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Trade Policy and Trade Flow Analysis

SADC Regional integration: What role have bilateral trade agreements played in promoting intra-regional trade?

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SADC Regional integration: What role has bilateral trade agreements played in promoting intra-regional trade?

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Table of contents

List of Tables

List of Acronyms

AusAID	Australian Agency for International Development
BCLME	Benguela Current Large Marine Ecosystem
COMESA	Common Market for Eastern and Southern Africa
FTA	Free Trade Area
GATT	General Agreement on Tariffs and Trade
MFN	Most Favoured Nation
PTA	Preferential Trade Area
SACU	Southern African Customs Union
SADC	Southern African Development Community
SADC TP	SADC Trade Protocol
TIPS	Trade and Industrial Policy Strategies
WTO	World Trade Organization

Abstract

Member countries of the Southern Africa Development Community (SADC) have engaged in a number of bilateral trade liberalisation agreements and initiatives from as way back as the 1950s; with the main objective being to increase bilateral trade flows through deeper opening and access of regional markets. The implementation of these various bilateral 'country to country' trade agreements coupled with the adoption, by the SADC region, of a 'Protocol on Trade' (TP) in 1996, and, its implementation which started in 2000 is seen as coherent trade policy objective by the countries of southern Africa that trade can be used to promote regional economic growth and help reduce poverty. In this paper, I use the traditional gravity modeling technique, trade intensity and product complementarity indices to analyse bilateral trade flows (on sensitive products textiles and apparels, cereals and vehicles) between SADC countries that have signed bilateral trade agreements between themselves and also implemented the SADC TP which led to the adoption of a SADC Free Trade Area in 2008. Analysis focused on sensitive products because preferential bilateral trade agreements seem to be more generous (offer better concessions) on these products as compared to commitments member states undertook at the wider regional level under the SADC TP. I find that trade creation on wheat and sugar products dominates trade diversion even though the percentage increase in trade in these products is small. More so, there is no conclusive evidence that bilateral trade agreements have increased bilateral trade flows beyond the market access opportunities provided by the SADC TP except only for textile products from Malawi into South Africa. In conclusion, the paper recognises that SADC countries need to do more in terms of implementing commitments undertaken in their bilateral trade agreements so as to realise real market access benefits brought about by trade liberalisation.

Summary

Southern African Development Community (SADC) member countries are developing countries that depend heavily on trade, especially in agricultural products for their exports as well as machinery, fuels and chemicals (intermediate and final goods) for their imports. Since 1980, SADC has been trading under the umbrella of a preferential trade area (PTA). Yet, over the years, trade with the outside world outweighed intra-SADC trade.

Efforts to increase intra-regional trade culminated in the adoption and implementation of the SADC Free Trade Area (FTA) in 2008. The FTA aims to attain a higher level of regional integration through the formation of a Customs Union by 2010. Member states realise that trade can effectively be used as a key instrument for economic growth, provided that it is mainstreamed in national development strategies and policy frameworks. To this end, some SADC states have initiated bilateral trade agreements, the aims of which are basically similar to those championed at the wider regional level through the SADC Trade Protocol (TP) of 1996. Most important is to enhance bilateral trade flows and cooperation whilst abiding by commitments under the SADC TP which guides trade relations between and among the SADC states. Whilst most of the functional bilateral trade agreements were signed well before the SADC TP, the coming into effect of the TP would have resulted in concern regarding the causes and effects of the various bilateral trade agreements in terms of scope and extent of aspects of product coverage and implementation. One such issue relates to the issue concerning the treatment of sensitive products under bilateral 'country to country' agreements as compared to the concessions under the umbrella SADC TP where more favourable/preferential market access may have been negotiated in the bilateral agreements and not under the SADC TP.

What has become clear over the years is that there is no conflict in trade or in the pursuit of economic interests either under bilateral trade deals or through the overall regional deal under the TP. This is because the implementation of the SADC TP produces marginal effects or benefits over the bilateral trade agreements already in place. This is because the TP basically provided for preferential treatment for different members at different levels of development, an approach that is consistent with provisions under the same bilateral deals. Essentially then, the TP was superimposed on already existing commitments under bilateral trade agreements.

The extent to which trade has increased under bilateral trade agreements as compared to commitments under the wider regional TP is the subject of this research. In other words, this research piece is concerned with illustrating that bilateral trade agreements affect trade flows in the SADC region in the same direction as the wider regional integration process driven by the TP.

1.0 INTRODUCTION

Member countries of the Southern African Development Community (SADC) have, over the years, engaged in a series of trade liberalisation activities – including negotiating and signing bilateral trade agreements and even negotiating at the multilateral level under the World Trade Organization (WTO). The pursuit of such trade negotiations and agreements, both at regional and multilateral levels, shows that countries in southern Africa are of that view that trade could play a positive role, not only in fostering greater and deeper regional integration, but also the overall economic development of member states. Political and economic motives have shaped the regional integration process and commitments have been undertaken over time, geared towards creating conditions for enhanced free trade through the reduction of and complete removal of tariffs on products traded within the region.

The SADC region has been trading as a Preferential Trade Area (PTA)[1] since its inception in 1980. However, based on the implementation of the agreed tariff phase down commitments between 2000 and 2007, SADC only became a Free Trade Area (FTA)[2] as of January 2008. This is although the formal FTA launch occurred at a regional Heads of State Summit held in Johannesburg, South Africa, on the 16th and 17th August 2008. The creation of an FTA in 2008, in principle, saw up to 85% of intra-SADC trade flows duty free, with the remaining 15% consisting of sensitive products to be liberalised by 2012 (SADC Secretariat, 2003). According to the roadmap of the region's Regional Indicative Strategic Development Plan (RISDP, 2003), the SADC FTA is to be transformed into a Customs Union (CU) in 2010, a Common Market (CM) in 2015, into a Monetary Union (MU) in 2016 and finally, in an Economic Union (EU) in 2018.

The SADC FTA is intended to act as a catalyst for enhanced or increased regional integration through trade liberalisation. Questions that remain to be answered, however, include:

a) Given the existing economic disparities amongst SADC member countries, what could be the benefits arising out of the FTA?
b) What really needs to be done to increase intra-SADC trade?
c) Could countries use bilateral trade arrangements instead of the SADC Trade Protocol (TP) and attain desirable policy outcomes?
d) Since SADC countries still maintain high tariffs on imports from rest of world, what scope exists for benefits through multilateral liberalisation?

[1] A PTA is the loosest form of economic integration. It liberates trade among member countries by the *lowering* of trade barriers against imports from other member countries while trade barriers against non-member countries are maintained. As such, PTAs could place non-member countries at a competitive disadvantage, and divert trade from them towards member countries. This is because the duty free (even with high production costs) imports from within member states may become cheaper than duty-paid (but with lower production costs) imports from non-member states.

[2] In this group, member countries *remove* both tariff and non-tariff barriers when trading with each member state. Nevertheless, each member country retains its own set of trade barriers (including customs duties) against non-member countries; and these trade barriers normally vary from one member to another. Similarly, a member may retain a separate set of barriers against imports from different non-member countries.

2.0 BACKGROUND TO SADC REGIONAL INTEGRATION

Economies in southern Africa depend heavily on trade, especially in agricultural products for their exports as well as machinery, fuels and chemicals, among other inputs into production, in their imports. Over the years, trade with the outside world has outweighed intra-SADC trade primarily because the economic structure of the SADC states has changed only marginally (Intra-SADC Trade Performance Review, 2007): some SADC states have managed to change their export structures as shown by a growing share of non-traditional exports in total exports. (E.g. for Tanzania with new exports in fish, food grains and horticultural products.) Even with these new product lines however, the export markets continue to be other countries outside the SADC region.

Whilst reasons for negotiating and signing bilateral trade agreements are diverse and varied, bilateral trade agreements are fairly easy to negotiate and give the partners favoured trading status with each other.

