
Furskins and artificial fur; manufactures thereof	8.7

Nat etc pearls, prec etc stones, pr met etc; coin	8.5
Copper and articles thereof	7.2
Salt; sulphur; earth & stone; lime & cement plaster	5.6
Raw hides and skins (no furskins) and leather	3.3
Edible fruit & nuts; citrus fruit or melon peel	2.5

Namibia- SADC Product	Index value
Raw hides and skins (no furskins) and leather	69.32
Beverages, spirits and vinegar	49.5
Railway or tramway stock etc; traffic signal equip	47.37
Fish, crustaceans & aquatic invertebrates	21.77
Meat and edible meat offal	10.3
Edible preparations of meat, fish, crustaceans etc	5.68
Salt; sulphur; earth & stone; lime & cement plaster	3.66

South Africa - World Product	Index value
Nat etc pearls, prec etc stones, pr met etc; coin	13.6
Ores, slag and ash	8.1
Edible fruit & nuts; citrus fruit or melon peel	8
Wool & animal hair, including yarn & woven fabric	4.4
Iron and steel	3.8
Beverages, spirits and vinegar	3.4
Salt; sulphur; earth & stone; lime & cement plaster	2.9
Prep vegetables, fruit, nuts or other plant parts	2.3

Manmade staple fibres, incl yarns & woven fabrics	3.49
Manmade filaments, including yarns & woven fabrics	2.1
Furniture; bedding etc; lamps NESOI etc; prefab bd	0.84

Base metals NESOI; cermets; articles thereof	2.2
Explosives; pyrotechnics; matches; pyro alloys etc	1.9

South Africa - SADC Product	Index value
Tin and articles thereof	23.5
Milling products; malt; starch; inulin; wht gluten	11.5
Dairy prods; birds eggs; honey; ed animal pr NESOI	17.4
Cereals	11.7
Fertilizers	12.9
Printed books, newspapers etc; manuscripts etc	13.4
Live animals	12.4
Animal or vegetable fats, oils etc. & waxes	10.4

Soap etc; waxes, polish etc; candles; dental preps	12.6
Footwear, gaiters etc. and parts thereof	11.1

Clocks and watches and parts thereof	11.1
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Tanzania-world Product	Index value
Coffee, tea, mate & spices	38.5
Fish, crustaceans & aquatic invertebrates	31.4
Veg text fib NESOI; veg fib & paper yns & wov fab	27
Tobacco and manufactured tobacco substitutes	25
Live trees, plants, bulbs etc.; cut flowers etc.	15.5
Nat etc pearls, prec etc stones, pr met etc; coin	12.1
Ores, slag and ash	10.9
Sugars and sugar confectionary	8.8
Base metals NESOI; cermets; articles thereof	6.8
Edible vegetables & certain roots & tubers	5.6

Tanzania-SADC Product	Index value
Cereals	39.8
Tobacco and manufactured tobacco substitutes	50.2
Oil seeds etc.; misc grain, seed, fruit, plant etc	0.9
Textile art NESOI; needlecraft sets; worn text art	13.5
Glass and glassware	21.6
Cotton, including yarn and woven fabric thereof	13.2
Milling products; malt; starch; inulin; wht gluten	15.6
Veg text fib NESOI; veg fib & paper yns & wov fab	9.2
Soap etc; waxes, polish etc; candles; dental preps	1.7
Lac; gums, resins & other vegetable sap & extract	7.3

Swaziland-World Product	Index value
Apparel articles and accessories, knit or crochet	17.13
Apparel articles and accessories, not knit etc.	2.46
Essential oils etc; perfumery, cosmetic etc preps	63.74
Manmade filaments, including yarns & woven fabrics	2.57
Milling products; malt; starch; inulin; wht gluten	3.12
Miscellaneous manufactured articles	4.24
Prep vegetables, fruit, nuts or other plant parts	4.81
Printed books, newspapers etc; manuscripts etc	1.96
Sugars and sugar confectionary	35.85
Wood pulp etc; recovd (waste & scrap) ppr & pprbd	24.19

Swaziland-SADC Product	Index value
Essential oils etc; perfumery, cosmetic etc preps	70.16
Sugars and sugar confectionary	42.62
Apparel articles and accessories, knit or crochet	16.47
Wood pulp etc; recovd (waste & scrap) ppr & pprbd	11.06
Miscellaneous manufactured articles	5.03
Milling products; malt; starch; inulin; wht gluten	4.03
Prep vegetables, fruit, nuts or other plant parts	2.91
Printed books, newspapers etc; manuscripts etc	2.54
Beverages, spirits and vinegar	2.11
Manmade filaments, including yarns & woven fabrics	1.95
Clocks and watches and parts thereof	11.1

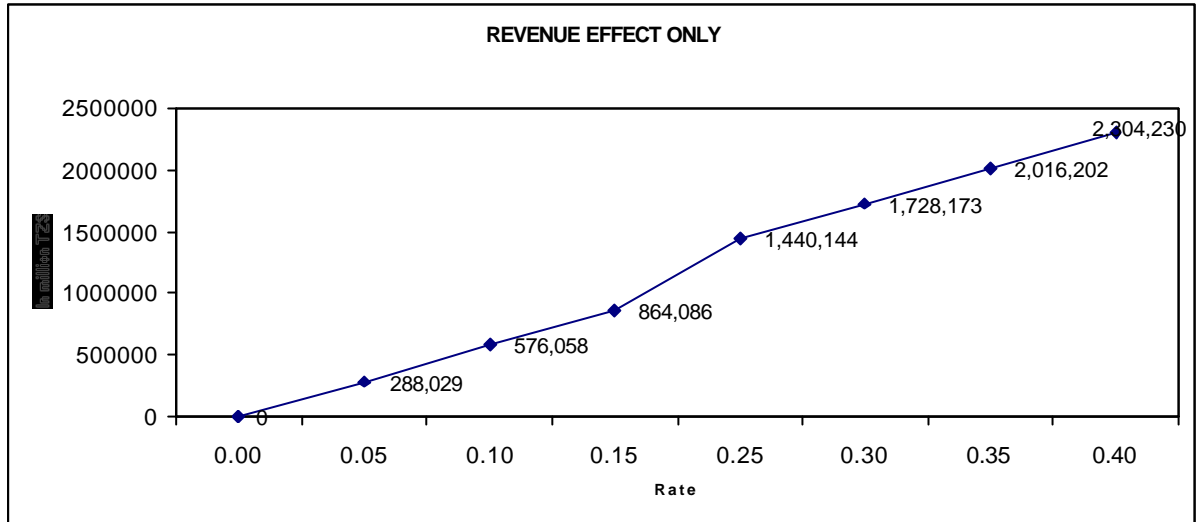
Zambia - World Product	Index Value
Base metals NESOI; cermets; articles thereof	171
Copper and articles thereof	77.8
Live trees, plants, bulbs etc.; cut flowers etc.	30.4
Sugars and sugar confectionary	27.2
Cotton, including yarn and woven fabric thereof	18.4
Tobacco and manufactured tobacco substitutes	18
Edible vegetables & certain roots & tubers	10.2
Coffee, tea, mate & spices	9.3
Milling products; malt; starch; insulin; wheat gluten	4.5
Zinc and articles thereof	2.7

Zinc and articles thereof	2.9
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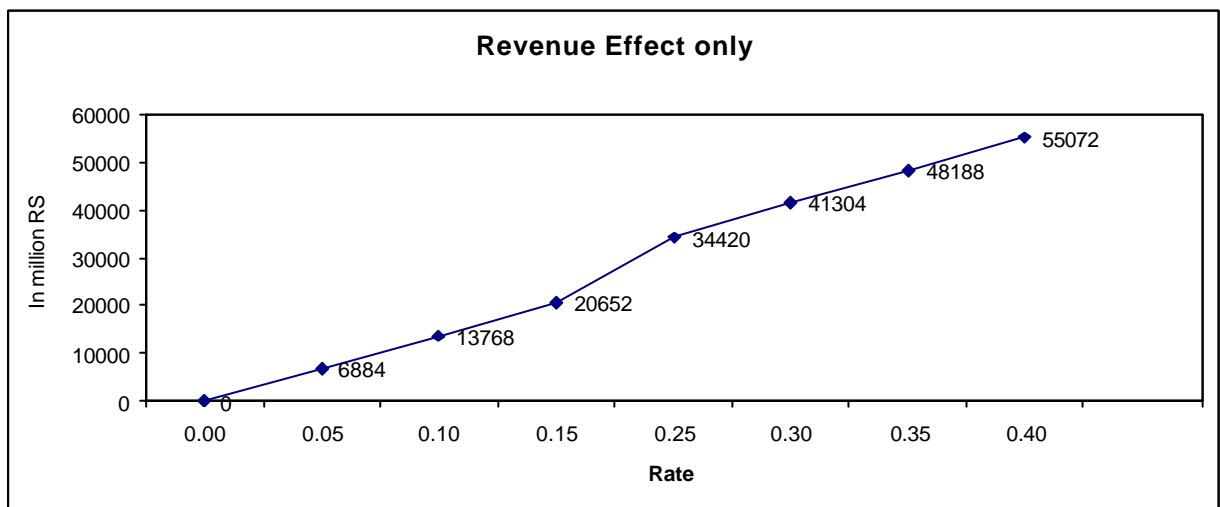
Zambia-SADC Product	Index Value
Copper and articles thereof	110.6
Base metals NESOI; cermets; articles thereof	39.6
Cotton, including yarn and woven fabric thereof	17.1
Tobacco and manufactured tobacco substitutes	9.9
Sugars and sugar confectionary	9.8
Lead and articles thereof	8.3
Milling products; malt; starch; insulin; wht gluten	7.9
Explosives; pyrotechnics; matches; pyro alloys etc	6.5
Coffee, tea, mate & spices	4.3

