

**An analysis of South African exports to the United States under the
African Growth Opportunity Act**

By

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in partial fulfilment of the requirements for the degree

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1. Introduction and Background

The African Growth and Opportunity Act (AGOA) is a unilateral trade policy concession governing United States' Africa trade and investment relations. AGOA measures United States' primary access for all Sub-Saharan African (SSA) countries, including South Africa. Signed into law by the United States Congress in May 2003, AGOA is a piece of legislation that has the fundamental objective of facilitating the gradual expansion of SSA countries' economic growth capacity by extending unilateral access to the United States market for exporters from their countries (Eswaran & Virey, 2011).

According to Gordon & Stern (2011), AGOA builds on and extends the US's Generalized System of Preferences (GSP) programme, by expanding the range of products for which preferential access is granted to include such products as petroleum, clothing, and a range of other agricultural and industrial products. Furthermore, 2003 exports from the United States GSP averaged about 17% of Sub-Saharan Africa's total exports to the United States in 2002, and this increased to 17% under AGOA. This AGOA programme has been the United States' top export market.

Against this background, this thesis seeks to assess the extent to which increased preferential access to the United States market has translated into a rise and tangible increase in exports from South Africa to the US. The specific aim of this thesis is to identify the issues which South Africa and the United States have experienced since 2003. Finally, the thesis will seek to highlight the key components which are expected to impact AGOA, and accordingly the country's export performance.

Over the last decade, AGOA has emerged as a trade of issue in addition with GSP's related access to commodities in Africa in USA. In this regard, there exists a high level of literature that has explored the implications of AGOA on the trade and growth of commodity prices. Impediments to May 2003, AGOA's objectives, has been to facilitate the gradual integration of SSA countries to the world economy by providing preferential access to the United States market for exporters in SSA countries (Eswaran & Virey, 2011).

While AGOA has offered opportunities for trade growth between United States and SSA countries, the program's impact of AGOA has become less significant. On the same, a series of trade agreements that AGOA has had a positive impact on SSA exports, while a series of trade agreements that AGOA has had a positive impact on SSA exports. Eswaran & Virey (2011) have investigated the economic impact of AGOA on SSA exports to the United States market.

AGOA has been in effect since 2003. AGOA was introduced in 2003 (Eswaran, 2009) following the twelfth century, including South Africa, to continue to enjoy preferential access until 1993. Since 2003, AGOA has been a positive impact on SSA exports. Eswaran & Virey (2011) have investigated the economic impact of AGOA on SSA exports to the United States market. There have been a number of proposed recommendations to the AGOA that AGOA can be used to:

- extension of AGOA to SSA countries that are not currently included in AGOA's list of eligible countries;
- expansion of AGOA's list of eligible countries;
- the inclusion of the AGOA program on SSA countries that are not currently included in AGOA's list of eligible countries;
- expansion of AGOA's list of eligible countries;
- extension of AGOA to all SSA countries that are not currently included in AGOA's list of eligible countries.

The program's impact on SSA exports has been significant, and has been a positive impact on SSA exports. Eswaran & Virey (2011) have investigated the economic impact of AGOA on SSA exports to the United States market.

Abstract

An analysis of South African exports to the United States under the African Growth Opportunity Act

By

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Degree: M.Com in Management in International Trade Law and Trade Policy

Study Leader: Trudi Hartzenberg

The African Growth and Opportunity Act (AGOA) is a unilateral trade policy concession governing United States – Sub-Saharan Africa (SSA) trade and investment relations. AGOA provides United States market access for 40 SSA countries, including South Africa. This piece of legislation has the fundamental objective of facilitating the global integration of SSA countries into the world economy by extending preferential access to the United States market for exporters from eligible countries. Over the past decade, AGOA has emerged as a topical issue as scholars and policy makers sought to understand its impact on SSA, especially South Africa. This has been awarded more impetus given its pending expiration in 2015. This, naturally, raised questions about the performance of United States preference programs (such as AGOA) as part of a larger ongoing debate on the form that United States preference programs may take in the foreseeable future. With South Africa facing a serious opposition to inclusion in the next shape of AGOA given the number of trade agreements South Africa has signed with countries that are competitors to United States in certain product categories. This study will seek to highlight the importance of the AGOA dispensation to South Africa, and through that analysis make a case for the continued inclusion of South Africa in the future trade dispensations that may develop. This study focuses on two research objectives; firstly, the study seeks to assess the extent to which increased preferential access to the United States market has translated into a real and tangible increase in exports from South Africa to the United States. Secondly, the study seeks to identify the areas where South Africa and the United States have high trade potential, and help make a case for inclusion of these high potential trade products in the next iteration of the AGOA dispensation. In achieving the first research objective, the study carried out a detailed trade statistics analysis with the hope of gaining greater understanding of the extent to which AGOA has influenced trade patterns between the United States and South Africa. South Africa's trade figures show that the United States is an important trade partner. A key conclusion that can be drawn from the analysis is the observation that a fair amount of growth in South Africa's exports to the United States is fundamentally characterized by two key aspects namely; growth in specific commodities and an export base that is becoming gradually concentrated over time. This implies that trade between South Africa and the United States is shifting towards a new focus in line with AGOA incentives and by extension one may conclude that South African firms are utilizing the market opportunities and the networks that enable them to effectively exploit the United States market. In fulfilling the second research objective, the detailed trade potential analysis that is propped up by a robust analysis of trade trends was carried out. The trade potential analysis identified thirteen commodity groups as having high potential for further exports into the United States market, and Pearls, precious stones and metals were identified as having the highest indicative trade potential, although the picture changes as the data is further disaggregated. This suggests that there is enormous potential and a great scope for export of pearls, precious stones and metals to the United States.

Key words: AGOA, SADC, Export analysis .

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Glossary of Terms

Abbreviation	Expansion
AAG	Average Annual Growth
AGOA	African Growth Opportunity Act
APDP	Automotive Production and Development Programme
AsgiSA	Accelerated and Shared Growth Initiative for South Africa
ATPA	Andean Trade Preference Act
CARIBCAN	Caribbean-Canada Trade Agreement
CBI	Caribbean Basin Initiative
CEPII	<i>Centre d'Etudes Prospectives et d'Informations Internationales</i>
CGE	Computable General Equilibrium
CNL	Competitive Need Limitation
dti	Department of Trade and Industry
EPA (s)	Economic Partnership Agreement(s)
EU	European Union
FDI	Foreign Direct Investment
FTA	Free Trade Area
GATT	General Agreement on Tariffs and Trade
GEAR	Growth Employment and Redistribution strategy,
GM (s)	Gravity Models
GSP	Generalised System of Preferences
IPAP	Industrial Policy Action Plan.
ITA	International Trade Administration United States Department of Commerce
ITED	International Trade and Economic Development Division
ITP	Indicative Trade Potential
LDC (s)	Least Developed Countries
MFN	Most Favoured Nation
MIRAGE	Modeling International Relationships in Applied General Equilibrium
n.e.s.	Not elsewhere specified
NDP	National Development Plan
NGP	New Growth Path
OEM(s)	Original Equipment Manufacturer(s)
RCA	Revealed Comparative Advantage
RoO	Rules of Origin
RTBs	Revealed Trade Barriers
SACU	Southern Africa Customs Union
SPARTECA	The South Pacific Regional Trade and Economic Co-operation Agreement
SPS	Sanitary and Phyto-Sanitary
SSA	Sub-Saharan African
TIDCA	Trade, Investment, and Development Cooperation Agreement
TIFA	Trade and Investment Framework Agreement
tralac	Trade Law Center
UNESAP	United Nations Economic and Social Commission for Asia and the Pacific
US	United States
USAID	United States Agency for International Development
USTR	Office of the United States Trade Representative
WCO	World Customs Organisation
WTO	World Trade Organisation

1 Introduction and Background

The African Growth and Opportunity Act (AGOA) is a unilateral trade policy concession governing United States – Sub-Saharan Africa (SSA) trade and investment relations. AGOA provides United States market access for 40 Sub-Saharan African countries, including South Africa. Signed into law by the United States Congress in May 2000, AGOA is a piece of legislation that has the fundamental objective of facilitating the global integration of SSA countries into the world economy by extending preferential access to the United States market for exporters from eligible countries (Condon & Stern, 2011).

According to Condon & Stern (2010), AGOA builds on and extends the United States Generalised System of Preferences (GSP) programme, by expanding the range of products for which preferential access is granted to include such products as petroleum, clothing, and a range of other agricultural and industrial products. Naumann (2009) points out that the United States GSP covered about 17% of Sub-Saharan Africa's (SSA) exports to the United States in 2000, and this increased to 72% under AGOA. Thus, AGOA preferences increased the United States GSP regime fourfold. Against this background, this thesis seeks to assess the extent to which increased preferential access to the United States market has translated into a real and tangible increase in exports from South Africa to the United States. The second aim of this thesis to identify the areas where South Africa and the United States have unexploited trade potential.

Over the past decade, AGOA has emerged as a topical issue as scholars and policy makers sought to understand its impact on SSA. In this regard, there exists a rich body of literature that has explored the implications of AGOA on the trade and growth of beneficiary states. Implemented in May 2000, AGOA's objective has been to facilitate the global integration of SSA countries into the world economy by extending preferential access to the United States market for exporters in SSA countries (Condon & Stern, 2011).

While AGOA has offered opportunities for trade growth between United States and SSA countries, the precise overall impact of AGOA has however been disputed. On one hand, a section of literature argues that AGOA has had a positive significant impact on overall SSA exports, while another section contends that AGOA has had a positive but insignificant impact (Condon & Stern, 2011). Both perceptions find commonality in that AGOA has had an unambiguously positive effect on SSA trade – they disagree only on the scale of this effect¹.

Initially set to expire in 2008, AGOA was extended to 2015 (Naumann, 2009), allowing SSA beneficiary countries, including South Africa, to continue to enjoy preferential access to the United States market. With the arrival of 2015 there have been questions raised about the success of United States preference programs (such as AGOA) and there is an ongoing debate on the form that United States preference programs may take in the foreseeable future. With respect to AGOA, there have been a number of proposed recommendations on the form that AGOA can take. These are:

- an extension of AGOA/the AGOA dispensation for another term maintaining the status quo;
- a permanent extension of AGOA;
- the expansion of the AGOA dispensation to non-African Least Developed Countries (LDCs);
- non-extension of AGOA (expiration);
- extension of AGOA for all AGOA countries with South Africa's benefits curtailed and;
- the consideration of a new reciprocal dispensation with AGOA beneficiaries.

¹ The argument is whether this positive effect has been significant, scholars such as Fayissa & Tadasse (2007) and Ombuki (2011) contending that the impact of AGOA is not as large as was initially thought.

South Africa is one of the countries that have managed to overcome the supply side constraints and exploit the duty free access to the United States market. This is evidenced in the recorded statistics that show South Africa accounts for the bulk of the non-oil exports to the United States. Further to this South Africa also exports a diverse range of exports that include manufactured goods, agricultural goods as well as textile and apparel products.

South Africa also faces a very strong anti-South Africa lobby at Capitol hill that has raised a number of issues with South Africa's participation in AGOA. An example of such an issue is that of South Africa's legitimacy as an AGOA beneficiary, arguing that AGOA was intended to benefit the poorest countries, and as such South Africa should not qualify to benefit from such a dispensation, given it is deemed to be a middle income country. This line of reasoning overlooks the dual nature of South Africa's economy: often characterised as a 'first' and 'second' economy. This dichotomy describes the conditions at the two different ends of this spectrum: with wealth and resources concentrated at one end – and poverty and disadvantage at the other, (Phillip, 2009).

The other issue relates to the nonreciprocal nature of the AGOA preferences. With others arguing that the United States should focus on hammering out two-way trade agreements with SSA, and South Africa is singled out, given its status as a middle income country. The idea driving this line of reasoning is the improvement in African economic conditions in recent years. This is also exacerbated by the fact that the European Union (EU) negotiated and concluded Economic Partnership Agreements (EPAs) with several African countries that provide some reciprocal tariff benefits, potentially placing United States firms at a competitive disadvantage relative to European firms in some markets. In addition, South Africa is also on the verge of concluding the Mercoursor agreement and has been in talks with India on the signing a free trade pact, further putting United States firms at a disadvantage.

The other issue relates to the challenges that United States exporters have faced non-tariff barriers in their attempt to access the South African market. This was found to be true for agricultural products. Cronjé (2013) cites an example of United States exports to South Africa of frozen chicken feet (HS 0207.14), have been subject to anti-dumping duties since December 2000. As a consequence, questions have been raised as to why they continue to receive unfettered access to the United States market under AGOA. (Cronjé, 2013).

These potential new forms all pose a threat to South Africa's continued duty-free access to United States markets.

1.1 Aims and Scope of the study

The aim of this study is to answer the following research questions:

1. To what extent has South Africa benefited from the AGOA trade dispensation in terms of improved exports to the United States?
2. What should be the focus of South Africa's lobby for continued and enhanced preferential access under AGOA?

In a bid to answer these questions, the study will firstly seek to assess the extent to which increased preferential access to the United States market has translated into a real and tangible increase in exports from South Africa to the United States. Secondly the study seeks to identify the areas where South Africa and the United States have high trade potential, and help make a case for inclusion of these high potential trade products. Specifically the study sets out to achieve the following objectives:

1. Analyse South Africa – United States bilateral trade under AGOA.
2. Identify sectors of high trade potential between South Africa and United States.