A number of bilateral trade agreements exist within the SADC region that are negotiated between SADC member states themselves. Reasons for these bilateral trade agreements include the recognition that members could increase bilateral trade and investment opportunities between themselves through cooperation, tariff liberalization and by reducing miscellaneous barriers, other than tariffs, to trade and investment. To date, bilateral trade agreements in force include: Botswana – Malawi (Customs Agreement of 1956), Botswana – South Africa, Botswana – Zimbabwe, Malawi – South Africa, Malawi – Zimbabwe, Mozambique – Malawi, South Africa – Namibia, South Africa – Mozambique, Zimbabwe – Namibia, Zimbabwe – South Africa. It is also important to note that trade relations for Botswana, Namibia and South Africa are mainly operated under the Southern Africa Customs Union (SACU)[3] the world's longest standing customs union. It is also important to note that most of these bilateral trade agreements within SADC were signed and implemented well before the SADC Trade Protocol came into effect. Even for some SADC member states who are also COMESA members, bilateral trade agreements between regional members preceded the COMESA FTA.

The rigorous pursuit of bilateral trading arrangements by SADC member states is very much consistent with the wider regional desire and undertaking to establish a SADC region where all barriers to trade are effectively removed amongst countries; this with a view to promoting enhanced regional trade and promoting further regional integration, thereby promoting economic growth and development within the region.

Not all SADC member states have bilateral trade agreements within SADC. However, commitments under the various bilateral trade agreements and the regional SADC TP seek to attain similar objectives through reducing trade barriers to promote free movement of goods and hence increasing or improving bilateral trade flows. It is, nevertheless, not quite clear whether bilateral trade agreements between SADC states

[3] SACU is a long standing agreement between the Republic of South Africa, Botswana, Lesotho, Namibia and Swaziland. The original agreement came into effect in 1969 and was renegotiated culminating in a finalized version of a new agreement in 2002.

have managed to increase trade flows for the contracting parties. In fact, it is interesting to the researcher to understand whether in cases where bilateral trade flows have increased, such an increase could be a result of commitments undertaken under the bilateral trade agreement or the regional tariff liberalization process under the SADC FTA as opposed to being the results of other forces.

Thus, effectively, while bilateral trade agreements apply to contracting parties, their design and policy objectives relate very well to the overriding regional integration process at the wider regional level where commitments for tariff reduction and phase down apply to all members of SADC. Taking into account that the SADC TP came into effect after the majority of bilateral trade agreements were concluded, it therefore becomes necessary to research how effectively those same bilateral trade agreements have fared in helping move the regional trade liberalisation and further integration forward.

It is important to note with regard to the aforementioned question that all SADC states belong to more than one regional integration grouping with binding commitments on trade matters, for example, both under COMESA and SADC. Concessions offered and gained under these regional integration processes differ in certain instances - especially in regard to rules of origin -, but the overall objectives remain fundamentally the same. Therefore, and in other words, engaging in bilateral trade agreements could be seen as fast-tracking benefits of trade liberalisation between contracting parties, rather than waiting for all regional members to open up their territories to free trade – given the sensitivities, for some SADC member states associated with differences in levels of economic development and growth and the opening on a large scale.

While the literature has always suggested that most developing countries are not natural trading partners, closer research into the performance of these bilateral trade agreements, which are negotiated by choice, would provide some insights into how developing countries like SADC states view trade liberalisation processes when trying to mainstream trade as an engine for growth. This study seeks to complete this gap and therefore explores the coverage of different bilateral agreements as well as their scope in effecting trade flows between parties in the wider context of trade relations guided by the SADC Trade Protocol of 1996. To this end, the research will analyse:

- Bilateral trade agreements signed and implemented by SADC Member countries;
- Products enjoying better market access under bilateralism compared to under the SADC FTA;
- Trade trends before and after trade agreement implementation;
- Trade trends for identified Member states for the period after the SADC Trade Protocol (from 2000 onwards);
- Other non tariff barriers that hinder or limit trade between member states and what could possibly be done to enhance bilateral trade.

This paper is organized as follows: Section 1 provides for the Introduction and Background to SADC Regional trade under the SADC Trade Protocol and bilateral trade agreements in existence; Section 2 sets out the methodology used to analyse

trade flows in identified bilateral trade agreements. Section 3 concludes the research and raise policy inferences and recommendations.

2.1 THE SADC TRADE PROTOCOL

The Trade Protocol was signed in 1996 and came into force in September 2000. This Protocol seeks to liberalise SADC intra-regional trade in both goods and services. Services are incorporated even though the trade liberalisation programme proposed for implementation as at 1 September 2000 was only for trade in goods.

Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe have been implementing the TP from 2000 when the tariff phase-down started. Recently, Madagascar acceded to the TP (in 2006) and submitted a tariff offer that was accepted and has already commenced implementation. Angola also acceded to the TP and was expected to submit its tariff offer by August 2008 while the DRC is still not party to the Protocol.

Two distinct groups can be identified in terms of the Protocol's implementation, these are the developing - Botswana, Mauritius, Namibia, South Africa, Swaziland and Zimbabwe - and less developed countries (LDCs) – that is Angola, Lesotho, Malawi, Mozambique, Tanzania and Zambia.

The Protocol is seen by member countries as having the potential to increase bilateral trade flows within the region thereby enhancing and further deepening regional integration. However, trade in the SADC region is mainly biased towards South Africa for both export and import markets and following the implementation of the SADC TP several non-SACU countries (Malawi, Mozambique and Zimbabwe) renewed 'dormant' bilateral agreements to incorporate reciprocal preferences[4].

The Protocol contains moreover, frequent references to the WTO. This, in WTO terms, means that the trade arrangements espoused under the SADC TP qualified for notification to the WTO under the Enabling Clause. The latter makes provision for trade agreements between developing countries. However, the SADC Trade Ministers and the Council decided to notify it under Article XXIV of GATT 1994 possibly reflecting the fact that member states envisaged future trade negotiations with developed countries and reciprocity in such FTA negotiations. In parallel, in deciding to notify SADC under Article XXIV it would be the case that much thought was given to the relevance of South Africa as a large trading partner in world trade, and also to the political credibility and legitimacy with which South Africa could be considered as an investment catalyst for the region (BCLME. 2005). Generally it is relatively clear that South Africa plays a pivotal role in determining and shaping the nature of regional trade policy for SADC as a whole.

[4] Audit Report produced by the USAID funded Southern Africa Global Competitiveness Hub (SA Trade Hub) 2007.

2.1.2 Relationship between the SADC TP and Bilateral Trade Agreements

Conclusive results on the effects of regional trade areas (RTAs) or bilateral trade agreements on the welfare of people continue to be diverse and mixed. While Bhagwati (1998) and Panagaria (2000) view RTAs not only as welfare reducing to both participating countries in the RTA and the world at large, but, also, as 'stumbling blocks' to multilateral free trade, some authors - such as Summers (1991) and Ethier (1998) - support RTAs as welfare raising between participating countries and the world and also as 'building blocks' to multilateral trade. Here, Summers and others propose that if the countries forming a PTA are 'natural trading partners' then the trade creation effects will outweigh the trade diversion effects resultantly making the PTA beneficial to its members thereby becoming a building block to multilateral trade.[5]

A similar question on whether trade liberalisation under bilateral trade agreements amongst SADC members has been (or continues to be) a 'building block' or 'stumbling block' to the SADC regional integration process remains unanswered. In fact, research has focused greatly on the wider regional integration process in relation to the multilateral trade liberalisation agenda – for example, at the wider SADC and COMESA levels. This, therefore, remains a grey area where additional research is required.

In trying to understand better whether bilateral trade agreements between SADC member states have enhanced greater regional integration and increased bilateral trade flows we need to understand certain articles in the SADC TP. The interpretation and application of the guidelines in Article 3 of the SADC TP regarding the negotiation and development of the tariff phase-down plan, was highly problematic for member states. The main reason for such position was that it was difficult to take into account and make provisions for all the bilateral trade agreements concluded, signed and implemented between and amongst SADC member states.

Also realising the influence that South Africa has on SACU, it became logical to the SADC Trade Negotiating Forum and the Council of Ministers that the tariff phase-down proposal would be a series of concessions between South Africa (on behalf of her SACU partners) to non-SACU SADC members and the non-SACU SADC members offering concessions to South Africa. The concessions formed part of a win-win scenario that could solve the problem arising out of the myriad of bilateral trade agreements between and amongst SADC members.

However, there were also problems in the negotiation and development of the tariff phase-down plan because of the fact that some SADC member states belonged to more than one regional integration group. Overlaps existed and continue to exist between COMESA and SADC commitments for countries like Madagascar, Malawi, Mauritius, Zambia and Zimbabwe.