Annex 6: Figures on Effects of a CET

TANZANIA

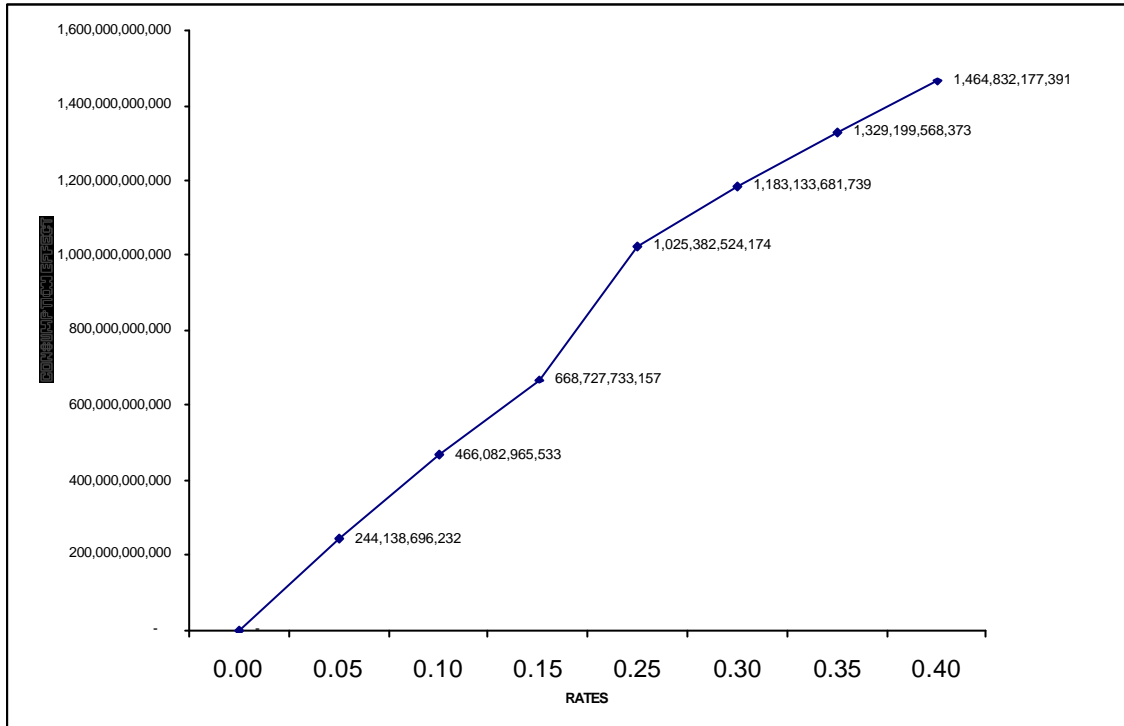


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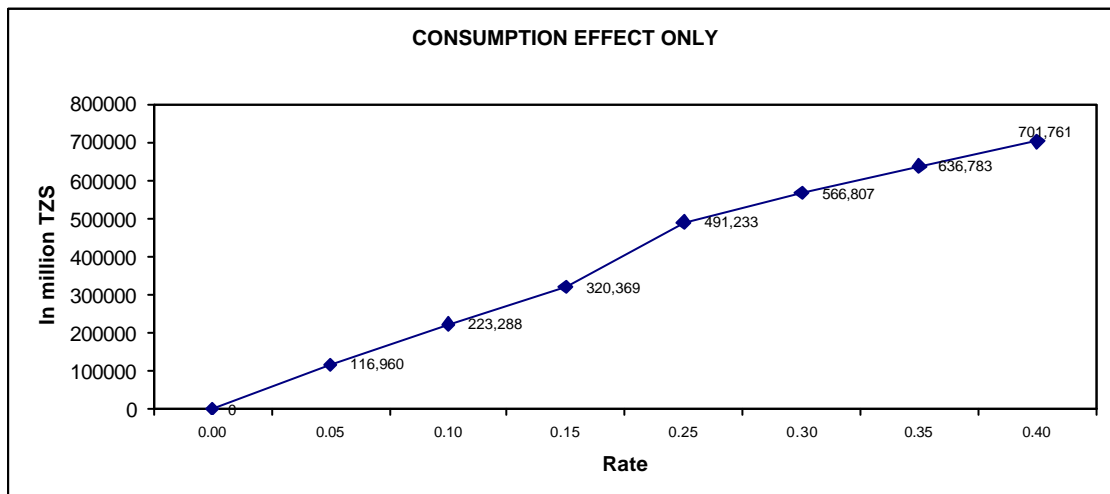


6.4 Consumption (expansion) effect

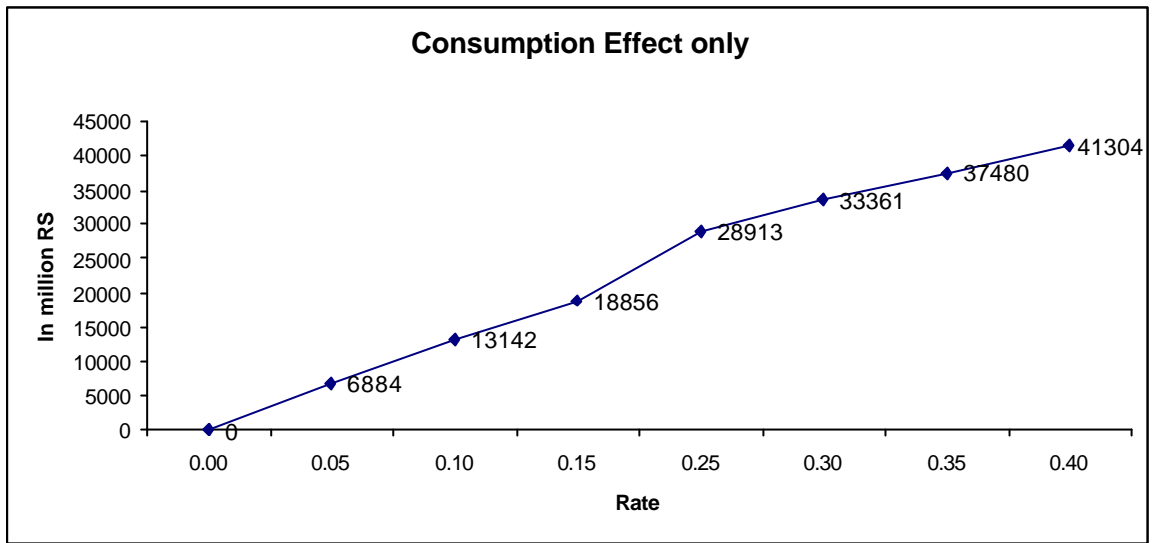
**Figure 6.2 Impact of SADC FTA: Consumption Effect only
SADC**