1.2 Relevance of study

Some 41 SSA countries², including South Africa, are deemed eligible to participate under the AGOA trade initiative. As the literature suggests enhanced United States–Africa trade has underlined sustained export growth and will most likely deliver greater benefits if eligible countries overcome supply side constraints (Condon & Stern, 2011). While a fair amount of ground-work of the extent to which AGOA has been effective in improving United States-Africa trade has been done, there remain gaps in the extent to which AGOA has achieved commodity-specific and economy-wide impact in respective countries. The premise for AGOA is that economic growth in Africa is best served through more liberal trade, enabling African commodity exports to enjoy preferential access to the United States market.

Indeed, knowing the impact that is directly attributable to AGOA involvement is critical in justifying South Africa’s participation in AGOA. The extent of the potential impact of AGOA would be critical in informing policy decisions targeting South African exporters by repositioning them towards producing the required products, attaining capacities, competitive competencies, scale economies, skills and experience necessary for effective integration and participation in the export markets. Once the impact of AGOA on export growth and the broader economy is determined through this study, scholars and policy makers can start the debate on the best ways to remove the bottlenecks, and ways to more effectively exploit potential markets.

There exists abundant empirical work generally focused on the AGOA’s impacts on various aggregate level SSA exports. The novelty of this study is its pertinent focus on AGOA impacts at commodity level, which is an important strategic focus that reveals the ‘real’ impacts that could be concealed by commodity aggregates. This study seeks to unpack and detail product level aspects whose dearth in knowledge is yet to be sufficiently addressed.

For its supporters, the advantage of AGOA is that minimal non-tariff barriers make AGOA an ideal setting within which eligible SSA countries can expand exports and achieve growth. The content and structural regime of the AGOA trade facility nearly guarantees the possibility of export benefits in at least some commodity sectors (USTR, 2012). The incentive structure of AGOA challenges the private sector to take advantage of the market opportunities. With state, private sector and foreign investment, AGOA may be effectively exploited and thereby achieve export and economic growth.

1.3 Outline of the study

The rest of the study is laid out in the following manner: Chapter 2 will start off by setting the background to how the unilateral trade preferences came about in a world trading system that was founded on the principle of reciprocity. The discussion then moves towards the evolution of the AGOA, the dispensation’s product coverage as well as the countries that qualify to benefit from AGOA. The discussion then contextualizes South Africa’s economic policy context and briefly describes the key economic policies that are responsible for driving growth in South Africa. Following this the discussion then transitions into understanding the economic relationship (with a focus on investment), that the United States has with SSA in general and then with South Africa specifically.

With this introduction, Chapter 3 then reviews the methodologies that other trade studies have used in the past in examining the benefits that unilateral trade preference schemes have on the recipient of such dispensation. By exploring the advantages as well as the shortcomings of each methodology – this chapter will develop the rationale for the method of analysis adopted by the study. This

² As of December 2014, the AGOA beneficiary countries were Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Chad; Comoros; Republic of Congo; Djibouti; Ethiopia; Gabon; The Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Malawi; Mali; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; South Africa; Tanzania; Togo; Uganda and Zambia. Madagascar and Democratic Republic of Congo were recently deemed ineligible as a result of the civil unrest in those countries. At the time of writing Swaziland was no longer eligible for AGOA.

chapter will also discuss the characteristics of the data that is used in the analysis, leading conveniently into Chapter 4, where the actual analysis begins.

Chapter 4 will give the reader an understanding the merchandise trade relationship between SSA and the United States, as a scene setter; then the discussion focuses on the relationship between South Africa and the United States. This analysis is carried through to Chapter 5 which builds on the prior analysis and characterizes the trade relationship in terms of selected trade indicators. Chapter 6 will bring the discussion to finality by recapping the research questions that the study set out to address and then summarize the finding and conclusions drawn from the analysis.

2 Literature Review

2.1 Introduction

Any attempt to seek a better understanding of the South Africa – United States trade relationship under AGOA requires a grounded understanding of the evolution of trade preferences between Least Developed Countries (LDCs) and the developed world in general. This chapter begins by doing just that through a detailed elaboration of how unilateral trade preferences came about in a world trading system that was founded on the principle of reciprocity. The discussion then moves towards the evolution of the AGOA, the products that are covered by AGOA as well as the countries that are eligible to benefit from this system of trade benefits.

Finally, the discussion then transitions into understanding the economic relationship that the United States has with SSA in general and then with South Africa specifically. This subsection starts out by giving South Africa's economic policy context and briefly describes the key economic policies that are responsible for driving growth in South Africa. The objective of this discussion is to bring to the fore the relevance of the market access that AGOA provides for the South Africa and how AGOA fits into the broader economic growth and development strategy of South Africa. The discussion then moves on to discuss the investment trends as well as the structured agreements between the South Africa and the United States.

2.2 Evolution of unilateral trade preferences

A fundamental principle of the modern international trade system is reciprocity, and the General Agreement on Tariffs and Trade (GATT) and the subsequent WTO, initially contained no provision authorizing special and differential treatment, but this later changed as the development economists of the time realised the potential development impact that preferential access to developed country markets could have on developing countries. The notion of developed countries availing nonreciprocal trade preferences as a means of supporting the development of LDCs gained popularity in the 1960s, as a number of scholars acknowledged the reliance of developing countries on highly volatile low value added exports (mostly agricultural and mineral commodities (Snyder, 2012)). Initially, the concept of nonreciprocal trade preferences faced resistance from a number of developed countries, who argued against trade preferences and any trade arrangement not compatible with non-discriminatory trade philosophy that is the founding ideology of the GATT agreement enshrined in Article 1 of the GATT (Onguglo, 1999).

In 1971, after much debate and negotiation, a compromise was reached that would allow for an exception in the traditional reciprocal framework of the GATT. This exception came in the form of waiving the obligations resulting from Article I MFN provision, specifically allowing developed contracting parties to single out developing GATT contracting parties' products for nonreciprocal preferential tariff treatment above that which was granted to MFN partners, for a period of 10 years. Greater clarity was brought to this exception at the Tokyo round negotiations in 1979, which culminated with the Decision on Differential and More Favourable Treatment, Reciprocity, and Fuller Participation of Developing Countries, commonly known as the Enabling Clause. This clause cemented the nonreciprocal preferential treatment within the GATT and provided a permanent legal basis for nonreciprocal preferences (Snyder, 2012). To this day these nonreciprocal preferences remain entrenched in the current international trade system (Snyder, 2012)³.

³According to (Snyder, 2012), preference-granting countries enjoy substantial discretion over their nonreciprocal preferential schemes. In addition, while the Enabling Clause provides a legal basis for nonreciprocal preferences, it also gives preference-granting countries significant policy space in which to implement their own programs (Shaffer & Apea, 2005). That being said, developed countries have some restrictions in terms of developing eligibility criteria, (Bartels, 2007), but preference-granting countries are otherwise given significant discretion regarding a program's conditionality, the scope of its product coverage, and its rules for determining what goods qualify as "originating" from the beneficiary country.

There are a number of nonreciprocal preferential market access dispensations that are aimed at uplifting the LDCs and examples of such include the Caribbean Basin Initiative (CBI), Caribbean Canada Trade Agreement (CARIBCAN), and Andean Trade Preference Act (ATPA) in the Western Hemisphere; The South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA) in Oceania; the General System of Preferences (GSP) offered by a number of countries that include Australia, Belarus, Bulgaria, Canada, Estonia, the European Union, Japan, New Zealand, Norway, the Russian Federation, Switzerland, Turkey and the United States of America⁴. In addition to this the United States offers the location specific trade preference concession AGOA. The following subsection will give a grounded understanding of the evolution of the AGOA trade preferences between Africa and the United States.

2.3 Overview of AGOA

Recognising the importance of Africa, AGOA marked the culmination of a “new” American policy on Africa which was driven by three realities as defined by Gerstenfeld & Njoroge (2003). First, the age of global trade and the threat of global terror has made necessary relations between Africa and the United States as the United States seeks to root out terrorism⁵. Second, Africa is seen as the last economic growth frontier, a region of great potential and of enduring political significance; and the United States fears (to a certain extent) having missed the “last opportunity” to get a foot hold in this emerging market. Third, a shift in America’s foreign policy from ideologically based policies that were characterised by an emphasis on containment of Soviet communism to policies that sought the promotion of American economic self-interest characterised by the pursuit of trade and investment.

AGOA’s sole objective is to facilitate the global integration of SSA countries into the world economy by extending preferential access to United States trade and investment markets for exporters in SSA countries (USTR, 2013). This act is believed to be central to fostering economic and political development in SSA countries by thereby leading to long run prosperity founded on free markets and increased democratic governments (USAID, 2001). The specific objectives of AGOA are to:

- Promote increased trade and investment between the United States and SSA countries;
- Promote economic development and reform in SSA; and
- Promote increased access and opportunities for United States investors and Business in SSA.

The original AGOA was signed into law on May 18, 2000 as Title 1 of The Trade and Development Act of 2000 by President Clinton. Since then, there have been subsequent revisions of the AGOA that have seen some amendments to the Act, which were deemed necessary to improve the effectiveness of the Act.

The first amendment (also known as AGOA II) was signed into law on the 6th of August 2002 by President Bush, as Sec. 3108 of the Trade Act of 2002. AGOA II substantially expanded preferential access for imports from beneficiary SSA countries. The new legislative amendment had 3 key additions, the first being, a provision for doubling the annual quantitative limits on duty free and quota free African Apparel exports, as a means to encourage investment in productive capacity in African fabric production – specifically weaving and spinning (US Congress, 2002). The second addition in AGOA II was the extension of duty free and quota free status to additional Apparel tariff lines that included sweaters, t-shirts and socks (also known as knit-to-shape items). Third, AGOA II allowed for the Namibia and Botswana the right to use fabric sourced from a non-African country – a

⁴ Please see Appendix 1 for a list of the eligibility requirements for the US GSP.

⁵ An example of the need for the cooperation with regards to dealing with the threat of terrorism is the relationship between Kenya and the United States that sees the United States and its Allies operating in Kenya’s territorial waters in order to monitor terrorist activities in that part of the world.

benefit that had previously been extended to less developed economies.

Two years on, further amendments were made to AGOA legislation through the AGOA Acceleration Act of 2004 (AGOA III) which was signed by President Bush on July 12, 2004 (US Congress, 2004). The major changes in this iteration were in three major areas; the first area was the extension of preferential access of all SSA countries from 2008 to September 2015; as well as the extension of the wearing apparel provisions (the third country fabric provision for lesser countries) to 2007 – an additional 3 years. The second area that this iteration of AGOA amended spoke to the scheduling of quotas; the first 2 years of the additional three years would keep the same quota with a 50% reduction in the quota in the final year. The third area affected by the amendments, focused on textile exports to the United States, products that were manufactured in an AGOA country but made use of collars, cuffs, waistbands etc. sourced from third countries were eligible for export under AGOA.

Additionally, the amendments made in AGOA III increased the value tolerance levels from 7% to 10%⁶. The amendments expanded the 'Folklore/traditional items' to include certain machine made ethnic printed fabric. Lastly the amendments provided additional Congressional guidance to the Administration on how to administer the textile provisions.

The current version of AGOA is known as AGOA IV and came about as a result of a new round of legislative changes and was signed into law on the 20th of December 2006 as part of the African Investment Incentive Act of 2006 (US Congress, 2006). The central amendment in AGOA IV extended the third country fabric rule for an additional 5 years to 2012⁷. In addition, lawmakers introduced special rules for fabric and yarns that were produced in commercial quantities in the United States to be used in qualifying African countries in the production of apparels that were exported to the United States (Naumann, 2010). According to Naumann (2010), these provisions were later on repealed on the 16th of October 2008.

Eligibility for preferences under AGOA is limited to those countries that the United States deems to be reforming African countries, and have been specially designated by the United States as beneficiaries. This is based on a list of pre-determined criteria that speak to human rights, democratic institutions and so forth. This list is amended from time to time; over the years countries have gained (or lost) eligibility as a result of various factors. The following subsection will describe in detail the criteria used in selecting AGOA countries as well as give chronological account of the countries that are AGOA beneficiaries or have been beneficiaries in the past.

2.3.1 Eligibility for AGOA

The United States Congress requires the President to determine annually whether SSA countries are eligible for AGOA benefits based on progress in meeting certain criteria. The chief requirement for all beneficiaries is that the beneficiary countries should be based in SSA and must be GSP eligible⁸. In addition to this there are a number of criteria that a beneficiary country should meet or be working towards attaining, (contained in section 104 of the Act).

⁶ Apparel products assembled in sub-Saharan Africa which would otherwise be considered eligible for AGOA benefits but for the presence of some fibers or yarns not wholly formed in the United States or the beneficiary sub-Saharan African country will still be eligible for benefits as long as the total weight of all such fibers and yarns is not more than 10% of the total weight of the article.

⁷ According to Naumann (2010) this round of changes to AGOA were the most controversial, as it made apparent the differences amongst legislators and the various affected stakeholders on the impact these benefits would ultimately meet the original objective of enabling African countries to develop/ reinvigorate their own upstream textile and fabric yarn industries. Beyond this, the round signaled the increasing resistance to routine extensions of the 3rd country fabric rules (Naumann, 2010).