[5] They are variants on these approaches and authors like Krishna (1998) argued that PTAs can reduce the incentive for multilateral free trade because the export rents they generate disappear when countries liberalize multilaterally, and so, the producers benefiting from those rents oppose multilateral trade liberalization.

In addition, the possibility of conflict(s) in objectives and modalities between the SADC regional integration process (under the TP tariff phase-down), bilateral trade agreements and overlapping of regional integration processes may have been problematic to SADC member states. In a paper prepared under the AusAID/RCSA Trade Protocol Project by Flatters (2001), the author noted that,

> *Misunderstandings about the terms of bilateral agreements have added to the complexities of SADC Trade negotiations and have created the possibility of future trade conflicts among member states. This is especially true in the case of highly restricted and protected sectors like textiles and garments, where misunderstandings about whether access opportunities offered under the Trade Protocol are additional or substitutes for previously negotiated access under bilateral agreements* (page17).

Filmer, R and Mshiri, S. (2001) added,

> *While the SADC TP will, for the first time, cover the trade among all member states, its impact can only be understood in the context of other existing arrangements. In this sense, the TP will affect only the 'residual' trade that is not already covered by these existing plurilateral and bilateral arrangements. Due to the complexities of the SADC preferential arrangements and those under other existing agreements, the marginal impacts of the TP will often be country and product specific"* (page 6).

I take the above positions into account and in this paper seek, among other issues, to fill the gap between what member states have negotiated under bilateral agreements and their commitments under the TP.

The bilateral trade agreements considered in this paper have, over the years, undergone successive reviews and amendments in response to the dynamics of market access matters in terms of product coverage and modalities. For example, product coverage and the scope of products traded have changed significantly, especially for South Africa's bilaterals with Malawi and Zimbabwe. In the case of Zimbabwe, such reviews have led to improved tariff concessions (lower tariffs) by South Africa on goods of Zimbabwean origin like textiles (Southern Africa Global Competitiveness Hub, 2006) For Malawi, improved market access has been realized in the garments sector .

Fears of the trade liberalisation process

The pace of implementation of tariff phase-down under the SADC TP was very slow with only a small share of the agreed reductions taking place between 2001 and 2008 (see Table 1). Also, the negotiating process itself seemed to have inspired member states to adopt more inward looking tendencies with 'costs' of trade liberalisation perceived to be borne entirely by the liberalising country.

Table 1: Proportion of SADC Tariff Liberalisation (2001 – 2008), %

Country	Offer to SA (SACU)	Offer to rest of SADC

SACU	-	63.9%* (99.3%)**
Malawi	33.4%* (84.9%)**	33.4% (85.3%)
Mauritius	69.4% (90.5%)	69.7% (90.5%)
Mozambique	28.1% (92.6%)	30.1% (94%)
Tanzania	15.7% (84.6%)	17.5% (86.3%)
Zambia	32.1% (95.9%)	54.2% (95.9%)
Zimbabwe	32.1% (71.6%)	30.7% (89.8%)

Source: SA Trade Hub, 2007.
**Shows the percentage of tariff lines at zero (0%) in 2001*
*(..)**shows the projected proportion of tariff lines at zero in 2008*

It emerges, as can be seen in Table 1, that the pace of tariff liberalization by SADC member states needed to be upped to meet the FTA deadline in 2008. Some significant tariff reductions were projected to have taken effect by the time the SADC FTA was supposed to be in place in 2008 with countries having liberalized 85% of their tariff lines fully. However, according to a recent audit of the Implementation of the Protocol on Trade by the SA Trade Hub (2007), the pace of liberalization by some member states continued to pose challenges to the process of tariff phase-down. For instance, the audit found that four member states – Malawi, Mozambique, Zimbabwe and Tanzania - were not up to date on the implementation of their tariff phase-down schedules. Malawi had made only one tariff reduction in 2001 and Mozambique and Tanzania had made block approvals of their tariff phase-down but had not implemented them within the agreed timetable. Zimbabwe had not implemented the tariff reduction offer to SADC (excluding South Africa). In fact, Zimbabwe's tariff reduction offer for 2007 was its offer to South Africa which applies to all SADC countries *that did not have bilateral or other preferential trading arrangements with Zimbabwe*.

2.2 SADC Trade Trends 2000 – 2008

Statistics on SADC trade show that total SADC exports increased by more than 100% between 2000 and 2006 from US$50 billion to about US$ 113 billion (TIPS SADC Database) with leading destination markets being the European Union, Eastern Asia and the North American Free Trade Area. However, intra-regional SADC trade fell to below 10% of total exports over the same reported period (Malaba, 2008:10.) The SADC regional integration process sought to liberalize trade between member states so as to increase bilateral trade flows but statistics show that the tariff liberalization may not have spurred a growth in intra-regional trade. It therefore becomes interesting to explore why intra-regional trade has not been increasing.

So what is the problem?

Analyses of intra-SADC trade are typically carried out in the aggregate, i.e. including all member states. Such approach does not have scope for an exploration of the performance of trade indicators given that some countries have negotiated bilateral trade agreements between themselves long before the SADC TP came into effect. This is a problem as member's commitments under bilateral trade agreements may have had a direct impact on trade trends and performance for various countries and

continue to have an impact as members are continuing to implement their commitments under the SADC TP. Thus, it becomes important to explore the trade performances of the various countries with bilateral trade agreements and how they have performed overtime including the overlapping period during which countries have been implementing commitments under the SADC TP.

Yet, there are issues with the performance and effectiveness of bilateral deals. Taking, for example, a country like Malawi has bilateral trade agreements in place with Mozambique, South Africa and Zimbabwe. However Malawi's overall trading relationships with these SADC neighbours are highly unbalanced with Malawi suffering huge trade deficits. Indeed, according to the SADC Trade Performance Review (2007), Malawi's imports from Mozambique and Zimbabwe are about eight times larger than its exports to those same countries. More so, among its top seven fastest growing export markets, only three – Kenya, Egypt (both in COMESA) and South Africa (SADC) - are in Africa and only South Africa belongs to SADC. Such a poor export performance raises significant questions as to the extent to which Malawi is using its existing bilateral trade agreements to increase its own exports to those countries or partners within the SADC region. At the same time, with the adoption and implementation of the SADC FTA in 2008, it might be expected that the combined effect of the bilateral trading arrangements and of the SADC FTA effect would be to lead to an overall net increase in exports from Malawi to her regional partners. This has not been the case so far. So what is the problem here? What purpose then do these bilateral trade agreements serve for Malawi and other countries? This is exactly what this research seeks to establish.

2.3 Preferential Trade Agreements within SADC

The SADC region is characterized by a plethora of bilateral trade agreements between member countries. Bilateral trade agreements play a significant role in stimulating intra-SADC trade for example, as noted by an audit of the implementation of the TP, outside of SACU, most of the intra-SADC trade is taking place either under COMESA or bilateral trade agreements. More so, due to the significant non-compliance and compliance constraints in effecting the tariff phase-down, the majority of member states have selected to trade under alternative preferential trade agreements[6]. Operational preferential trade agreements are indicated in followed by a comprehensive presentation of each bilateral trade agreement.

Table 2: Bilateral Trade Agreements within SADC as at 2009

	Botswana	Malawi	Mozambique	Namibia	South Africa	Zimbabwe
Botswana	-	✓			✓	✓
Malawi	✓	-	✓		✓	✓
Mozambique		✓	-		✓	✓
Namibia				-	✓	✓
South Africa	✓	✓	✓	✓	-	✓

[6] Audit Report produced by the USAID funded Southern Africa Global Competitiveness Hub (SA Trade Hub) 2007.

Zimbabwe	✓	✓	✓	✓	✓	-

Source: Author from miscellaneous sources

2.3.1 Botswana – Malawi

As former members of the Rhodesian Federation, these countries' trading relations were guided by and conducted under the Customs Agreement of 1956 which provided for duty-free market access to all products produced in participating member states. The agreement continues to exist, even though a report by the Southern Africa Global Competitiveness Hub (2006) says that it has not really been operational for the benefit of the two countries.

2.3.2 Botswana – Zimbabwe

The preferential trade agreement between Botswana and Zimbabwe was concluded and ratified in 1988 to replace the 1956 Customs Agreement that guided trade relations from the days of the Federation. The new agreement was meant to make up for noticeable deficiencies in the old agreement, especially in respect of rules of origin elements. More so, this was a reciprocal trading arrangement with no exclusions from trade liberalisation. In 2001, an amendment was made to the 1988 agreement with reference to the rules of origin to allow for cumulation provisions and for more clarity on local content provisions. However, the amended version was never ratified and so never came into force.