TANZANIA



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SOUTH AFRICA EFFECT

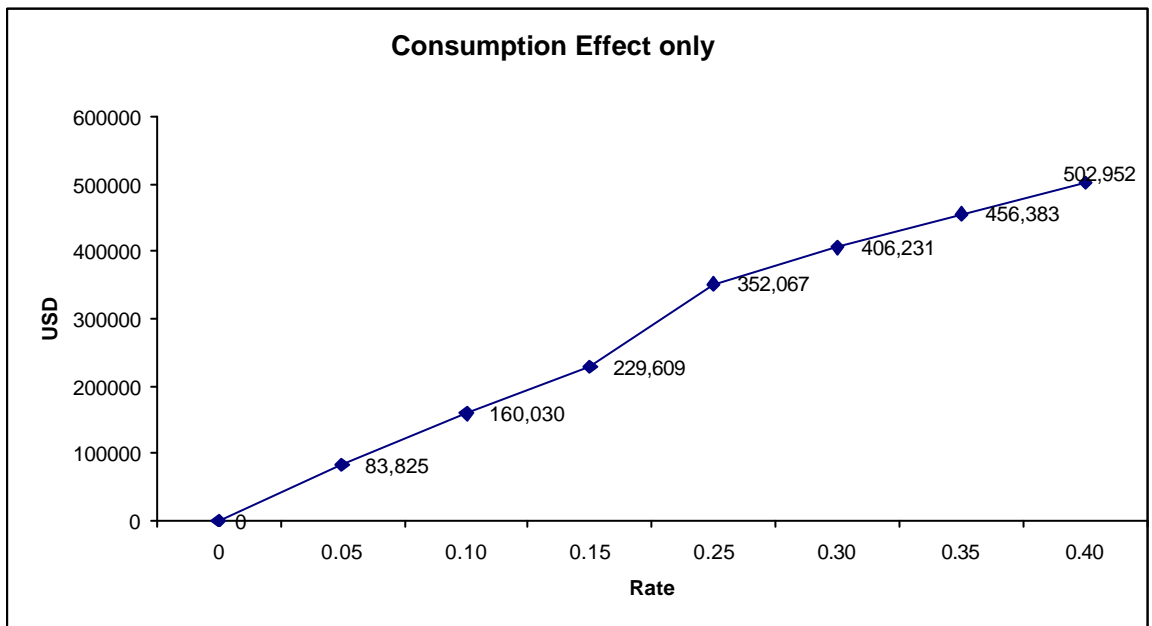
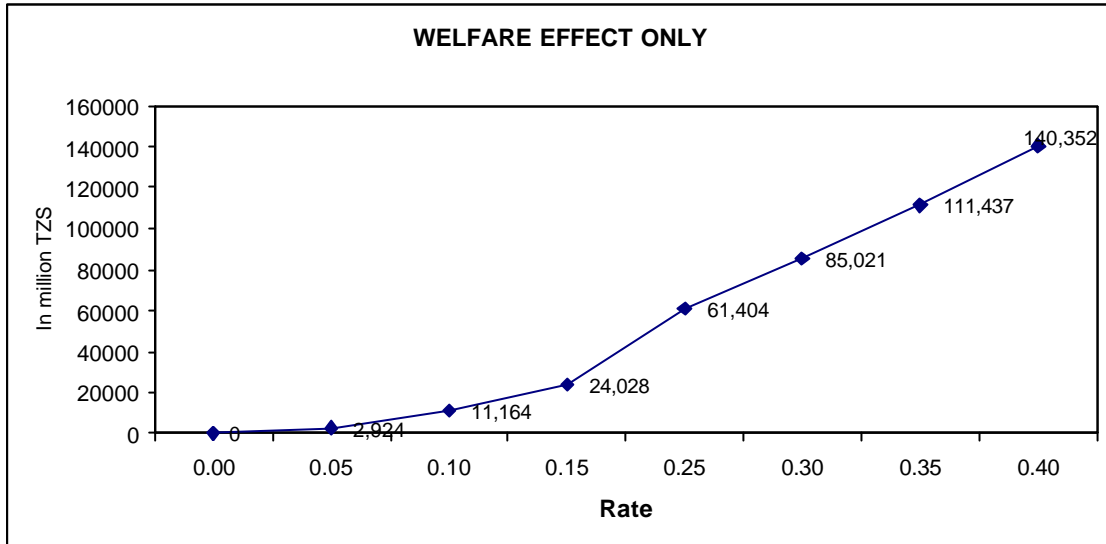


Figure 6.3: Impact of SADC FTA: Welfare Effect only

TANZANIA



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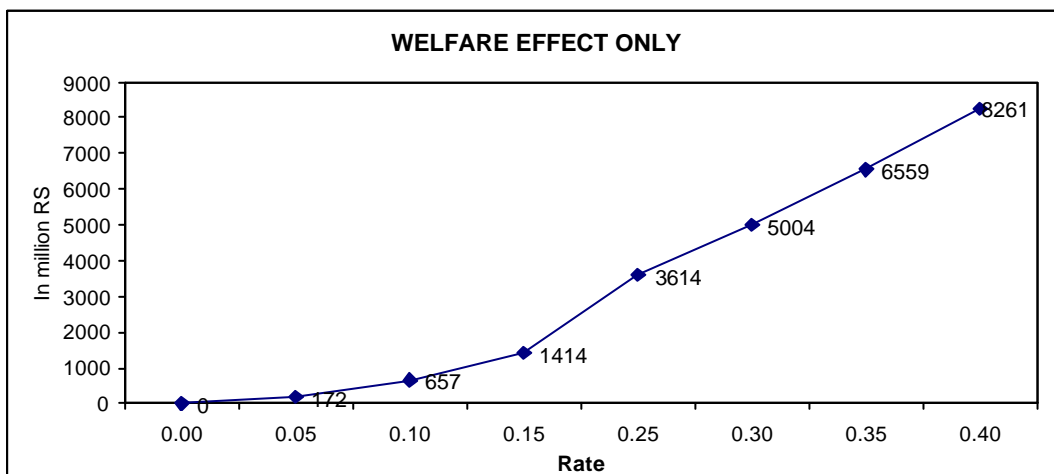
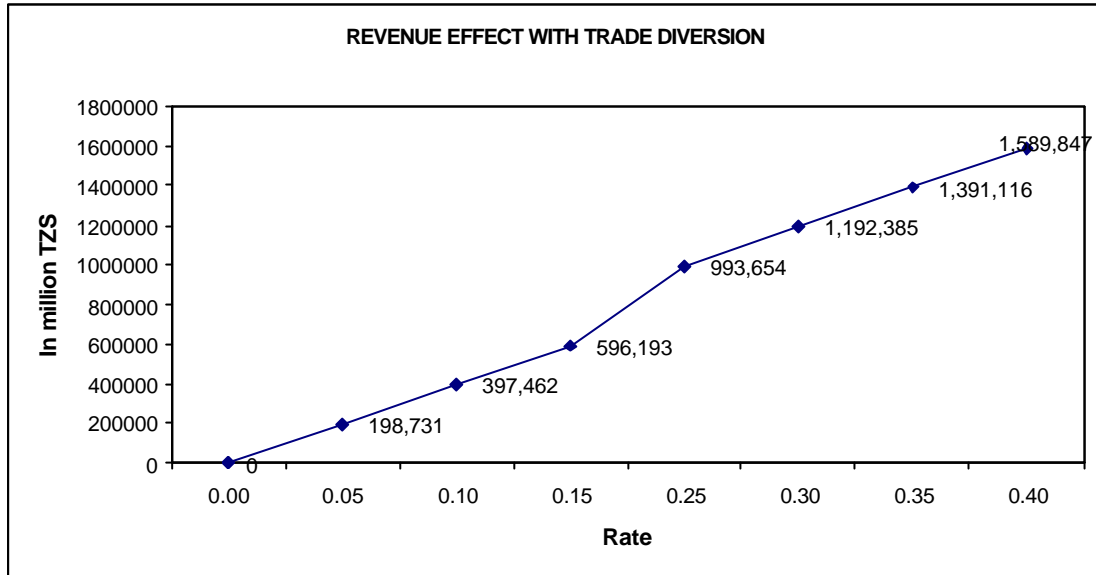


Figure 6.4: Impact of SADC FTA: Revenue with Trade Diversion

TANZANIA



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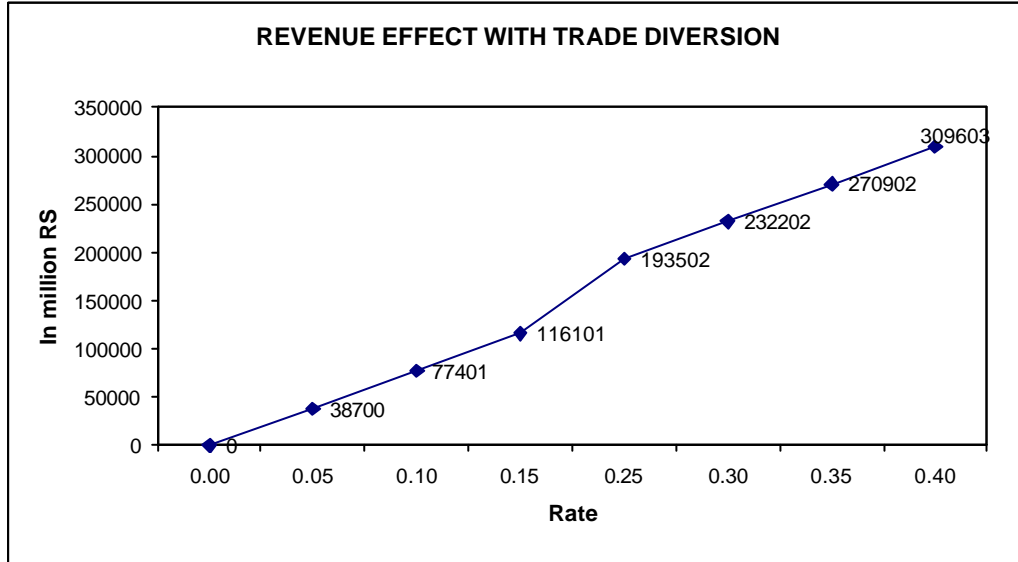
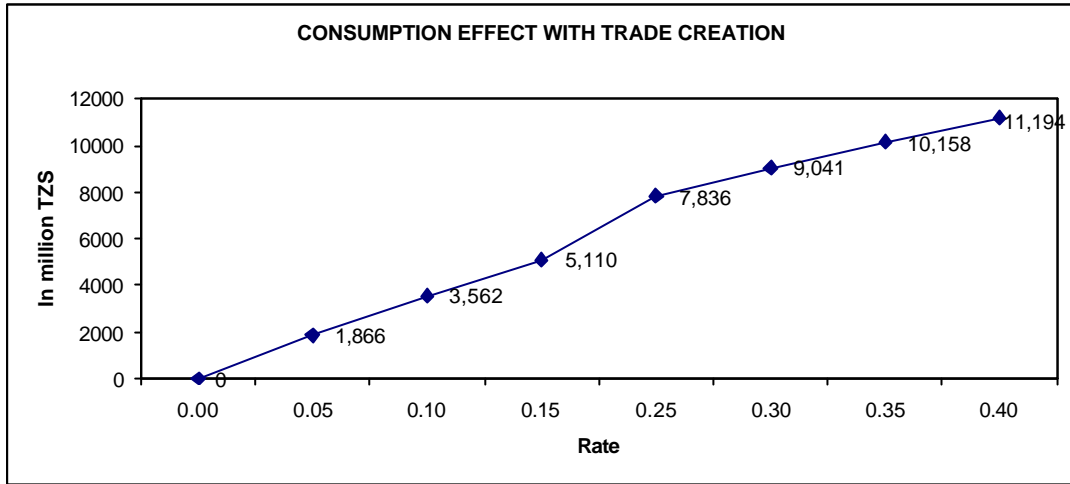