⁸ According to (USTR, 2008), the President determines which countries and which products are eligible for GSP benefits, based on the recommendations of the U.S. Trade Representative. See Appendix 1 for details on the requirements for GSP eligibility.

Naumann (2010) developed a summary of beneficiary requirements that an AGOA beneficiary must have established or must be working towards:

- A market based economy incorporating a rules based trading system
- Respect for the rule of law, political pluralism and access to fair legal process
- The elimination of barriers to United States trade and investment, incorporating the protection of intellectual property, resolution of bilateral trade and investment disputes
- Economic policies conducive to development
- A system to combat corruption based on relevant international convention
- Protection of internationally recognized worker rights
- A country must not engage in activities that undermine the United States security interests
- A country should not engage in gross violation of internationally recognized property rights.

On the 2nd of October, 2000 President Clinton issued a proclamation assigning 34 countries in SSA as AGOA eligible⁹ (ITA, 2013a). The following year (on the 18th of January, 2001), Swaziland was granted eligibility in AGOA, making it the 35th AGOA eligible country. Similarly, Côte d'Ivoire achieved AGOA status in May 16, 2002 and then on the 1st of January in the following year Gambia and the Democratic Republic of Congo were designated as AGOA eligible. This brought the total to 38 SSA countries that had achieved AGOA eligibility. DRC later lost AGOA eligibility status in 2011.

Angola and Burkina Faso met the requirements for AGOA eligibility in 2004 while CAR and Eritrea lost AGOA eligibility in the same year. The following year (2005) President Bush rescinded Côte d'Ivoire eligibility for AGOA benefits, and then went on to designate Burundi as AGOA eligible and removed Mauritania from the list of AGOA eligible countries in 2006 (ITA, 2013a). The last country to gain eligibility in 2006 was Liberia.

In 2008, President Bush designated Togo and Comoros as AGOA eligible, and then reinstated Mauritania in 2009. In 2009, Guinea, Madagascar and Niger lost their eligibility- who then regained eligibility in 2011. As of 2013, there are 40 countries that are eligible for AGOA, and the United States government has reiterated its commitment to working with eligible countries to sustain their efforts to institute policy reforms, and to continue to engage with the remaining nine SSA countries to help them achieve eligibility (ITA, 2013a). Figure 2.1 gives an illustration of the countries that are eligible for AGOA as of July 2013¹⁰.

Central to AGOA are substantial trade preferences that, along with those under the GSP a number of goods from AGOA-eligible countries to enter the United States market duty-free (USTR, 2013). The following sub-section will discuss the benefits of AGOA as well as discuss the products that are covered by the AGOA dispensation.

2.3.2 Benefits and AGOA Product Coverage

Qualifying SSA countries are allowed duty free quota free treatment to goods by extending preferences on approximately 4 600 products that are eligible under the GSP regime, in addition to another 1800 product lines added by the AGOA legislation. Notable product categories eligible for AGOA benefits include: various automotive components, wines, chemicals, tobacco products, petroleum oil, footwear, glassware, steel products, watches and so forth. In addition to this AGOA has a provision that grants duty-free access to all clothing (as well as certain textile) exports from countries that qualify under the Act's 'wearing apparel provisions'¹¹. The clothing sector, is probably

⁹ The proclamation was the result of a public comment period and extensive interagency deliberations of each country's performance against the eligibility criteria established in the Act.

¹⁰ In 2014, Swaziland lost its AGOA eligibility, while Madagascar was reinstated.

¹¹ Product eligibility hinges on the country's ability to meet the strict Rules of Origin (RoO) under this dispensation.

the best example of AGOA uptake of the preferences, and has been credited for the revival of the sector within SSA, creating jobs and investment opportunities (USTR, 2008).

However, despite the widespread product coverage, some authors contend that, despite AGOA's additional preferences there are many gaps in coverage, even within product categories. Brenton & Ikezuki (2004) believe this to be particularly true for agricultural products. They report that the AGOA extended preferences to 26 additional agricultural tariff lines – less than 2% of the total number of agricultural lines (1723) and just 12% of the remaining dutiable lines. This is an area where African countries seem to have comparative advantage.

Figure 2.1: Map of countries eligible for AGOA



Source: tralac, 2013.

The benefits from AGOA, go beyond the access to markets, AGOA has the effect of removing the administrative burden that is often associated with the other trading arrangements- specifically the GSP. GSP time frame renewal is generally much shorter than that of AGOA (and requires frequent authorisation from congress), countries that are eligible for AGOA maintain benefits for longer time frames providing certainty for investors and traders, as opposed to countries that export under GSP alone.

Moreover AGOA removes the Competitive Need Limitation (CNL) applicable to products that enter the United States under GSP (USTR, 2008). The CNL is essentially a ceiling on imports from the countries that benefit under the GSP scheme and comes into effect when imports of a specific category exceed a prescribed percentage of total imports of a that category in the United States. That being said, there are instances when waivers are granted for the CNL, through following the correct administrative channels. That level of uncertainty, impacts the decisions of investors that make decisions based on the availability of AGOA in African countries (USTR, 2008).

Building on the robust understanding of AGOA, Section 2.4 will focus on unpacking the economic relationship of the United States - SSA level, then extends that analysis to United States-South Africa

economic relationship. The section will briefly discuss the nature and reach of the two agreements that the United States has with South Africa.

2.4 Sub-Saharan Africa – United States Economic Relationship

In the past, much of the FDI in SSA was focused on natural resource extraction, including mining, petroleum and natural gas extraction, and renewable energy. Williamson, Aranoff, Pinkert, Johanson, and Broadbent, (2014), report that this trend is changing as evidenced by the declining number of new FDI projects focused on resources, while the number of projects in the services and manufacturing sectors increased. These authors report that the service sector accounts for the majority of greenfield FDI projects in SSA, led by financial services and communications sectors. They go on to note other prominent manufacturing industries that have been popular with investors in general are food and tobacco and automotive manufacturing. Along with greenfield FDI, mergers and acquisitions are the other source of foreign investment in SSA. Metals, mining, and agriculture; financial services; and wholesale and retail trade account for the largest shares of foreign acquisitions of existing SSA companies (Williamson *et al.*, 2014).

Africa, as a whole, hosts about 1% of total United States Foreign Direct Investment (FDI) and is predominantly in extractive industries (mining). In 2012, the latest year for which annual investment data are available, the US cumulative FDI position in SSA was 28.6 Billion and the three largest destinations for United States investment were Nigeria, Mauritius and South Africa. Delving into the detail of the top three United States FDI destinations in SSA, one finds that the SSA does not only benefit from investment in the extractive industries, there is substantial investment in a range of sectors. Williamson *et al.* (2014) report that in 2012, 57% of the United States FDI position in Africa was directed to the mining sector (including petroleum), 15% in holding companies, and 6% in manufacturing.

When attention is paid to only greenfield projects, United States investors in SSA have principally focused on software and IT services; business services; and the extractive industries, that is, coal, oil, and natural gas¹² (Williamson *et al.*, 2014). Williamson *et al.* (2014) go on to elaborate that the principal areas that benefit from United States investment in the manufacturing sector, are consumer products, food and beverage, and automotive manufacturing.

These proportions varied significantly, for example in the top three FDI destinations, (Nigeria, Mauritius and South Africa), Nigeria received close to half of all FDI (45%) in the mining sector (including petroleum), while Mauritius only records only 12 greenfield projects or acquisitions from the United States between 2000 and 2013. Williamson *et al.*, (2014), report that United States- based companies often use Mauritius as an export platform to capture regional markets benefiting from Mauritius membership in SADC and COMESA. In addition Mauritius also has a significant off shore financial sector which serves as a major route for foreign investors to access India and other points of South Asia. South Africa benefited from United States FDI inflow into the manufacturing industry, this is discussed in greater detail in the following subsection. Table 2.1 gives an indication of the major destination of United States FDI in SSA over 2000- 2012

¹² In the coal, oil, and natural gas sector, 33 of the 56 projects are oil and gas extraction projects. The others are fossil fuel electric power; natural, liquefied, and compressed gas; other electric power generation (coal, oil, and natural gas); other petroleum and coal products; petroleum refineries; and support activities for mining and energy.

Table 2.1: Major Destinations of United States Foreign Direct Investment (FDI) in SSA, 2000-2012

Country	US FDI Outflows (US\$ millions)												FDI Position	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2012
Total SSA	816	1 861	-705	2 228	1 164	1 452	5 103	3 494	2 220	8 904	5 523	3 048	1 546	28 576
Nigeria	137	-192	588	173	676	-846	144	-596	1 772	5 170	81	157	2 762	8 152
Mauritius	-9	29	-121	-13	184	-20	323	1 326	-265	654	1 179	-50	-86	7 062
South Africa	346	-86	126	232	480	82	159	1 000	306	1 088	447	621	250	5 502
Ghana	-24	91	31	4	120	-4	729	(D)	(D)	205	-313	328	461	3 629
Angola	79	342	-263	-36	-22	98	280	-99	798	54	1 974	707	-3 011	1 245
Liberia	-218	-60	-260	47	92	149	-128	207	61	12	228	109	-19	1 019
Mozambique	1	8	3	1	(D)	(D)	4	-3	-2	12	127	(D)	(D)	619
Tanzania	20	-21	-3	-7	-3	-6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	319
Kenya	-19	(D)	(D)	7	-7	40	-109	2	7	62	3	5	-145	259
Cameroon	(*)	-1	-1	(*)	-32	36	-11	-52	2	-50	48	-4	6	203
Gabon	73	2	-182	11	61	-166	-17	130	-439	4	327	94	78	157
Zambia	5	2	-5	-4	-3	(*)	15	5	-1	3	18	-3	(*)	144
Ivory Coast	-8	-64	40	20	60	54	-23	-88	-166	31	-13	-10	-25	118
Uganda	-5	-1	2	(*)	-4	1	1	(D)	(D)	3	5	1	-3	100
Other SSA countries	333	2 139	-1 418	1 823	8	2 216	4 800	3 090	142	2 646	4 995	2 270	-1 466	14 992

Source: Williamson *et al.*, (2014)

FDI inflows are a measure of new investments in a single year. Inflows are negative when more money is divested from a country than invested in that year. FDI position (or Stock) is a measure of cumulative investment over time. (*) = Less than \$0.5 Million; (D) = Data suppressed to avoid disclosure of individual company information.

2.5 South Africa – United States Economic Relationship

This following section will give a brief description of South Africa’s economic policy context and briefly describes the key economic policies that are responsible for driving growth in South Africa. The objective of this discussion is to bring to the fore the relevance of the market access that AGOA provides for South Africa and how AGOA fits into the broader economic growth and development strategy of South Africa.

2.5.1 South Africa’s Policy Context

South Africa is often reported as a middle income country, as a consequence of the South Africa’s per capita income ranking, \$6 618 as recorded by the World Bank in (2014), and yet the reality is that the per capita income does not incorporate the distribution of income and inadvertently overlooks the dual nature of South Africa’s economy. According to Phillip (2009), the ‘first’ and ‘second’ economies describe the conditions at the two different ends of this spectrum: with wealth and resources concentrated at one end – and poverty and disadvantage at the other.

The reality is that South Africa has an extremely unequal economy in which a small proportion of the population with access to wealth experience South Africa as a developed modern economy, while the, the vast majority, struggle to access even the most basic services. South Africa ranks second highest in the world on the Gini¹³ index of inequality of income distribution and 38% of the population is vulnerable to poverty or living below the income poverty line. The differences in conditions between the two are so stark they appear to be worlds apart – giving the notion of ‘two economies’ resonance; yet, these realities are in fact connected and interdependent in a range of complex ways, with certain common processes producing or reinforcing these extremes in access and opportunity. Since the end of the apartheid regime in 1994, the South African government has made considerable efforts to tackle the high level of inequality and poverty.

Policymakers have long sought to overcome constraints in the economy through comprehensive frameworks that build on preceding economic policy framework. Examples of such frameworks include the Growth Employment and Redistribution (GEAR) strategy, Accelerated and Shared Growth Initiative for South Africa (AsgiSA), the National Development Plan (NDP), New Growth Path (NGP), and the Industrial Policy Action Plan (IPAP). The NDP is said to be the central blue print document that offers a long-term vision for South Africa’s economic growth. And throughout this document, the importance of trade policy – in particular market access – is emphasised. In fact this appears to be a recurring theme in all the current policy documents¹⁴. This gives credence to the opportunities that AGOA and other market access arrangements lend to South Africa.

South Africa is one of the few AGOA eligible countries that have managed to extract the full benefit from the AGOA scheme as evidenced by the proportion of South Africa’s exports to the United States - excluding oil exports (Williams, 2014). This comes as no surprise given South Africa is the most advanced economy on the continent, and does not face the same type of supply side constraints that most African countries face (these include, functioning transport infrastructure, availability of Export- import financial products and a sound regulatory framework). As a consequence, South Africa exports the most diverse range of products under AGOA that include

¹³ According to the World Bank (2014) the Gini index measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. An index of 0 equals perfect equality while an index of 100 equals total inequality. South Africa’s index is 65, with only Namibia being higher at 70.