2.3.3 Malawi – Mozambique

This preferential trade agreement was signed in December 2005 and became effective in July 2006. It replaced a 1959 Trade Agreement signed between Portugal and the Federation of Rhodesia and Nyasaland following the Malawi/Mozambique Joint Permanent Commission of Cooperation (JPCC) endorsement of the proposal for review of the colonial trade agreement. Besides facilitating economic activities through formalisation of trade between the two countries, this agreement was also intended and designed to strengthen and diversify trade relations between the parties.

This agreement would allow duty-free access for goods from both parties, except those considered sensitive (excluded from tariff liberalisation). According to the Ministry of Trade and Private Sector Development Press Release (December, 2005), these products included:

- Sugar (ch. 17.01)
- Beer (ch. 22.03)
- Coca-Cola and Schweppes branded soft drinks (ch. 22.02.90)
- Manufactured tobacco (ch. 24.02, 24.03)
- Unmanufactured tobacco (ch. 24.01)
- Refined edible oil (ch. 15.06; 15.07; 15.08; 15.11; 15.12; 15.13; 15.14; 15.15; 15.16)
- Dressed chickens (ch. 02.07)
- Table eggs (ch. 04.07.00.90)
- Stationery, excluding exercise books (ch. 48)
- Petroleum products (27.10)

- Firearms, ammunition (ch. 93.01)
- Explosives (ch. 36.02)

The reasons advanced for protecting these products may have been the protection of domestic production interests, issues related to revenue generation capacity and safety and public order.

Following the end of the civil war in Mozambique, Malawi's exports to this country have been increasing dramatically, even though Malawi's main trading partners remain South Africa, the EU, the UK and the USA. This agreement was signed well after the adoption of the SADC TP and whether it added value to enhancing bilateral trade flows under the TP is an empirical issue that is within the context of this research.

2.3.4 Malawi - South Africa

This is an asymmetrical bilateral preferential trade agreement which allows all products of Malawian origin to enter the South African market duty free. It was concluded in 1990 and has undergone some reviews and amendments. Certain quantity restrictions were eventually removed and, to date, goods of Malawian origin enter South Africa duty free provided that they satisfy the requisite rules of origin.

There have been some trade disputes between the contracting parties of this agreement, especially with regard to textile and garment products, and these led to an eventual withdrawal of preferences on the South African market in 1999 and essentially a drop in Malawian exports of these goods to South Africa. However, the SADC TP has a special provision for non-SACU LDCs to export specified duty-free textile and garment products, provided that they meet the more preferential rules of origin, under a derogation from SADC's rules of origin. For all other textile and garment products where custom duties under the SADC TP are above zero, Malawi continues to benefit from the bilateral trade agreement – both because all products enter duty free and because the rules of origin are more preferential than those at the SADC regional level. If is for this reasons that the Southern Africa Trade Competitiveness Hub (2006) comments that "the Malawi-South Africa bilateral trade at this stage, with the exception of textiles and garments, is the most favoured instrument for trade with South Africa".

2.3.5 Malawi – Zimbabwe

The original bilateral trade agreement implemented in 2005 was renegotiated and signed in May 2006 providing for better market access trading terms for Malawian firms. This bilateral trade agreement has been characterised by implementation problems, especially with reference to rules of origin requirements, cumulation issues, the issue of dispute settlement, and also a list of sensitive products (Imani-Capricon, 2001).

2.3.6 Mozambique – Zimbabwe

Preferential trade relations between Mozambique and Zimbabwe are guided by the Preferential Trade Agreement signed in 1959 between Portugal and the Federation of Rhodesia and Nyasaland to facilitate commercial relations between their respective territories. The 1959 accord has been revised and the revised/new agreement came into being in January 2004. It allows for all products from both countries to be traded duty free, provided that they satisfy the requisite rules of origin (local content requirements) and that they do not appear on the 'negative' list. As a whole, various mineral and agricultural products, live animals, forest products and fish and fish products are allowed to enter duty free on either side whilst products including arms and ammunition, refined or unrefined sugar, soft drinks or aerated beverages, manufactured tobacco and motor vehicles remain exempted.

2.3.7 South Africa – Mozambique

Even though South Africa extends non-reciprocal preferential market access to selected goods of Mozambican origin, these two SADC member states do not have a standing formal agreement on the arrangement guiding bilateral trade between themselves. Instead, South Africa has created a special rebate item 412.25 under schedule no. 4 of South Africa Customs & Excise Act to facilitate implementation of this arrangement which came into force in 1990. Whilst imported Mozambican agricultural and fish products are subjected to quotas and import permits, the preferential arrangement allows for duty free entry of some fish products, prawns, cashew nuts, wooden furniture, handicrafts, new tyres, coconut oils, textiles and clothing, provided the requisite rules of origin are satisfied.

2.3.8 South Africa – Zimbabwe

The bilateral trade arrangement guiding trade relations between South Africa and Zimbabwe is premised on the agreement of 1 December 1964 between the Governments of the Republic of South Africa and Southern Rhodesia (Zimbabwe). However, the agreement has been reviewed, especially with the revival of the Joint Commission for Economic, Scientific, Technical and Cultural Cooperation between South Africa and Zimbabwe in 2002 aimed at strengthening bilateral relations.

As stated in the 1964 agreement, specified goods of either Zimbabwean or South African origin would qualify for special treatment (in the form of specified rebates) only when accompanied by requisite import licenses. The agreement was, however, sensitive on textiles and clothing products which could be excluded from the special preferential duty reduction treatment if they contained not less than 25% by mass of fibre. In fact, the whole agreement signaled a general attitude towards reducing tariffs and not granting full market access by removing completely all duties on imported products from either country. A duty free arrangement and/or preferential tariff quota has been in place for products including dairy, potatoes and birds' eggs, whilst specified types of woven fabric – for example cotton – are subject to concessional tariff rates when they meet the specified levels of content, e.g. 75% for Zimbabwe (Zimtrade).[7]

[7] See: www.zimtrade.co.zw

2.3.9 Zimbabwe – Namibia

After Namibia's independence in 1990, Zimbabwe and Namibia concluded, in 1992, a reciprocal preferential trade agreement covering all products without any exclusions from trade liberalisation. Products do, however, have to satisfy the requisite rules of origin. The agreement was amended in 2000 to allow for cumulation and to modify the rules of origin. However, the amended agreement was not signed, thereby effectively rendering the 1992 version the one in force.

The preferential trade agreements listed above can be explained by economic as well as by political reasons. Economic reasons would include the need to foster greater trade through removal of tariffs and non-tariff barriers between parties, while political motives have their genesis in the desire to liberate South Africa and secure Mozambique.

Over time, the bilateral trade agreements at hand have been revised and amended with the objective of enhancing market access and deepening product coverage. Some parties have managed, along the way, to gain improved tariff concessions on certain product lines that may have been quite sensitive and hence may have restricted bilateral trade flows.

2.4 Applied Tariffs within the SADC Region

With the exception of Botswana and South Africa, which, by 2000, had eliminated most bilateral tariffs, intra-SADC tariffs are high and uneven across the region with the highest average tariff rate being applied by Zimbabwe on goods from Tanzania at 94% and some 20% being applied by Zambia on imports from Malawi (Jeffrey D. Lewis etal, 2001).

Table 3: Selected Intra-SADC Countries Bilateral Applied Tariffs (%)

Malawi	*Imports from South Africa*	*Imports from Zimbabwe*
Other[8] agriculture		35.4%
Textiles	36%	39%
Apparel	41.3%	41.8%
Wood and paper	20%	22.9%
Machinery and equipment	20.2%	23.5%
Mozambique	*Imports from South Africa*	*Imports from Zimbabwe*
Textiles	31.2%	16.9%
Apparel	35%	11.1%
Wood and paper	19.1%	12.5%
Machinery and equipment	12.1%	9.7%
Grains		1.2%
Fruits and vegetables		8.7%

[8] Other agriculture besides grain, fruits and vegetables, livestock, forestry and fisheries products which are all zero rated.