Figure 6.5: Impact of SADC FTA: Consumption with Trade Creation

TANZANIA



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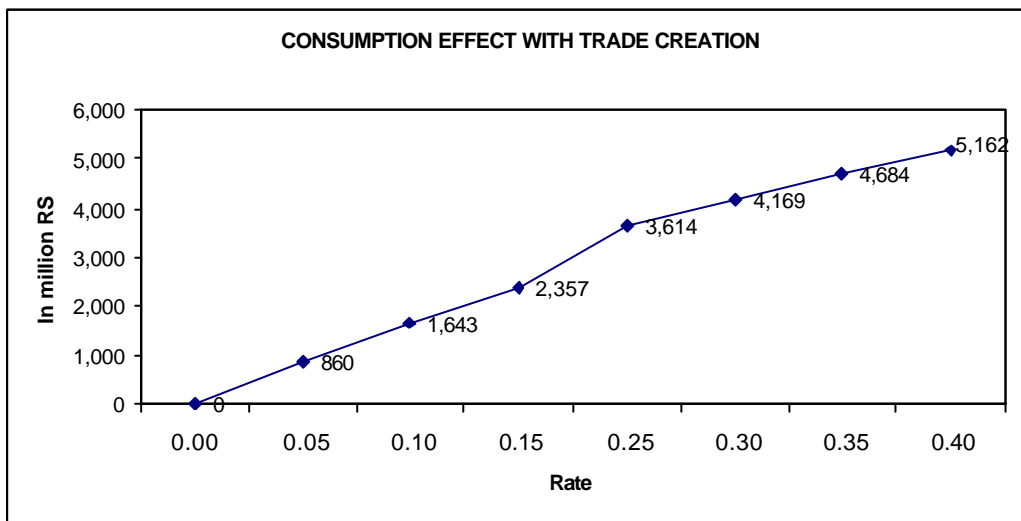


Figure 6.6: Impact of SADC FTA: Consumption with Trade Diversion

MAURITIUS

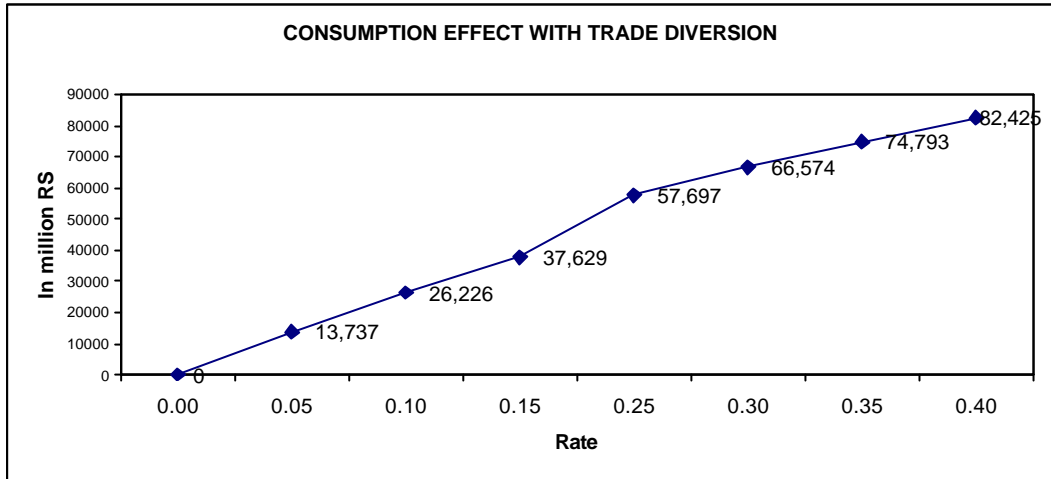
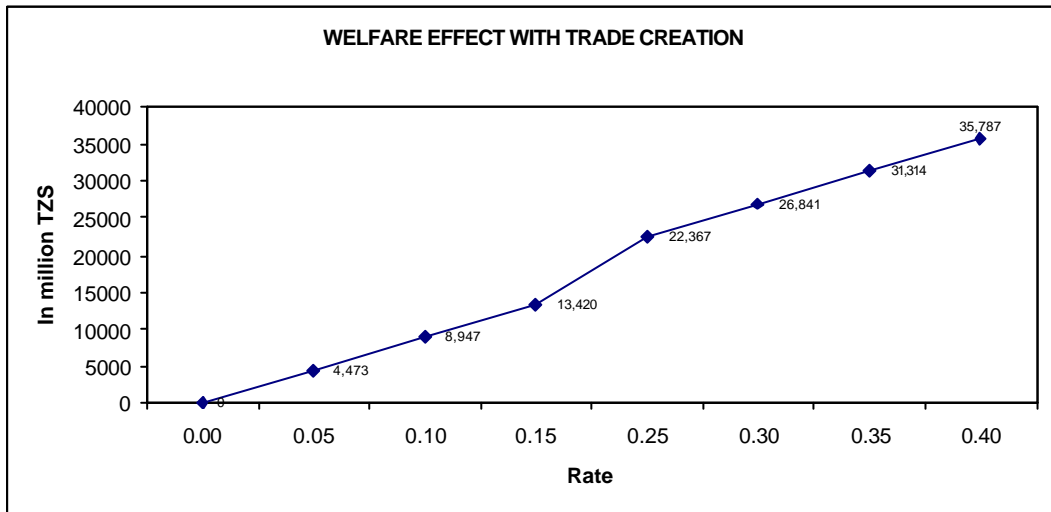
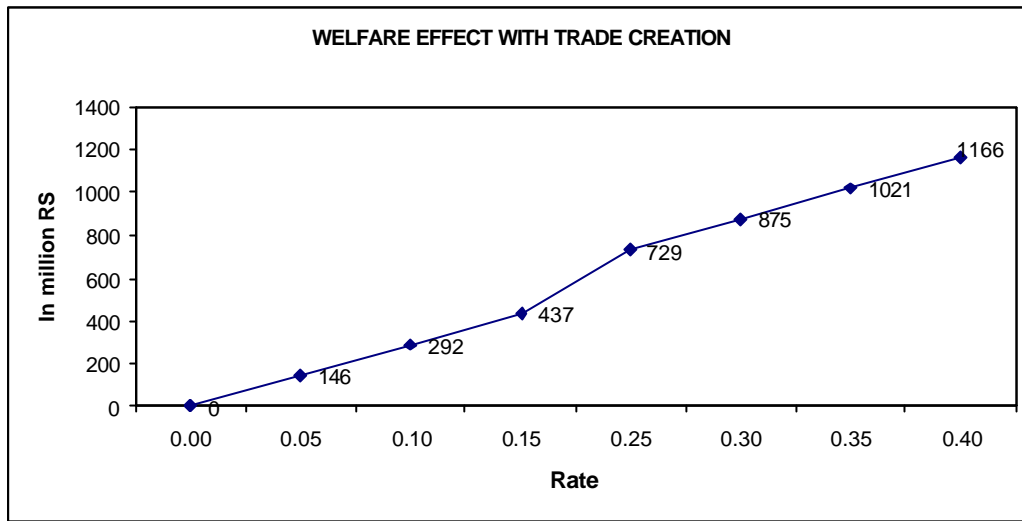