¹⁴ In addition to this the AGOA scheme is written into most of South Africa’s economic policy documents – revealing the South African Government’s commitment and support to the full utilization of the trade dispensation. For example, the South African government’s 5th iteration of IPAP, continues to support the largest automotive sector through the Automotive Production and Development Programme (APDP). The Automotive sector is a major beneficiary of market access to the US through AGOA. The combination of the market access granted by AGOA and APDP has been identified by some Original Equipment Manufacturers (OEM) as a key incentive for FDI into the sector.

manufactured goods. The most prominent example is South Africa’s export of motor vehicles to the United States.

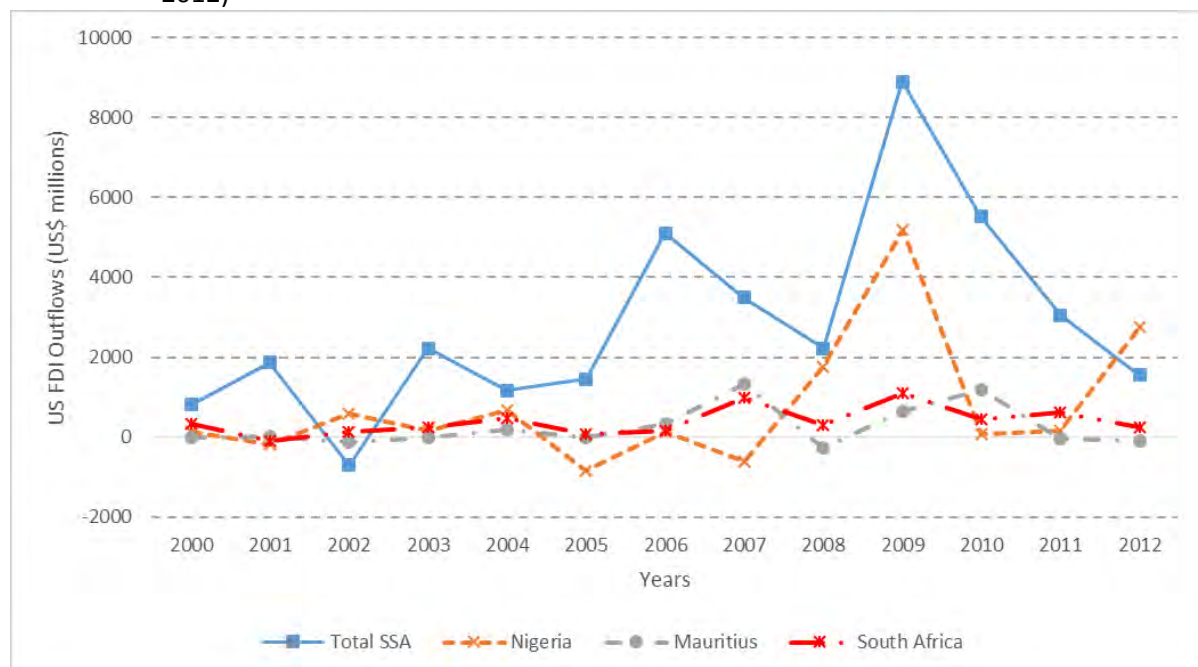
South Africa and the United States have two major agreements that define their economic relationship. The first agreement is the Trade and Investment Framework Agreement (TIFA) which was signed in 1999 and amended in June 2012. This agreement established a United States-South Africa Council on Trade and Investment, which meets annually to discuss trade and investment-related issues with the goal of removing “impediments to trade flows” (Cook, 2013)¹⁵. Specifically, the TIFA forum discusses issues that fall under the following categories: Sanitary and Phyto-Sanitary measures (SPS), customs cooperation and technical barriers to trade. In addition to this the TIFA establishes a forum of engagement of any matters of mutual interest, including capacity-building and trade and investment promotion.

The second agreement that South Africa signed with the United States is the 2008 United States-Southern Africa Customs Union (SACU) Trade, Investment, and Development Cooperation Agreement (TIDCA). This agreement, like the TIFA is in essence a forum to discuss issues of mutual interest with the objective of enhancing opportunities for trade and investment and improving economic cooperation. (Cook, 2013) acknowledges that the signing of the TIDCA was as a result of the suspension of SACU United States FTA talks.

2.5.2 United States and South Africa Investment Relationship

South Africa in the past was ranked as the largest recipient of United States based FDI, but has since been surpassed by Mauritius and Nigeria. Figure 2.2 gives a graphical comparison of the top three United States FDI investment destinations in SSA from the period 2000 - 2012 and contextualises this against the total United States FDI inflows into SSA.

Figure 2.2: Comparison of United States FDI inflows into Mauritius Nigeria and South Africa (2000-2012)



Source: Williamson *et al.* (2014)

¹⁵The Council is composed of individuals who are at senior levels of government.

Analysing United States FDI flows by sectors reveal that the largest share of United States FDI to South Africa, goes to manufacturing (42%) and professional scientific and technical services (10%) with mining only accounting for 1% (Williamson *et al.*, 2014).

2.6 Summary

AGOA marked the culmination of a “new” American policy on Africa which recognised the importance of Africa and was premised on three realities as defined by Gerstenfeld and Njoroge (2003). First, the age of global trade and the threat of global terror has made necessary relations between Africa and the United States as the United States seeks to root out terrorism¹⁶. Second, Africa is seen as the last economic growth frontier and a powerful emerging market. Third, the promotion of American economic self-interest characterised by the pursuit of trade and investment, as opposed to foreign policy that was driven by ideological ideals.

The launch of AGOA was preceded by a series of speeches (in 1992) that emphasised an increasingly aggressive approach to promoting United States economic relations to SSA (Gerstenfeld & Njoroge, 2003). In 1994, the Uruguay Round Agreements Act (P.L. 103-465) led the Clinton Administration to develop an Africa trade and development policy and report on this policy to congress annually for 5 years (Sek, 2001). This was followed by America’s first formal trade policy for aggressively pursuing new markets throughout Africa.

A consequence of this new approach has been a surge in United States investment in SSA, especially in South Africa. Granted in the past the bulk of United States investment in SSA has largely been in extractive industries, a scenario that has since changed, with emphasis moving towards the services industries. South Africa, appears to have benefited from the most manufacturing investment (about 67% of total United States FDI on the African continent). The United States and SA have two forums which they use to discuss issues relating to Trade and investment that were institutionalised by the TIFA and TIDCA.

The following chapter will discuss the methodologies that have been in the past used to analyze the performance of AGOA, and where possible, this chapter will seek to explore the advantages as well as the shortcomings of each methodology. The chapter takes the reader through the reasoning that led to the chosen methodology used in this study.

¹⁶ An example of the need for the cooperation with regards to dealing with the threat of terrorism is the relationship between Kenya and the United States that sees the United States and its Allies operating in Kenya’s territorial waters in order to monitor terrorist activities in that part of the world.

3 Research Design and Methods¹⁷

3.1 Introduction

There are a significant number of studies that have been carried out in literature that seek to determine the impact of unilateral trade dispensations on developing countries. Examples of such work include Brenton & Ikezuki, (2004); Brenton and Hoppe (2006); Collier & Venables (2007); Fayissa & Tadesse (2007) and Williams (2014). As a result of this there is a significant repository of information available on the methods that one can use to measure the impact AGOA has had on SSA. This chapter will limit itself to the review of these methodologies and where possible, explore the advantages as well as the shortcomings of each, with the purpose of providing a rationale for the method of analysis adopted by the study. This chapter will not get engrossed in the details of the findings of each of the studies, but will instead focus only on the methodology used in the study.

The chapter starts of by discussing modeling techniques and then gives the advantages and disadvantages of this methodology. Following this the study will chronicle tariff analysis methodologies, highlighting the strengths and shortcomings of each approach. Finally the chapter will discuss the benefits of trade data analysis between the beneficiary of the trade preference and the grantor of the trade dispensation and with this make a case for the chosen methodology.

The chapter will summarize the key argument that informed the decision of the methodology used in this study and also briefly discusses the properties of the data that this study makes use of.

3.2 Economic Modeling Studies

By definition economic modeling centers on developing theoretical constructs that represent economic processes, usually by a set of variables and a set of logical and/or quantitative relationships between them. An economic model removes the complexity from an economic process and presents a simplified framework, often but not always using mathematical techniques. In modern trade analysis there is a range of economic modeling tools that are used. These include the Gravity Models (GM), partial equilibrium models as well as Computable General Equilibrium models. These types of models will be elaborated on in some detail in the following sub-sections.

3.2.1 Gravity Model (GM)

The GM is an econometric model that is based on Newton's Law of Universal Gravitation. The GM's theoretical underpinnings are based in fundamental economic theory. Its empirical specification have been proven and are well known¹⁸. In essence, a GM relates bilateral trade flows to the GDP levels of the countries and their geographic distance (Linders & Groot, 2006). Anderson, (2011) praises the GM as one of the most successful trade analysis tools in recent history. Findings from Eichengreen and Irwin (1996) support this idea concluding that the GM is the primary workhorse for empirical studies on regional integration¹⁹. It is no surprise then that there are a number of studies that have analyzed the performance of AGOA with this tool.

Examples of such work include the work carried out by Fayissa and Tadesse (2007), that developed a GM based on HS 2 level trade data on exports from eligible SSA countries to the United States over

¹⁷ This Chapter relies heavily on the systematic review of the effectiveness of AGOA in increasing trade opportunities in Least Developed Countries that was carried out by Condon and Stern (2011), as well as the insights from the "A Practical Guide to Trade Policy Analysis" hand book developed by the WTO (2012).

¹⁸ For more detailed surveys on these theoretical works and recent contributions, the reader may wish to consult the work of Anderson (1979); Helpman and Krugman (1987); Deardorff (1995), Evenett and Keller (1998); Harrigan (2001) and Feenstra, (2004) for a detailed understanding of the theoretical relevance. For a greater understanding on the empirical specification the author urges the reader to engage the work by Anderson and van Wincoop (2000); Haveman and Hummels (2004); and Santos Silva and Tenreyro (2005).

¹⁹ A brief overview of the GM and the most common empirical specification of the GM can be found in Appendix 2.

the period 1991 – 2006. Similarly Mueller (2008), also used the Paris-Winston²⁰ GM, but used the aggregated trade statistics from the various eligible AGOA countries, and also included, independent variables such as GDP of AGOA countries, the Consumer Price Index in AGOA countries, exchange rates, as well as a categorical variable for conflict.

Another example of the GM specification is the work by Nouve and Staaaz (2003), that used the panel specification of the GM, with a specific focus on agricultural exports from 46 SSA countries using 2002 data. Nouve (2007) followed this study up with a dynamic panel analysis²¹ of aggregate AGOA from SSA exports and apparel exports. This specification included a number of endogenous variables in an augmented GM specification. In the same year Frazer and van Biesebroeck (2007), developed a variation of the traditional GM, using a triple difference estimation regression model to assess the impact of AGOA over a 7 year period (2001-2006). The novelty of this estimation is its ability to separate the effects of demand surges in AGOA products, and reasonably isolating the response to the AGOA dispensation.

To its credit, the GM is a very useful analytical tool that is extremely versatile, as illustrated in the various examples that have been listed above. Its strong theoretical basis and its ability to explain trade flows is probably the main reason why it is the tool of choice in trade analysis. However, the GM's major criticism in reference to AGOA analysis is its inability to fully explore AGOA conditions; that is product access, and the impact the Rules of Origin (RoO).

Its strength as an analysis tool is built into its econometric complexity, and as such the GM requires a robust understanding of econometrics. Moreover, one requires a thorough understanding of the data set that will be analyzed and implications of the characteristics of that data set on the model specification. As is always the case with time series data, an incorrect specification of a model leads to spurious results. The author opted not to use this particular methodology as a consequence of the time constraints associated with this study, as well as level of technical econometric expertise. A similar level of econometric expertise is required when carrying out a partial equilibrium analysis – the methodology that is discussed below.

3.2.2 Partial Equilibrium Analysis

According to Kapuya (2011), partial equilibrium models are simulation models that seek to capture the unique dynamic relationships of a particular market or sector. Within the scope of partial equilibrium analysis, the particular sector in question is closed and has no linkages with the rest of the economy, which essentially implies that the sector is affected by the rest of the economy but has no direct effect on the economy itself²². The implication of this assumption is that the effects of the rest of the economy are treated as exogenous.

The partial equilibrium approach has a number of strengths. Firstly, the partial equilibrium approach has the advantage of its minimal data requirement in its Market Access Analysis. In its most basic form, a partial equilibrium model can be developed using trade flow data, the trade policy (tariff), and a couple of behavioral parameters (elasticities). Secondly, a partial equilibrium analysis is empirically simple and the analysis thereof reasonably approximates the general effects of trade policy changes where weak links between commodities and their supplier or output

²⁰ Gravity Models often use a fixed effects approach to circumvent autocorrelation that is commonly associated with pool cross-sectional time series data. Because of the nature of the data in this particular study, exports from a single region (SSA) to one country (the US) from 1991 – 2006, Mueller (2008) opted to make use of the Paris Winston estimation of least squares to treat for auto correlation.