Other agriculture		11.2%
Food processing		5.1%
South Africa	*Imports from Malawi*	*Imports from Mozambique*
Food processing	100%	
Textiles	20.2%	19.3%
Apparel	23.3%	13.4%
Wood and paper	10.5%	
Machinery and equipment	8.6%	1.8%
	Imports from Zimbabwe	
Grains	37.3%	
Fruits and vegetables	25.7%	
Other agriculture	12.9%	
Food processing	65.3%	
Textiles	13.5%	
Apparel	28%	
Wood and paper	10.8%	
Machinery and equipment	8.7%	
Zimbabwe	*Imports from South Africa*	*Imports from Mozambique*
Grains	7.4%	
Fruits and vegetables	35%	33.3%
Other agriculture	55.1%	18.8%
Energy and mines		27.5%
Food processing	30.4%	24.3%
Textiles	28.4%	27.6%
Apparel	80.4%	33.3%
Wood and paper	26.6%	33.3%
Machinery and equipment	17.7%	24.6%
	Imports from Malawi	
Grains	0.3%	
Fruits and vegetables	25%	
Other agriculture	11.9%	
Food processing	24.5%	
Textiles	27.3%	
Apparel	30.8%	
Wood and paper	32.7%	
Machinery and equipment	24.1%	

Source: Southern African Model Database derived from GTAP 5.0, final version[9].

Across SADC states, import protection rates vary by sector and by origin. As shown in Table 3 (and also in , trade in textiles and apparel, grain, food processing, wood and paper and machinery and equipment is very much protected by the imposition of high

[9] Cited by the Trade and Macroeconomics Division, International Food Policy Research Institute (IFPRI).

tariff rates on imports from within the region. This implies that, given that these same products were considered sensitive under the SADC trade protocol, the potential to increase trade in those products could be stifled.

However, where bilateral trade agreements exist, these products may have been accorded more preferential trading arrangements with either partial or complete removal of duties and therefore enhanced market access – thus raising the potential of increased intra-country or bilateral trade.

2.5 Treatment of Sensitive products in SADC Bilateral Trade Agreements

Under the SADC Trade Protocol, sensitive products (under Category C) comprise only 2.8% of all agricultural products, including products such as textiles, clothing/cotton, cereals, dairy products and motor vehicles, as well as sugar products – even though sugar is treated separately from other products since it is considered sensitive by most countries and also specified as required a special dispensation owing to the fact that the world market is distorted.

The protection for sugar is in the form of tariffs and non-tariff barriers in SADC sugar producing countries. Also, for sugar, the agreement provided for non-reciprocal duty free market access into SACU for non-SACU SADC members on a quota basis.

Wheat flour and textiles/garments were also considered very sensitive and hence required special treatment under the TP.

Tariffs on the other sensitive products were to be removed eight years after the coming into force of the agreement, i.e. effectively by 2008 and the rest would have their tariffs removed by 2012. The following table shows sensitive products as designated by respective countries.

Table 4: Sensitive products by SADC country

Malawi*	**South Africa**	**Mozambique[10]**	**Zimbabwe**
Arms and ammunition Sugar Matches	Dairy products Wheat and meslin Sugar and sugar confectionary Textiles Footwear Vehicles	Textiles Apparel	Textiles Footwear Sugar

Source: Author's research

**Malawi puts those products in the Exclusions list (which fell under category (ii) of the Sensitive products designation in the TP where tariff duties would not be reduced to zero. The Exclusion list was developed based on the provisions of Article 9 of the Protocol on Trade which allows among other things, the exclusion of some products*

[10] Mozambique's submission for sensitive products was over a 15 year period – adopted as part of the implementation of the agreement in 2000.

from the tariff reductions because they are necessary for maintaining public order or for health reasons.

3.0 METHODOLOGY

In analysing the potential of both the bilateral trade agreements and trade performance under the SADC TP, this research relies mostly on data from the Trade and Industrial Policy Strategies (TIPS) database. Bilateral trade data flows are analysed for member states with bilateral trade agreements through the use of Trade Intensity and Production Complementarity Indices. To determine any causal links on trade flows the research used and applied the gravity modeling technique.

The research focuses mainly on products considered *sensitive,* both at national and regional levels, e.g. textiles and apparel, sugar, vehicles and cereals. Wheat is preferred to other cereals like maize and rice because the maize market is highly liberalized while there are very few rice producers in SADC besides Madagascar. Results are only provided for those where data are available. As such, a weakness with the trade data available under TIPS is that Zimbabwe's data are not reported/recorded (both tariff rates and trade data). The other limitation is that trade data are only available up to 2006.

3.1 Why analyzing Sensitive Products

The real effect of the tariff liberalization process in bilateral trade agreements should be seen in increased bilateral trade flows resulting from real cuts in applied tariffs on imports. Now, for SADC countries, characterization of their sectoral differentiation for their market access offers, under the SADC TP, was mainly guided by defensive interests as measured by products that were considered sensitive (with some completely excluded from tariff liberalization). To be quickly liberalized were products with very low Most Favoured Nation (MFN) rates and also where trade values were very low or non-existent. These-quick-to-be-liberalised products, therefore, could not have offered as much real market access benefits of trade liberalization because of their low tariff levels and low values of trade. Sensitive products that enjoyed significantly higher tariff rates and higher values of trade were shielded from tariff liberalization (or at least immediate liberalization).

Thus, this study sought to single out key products deemed sensitive by various SADC member states because these would show the extent to which bilateral 'country to country' trade agreements would have gone in giving preferences over what concessions member states could get under the umbrella SADC TP. As tariffs on some of these sensitive products got reduced, bilateral trade values would have been expected to increase showing the existence of real market access benefits stifled by highly protective duties on such products.

3.2 Analysis of Intra-SADC Trade Patterns

The author analysed intra-SADC trade on selected products considered to be sensitive by different countries e.g. textiles and clothing, cereals, sugar and vehicles and the findings are presented below. The analysis presented only refers to those SADC countries with bilateral trade agreements.

3.2.1 Textiles

South African exports to Malawi fell by 17%, while imports from Malawi increased by about 35%, between 2000 and 2006. Textile product exports from South Africa to Mozambique fell by about 15%, while textile imports from Mozambique by South Africa decreased by approximately 26% in that period. As regards textiles trade, Zimbabwe seems have experienced the largest growth in its exports to South Africa. Zimbabwean imports rose by a substantial 88% while South African exports to Zimbabwe rose by a marginal 0.04%. Overall textiles trade for all countries i.e. South Africa, Malawi, Mozambique and Zimbabwe increased by about 27% between 2000 and 2006.

3.2.2 Cereals

South Africa has been the chief source of imports for cereals trade into Malawi, Mozambique and Zimbabwe, with Malawi's and Zimbabwe's exports of wheat and meslin accounting for 1.7% and 0.2% respectively of total trade with South Africa. Rice and maize exports from both Malawi and Zimbabwe represented zero percent of total trade with South Africa, meaning that all trade was accounted for by South African exports of those products to those countries.

3.2.3 Vehicles

South African exports of vehicles accounted for about 98% of total vehicles trade with Malawi, Mozambique and Zimbabwe combined. However, whilst exports to Malawi and Mozambique fell by 35% and 28% respectively, exports to Zimbabwe over the reported period increased by almost 120%. Therefore, overall growth in trade in vehicles would, to a significant extent, be explained by the voluminous growth in South African exports to Zimbabwe as compared to Malawi and Mozambique.

3.2.4 Sugar

Of all countries with bilateral trade agreements with South Africa, Malawi and Zimbabwe enjoyed trade surpluses with South Africa while Mozambique and Zambia imported more sugar from South Africa than they exported to it. Total Malawi exports to South Africa rose by 459% between 2000 and 2006 while imports from Zimbabwe to South Africa accounted for about 68% of their total bilateral trade. Again, South Africa continues to significantly dominate the regional market while Zambia enjoys significant sugar exports to the DRC, Malawi, South Africa, Tanzania and Zimbabwe. Even though Zimbabwe's data is not recorded with TIPS, mirror statistics show that Zimbabwe continues to be a large source of sugar imports in the region especially for Zambia, Malawi and South Africa (all countries she has bilateral trade agreements with).

3.3 Trade Intensities and Product Complementarities Results

Trade intensity indices and complementarity indices have been calculated with all products included for the trade intensity indices and only sensitive products for the complementarity indices (because of the nature of the construction of these indices). As noted by the World Bank, trade intensity indices are used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in world trade. Complementarity indices show, instead, how well the structures of a country's imports and exports match.