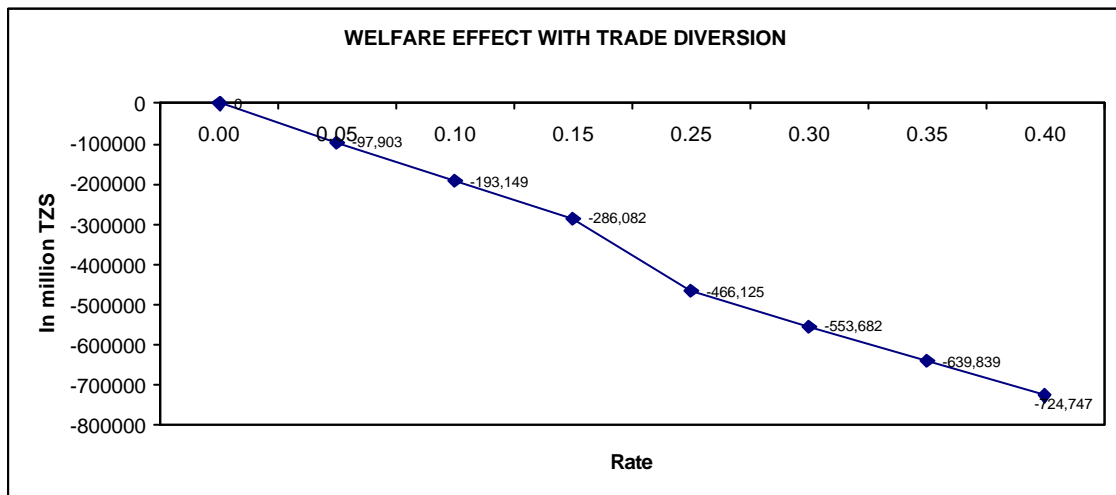
Figure 6.7: Impact of SADC FTA: Welfare with Trade Creation
TANZANIA



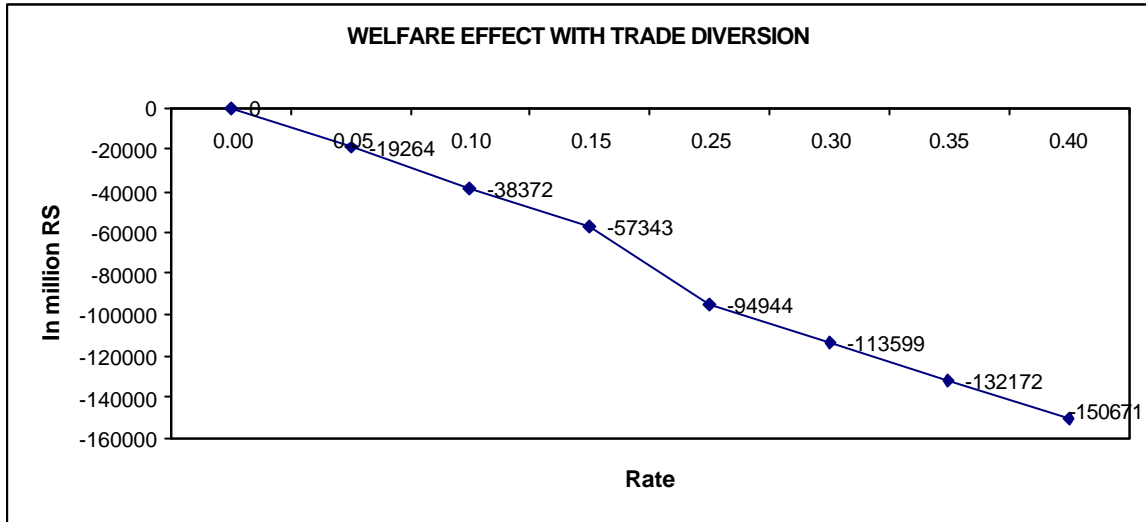
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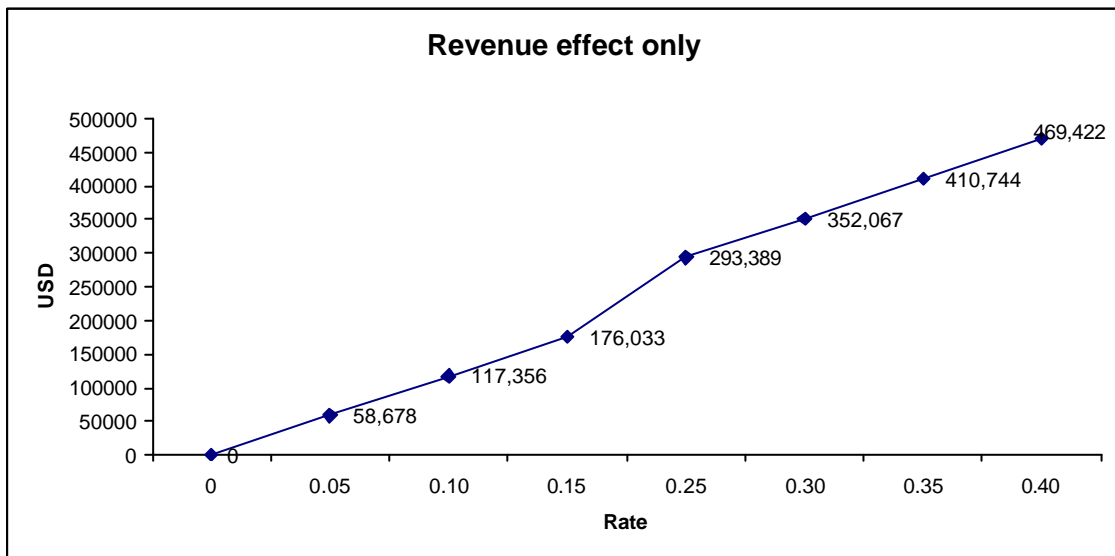
**Figure 6.8: Impact of SADC FTA: Welfare with Trade Diversion
TANZANIA**



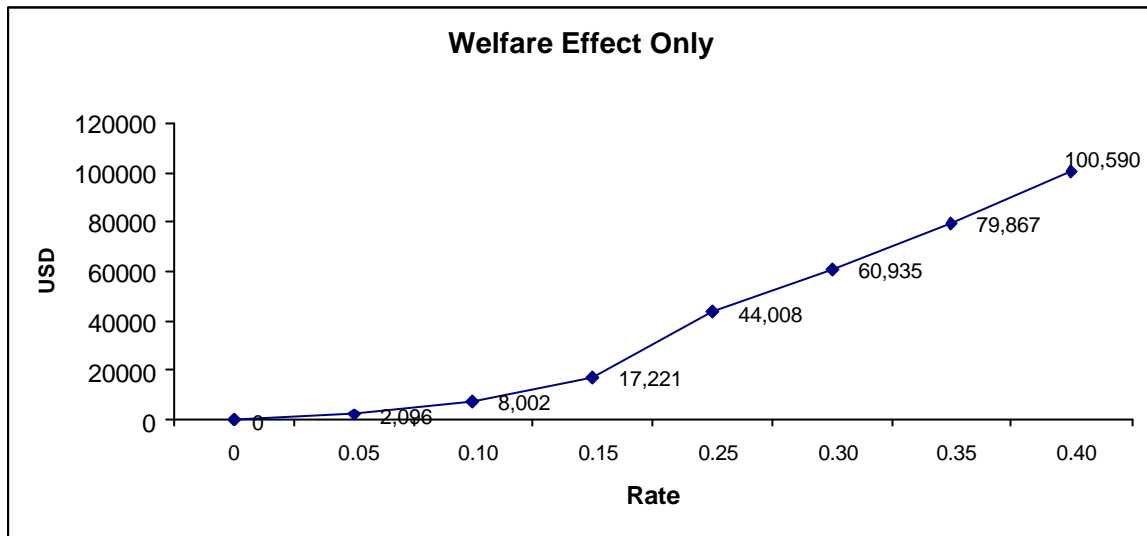
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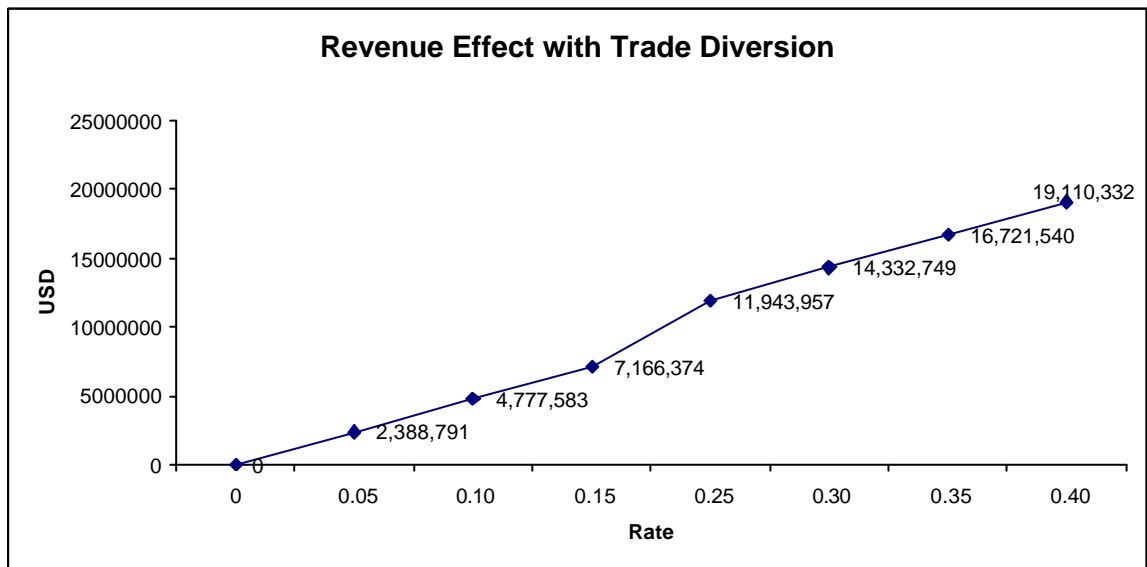
SOUTH AFRICA EFFECT