²¹ The traditional GM is normally built on a specification that uses a static panel data, and as a result, allows only for the contemporaneous effects on trade. The dynamic trade model views trade as a dynamic process and extends the static model by including lagged exports in the GM

²² For a detailed discussion on the partial equilibrium model, please see the work of van Tongoren, van Meijil and Surry, (2001) and Calcaterra, (2002)

sectors may exist (Perali, 2003). Thirdly, partial equilibrium analysis provides useful information on the impact of trade and policy changes at very detailed product and sectoral levels, hence allowing for the utilisation of widely available trade data (Thurlow & Holden, 2002; Wubeneh, 2006; and Lang, 2008). The sectoral /product approach also resolves a number of “aggregation biases that tend to plague general equilibrium models.

The partial equilibrium approach also has a number of disadvantages that have to be kept in mind while conducting any analysis. Since the partial equilibrium approach is only a “partial model of the economy, the analysis is only done on a pre-determined number of economic variables. This makes it very sensitive to a few behavioral elasticities, which when badly estimated could lead to spurious results. Due to their simplicity also, partial equilibrium models may miss important interactions and feedbacks between various markets. In particular, the partial equilibrium approach tends to neglect the important inter-sectoral input/output (or upstream/downstream) linkages that are the basis of general equilibrium analyzes. It also misses the existing constraints that apply to the various factors of production, (for example labor, capital, land) and their movement across sectors. This is an attribute that Computable General Equilibrium (CGE) models are able to cater for and is discussed in the following subsection.

3.2.3 Computable General Equilibrium (CGE)

A Computable General Equilibrium (CGE) model is a simulation model and is often described as one of the most rigorous quantitative methods that economist have at their disposal to evaluate the impact of economic and policy shocks that could potentially affect the entire economy. By its very design the AGOA dispensation has the potential to transform an entire economy because of the potential spillovers that export growth bring – particularly if the exports are destined for large economies such as the United States.

In essence CGE modeling seeks to reproduce the structure of the whole economy and therefore the nature of all existing economic transactions among diverse economic agents (productive sectors, households, and the government, among others). CGE modeling’s major advantage when compared to other available trade policy analysis techniques, is its ability to capture a wider set of economic impacts derived from a shock or the implementation of a specific policy reform. In that sense, the CGE approach is especially useful when the expected effects of policy implementation are complex, materialize through different transmission channels, and materialize not only in one but various rounds (e.g. trade and fiscal policy reform)²³. Needless to say, the validity of the model all hinges on the model’s ability to accurately represent the economy.

The distinct advantage of a CGE model is its ability to analyze the additional effects that come with market access to a specific region. For example a partial equilibrium model can determine the effect of removal of tariffs for a specific AGOA product, say automotive vehicles on the market of “automotive vehicles” and “automotive components”. Meanwhile with a general equilibrium model a researcher can analyze in addition the effects of this market access, trade flows, households’ income and employment, amongst a litany of other variables.

Another advantage of the CGE mode is its ability to evaluate the distributive effects within the economy. Put simply, this allows the CGE model to identify winners and losers at different levels (sectorial, firm, household, and geographic), and directs the design and the implementation of compensatory policies or trade adjustment programs.

²³ CGE models are most useful when the economic or policy shock to be evaluated is expected to have significant impacts throughout the economy, especially if the research question involves analyzing the static/dynamic, direct/ indirect and short/long term effects caused by a shock. Naturally this methodology lends itself well to evaluating, among others: Fiscal policy; Trade policy; Climate Change shocks and Shocks in international prices.

Provided that one can construct a multi-region CGE model, they are powerful analysis tools because they can estimate the aggregate effects of some trade policy reform on a range of variable such as trade, production, employment, fiscal balance, household income, and even poverty and inequality.

Bouet *et al.* (2010) make use of Modeling International Relationships in Applied General Equilibrium (MIRAGE)²⁴ to assess the impact of 100% DFQF access for all LDCs to major OECD markets, including the United States. As Condon and Stern (2011) report, the explanatory power of the model was constrained by limited disaggregated data on African LDCs – the model contains disaggregated data on just four African LDCs (Malawi, Madagascar, Mozambique and Ethiopia) and the other LDCs are grouped in the category Rest of Africa in the model.

As with all the other methodologies, CGE models have their shortcomings, as noted by Hertel, Keeney, Ivanic and Winters (2006) Firstly, the data requirements for developing a CGE model are enormous and are also onerous. The quality of the model relies on the quality of the data that is collected consistently and on all aspects of the economy. As demonstrated in Bouet *et al.* (2010), reliable complete datasets are a rarity in Southern Africa. To add to this the process of developing a CGE model may take as long as 2-3 years depending on the availability of data, the complexity of the economy being modeled and the level of expertise of the team putting together the CGE model. This means that the information that informs the model is already dated by the time the model is complete. The implication of this is that it reduces CGE simulation to thought experiments about what the world would be like if the policy change had been operative in the assumed circumstances and year (Hertel *et al.*, 2006)²⁵.

Second, while CGE models are quantitative, they are not empirical in the sense of econometric modeling: they are basically theoretical, with limited possibilities for rigorous testing against experience, as identified by Hertel *et al.* (2006). Third, conclusions about trade policy are very sensitive to the levels assumed for trade restrictions in the base data. One can readily do sensitivity analysis on the parameter values assumed for economic behavior, although less so on the data, because altering one element of the base data requires compensating changes elsewhere in order to keep the national accounts and social accounting matrix in balance (Hertel *et al.*, 2006). Given the time sensitivities related to this study and the data requirements that often come with the development of a CGE Model, the author made the determination that this method of analysis was not best suited for this particular study in this particular context.

3.3 Trade and Tariff data analysis

There are three main tools that are widely available to analyze trade, namely (1) Descriptive analysis (2) Tariff preference analysis and (3) Trade potential analysis. In the context of this study, trade analysis involves interrogating the raw trade data and from this gain specific insights from the trade patterns that emerge. The section will focus on three aspects of trade and data analysis: the first is the descriptive trade analysis; second is Tariff preference analysis and third is the trade potential analysis. These trade analysis tools are described in some detail in the remainder of this section.

3.3.1 Descriptive Trade Data Analysis

Descriptive analyzes typically give an indication of how much a country trades, what types of goods it trades and with whom the country trades with. For the purposes of this study, descriptive trade analysis tools are methods that interrogate trade data. This often involves examining the trade data, plotting trend graphs to visually pick out any obvious trends. From this type of analysis one can quickly glean an understanding of the nature of a trading relationship. One can go a step further and

²⁴ The MIRAGE model is a multi-country, multi-sector dynamic model, developed initially at the *Centre d'Etudes Prospectives et d'Informations Internationales* (CEPII) in Paris (France). As a global CGE, it provides a rich set of indicators for each region that allows measuring the impact of any policy changes.

²⁵ One can also use an already available CGE Model for a country and then adapt it for a specific particular analysis, for example South Africa latest CGE model was constructed in 2011.

from this data calculate growth rates of trade (imports and exports), compare them with the global average and study the types of traded goods to get a sense of the key tradable products.

The major advantage of this type of analysis is the relatively quick understanding of a trade relationship that it reveals with minimal effort, and resources. Unfortunately, this type of analysis cannot be used to confidently predict future trade trends and is unable to determine the implications of the trade relationship on the wider economy. In most cases, this type of analysis often paves the way more sophisticated detailed analyses. As a consequence, this type analysis is often a precursor to most trade studies and often plays a significant role in setting the scene and giving background and context to a trade relationship. Examples of such studies include the works of Shapouri & Trueblood (2003); and Brenton & Ikezuki (2004).

3.3.2 Tariff Preference Analysis

Preference analysis is the interrogation of the tariffs that are levied on the products and comparing them to the MFN tariffs. It often includes looking at the depth of preferences that are available. This may involve looking at the products that have been given preferences, their utilization rates, as well as the preference margin of each tariff line. A country enjoying preferential tariffs is at a competitive advantage compared to other exporters that are not equally 'preferred' since it faces lower levels of duties.

Thus, preference margins can be defined as the percentage by which particular imports from one country are subject to lower tariffs than the rate applying to its competitors (which may be the MFN rate or another preferential rate under an FTA or another non-reciprocal scheme) in a preferential trading arrangement. This is the preferred definition that this study will employ although there are varying definitions of tariff margins, and there remains no clear definitions of preferential tariff margins. Examples of studies that have used this method of analysis include the work of Brenton & Hoppe (2006) and Dean & Wainio (2006). Another type of analysis that looks at trade barriers is the revealed trade barriers a tool that is often used by Trade and Industry Policy Strategies (TIPS).

This type of analysis gives an idea of the benefit that a preference scheme can lend to a beneficiary country in that it gives an actual benefit over other countries that do not have preferential market access, if one were to take a step further and analyse the utilization rates of these lines that have reduced tariffs one would find that this type of analysis could give insights into areas that had potential to be exploited and could signal a bottleneck of sorts that could be limiting export expansion into these products.

4.2 Trade Potential Analysis

For the purposes of this study, potential trade analysis involves the use of trade indicators to determine areas where a country can further exploit a preferential scheme. In most countries, including South Africa, influencing trade patterns is often a trade policy objective. This is normally achieved with supply-side policies aimed at "endowment building" and technology enhancement. Such interventions often tie in with other domestic policies such as industrial and labor policies. Any meaningful discussion of what a country trades should take into account what it can trade, and the best way to determine this is through the direct measurement of factor and technology endowments. In reality endowment data are rarely available, and in their absence revealed comparative advantage (RCA) indices are used as a proxy. Another means of determining potential to export can be carried out by a simplistic potential supply capacity. This is determined by the amount that an importing partner country imports from the rest of the world (in this case the United States), less the exports from the reporting country (SA) to that specific partner country (United State) - this is known as the Indicative Trade Potential (ITP).

In summary, the trade and tariff data analysis methods discussed in the preceding text, are simple and have the advantage of revealing telling insights into trade relationships. Their shortcoming

however is their failure to further unpack the effect a specific trade dispensation has had on the economy as a whole.

3.4 Summary

In all types of trade studies, the choice of a methodology is not necessarily straightforward. It often involves choosing between descriptive statistics and modelling approaches, between econometric estimation and simulation, between *ex ante* and *ex post* approaches, between partial and general equilibrium (WTO, 2012). In its simplest form, *ex ante* simulation involves projecting the effects of a policy change onto a set of economic variables of interest. *Ex post* approaches on the other hand make use of historical data to conduct an analysis of the effects of past trade policy. In simpler terms, *ex ante* approaches are usually used to address “what if” type of research questions.

While *ex-post* approaches seek to address “what if” questions under the assumption that past conditions and relationships between variables continue to be relevant. This is an assumption that underlies approaches that use estimated parameters for simulation. These assumptions are often made in the partial equilibrium and general equilibrium analyzes. The former focuses on one or multiple specific markets or products, ignoring the link between factor incomes and expenditures, while the latter explicitly accounts for all the links between sectors of an economy – households, firms, governments and the rest of the world. In econometric models, such as the GM, parameter values are estimated using statistical techniques and have the added advantage of having with confidence intervals associated with them. In simulation models, (such as the partial equilibrium models), behavioural parameters are typically drawn from a variety of sources, while other parameters are chosen so that the model is able to reproduce exactly the data of a reference year (calibration).

Additionally, methodologies differ significantly with regard to the time and resources they require. Typically, building a CGE model takes a long time and requires a considerable amount of data²⁶. At the same time running regressions, as one would in developing a GM, requires sufficient time series or cross sections of data. Calibration of a partial equilibrium model often requires data for a single year. Methodologies can also be combined to answer a given question. In most cases, it is sound advice to start with descriptive statistics, which, besides paving the way for more sophisticated analysis, and often go a long way towards answering questions that one might have on the effects of trade policies (WTO, 2012).

In reality, the research questions, the resources and time limitations often dictate the choice of a methodology. With this in mind, it would be appropriate to recap this study’s research questions and the associated research objectives of this study, as was stated in Section 1.1. These are presented below:

1. To what extent has South Africa benefited from the AGOA trade dispensation in terms of improved exports to the United States?
2. What should be the focus of South Africa’s lobby for continued and enhanced preferential access under AGOA?

In a bid to answer the research questions, the study started off by unpacking the macro-merchandise trade relationship between SSA and the United States as a way of setting the context by way of a detailed descriptive analysis. The discussion then focuses on the merchandise trade relationship between South Africa and the United States, at varying levels of disaggregation. This involved calculations of growth rates, average value of trade over the period of interest as well as the graphical depiction of value of trade trends and the shares of trade.

²⁶ There are, however, relatively important sunk costs and thus large economies of scale and/or scope. Once a CGE has been constructed, it can be used to answer various questions without much additional cost.

In response to research question two, the study began with a grounding in the tariffs that are faced by South African exports when they land in the United States. To further understand the benefits that accrued to South Africa, the analysis progresses on to measure the preference margins that the AGOA dispensation afford South Africa, as opposed to other countries that face MFN tariffs. The tariff analysis then goes on to unpack the Revealed Trade Barriers (RTB). In response to the second research question, the discussion then moves towards identifying areas of trade potential. This is achieved by combining a Revealed Comparative Advantage (RCA) analysis with an Indicative Trade Potential (ITP) analysis. Given the time and resources that were available these approaches were best suited to respond to the study's research question.