Trade Intensity Indices (TII) were calculated for Malawi, Mozambique, South Africa and Tanzania because they have readily available trade data. Tanzania was used as a test case for those countries that do not have bilateral trade agreements with the other countries.

Table 5: Trade Intensity Indices for selected SADC countries (2000 and 2006)

2000	**Malawi**	**Mozambique**	**South Africa**	**Tanzania**
Malawi	-	419.1	30.8	117.7
Mozambique	361.3	-	35.3	0
South Africa	231.3	133.2	-	25.2
Tanzania	137.1	12.9	4.2	-

2006	**Malawi**	**Mozambique**	**South Africa**	**Tanzania**
Malawi	-	96.6	39.3	27.1
Mozambique	104.3	-	24.9	5.4
South Africa	118.9	66.6	-	20
Tanzania	112.9	28.1	24.7	-

Source: Author's calculations

Most TII (the exception being for Mozambique – Tanzania in 2000) are greater than 100[11] for both years, indicating some bias towards bilateral regional trade flows. However, in the majority of cases, these indices have been falling, signaling an increased dependence on countries outside the SADC region for bilateral trade.

The latter point finds support in a recent finding that for Malawi, out of seven of its top export destination markets, only three are in Africa and only one, South Africa falls within the SADC region. Moreover, Malawian exports to Kenya have grown by an average of 52.95%, those to the Netherlands by 43.71%, and those to the United States by 20% over the period 2004 to 2006 (Intra-SADC Trade Performance Review, 2006). For Mozambique, external markets continue to overwhelm regional trade flows

[11] A ratio greater (less) than 1 (or 100 %) indicates a bilateral trade flow that is higher (smaller) than expected given the partner's importance in world trade.

with the Netherlands the chief export destination for Mozambican aluminum, accounting for almost 60% of total export share. Mozambique also continues to enjoy larger regional bilateral flows with Malawi and South Africa.

The greater values of trade enjoyed by South Africa as compared to her regional counterparts may be related to the understanding that larger economies trade more than do smaller ones due to higher competition and specialization. More so, as countries develop they tend to specialize more in production and trade. South Africa is the richest country in SADC and rich countries trade more than poorer ones.

Product Complementary Indices

Table 6: PCI Textiles Products

	SA-Malawi	Malawi-SA	SA-Mozambique	SA-Tanzania	Malawi-Mozambique
2000	99.97	99.993	99.999	99.999	99.999
2001	99.98	99.985	99.999	99.999	99.999
2002	99.98	99.999	99.999	99.999	100
2003	99.987	99.993	99.999	99.999	99.999
2004	99.98	99.987	99.999	99.999	99.998
2005	99.987	99.993	99.999	99.999	99.996
2006	99.98	99.956	99.999	99.999	99.998

Source: Author's calculations

Table 7: PCI Wheat Product

	SA- Malawi	Malawi-SA	SA-Zimbabwe	SA-Tanzania
2000	100	100	100	100
2001	99	100	100	100
2002	99	100	99	100
2003	100	100	99	100
2004	100	100	100	100
2005	100	100	100	100
2006	100	100	100	100

Source: Author's Calculations

It is important to note that, by construction, the PCI is less responsive to low levels of bilateral trade between trading parties. For example in the bilateral trade flows between South Africa and Malawi, the PCI on textiles trade is almost equal to 100 in both cases on imports of textiles from Malawi to South Africa and exports from South Africa to Malawi. This could be an indication of complementarity in consumption by the reporting country, South Africa.

The PCI is very close to 100 for textiles, for all years 2000 to 2006, simply because of the very low values of bilateral trade flows between South Africa, Malawi, Mozambique and Tanzania as ratios to their global trade, confirming a long held view that regional trade under the SADC TP has not changed intra-regional trading dynamics for that product and also the fact that these are small countries by global standards. In fact, intra-regional trade has not increased as expected even though total trade at country level may have increased. Therefore, it may as well be argued on this

basis that, both the bilateral trade agreements and the SADC TP have done very little to increase trade flows between the selected SADC states, thereby implying that there is no value addition for commitments undertaken at the wider regional level in comparison to those taken at bilateral level. However, Malawi's textile exports have been responsive to the removal of most barriers to trade under the bilateral trade agreement with South Africa (even though the scale is so very low) rising by about 35% between 2000 and 2006 and growing at an annual average 5.8%.

So, in essence, whilst the values of trade may be significantly low, bilateral trade agreements carry a more favourable mark in relation to provisions on rules of origin which are invariably considered to be more favourable than those at the regional level under the SADC TP

3.4 Gravity trade modeling

The traditional gravity modelling technique has been widely used and has since gained prominence in international trade analysis over the years, especially in analysing trade creation and trade diversion. The main element of focus for gravity models has been the flow of an identified variable and the model specifies that 'a flow from origin *i* to destination *j* is determined by supply conditions at the origin, by demand conditions at the destination and by stimulating or restraining forces relating to the specific flow between *i* and *j* (Jacob Biker, 2009). In international trade, the traditional gravity model has taken the formulation:

$$X_{ij} = \beta_0 Y_i^{\beta_1} N_i^{\beta_2} Y_j^{\beta_3} P_j^{\beta_4} D_{i,j}^{\beta_5} PTA_{i,j}^{\beta_6} \quad (3)$$

Where X_{ij} is the value of trade between countries *i* and *j*, Y_k and P_k are the Gross Domestic Product (GDP) and the Population sizes respectively of country k and $D_{i,j}$ and $PTAi_j$ denote the physical distance between countries *i* and *j* and a possible special preference relationship, respectively. Taking logarithms to gravity model equation (3) and customising it to the production level estimations to be done in this research results in the following representation:

$$\ln(trade_{ija}) = A + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln P_i + \beta_4 \ln(dis\tan ce_{ij}) + \beta_5 \ln P_j + \beta_6 X_{ij} + \varepsilon_{ij} \quad (4)$$

Where $trade_{ija}$ is the bilateral trade between country *i* and *j* in agriculture products, *a*; GDP_i and GDP_j are the countries' respective income, P_i and P_j are respective countries' population size, while $distance_{ij}$ is the distance between the two trading partners and A is a constant.

In equation (4) above, A, β_1, β_2 and β_3 and β_4 are coefficients to be estimated, while ε_{ij} is the error term which captures other shocks and chance events which might influence bilateral trade between the two trading partners. In the above equation X_{ij} represents other possible variables used in international trade literature. Thus, equation (4) represents the basic gravity trade model where income is predicted to positively affect bilateral trade, while distance will be expected to have a negative effect on bilateral trade.

Whilst trade researchers agree to the empirical model specification represented in equation (4), i.e., that trade is the dependent variable while GDPs and distance are the core explanatory variables, contention still exists as to which other variables are to be included in the extended gravity trade model. As a result of this contention, Ghosh and Yamarik (2004) provided a list of 49 variables (one dependent and 48 independent) which have been used in literature to estimate the gravity trade model, though in various combinations.

Among the multitudes of possible explanatory variables, a regional trade agreement (RTA) variable, in the form of a dummy has been one of such potential variables. According to Jayasinghe and Sarker (2007), the RTA dummies enable us to isolate the two distinct effects, trade creation and trade diversion, that RTAs may exert on trade flows. Thus, an RTA variable has, among other things, been included to estimate the possible amount of trade creation and trade diversion emanating from an RTA between participating member countries.

This research derives from the fixed specification effect and relies on the Fixed Effects Model (FEM) since the author is interested in estimating typical trade flows between an ex ante predetermined selection of countries as was done by Eggar (2000). To this end, this research will follow Frankel and Wei (1995), and Jayasinghe and Sarker (2007) gravity model specifications, and estimate the following gravity model:

$$\ln(trade_{ijat}) = A + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln(dis\tan ce_{ij}) + \beta_4 \ln P_i + \beta_5 \ln P_j + \beta_6 SADC_{ij} + \beta_7 SADCO_{ii} + \varepsilon_{ij} \quad (5)$$

Where i= 1, 2, 3… and j = 1,…, n

Where: $SADC_{ij}$ = 1 if j is a member of SADC, 0 otherwise
$SADCO_{ii}$ = 1 if i is a net importer from a non SADC member j, 0 otherwise.