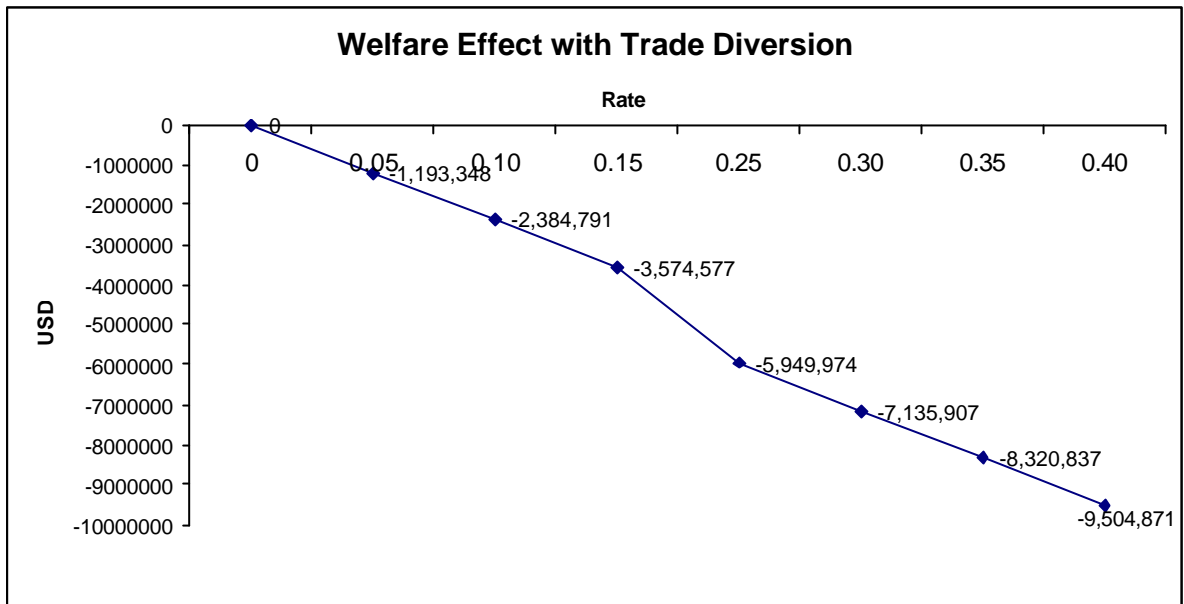


SOUTH AFRICA EFFECT

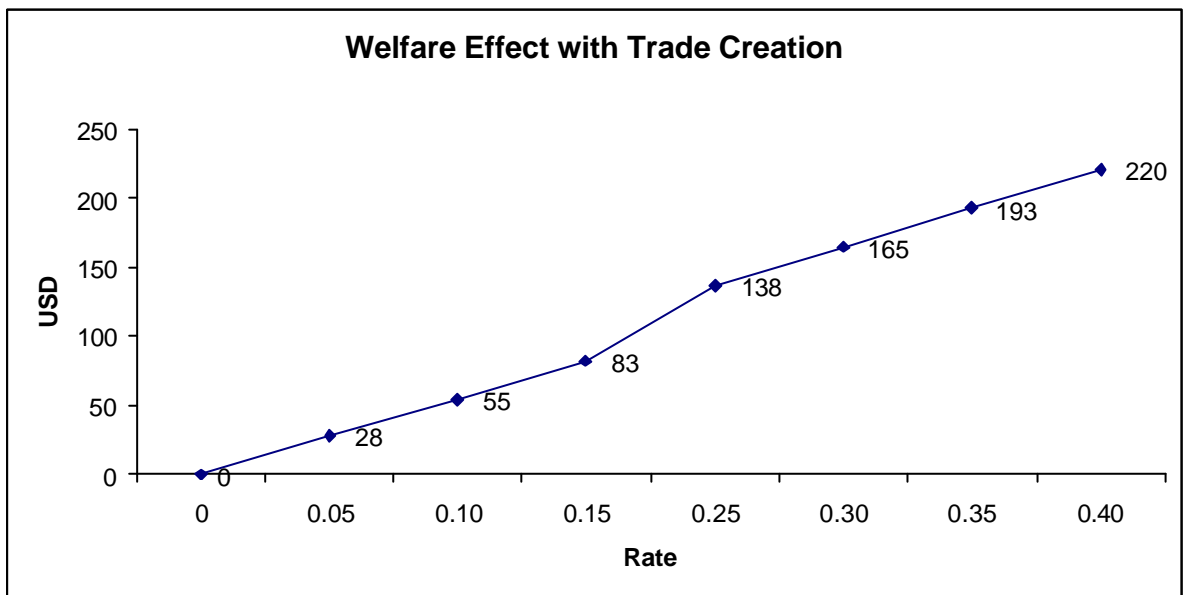


SOUTH AFRICA EFFECT





SOUTH AFRICA EFFECT



ANNEX 7: MODEL FRAMEWORK

Consumption effects only

In those sectors where the SADC is globally efficient and therefore the dominant supplier to Tanzania market prior to the formation of the CU, we assume that only consumption effects would follow from the CU. In terms of Figure 1 this is equivalent to assuming that S_{ROW} lies above S_{SADC} and that there is no competitive regional supply capability.

Thus, for those sectors where the SADC is the dominant supplier we can estimate the consumption effect alone (ΔM^C) relative to the existing SADC import levels as follows:

$$\Delta M^C = \left[\frac{t}{1+t} \right] e_M^D M_o^{SADC} UV_o^{SADC} \dots\dots\dots(1)$$

- where t = current tariff imports from SADC
- e_M^D = price elasticity of demand for imports
- M_o^{SADC} = current volume of imports from SADC
- UV_o^{SADC} = current average unit value of imports from SADC

The revenue (ΔR^C) and welfare (Δw^C) effects associated with this are correspondingly:

$$\Delta R^C = -t.M_o^{SADC} M_o^{SADC} \dots\dots\dots(2)$$

$$\Delta W^C = 0.5t.\Delta M^C \dots\dots\dots(3)$$

‘Trade diversion’ with consumption effects

For those trade sectors in Tanzania imports where the ROW is the dominant supplier, we are constrained by data limitations to make further assumptions about the competitiveness of EU supply to the Tanzania market. If $P_{SADC} < P_{ROW}^1$ then, given a constant cost technology over the relevant range, the CU will divert all imports for the ROW to the SADC. Thus, the upper limit of the value of trade diversion (ΔM^{TD}) is:

$$\Delta M^{TD} = M_o^{ROW} UV_o^{ROW} \dots\dots\dots(4)$$

where M_o^{ROW} = current quantity of imports from ROW

UV_o^{ROW} = current average unit value of imports from ROW

The tariff revenue effect (ΔR^{TD}) due to this trade diversion is given by:

$$\Delta R^{TD} = -tM_o^{ROW}UV_o^{ROW} \dots\dots\dots(5)$$

For these sectors there will also be consumption effects. The same general approach is used as above. However, since we do not have information about where the price of SADC imports may lie between P_{ROW} and P^1_{ROW} , we assume that on average P_{SADC} lies halfway between the two thus:

$$\Delta M^{TD} = 0.5 \left[\frac{t}{1+t} \right] e_M^D . M_o^{ROW} UV_o^{SADC} \dots\dots\dots(6)$$

Given the assumption about P_{SADC} we can approximate the overall welfare (W^{TD}) impact of the trade diversion with consumption effects as follows:

$$\Delta W^{TD} = 0.25t \Delta M^C - 0.5tM_o^{ROW}UV_o^{ROW} \dots\dots\dots(7)$$

'Trade creation' with consumption effects

For those sectors where a specific country from SADC not relatively minor suppliers (i.e. provide greater than 25% of imports) we estimate the effects of trade creation (i.e. source substitution) with consumption effects in analogous fashion to the trade diversion case. We assume now the SADC is a more efficient supplier than the ROW (if it is not, we would have a variant of the trade diversion case). If the duty free supply price from the SADC lies over the relevant range between P^1_{ROW} and P_{SADC} then all of the current imports from one country to another country will be replaced by more efficient production from SADC. Thus the maximum value of the trade created (ΔM^{TC}) for the SADC by this deflection from any of the country from SADC sources can be estimated by:

$$\Delta M^{TC} = M_o^{Ci} UV_o^{Ci} \dots\dots\dots(8)$$

where M_o^{Ci} = current quantity of imports from one of the SADC countries

UV^{Ci} = current average unit value of imports from one of the SADC countries

In order to estimate consumption effects in these sectors, we assume that the price from

$$\Delta M^{TC} = 0.5 \left[\frac{t}{1+t} \right] e_M^D \cdot M_o^{Ci} UV_o^{SADC} \dots\dots\dots(9)$$

one of the SADC countries is virtually as high as the tariff-inclusive price from SADC. In this case the pre-CU tariff rate against SADC imports provides an (upper) estimate of the extent to which the import price can fall as result of a CU. Thus:

$$\Delta W^{TC} = 0.5t \Delta M^{TC} + (M_o^{Ci} UV_o^{Ci} .t) \dots\dots\dots(10)$$

In turn the combined welfare (ΔW^{TC}) effects of trade creation with consumption effects can be identified by:

The sector estimates can be aggregated to produce overall estimates of the value of trade effects due to consumption, trade diversion and trade creation. The corresponding revenue and welfare effects can be aggregated across sectors, and a net aggregate welfare effect estimated for a move to a CU for each country.