The study will make use of Quantec trade data as well as TradeStats Express™ database and will focus on the period 2000 - 2011. In some instances the study will also make use of data sourced from the UN Comtrade data maintained by the United Nations Commodity Trade Statistics Database Statistics Division. The study will also analyse tariff data from the **tralac** website. The data will be analysed at varying levels of disaggregation, with the most disaggregated level set at the HS6 level.

The study focussed on the trade trends and did not focus on specific sectors that others may deem to be policy relevant in South Africa's economic context. An example of such a sector that did not receive explicit attention is the Textiles and Apparel sector. The author acknowledges that these sectors may be of significance in the economic policy landscape of South Africa, but chose to focus on the sectors and products that were revealed by the descriptive analysis.

The following chapter will interrogate the trade relationship between the United States and Africa to give the context, and then focus on the specifics of the South Africa United States trade relationship in some detail.

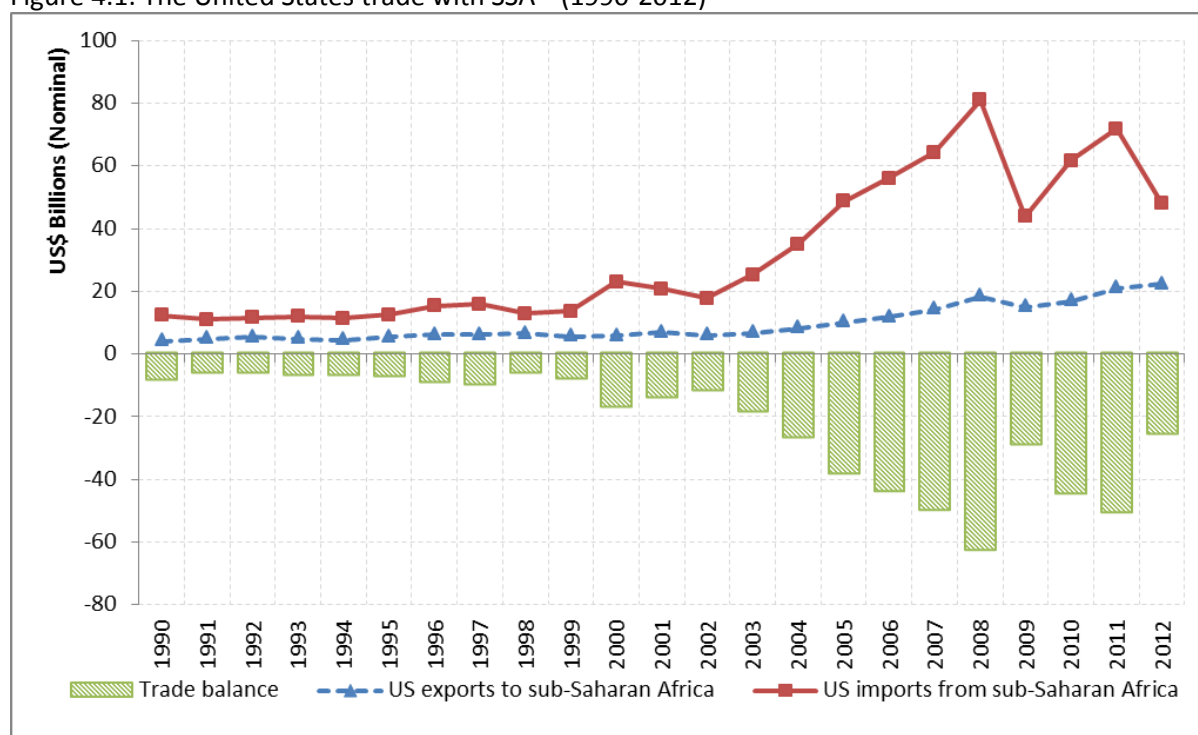
4 Descriptive Analysis

This chapter will start off by unpacking the macro-merchandise trade relationship between SSA and the United States as a way of setting the context. The discussion then focuses on the merchandise trade relationship between South Africa and the United States, at varying levels of disaggregation. This component will focus on the use of a number of indicators that will assess descriptive trade statistics. This will involve calculations of growth rates, average value of trade over the period of interest as well as the graphical depiction of value of trade trends and the shares of trade.

4.1 Sub-Saharan Africa and SSA Trade Trends

In 2012, the United States imported goods to the value of US\$2.2 trillion, and 2.12% (US\$ 47 Billion) of United States imports in 2012 were sourced from SSA (ITA, 2013b). Figure 4.1, gives an illustration of SSA trade trends with the United States, which was characterised by exports and imports that were below the US\$20 Billion mark before 1999.

Figure 4.1: The United States trade with SSA²⁷ (1990-2012)



Source: ITA (2013b).

The year of the enactment of AGOA saw a US\$ 9 billion increase in the United States imports from SSA (from approximately 13 billion in 1999 to 22 billion at the end of 2000). In 2002, imports from SSA, destined to the United States took off, after a lag period of approximately 2 years²⁸, experiencing a growth rate of close to 28% from 2002-2008. From 2002 to 2008, United States imports from SSA Africa enjoyed sustained continued growth, as illustrated in Figure 4.1, and then exports declined by close to 46% in 2009 (from about US\$ 81 billion in 2008 to about US\$44 billion in 2009). This decline can be attributed to the financial crisis that had the effect of depressing United

²⁷ In this instance, SSA refers to the following 48 countries: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe.

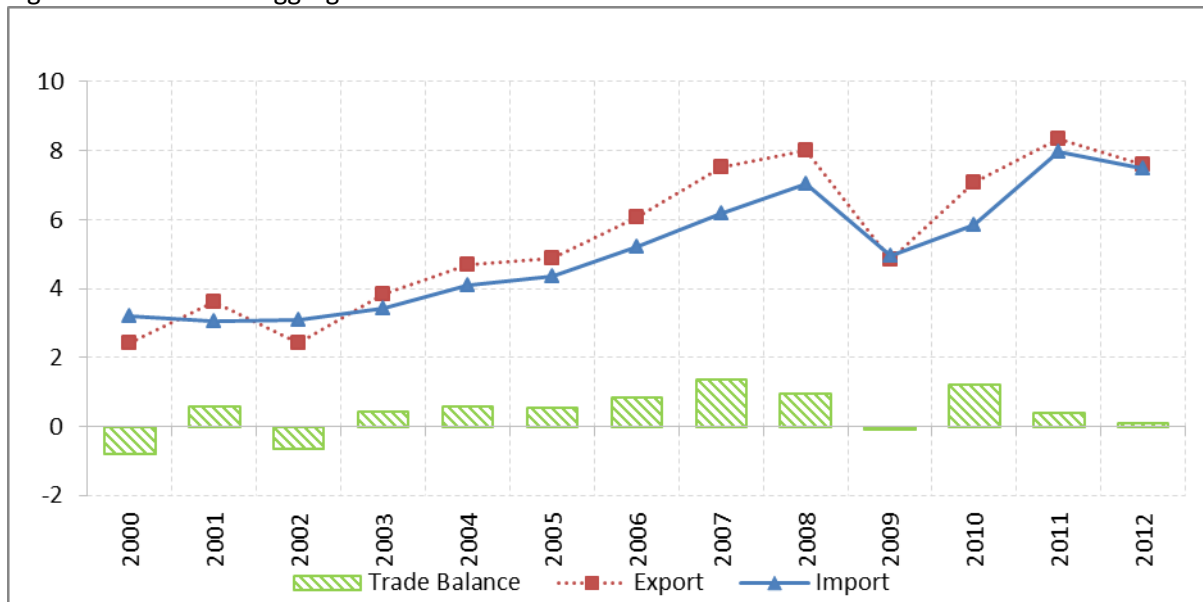
²⁸ This lag time can be accounted for by the time it takes to set up of the relevant institutional and physical infrastructure for export as well as the time required by investors to set up shop in the AGOA countries.

States demand. The years 2010 and 2011 saw some recovery in SSA Africa’s exports to the United States, but 2012 saw a 33% decline in United States imports from SSA (ITA, 2013b).

4.2 Trade between South Africa and United States: Overview of South Africa and the United States Trade Relationship

This section prefaces the chapter through an elaborate outlay of the trade trends between South African and the United States. In doing so, the study firstly envelops the analysis of bilateral trade within the context of broader trade trends between South Africa and the United States at a more aggregate HS2 level. Secondly, the study traverses the finer nuances of South Africa-United States trade through a more disaggregated analysis that unpacks the trade trends at HS4 level. The study attempts to back up this analysis by exploring the different aspects of growth in trade vis-à-vis the evolution of overall trade patterns and the structure of trade. The study identifies products that are significant in driving the growth in trade between South Africa and the United States and reflect on those products that have declined and/or stagnated with regards to growth performance.

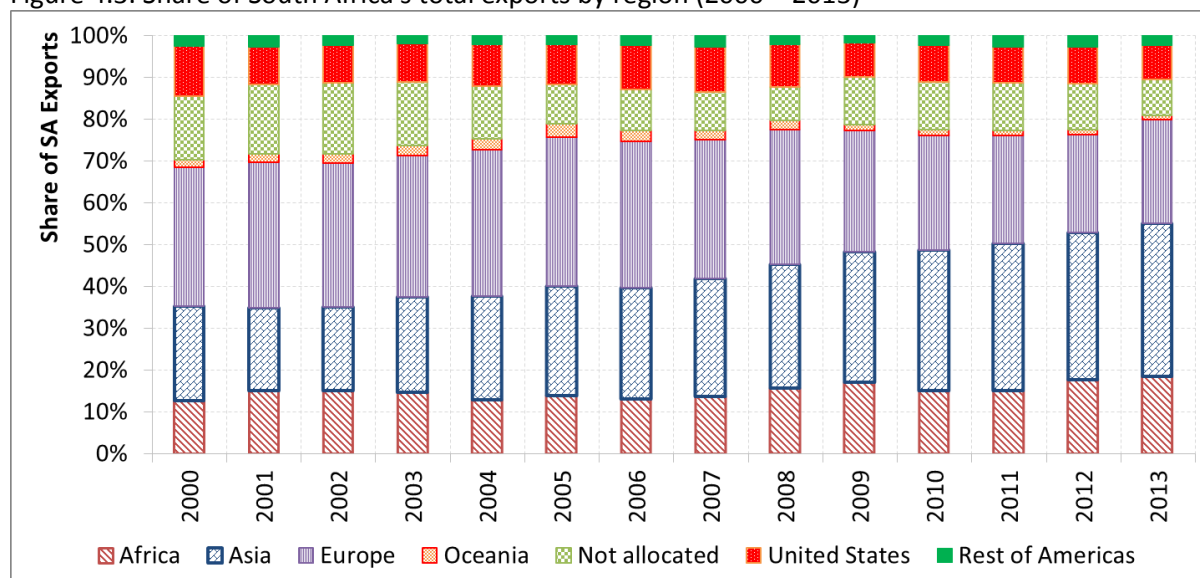
Figure 4.2: Trends in Aggregate Trade between South Africa and United States



Source: UN Comtrade (2013)

The analysis demonstrates that South Africa maintains a substantial surplus in goods trade with the United States (see Figure 4.2). Between 2005 and 2008, exports have increased at a slightly higher rate than imports as the gap between exports and imports increased. The impact of the global financial crisis kicked in after 2008 as South Africa’s trade with the United States declined in 2009, with the trade balance falling to US\$1.4 billion from US\$ 3.5 billion in that year. However, in 2010, trade grew by 82% and continued to firm in 2011. South Africa’s exports to the United States between 2003 and 2011 have grown significantly, estimated at an average of 15.9%. Despite the growth in exports, the share of exports to the United States compared to the world has however remained relatively stagnant, maintaining at 9% (Figure 4.3).

Figure 4.3: Share of South Africa's total exports by region (2000 – 2013)



Source: Own calculations based on Quantec (2014)

One of the key reasons why the share of exports to the United States has not grown is due to the significantly larger growth of the Asian markets, primarily China, with its trade volumes quadrupling over the same period. From 2009, there was a notable increase in South Africa's total imports and exports to Asia and while the share of trade with the EU, Africa and the United States has remained relatively stagnant.

Is it of any significance if relative exports to the United States have remained stagnant as a result of increased exports to other parts of the world? The answer to this question lies in the nature of the products, that is, are the goods exports to the United States 'better' in some sense (for example creating relatively more employment opportunities, generating more valued add, greater potential etc.) than exports to another country – to gain, further understanding of this aspect the following section study focusses at the commodity composition of exports to United States.