In equation (5), $trade_{ijat}$ is the current US dollar value of total bilateral trade (exports plus imports) between country i and country j in year t *(for years 2000-2006)* in selected products. GDP_i and GDP_j are nominal gross domestic products of country i and country j in year t in US dollars. P_i and P_j are country i and country j's respective populations.

Variable $distance_{ij}$ is the weighted distance (as opposed to the simplest measure of geo-distance which considers only the main city of the country) in kilometres between country i and country j. Weighted distance is used because the study considers that some capital cities are not populated enough to represent the "economic center" of the country. Thus, the weighted distance measure uses city-level data to assess the geographic distribution of population inside each nation. The idea is to calculate distance between two countries based on bilateral distances between the largest cities of those two countries, those inter-city distances being weighted by the share of the city in the overall country's population (http://www.cepii.fr).

Following studies by both Frankel and Wei (1995), and Jayasinghe and Sarker (2007), this paper defines two dummy variables: (i) a regional bloc dummy and (ii) an

openness dummy. Thus, $SADC_{ij}$ represents the existence of a regional trade agreement between country *i* and country *j* in equation (5).

In interpreting the effect of this dummy, a positive and statistically significant estimated coefficient of the regional bloc in a particular product equation and estimation period implies that the intra-regional trade has been stimulated by the implementation of the SADC Trade Protocol. In this case, the estimated coefficient will be indicating the amount of additional trade, beyond the level their economic and geographic characteristics would allow, that had taken place among SADC countries as a result of the implementation of commitments under the SADC FTA. This, according to Aitken (1973) and Endoh (1999), will be interpreted to reflect the trade creation effects of SADC FTA implementation.

The $SADCO_{ii}$ dummy, on the other hand, captures the degree of openness of SADC members' imports from the rest of the world. The dummy takes a value of one if a member is a net importer from the rest of the world (the importer is a member of SADC while the exporter is not in SADC) and, zero, otherwise. This dummy variable reflects any trade diversion occurring in the respective SADC states' import structure. The estimated coefficient of this variable indicates the degree to which SADC countries under- or over-imported from the rest of the world relative to the predictions of the standard gravity model. As such, in the case where the coefficient of this variable is negative and statistically significant, it indicates the extent to which SADC countries are under-importing from the rest of the world. More generally, it implies that an RTA member has reduced its net imports from the rest of the world relative to its net exports to the rest of the world (Eichengreen and Irwin, 1998; and Frankel, 1997).

By focusing on the effects of the two dummy variables, a separation of the cases where SADC is trade-creating only (i.e., it caused intra-regional trade to increase above average levels without changes in openness to non-members' trade) from those where SADC's increase in intra-region trade comes at the expense of non-members' exports to the bloc countries can be done. The latter effect can be identified as trade diversion.

3.5 Data Description

I use trade data provided in the TIPS/AusAID database for the years 2000 to 2006. My analysis focuses mainly on those products considered sensitive to the SADC region and these are Wheat (HS 1001), Sugar (HS 17) and Textile products (HS 50-63). The TIPS Database provides trade statistics for all SADC countries except for Angola, the DRC and Zimbabwe.

3.6 Gravity Trade Modelling: Results and Inferences

3.6.1 Wheat Regression Results

Conclusively, for wheat, five (5) of the variables are statistically significant at 5% and 1% levels and these include the GDP Importer, GDP Exporter, Population Importer, both the SADC and SADCO Dummies while the distance carries the expected sign but is not statistically significant to explain trade in wheat. These variables also assume expected signs with the positive sign for the GDP Importer confirming the direct relationship between GDP and Import demand. The positive sign for GDP Exporter could explain the size of the regional economy as a determinant of trade where as economies develop and become richer they tend to trade more and export more.

Table 8: Wheat Market Size Effects

	Estimate	Error	DF	t Value	Pr > |t|
logGDPImp	0.5932	0.2955	328	2.01	0.0455
logGDPexp	2.3865	1.1226	328	2.13	0.0343
logPopImp	0.8029	0.2159	328	3.72	0.0002
logPopExp	-4.6106	3.1496	328	-1.46	0.1442

For Importer and Exporter GDP, a 1% increase in economy size is associated with approximately 0.6% and 2.4% increases in bilateral wheat trade respectively. Both effects are significant at 5%.

For Population Importer 1% increase in importer population size results in an increase in wheat bilateral trade by about 0.8% while the exporter population effect is not significant. Population importer effect is significant at 1% meaning that the effect of this variable is more pronounced than in the case when it is significant at 5% or 10%

Regional FTA Effects

The positive and statistically significant SADC Dummy implies that intra-SADC trade has been stimulated (trade creation) by the formation of a free trade area with the estimated coefficient indicating the amount of additional trade, beyond the level their economic and geographic characteristics would allow, that had taken place among SADC members as a result of the formation of the SADC FTA (Jayasinghe and Sarker, 2007). This, according to Aitken and Endoh (1999), reflects the sum of trade creation and trade diversion effects of the SADC FTA. However, one issue that remains outstanding is the effect of overlapping FTAs, for example COMESA, and the bilateral trade agreements over and above the SADC FTA. The use of the fixed effects model helps correct for heterogeneity caused by unobserved or mis-specified factors that simultaneously explain trade volume between two countries in the same regional integration regime (Mátyás, 1997). In fact in certain instances the Hausman test for both exogeneity and misspecification can be conducted for say each of the three sectoral gravity model formulations and in cases where the null hypothesis of no misspecification (or no correlation between regressors and dependant variables) is not rejected, it can be concluded that the X-regressor in each of these three gravity models is exogenous, suggesting the non-existence of a misspecification problem.

Overall, within SADC, trade in wheat increased significantly between Zambia and South Africa with Zambian imports from South Africa rising by 341% between 2000 and 2006 while Mozambique raised her exports to Malawi from US $2 million to US$

22 million between 2005 and 2006 signifying the growth in bilateral trade between Malawi and Mozambique.

The SADCO Dummy reflects any trade diversion occurring in the respective SADC state's import structure. Thus, the estimated coefficient of this variable indicates the degree to which SADC members under or over-import from the rest of world relative to the predictions of the standard gravity model. The result of the SADCO Dummy shows it is negative and statistically significant at 1% therefore implying that SADC member states have been under-importing from the rest of the world over the period under research which implies that SADC countries have reduced their net imports relative to their net exports to the rest of world.

3.6.2 Textiles Regression Results

Table 9: Textiles Market Size Effects

Effect	Estimate	Error	DF	t Value	Pr > |t|
logGDPexp	4.3890	1.0012	328	4.38	<.0001
logPopImp	1.0282	0.2353	328	4.37	<.0001
logPopExp	-10.0591	3.0878	328	-3.26	0.0012

Three parameters for textiles, that is GDP Exporter, Population Importer and Population Exporter carry positive signs and are all statistically significant at 1%. 1% increase in GDP Exporter results in about 4.4% increase in textiles bilateral trade while a similar increase in Population Importer results in an increase of bilateral textiles trade of about 1%. An increase in Population Exporter by 1% results in approximately 10% decrease in textiles bilateral trade.

Regional FTA Effects

Both SADC and SADCO Dummies are statistically insignificant implying that the SADC FTA has not had any effect or impact on trade in textile products within the region and with third parties.

3.6.3 Sugar Regression Results

Four (4) parameters including GDP Exporter, Population importer, the SADC and SADCO dummies carry positive signs and are significant at 1% for Population importer and SADCO Dummy while GDP Exporter and SADC Dummy are at 5%. The expected signs for GDP Exporter and Population importer are consistent with what is observed for other products above. The SADC Dummy would seem to indicate that the SADC FTA has increased trade in sugar while the positive sign for the SADCO Dummy would imply that the sugar trade has been more domestic or regionally oriented.

Table 10: Sugar Market Size Effects

Effect	Estimate	Error	DF	t Value	Pr > |t|
logGDPexp	3.2024	1.3830	328	2.32	0.0212
logPopImp	1.3415	0.2528	328	5.31	<.0001

1% increase in GDP Exporter is associated with an increase in bilateral sugar trade by about 3.2% while a percentage increase in Population Importer results in a bilateral trade increase of about 1.34%.