ANNEX 8: ESTIMATION RESULTS ON EFFECTS OF A CET

MAURITIUS

Consumption Effects Only

Equation 1	Rate	$?M^C =$	t	$t/(1+t)$	e_m^d	M_o^{SADC}	UVo^{SADC}
	0.40	41,304	0.40	0.29	1.05	682.3	201.8
	0.35	37,480	0.35	0.26	1.05	682.3	201.8
	0.30	33,361	0.30	0.23	1.05	682.3	201.8
	0.25	28,913	0.25	0.20	1.05	682.3	201.8
	0.15	18,856	0.15	0.13	1.05	682.3	201.8
	0.10	13,142	0.10	0.09	1.05	682.3	201.8
	0.05	6,884	0.05	0.05	1.05	682.3	201.8
	0.00	0	0.00	0.00	1.05	682.3	201.8

Equation 2	Rate	$?R^C =$	-t	M_o^{SADC}	UVo^{SADC}
	0.40	55,072	0.40	682.3	201.8
	0.35	48,188	0.35	682.3	201.8
	0.30	41,304	0.30	682.3	201.8
	0.25	34,420	0.25	682.3	201.8

0.15	20,652	0.15	682.3	201.8
0.10	13,768	0.10	682.3	201.8
0.05	6,884	0.05	682.3	201.8
0.00	0	0.00	682.3	201.8

Equation 3	Rate	$?W^C =$	$0.5t$	$?M^C$	
	0.5	0.40	8,261	0.200	41,304
	0.5	0.35	6,559	0.175	37,480
	0.5	0.30	5,004	0.150	33,361
	0.5	0.25	3,614	0.125	28,913
	0.5	0.15	1,414	0.075	18,856
	0.5	0.10	657	0.050	13,142
	0.5	0.05	172	0.025	6,884
	0.5	0.00	0	0.000	0

Trade diversion with Consumption Effects

Equation 4		$?M^{TD} =$	M_o^{ROW}	UV_o^{ROW}	
		774,006	2723.0	284.2	

Equation 5	Rate	$?R^{TD} =$	-t	M_o^{ROW}	UVo^{ROW}
	0.40	309,603	0.40	2723.0	284.2
	0.35	270,902	0.35	2723.0	284.2
	0.30	232,202	0.30	2723.0	284.2
	0.25	193,502	0.25	2723.0	284.2
	0.15	116,101	0.15	2723.0	284.2
	0.10	77,401	0.10	2723.0	284.2
	0.05	38,700	0.05	2723.0	284.2
	0.00	0	0.00	2723.0	284.2

Equation 6	Rate	$?M^{TD} =$	$0.5(t/(1+t))$	e_m^d	M_o^{ROW}	UVo^{SADC}
	0.40	82,425	0.1429	1.05	2723.0	201.8
	0.35	74,793	0.1296	1.05	2723.0	201.8
	0.30	66,574	0.1154	1.05	2723.0	201.8
	0.25	57,697	0.1000	1.05	2723.0	201.8

0.15	37,629	0.0652	1.05	2723.0	201.8
0.10	26,226	0.0455	1.05	2723.0	201.8
0.05	13,737	0.0238	1.05	2723.0	201.8
0.00	0.00	0.0000	1.05	2723.0	201.8

Equation 7	Rate	$?W^{TD} =$	0.25t	$?M^C$	Minus	0.5t	M_o^{ROW}	UVo^{ROW}
	0.40	-150,671	0.100	41,304		0.20	2723.0	284.2
	0.35	-132,172	0.088	37,480		0.18	2723.0	284.2
	0.30	-113,599	0.075	33,361		0.15	2723.0	284.2
	0.25	-94,944	0.063	28,913		0.13	2723.0	284.2
	0.15	-57,343	0.038	18,856		0.08	2723.0	284.2
	0.10	-38,372	0.025	13,142		0.05	2723.0	284.2
	0.05	-19,264	0.013	6,884		0.03	2723.0	284.2
	0.00	0	0.000	0		0.00	2723.0	284.2

Trade Creation with Consumption Effects

Equation 8		$?M^{TC} =$	M_o^{Ci}	UVo^{Ci}
		1,944	170.5	11.4

Equation 9	Rate	$?M^{TC} =$	$0.5(t/(1+t))$	e^d_m	M_o^{Ci}	UVo^{SADC}	
	0.40	5,162	0.14	1.05	170.5	201.8	
	0.35	4,684	0.13	1.05	170.5	201.8	
	0.30	4,169	0.12	1.05	170.5	201.8	
	0.25	3,614	0.10	1.05	170.5	201.8	
	0.15	2,357	0.07	1.05	170.5	201.8	
	0.10	1,643	0.05	1.05	170.5	201.8	
	0.05	860	0.02	1.05	170.5	201.8	
	0.00	0	0.00	1.05	170.5	201.8	

Equation 10	Rate	$?W^{TC} =$	$0.5t$	$?M^{TC}$	Plus	M_o^{Ci}	UVo^{Ci}	T
	0.40	1,166	0.20	1,944		170.5	11.4	0.40
	0.35	1,021	0.18	1,944		170.5	11.4	0.35
	0.30	875	0.15	1,944		170.5	11.4	0.30
	0.25	729	0.13	1,944		170.5	11.4	0.25

0.15	437
0.10	292
0.05	146
0.00	0

0.08	1,944	170.5	11.4	0.15
0.05	1,944	170.5	11.4	0.10
0.03	1,944	170.5	11.4	0.05
0.00	1,944	170.5	11.4	0.00

SOUTH AFRICA

SOUTH AFRICA

Consumption Effects Only

Equation 1	Rate	$?M^c =$	t	$t/(1+t)$	e^d_m	C.I.F(value in USD)
	0.40	502,952	0.40	0.29	1.5	1,173,556
	0.35	456,383	0.35	0.26	1.5	1,173,556
	0.30	406,231	0.30	0.23	1.5	1,173,556
	0.25	352,067	0.25	0.20	1.5	1,173,556
	0.15	229,609	0.15	0.13	1.5	1,173,556
	0.10	160,030	0.10	0.09	1.5	1,173,556
	0.05	83,825	0.05	0.05	1.5	1,173,556
	0.00	0	0.00	0.00	1.5	1,173,556

Equation 2	Rate	$?R^c =$	-t	C.I.F(value in USD)
	0.40	469,422	0.40	1,173,556
	0.35	410,744	0.35	1,173,556

0.30	352,067	0.30	1,173,556
0.25	293,389	0.25	1,173,556
0.15	176,033	0.15	1,173,556
0.10	117,356	0.10	1,173,556
0.05	58,678	0.05	1,173,556
0.00	0	0.00	1,173,556

Equation 3	Rate	?W ^c =	0.5t	?M ^c
0.5	0.40	100,590	0.200	502,952
0.5	0.35	79,867	0.175	456,383
0.5	0.30	60,935	0.150	406,231
0.5	0.25	44,008	0.125	352,067
0.5	0.15	17,221	0.075	229,609
0.5	0.10	8,002	0.050	160,030
0.5	0.05	2,096	0.025	83,825
0.5	0.00	0	0.000	0

Trade diversion with Consumption Effects

Equation 4		?M ^{TD} =	C.I.F(value in USD)
		47,775,829	47,775,829

Equation 5	Rate	$?R^{TD} =$	-t	C.I.F.(value in USD)
	0.40	19,110,332	0.40	47,775,829
	0.35	16,721,540	0.35	47,775,829
	0.30	14,332,749	0.30	47,775,829
	0.25	11,943,957	0.25	47,775,829
	0.15	7,166,374	0.15	47,775,829
	0.10	4,777,583	0.10	47,775,829
	0.05	2,388,791	0.05	47,775,829
	0.00	0	0.00	47,775,829

Equation 7	Rate	$?W^{TD} =$	0.25t	$?M^C$	Minus	0.5t	C.I.F.(value in USD)
	0.40	-9,504,871	0.100	502,952		0.20	47,775,829
	0.35	-8,320,837	0.088	456,383		0.18	47,775,829
	0.30	-7,135,907	0.075	406,231		0.15	47,775,829
	0.25	-5,949,974	0.063	352,067		0.13	47,775,829
	0.15	-3,574,577	0.038	229,609		0.08	47,775,829
	0.10	-2,384,791	0.025	160,030		0.05	47,775,829
	0.05	-1,193,348	0.013	83,825		0.03	47,775,829
	0.00	0	0.000	0		0.00	47,775,829