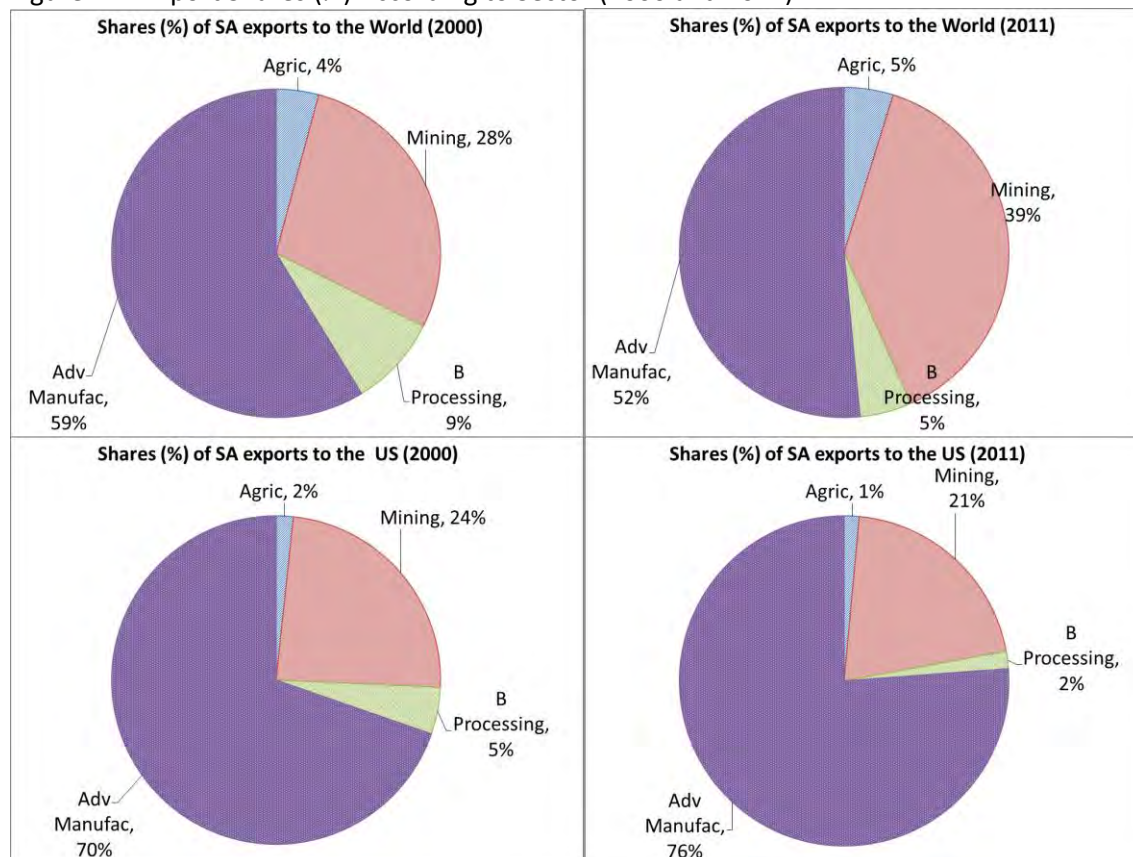
4.2.1 Trade with the United States at HS2 Level

The broad aggregate picture of trade between United States and South Africa shows a positive picture in terms of trade growth. In this section, the study shifts away from the aggregate analysis in order to characterize the broad structure of South Africa's trade with United States. The fundamental question explored here is in determining the structure of sectoral trade between the two countries. Generally, HS2 data is classified into very broad classifications based at chapter level and characterizes the aggregate industry level sophistication of commodities. The data is presented for the years 2000 and 2011 to examine structural changes in South Africa-United States trade presented in Figure 4.4: Export Shares (%) According to Sector (2000 and 2011)

The share of South Africa's mining exports to United States declined in the two periods considered (from 24% in 2000 to 21% in 2011). While South Africa mining exports to the world in the chosen years also revealed an increase in the share of South Africa mining exports from 28% of total exports to 39% of total exports as shown in Figure 4.4. Agriculture's share of exports to the world increased marginally, by 1% between 2000(4%) and 2011(5%), while South Africa's exports to the United States declined by a percentage point (from 2% in 2000 to 1% in 2011). Basic processing share of South African exports to the United States also experienced a decline from 5% in 2000 to 2% in 2011. This was largely in keeping with the share of South Africa's total exports to the world in the same category that declined by 4 percentage points in the two comparison years (that is 9% in 2000 to 5% in 2011). South Africa experienced a 6 percentage point increase in share of advanced

manufacturing exports to the United States (from 70% in 2000 to 76% in 2011) in the context of a decline in the share of South Africa’s exports to the world in the same category Figure 4.4.

Figure 4.4: Export Shares (%) According to Sector (2000 and 2011)



Source: Own Calculations from Quantec (2013) data

Key structural changes are also noted in terms of South Africa’s imports from the United States. The most apparent change is the increase in mining share imports – from 5% in 2000 to 10% in 2011. The share of agricultural imports from the United States remained unchanged, while the share of basic processing sector imports declined from 4% to 2% over the period. The share of advanced manufacturing imports also declined from 86% to 83%. Such changes also seem to suggest that the mining sector’s share of imports seem to be growing at a rate faster than the other imports from other sectors of the economy.

The trade between South Africa and the United States is further unpacked under the Section 23 level²⁹ in an effort to explore and determine which key products are driving the trade growth.

4.2.2 South Africa-United States Trade at the Section 23 Level

As shown in Table 4.2, the trade data is further disaggregated, and the following commodity sectors are noted as the fastest growing imports from the United States to South Africa: C03: Animal or Vegetable Fats ; C05: Mineral products; C23: Special Classification: Vehicle Parts; C04: Prepared foodstuffs and tobacco as well as C17: Vehicles. The import growth of the above-mentioned products ranges from 13% to 23% per year over the period 2000-2011.

²⁹ The Harmonized Commodity Description and Coding System (HS) of tariff nomenclature is an internationally standardized system of names and numbers for classifying traded products developed and maintained by the World Customs Organization (WCO) (formerly the Customs Co-operation Council), an independent intergovernmental organization with over 170 member countries based in Brussels, Belgium. In South Africa HS is organized into the world 21 sections and an additional 2 sections.

The only import sectors which declined or remained constant were: C11: Textiles, C09: Wood Products, C12: Footwear and C19: Arms and Ammunition. These products amount to a combined 1% of South Africa's share of imports from the United States.

Table 4.2: Section Level South African Exports to and Imports from the United States

	Exports			Imports		
	Share in 2011	AAG* 2011	2001-	Share in 2011	AAG* 2011	2001-
C01: Live Animals	1%	8%		1%	11%	
C02: Vegetable products	4%	15%		2%	9%	
C03: Animal or Vegetable Fats	0%	19%		0%	23%	
C04: Prepared foodstuffs and tobacco	3%	8%		2%	13%	
C05: Mineral products	25%	20%		8%	21%	
C06: Chemicals	5%	11%		12%	8%	
C07: Plastics	2%	14%		4%	10%	
C08: Leather	0%	1%		0%	2%	
C09: Wood Products	0%	2%		0%	-7%	
C10: Wood Pulp and Paper	2%	5%		2%	5%	
C11: Textiles	1%	3%		1%	0%	
C12: Footwear	0%	7%		0%	-8%	
C13: Stone and Glass	0%	7%		2%	9%	
C14: Precious Metals	26%	15%		0%	7%	
C15: Base metals	14%	11%		2%	9%	
C16: Machinery	8%	14%		29%	8%	
C17: Vehicles	8%	14%		24%	13%	
C18: Scientific Equipment	0%	14%		7%	9%	
C19: Arms and Ammunition	0%	-100%		0%	-100%	
C20: Miscellaneous Manufactures	1%	4%		1%	5%	
C21: Arts and Antiques	0%	6%		0%	7%	
C22: Other unclassified goods	0%	-25%		0%	6%	
C23: Special Classification: Vehicle Parts	0%	11%		3%	17%	

*AAG: Annual Average Growth

Source: Quantec (2014) and own calculations

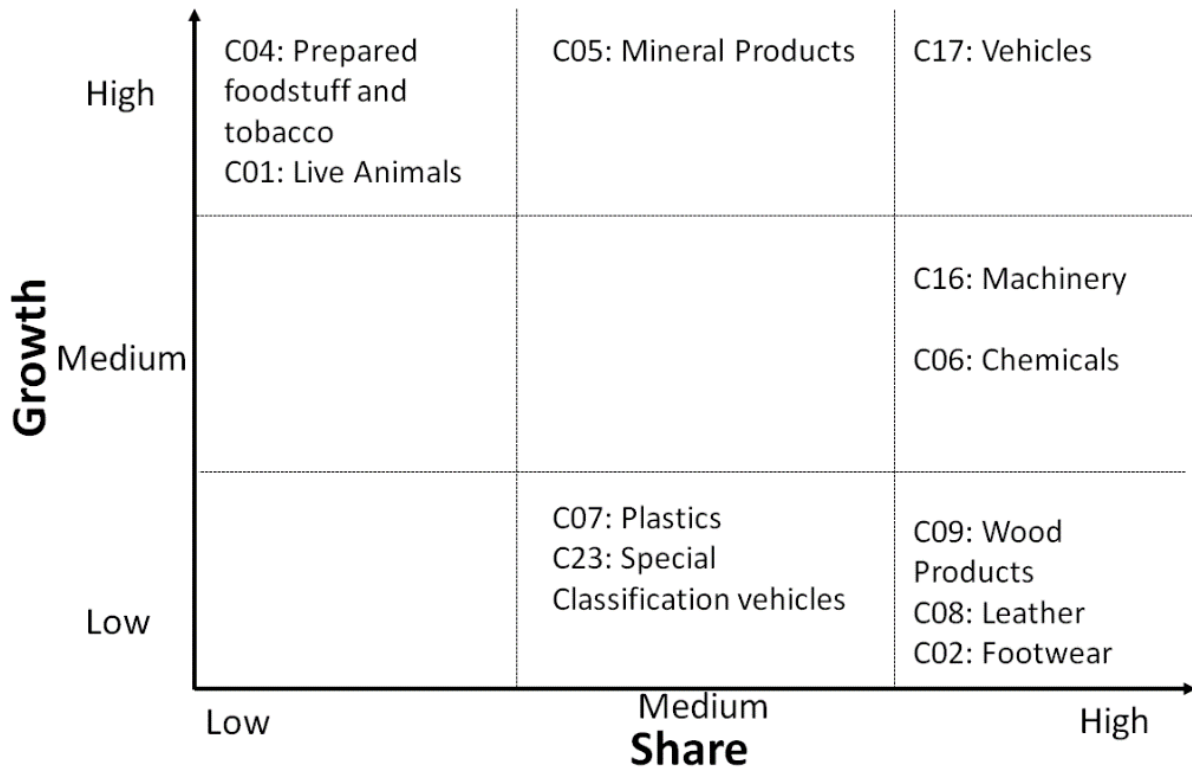
In terms of exports, the sectors that grew the most relative to others include: C05: Mineral products; C03: Animal or Vegetable Fats, C02: Vegetable products, C14: Precious Metals and C18: Scientific Equipment.

Mineral products and Animal or Vegetable Fats were sectors that by far experienced the most significant growth, with an average annual growth rate of 20% and 19% over the period 2000-2011, respectively. Thus, agricultural (Animal or Vegetable Fats and Vegetable products) and mining (Mineral products and Precious Metals) were among the top performers in terms of export growth – which reflects the high potential of these sectors for expansion. While mining and agricultural sectors enjoyed some considerable growth over the period, it is mining that however dominates export earnings. In fact, the top three commodity sectors that contribute the largest export earnings are from the mining sector, namely C14: Precious Metals (26%), C05: Mineral products (25%) and C15: Base metals (14%). Completing the top five of South Africa's top export earners in the United States market are C17: Vehicles (8%) and C16: Machinery (8%).

While it is important to identify which sectors grew the fastest as well as those that contribute a larger share of exports, such an analysis would be incomplete if it fails to combine the growth-share dimension such that one can argue for sectors that could be prioritized to enhance South Africa's

trade position. Given this caveat, a more elaborate analysis through a growth-share matrix is in order. This is what is attempted in Figure 4.5 and Figure 4.6. Sections are defined as high growth if their growth rate is higher than 20% per annum. Low growth sections grow less than 10% per annum with medium growth sectors in between the two extremes. The cut-off points used for the share criteria are 5% and 10%. High share sectors are those with a share above 10%, medium share sectors are sectors which have a share that falls between 5% and 10% and low share sectors' shares fall below 5%. Five Sections are defined as low growth-high share imports. Vehicles are the only section that is high share-high growth import quadrant (see Figure 4.5). In terms of exports, mineral exports are classified in the high growth-high share category as depicted in Figure 4.6.