4.0 CONCLUSION and POLICY RECOMMENDATIONS

This research paper focuses on bilateral trade agreements signed and implemented by selected SADC states. The purpose was to identify products of interest to these countries where they apply variably high tariff rates to their trading partners and to establish to what extent bilateral trade agreements have facilitated or affected trade in those products – especially textiles and apparel, sugar, wheat and vehicles. These products have been considered overwhelmingly sensitive both at bilateral and regional levels. Calculations on average growth rates of exports, imports and total trade indicate that South Africa remains the chief source of imports for those countries with which it has bilateral trading agreements. South Africa's imports to those countries are almost equal to total trade meaning that trade is overwhelmingly one-sided in South Africa's favour.

Reasons why trade flows may not have increased with countries other than South Africa are numerous, from lower levels of productive capacity to dependence and reliance on other external countries for trade – for example, when countries in the region export to Europe under preferential schemes more favourbale than what is obtained with their regional counterparts. Thus, there is very little evidence of overall regional trade creation even though there is an indication that members belonging to a bilateral trade agreement would tend to enjoy increasing bilateral trade.

Thus, an overall conclusion as to whether bilateral trade agreements have increased or reduced trade amongst SADC member remains ambiguous. The effect of the SADC TP would have been on the residual trade that was not covered by the bilateral trade agreements. Even more so, commitments under COMESA – for, say, Malawi and Zimbabwe, may have diluted the real effect on trade flows of the signed bilateral trade agreements. It also remains quite clear that the prevalence of other non-tariff barriers continues to stifle bilateral trade flows throughout the region.

Results from the gravity modeling technique show that variables assume their expected signs with some significant at 5% and some at 10%. These results have been confirmed by other researchers such as Jayasinghe and Sarker (2007). What is not clear, however, is the extent to which bilateral trading agreements have gone, beyond the SADC TP (and FTA) to increase trade flows between contracting parties. Whilst there is some positive relationship on trade flows associated with being a member of a bilateral trade agreement, the effect of both the SADC TP and of overlapping membership to regional integration groups could dilute the overall effect of bilateral trade agreements on overall bilateral trade flows.

This research also notes that rules of origin and other non-tariff requirements remain important restrictions to overall bilateral trade flows and, as noted, this has been one example where a bilateral trade agreement between South Africa and Malawi has added value to bilateral trade flows. So, in essence, whilst the values of trade may be significantly low, bilateral trade agreements carry a more favourable mark in relation

to provisions on rules of origin which are invariably considered to be more favourable than those at the regional level under the SADC TP.

This research would therefore argue that, if bilateral trade agreements have not yielded any significant increase on bilateral trade flows, the reason may not necessarily be that the agreements are not a good strategy, but that issues to do with implementation and commitment to making them work could actually play significant roles. Reviews and amendments have been done to a number of these bilateral trade agreements and, whilst their overall effect remains quite ambiguous, there is merit in analysing the very fact of these reviews themselves because they serve as an indication that something is happening on the ground.

Whilst rules of origin (especially issues to do with domestic content requirements) have continued to be singled out for reduced trade at the wider regional level, it has become clear that most bilateral trade agreements enjoy better rules of origin terms and that this could eventually help achieve better results in increased trade compared to the regional process. In other words, as the region continues to enjoy more bilateral trade agreements, the regional problems with rules of origin may be diluted by the many bilateral trade agreements thereby achieving the desired objective that is to realise simple rules so as to increase trade flows within the region – and that is a strength in bilateral trade agreements. Therefore, as a matter of policy, the region is open to establishment of bilateral trade agreements. As long they breach neither the overall trade arrangements guided by the SADC TP nor their multilateral commitments, this could be used to inspire more SADC countries that have been skeptical of the regional process to go the bilateral route – thereby gaining easier access, with improved rules etc. – because these are negotiated out of choice.

INDEX

The Trade Intensity Index

Formulated by Frankel (1997) the trade intensity index is calculated as: **Error! Objects cannot be created from editing field codes.**

(1)

Where:

X_{ij} = exports of reference country i to partner j

X_i = total exports of reference country i

M_j = total imports of reference country j

M_w = world imports

A value *greater (less)* than unity between the home country, say, Malawi, and a trade partner, say Zimbabwe, indicates the existence of a *bias (less bias)* to trade with that country. An index of more (less) than one indicates a bilateral trade flow that is larger (smaller) than expected, given the partner country's importance in world trade.

Product Complementary Indices

Product complementarities between countries are an important indicator of potential for expansion of intra-regional trade. In order to ascertain the degree to which one bilateral member country's imports from a partner country complements its domestic consumption and/or production, this study will use the Product Complementarity Indices. *The higher the complementarity, the higher the level of intra-regional trade that is expected*. Indices will be constructed for the post 1996 period, i.e. after the SADC Trade Protocol.

The PCI, as presented by Tsikata (1999), is constructed as follows:

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Where X_{ij} is the share of good i in global exports of country j and M_{ik} is the share of good i in all imports of country k, the index is zero when no goods are exported by one country or imported by the other and 100 when the export and import shares exactly match.

Wheat Results

Effect	SADC Dummy	SADCO Dummy	Estimate	Error	DF	t Value	Pr > |t|
Intercept			10.1470	7.2802	328	1.39	0.1643
logGDPImp			0.5932	0.2955	328	2.01	0.0455
logGDPexp			2.3865	1.1226	328	2.13	0.0343
logdist			-0.2363	0.5625	328	-0.42	0.6747
logPopImp			0.8029	0.2159	328	3.72	0.0002
logPopExp			-4.6106	3.1496	328	-1.46	0.1442
SADCDummy	1		4.8040	1.8673	328	2.57	0.0105
SADCDummy	0		0	.	.	.	.
SADCODummy		0	-7.9660	1.5693	328	-5.08	<.0001
SADCODummy		1	0	.	.	.	.

Effect	Num DF	Den DF	F Value	Pr > F
logGDPImp	1	328	4.03	0.0455
logGDPexp	1	328	4.52	0.0343
logdist	1	328	0.18	0.6747
logPopImp	1	328	13.82	0.0002
logPopExp	1	328	2.14	0.1442
SADCDummy	1	328	6.62	0.0105
SADCODummy	1	328	25.77	<.0001

Textiles Results

Effect	SADC Dummy	SADCO Dummy	Estimate	Error	DF	t Value	Pr > |t|
Intercept			18.6086	6.9099	328	2.69	0.0074
logGDPImp			0.1792	0.2977	328	0.60	0.5477
logGDPexp			4.3890	1.0012	328	4.38	<.0001
logdist			0.4688	0.5463	328	0.86	0.3914
logPopImp			1.0282	0.2353	328	4.37	<.0001
logPopExp			-10.0591	3.0878	328	-3.26	0.0012
SADCDummy	0		0.2787	2.1725	328	0.13	0.8980
SADCDummy	1		0	.	.	.	.
SADCODummy		1	1.6892	1.8663	328	0.91	0.3661

SADCODummy		0	0	.	.	.	.

Effect	Num DF	Den DF	F Value	Pr > F
logGDPImp	1	328	0.36	0.5477
logGDPexp	1	328	19.22	<.0001
logdist	1	328	0.74	0.3914
logPopImp	1	328	19.10	<.0001
logPopExp	1	328	10.61	0.0012
SADCDummy	1	328	0.02	0.8980
SADCODummy	1	328	0.82	0.3661

Sugar Results

Effect	**SADC Dummy**	**SADCO Dummy**	**Estimate**	**Error**	**DF**	**t Value**	**Pr > |t|**
Intercept			-6.3231	9.0172	328	-0.70	0.4837
logGDPImp			0.5782	0.3613	328	1.60	0.1104
logGDPexp			3.2024	1.3830	328	2.32	0.0212
logdist			0.1549	0.6916	328	0.22	0.8230
logPopImp			1.3415	0.2528	328	5.31	<.0001
logPopExp			-5.9372	3.9074	328	-1.52	0.1296
SADCDummy	1		4.8555	2.0793	328	2.34	0.0201
SADCDummy	0		0	.	.	.	.
SADCODummy		0	10.8803	2.5512	328	4.26	<.0001
SADCODummy		1	0	.	.	.	.

Effect	Num DF	Den DF	F Value	Pr > F
logGDPImp	1	328	2.56	0.1104
logGDPexp	1	328	5.36	0.0212
logdist	1	328	0.05	0.8230
logPopImp	1	328	28.16	<.0001
logPopExp	1	328	2.31	0.1296
SADCDummy	1	328	5.45	0.0201
SADCODummy	1	328	18.19	<.0001

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