Trade Creation with Consumption Effects

Equation 8		$?M^{TC} =$	C.I.F.(value in USD)
		367	366.7

Equation 10	Rate	$?W^{TC} =$	0.5t	$?M^{TC}$	Plus	C.I.F.(value in USD)	T
	0.40	220	0.20	367		366.7	0.40
	0.35	193	0.18	367		366.7	0.35
	0.30	165	0.15	367		366.7	0.30
	0.25	138	0.13	367		366.7	0.25
	0.15	83	0.08	367		366.7	0.15
	0.10	55	0.05	367		366.7	0.10
	0.05	28	0.03	367		366.7	0.05
	0.00	0	0.00	367		366.7	0.00

TANZANIA

Consumption Effects Only

Equation 1	Rate	$?M^c =$	t	t/(1+t)	e^d_m	M_o^{SADC}	UVo^{SADC}	
	0.40	1,464,832	0.40	0.29	0.89	4,083	1411.02	1956
	0.35	1,329,200	0.35	0.26	0.89	4,083	1411.02	1956
	0.30	1,183,134	0.30	0.23	0.89	4,083	1411.02	1956
	0.25	1,025,383	0.25	0.20	0.89	4,083	1411.02	1956

0.15	668,728	0.15	0.13	0.89	4,083	1411.02	1956
0.10	466,083	0.10	0.09	0.89	4,083	1411.02	1956
0.05	244,139	0.05	0.05	0.89	4,083	1411.02	1956
0.00	0	0.00	0.00	0.89	4,083	1411.02	1956

Equation 2	Rate	$?R^c =$	-t	M_o^{SADC}	UVo^{SADC}		
	0.40	2,304,230	0.40	4,083	1,411		
	0.35	2,016,202	0.35	4,083	1,411		
	0.30	1,728,173	0.30	4,083	1,411		
	0.25	1,440,144	0.25	4,083	1,411		
	0.15	864,086	0.15	4,083	1,411		
	0.10	576,058	0.10	4,083	1,411		
	0.05	288,029	0.05	4,083	1,411		
	0.00	0	0.00	4,083	1,411		

Equation 3	Rate	$?W^c =$	0.5t	$?M^c$		
0.5	0.40	292,966	0.200	1,464,832		
0.5	0.35	232,610	0.175	1,329,200		
0.5	0.30	177,470	0.150	1,183,134		
0.5	0.25	128,173	0.125	1,025,383		
0.5	0.15	50,155	0.075	668,728		
0.5	0.10	23,304	0.050	466,083		
0.5	0.05	6,103	0.025	244,139		
0.5	0.00	0	0.000	0		

Trade diversion with Consumption Effects

Equation 4		$?M^{TD} =$	M_o^{ROW}	UVo^{ROW}		
		3,974,617	3368.5	1179.9		

Equation 5	Rate	$?R^{TD} =$	-t	M_o^{ROW}	UVo^{ROW}	
	0.40	1,589,847	0.40	3368.5	1179.9	
	0.35	1,391,116	0.35	3368.5	1179.9	
	0.30	1,192,385	0.30	3368.5	1179.9	
	0.25	993,654	0.25	3368.5	1179.9	
	0.15	596,193	0.15	3368.5	1179.9	
	0.10	397,462	0.10	3368.5	1179.9	
	0.05	198,731	0.05	3368.5	1179.9	
	0.00	0	0.00	3368.5	1179.9	

Equation 6	Rate	$?M^{TD} =$	$0.5(t/(1+t))$	e_m^d	M_o^{ROW}	UVo^{SADC}
	0.40	604,308	0.1429	0.89	3368.5	1,411
	0.35	548,354	0.1296	0.89	3368.5	1,411
	0.30	488,095	0.1154	0.89	3368.5	1,411

0.25	423,016	0.1000	0.89	3368.5	1,411
0.15	275,880	0.0652	0.89	3368.5	1,411
0.10	192,280	0.0455	0.89	3368.5	1,411
0.05	100,718	0.0238	0.89	3368.5	1,411
0.00	0.00	0.0000	0.89	3368.5	1,411

Equation 7	Rate	$?W^{TD} =$	0.25t	$?M^C$	Minus	0.5t	M_o^{ROW}	UVo^{ROW}
	0.40	-648,440	0.100	1,464,832		0.20	3368.5	1179.9
	0.35	-579,253	0.088	1,329,200		0.18	3368.5	1179.9
	0.30	-507,458	0.075	1,183,134		0.15	3368.5	1179.9
	0.25	-432,741	0.063	1,025,383		0.13	3368.5	1179.9
	0.15	-273,019	0.038	668,728		0.08	3368.5	1179.9
	0.10	-187,079	0.025	466,083		0.05	3368.5	1179.9
	0.05	-96,314	0.013	244,139		0.03	3368.5	1179.9
	0.00	0	0.000	0		0.00	3368.5	1179.9

Trade Creation with Consumption Effects

Equation 8		$?M^{TC} =$	M_o^{Ci}	UVo^{Ci}
		59,646	62.4	955.9

Equation 9	Rate	?M ^{TC} =	0.5(t/(1+t))	e ^d _m	M _o ^{Ci}	UVo ^{SADC}
	0.40	11,194	0.14	0.89	62.4	1,411
	0.35	10,158	0.13	0.89	62.4	1,411
	0.30	9,041	0.12	0.89	62.4	1,411
	0.25	7,836	0.10	0.89	62.4	1,411
	0.15	5,110	0.07	0.89	62.4	1,411
	0.10	3,562	0.05	0.89	62.4	1,411
	0.05	1,866	0.02	0.89	62.4	1,411
	0.00	0	0.00	0.89	62.4	1,411

Equation 10	Rate	?W ^{TC} =	0.5t	?M ^{TC}	Plus	M _o ^{Ci}	UVo ^{Ci}	T
	0.40	35,787	0.20	59,646		62.4	955.9	0.40
	0.35	31,314	0.18	59,646		62.4	955.9	0.35
	0.30	26,841	0.15	59,646		62.4	955.9	0.30
	0.25	22,367	0.13	59,646		62.4	955.9	0.25
	0.15	13,420	0.08	59,646		62.4	955.9	0.15
	0.10	8,947	0.05	59,646		62.4	955.9	0.10
	0.05	4,473	0.03	59,646		62.4	955.9	0.05
	0.00	0	0.00	59,646		62.4	955.9	0.00

ANNEX 9: SUMMARY OF EFFECTS OF A CET

	Consumption Effect only			Revenue Effect only			Welfare Effect only		
	Tanzania	Mauritius	South Africa	Tanzania	Mauritius	South Africa	Tanzania	Mauritius	South Africa
Rates	Values in million TZS	Values in million Rupee	Values in USD	Values in million TZS	Values in million Rupee	Values in USD	Values in million TZS	Values in million Rupee	Values in USD
40%	1,464,832	41,304	502,952	2,304,230	55,072	469,422	292,966	8,261	100,590
35%	1,329,200	37,480	456,383	2,016,202	48,188	410,744	232,610	6,559	79,867
30%	1,183,134	33,361	406,231	1,728,173	41,304	352,067	177,470	5,004	60,935
25%	1,025,383	28,913	352,067	1,440,144	34,420	293,389	128,173	3,614	44,008
15%	668,728	18,856	229,609	864,086	20,652	176,033	50,155	1,414	17,221
10%	466,083	13,142	160,030	576,058	13,768	117,356	23,304	657	8,002
5%	244,139	6,884	83,825	288,029	6,884	58,678	6,103	172	2,096
0%	0	0	0	0	0	0	0	0	0

	Consumption Effect with Trade Diversion			Revenue Effect with Trade Diversion			Welfare Effect with Trade Diversion		
	Tanzania	Mauritius	South Africa	Tanzania	Mauritius	South Africa	Tanzania	Mauritius	South Africa
Rates	Values in million TZS	Values in million Rupee	Values in USD	Values in million TZS	Values in million Rupee	Values in USD	Values in million TZS	Values in million Rupee	Values in USD
40%	604,308	82,425		1,589,847	309,603	19,110,332	-648,440	-150,671	-9,504,871
35%	548,354	74,793		1,391,116	270,902	16,721,540	-579,253	-132,172	-8,320,837
30%	488,095	66,574		1,192,385	232,202	14,332,749	-507,458	-113,599	-7,135,907
25%	423,016	57,697		993,654	193,502	11,943,957	-432,741	-94,944	-5,949,974

15%	275,880	37,629		596,193	116,101	7,166,374	-273,019	-57,343	-3,574,577
10%	192,280	26,226		397,462	77,401	4,777,583	-187,079	-38,372	-2,384,791
5%	100,718	13,737		198,731	38,700	2,388,791	-96,314	-19,264	-1,193,348
0%	0	0		0	0	0	0	0	0

	Consumption Effect with Trade Credition			Welfare Effect with Trade Creation		
	Tanzania	Mauritius	South Africa	Tanzania	Mauritius	South Africa
Rates	Values in million TZS	Values in million Rupee	Values in USD	Values in million TZS	Values in million Rupee	Values in USD
40%	11,194	5,162		35,787	1,166	220
35%	10,158	4,684		31,314	1,021	193
30%	9,041	4,169		26,841	875	165
25%	7,836	3,614		22,367	729	138
15%	5,110	2,357		13,420	437	83
10%	3,562	1,643		8,947	292	55
5%	1,866	860		4,473	146	28
0%	0	0		0	0	0