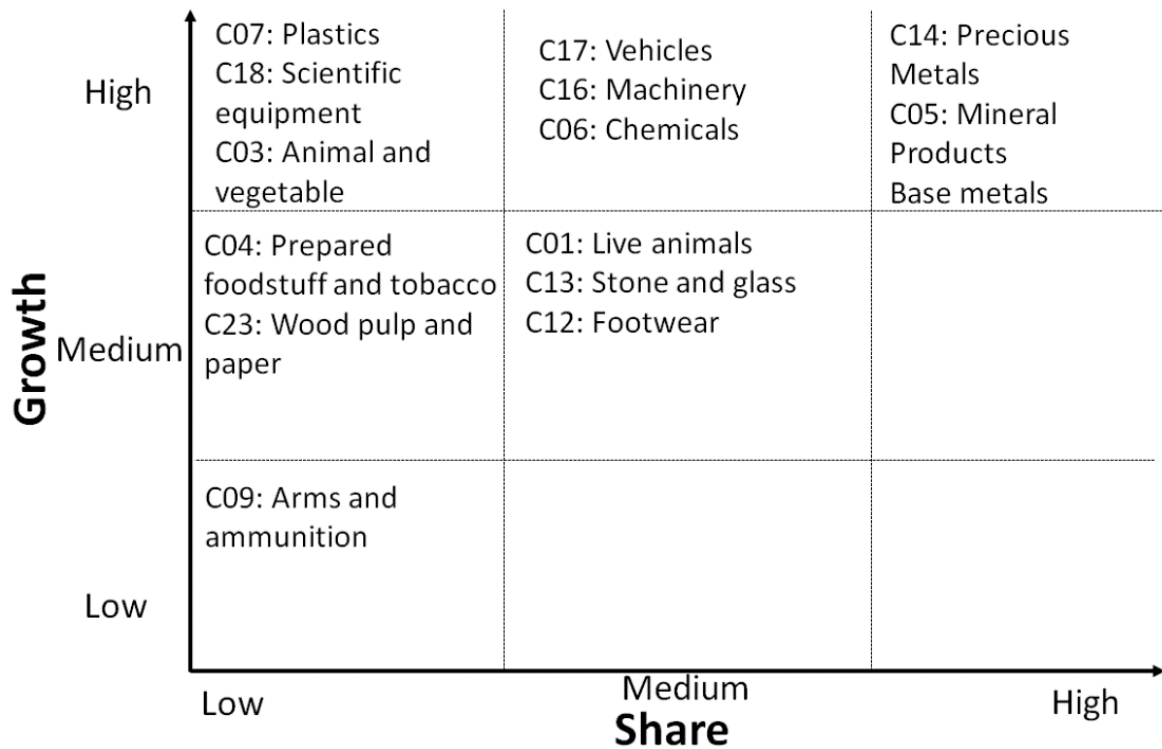
Figure 4.5: Growth-Share Matrix for SA Imports to United States



Source: Own Calculations

Ten export sections are classified as high growth compared to four import sections. The low growth-low share exports category is characterized by the following products: C19: Arms and Ammunition, C22: Other unclassified goods, C08: Leather and C11: Textiles. Although the study has classified South Africa's AGOA exports under the growth-share matrix, another key illustration would be to simply graph these sectors to get a perspective of the levels of average growth per section. Figure 4.6 graphically presents the information in Tables 4 and 5.

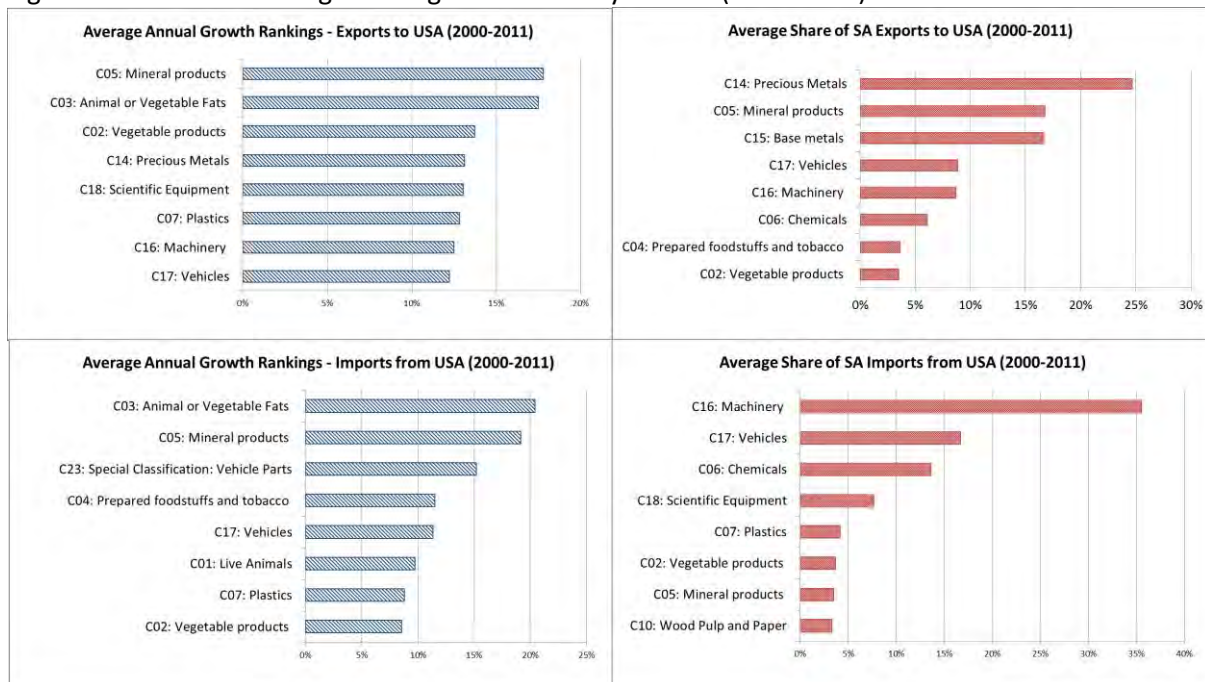
Figure 4.6: Growth-Share Matrix for SA Exports to United States



Source: Own Calculations

The graphs in Figure 4.7, illustrate high-growth and high-share sections. In terms of targeting sectors with high export potential, one would preferably consider high-growth high-share sections i.e. sections that appear in both the high-growth and high-share graphs, respectively. In this case, only Ch. 5: Mineral Products, Ch 14: Precious Metals, Ch 16: Machinery and Ch. 17: Vehicles and Ch 02: Vegetable Products appear on both graphs.

Figure 4.7: Fastest Growing and Largest Commodity sectors (2000-2011)



Source: Own Calculations

4.2.3 South Africa-United States Trade: 5 Digit End Use Code

Section level data conceals the underlying commodity trade information due to its aggregate nature. In this sub-text, the study further unpacks the analysis of South Africa – United States trade by considering an even more disaggregated level. The 5 digit end use code level³⁰ analysis helps to unpack the finer nuances of commodity level dynamics that underlie trade trends between United States and South Africa. To that end, Table 4.3 outlines the top 20 HS4 sectors, starting with South Africa imports from the United States.

There are two key points to draw out from the 5 digit end use code outline in Table 4.3, namely the fastest growing sectors and the rank in the share of commodities at two respective points in time (2002 and 2011). The top 10 ranked imports in 2011 include:

- (12260) Nonmonetary gold
- (21030) Excavating machinery
- (21170) Materials handling equipment
- (60000) Minimum value shipments
- (11120) Petroleum products, other
- (30000) Passenger cars, new and used
- (21180) Industrial machines, other
- (22090) Civilian aircraft, engines, equipment, and parts
- (30100) Trucks, buses and special purpose vehicles
- (21200) Agricultural machinery, equipment

In line with this, it can be deduced from Table 4.3 that South Africa's top 10 imports from the United States constitute 40% (US\$2.9 billion) of the overall total imports under AGOA. Moreover, when extended to the top 20 ranked commodities, South Africa's imports from the United States are just over 60% of total overall AGOA imports. Important to note is that the share of the top 20 imports from the United States has marginally declined compared to 2002, reflecting that South Africa's imports are becoming less concentrated.

Table 4.3: Ranked South African Imports from the United States

		2002			2011	
		Value*	Share (%)		Value*	Share (%)
1	(22000) Civilian aircraft	48 072	9.82	(12260) Nonmonetary gold	529 695	7.30
2	(30000) Passenger cars, new and used	34 404	5.32	(21030) Excavating machinery	359 744	4.96
3	(12540) Chemicals-organic	11 133	4.40	(21170) Materials handling equipment	325 307	4.48
4	(11120) Petroleum products, other	05 115	4.16	(60000) Minimum value shipments	305 113	4.20
5	(60000) Minimum value shipments	01 155	4.01	(11120) Petroleum products, other	299 251	4.12
6	(21030) Excavating machinery	7 748	3.47	(30000) Passenger cars, new and used	250 260	3.45
7	(21610) Medicinal equipment	0 292	3.18	(21180) Industrial machines, other	240 940	3.32
8	(21180) Industrial machines, other	3 967	2.9	(22090) Civilian aircraft, engines, equipment, and parts	228 038	3.1
9	(12550) Chemicals-other	3 164	2.9	(30100) Trucks, buses and special purpose vehicles	187 237	2.6
10	(12500) Plastic materials	9 708	2.8	(21200) Agricultural machinery,	186 432	2.6

³⁰ A classification system for U.S. exported and imported merchandise based on principal use rather than the physical characteristics of the merchandise. End-Use codes are assigned by the Bureau of Economic Analysis under the U.S. Department of Commerce.

		2002			2011	
		Value*	Share (%)		Value*	Share (%)
				equipment		
1	(22010) Parts-civilian aircraft	7 157	2.7	(21100) Industrial engines	181 741	2.5
2	(21200) Agricultural machinery, equipment	2 238	2.5	(21610) Medicinal equipment	169 789	2.3
3	(21301) Computer accessories	2 064	2.5	(30230) Other parts and accessories of vehicles	166 595	2.3
4	(21400) Telecommunications equipment	9 373	2.4	(21010) Specialized mining	159 441	2.2
5	(00200) Corn	0 171	2.0	(12540) Chemicals-organic	151 934	2.1
6	(21170) Materials handling equipment	5 563	1.8	(21400) Telecommunications equipment	147 754	2.0
7	(20000) Generators, accessories	5 539	1.8	(12550) Chemicals-other	139 137	1.9
8	(12770) Other industrial supplies	4 335	1.8	(21040) Nonfarm tractors and parts	121 271	1.7
9	(20005) Electric apparatus	3 882	1.7	(11110) Fuel oil	115 844	1.6
10	(40100) Pharmaceutical preparations	3 278	1.7	(12500) Plastic materials	106 606	1.5

* Value of trade in US\$ Millions

Source: Own Calculations

In Table 4.4, the focus shifts towards South African exports to the United States. In the same fashion as Table 4.3, the study attempts to identify the fastest growing sectors and the rank in the share of commodities at 2 respective points in time. The top 10 ranked exports (according to share of total value) by 2011 include:

- (14280) Other precious metals
- (30000) Passenger cars, new and used
- (42100) Gem diamonds-uncut or unset
- (14000) Steelmaking and Ferro-alloying materials-unmanufactured
- (12540) Industrial organic chemicals
- (30230) Other parts and accessories
- (14290) Miscellaneous nonferrous metals
- (14200) Bauxite and aluminum
- (12530) Industrial inorganic chemicals
- (30200) Engines and engine parts

Constituting the majority of the commodity groups in the top 10 ranked exports to the United States are base metals or mineral products and vehicles (including vehicle parts). The top 5 ranked commodities made up 73% of total exports under AGOA in 2011, compared to 60% in 2002. The situation is not significantly different when one extends to the top 20 ranked commodities – these constitute 91.3% of total AGOA exports in 2011 compared to 81.1% in 2002.

Table 4.4: Ranked South African Exports to the United States

		2002			2011	
		Value*	Share (%)		Value*	Share (%)
1	(14280) Other precious metals	1.18	29.2	(14280) Other precious metals	2.33	24.5
2	(42100) Gem diamonds-uncut or unset	0.48	12.0	(30000) Passenger cars, new and used	2.05	21.6
3	(30000) Passenger cars, new and used	0.27	6.6	(42100) Gem diamonds-uncut or unset	1.07	11.3
4	(14000) Steelmaking and Ferro-alloying materials-unmanufactured	0.26	6.5	(14000) Steelmaking and Ferro-alloying materials-unmanufactured	0.99	10.4
5	(14290) Miscellaneous nonferrous metals	0.22	5.5	(12540) Industrial organic chemicals	0.45	4.8
6	(30230) Other parts and accessories	0.15	3.7	(30230) Other parts and accessories	0.32	3.3
7	(14100) Iron and steel mill products-semi-finished	0.11	2.8	(14290) Miscellaneous nonferrous metals	0.31	3.3
8	(12540) Industrial organic chemicals	0.10	2.6	(14200) Bauxite and aluminum	0.22	2.3
9	(21180) Other industrial machinery	0.10	2.4	(12530) Industrial inorganic chemicals	0.17	1.8
10	(14200) Bauxite and aluminum	0.09	2.3	(30200) Engines and engine parts	0.11	1.2
11	(50020) United States goods returned, and reimports	0.07	1.9	(14100) Iron and steel mill products-semi-finished	0.10	1.1
12	(00120) Fruits and preparations, including frozen juices	0.06	1.6	(41310) Jewelry (watches, rings, etc.)	0.10	1.0
13	(12530) Industrial inorganic chemicals	0.04	0.9	(50020) United States goods returned, and reimports	0.09	0.9
14	(41310) Jewelry (watches, rings, etc.)	0.03	0.7	(00120) Fruits and preparations, including frozen juices	0.07	0.7
15	(10300) Nuclear Fuel Materials and Fuels	0.03	0.7	(41300) Numismatic coins	0.07	0.7
16	(16120) Other (boxes, belting, glass, abrasives, etc.)	0.02	0.4	(10300) Nuclear Fuel Materials and Fuels	0.05	0.6
17	(30200) Engines and engine parts	0.02	0.4	(00190) Wine and related products	0.05	0.5
18	(00190) Wine and related products	0.02	0.4	(21000) Drilling and oil field equipment and platforms	0.04	0.4
19	(41300) Numismatic coins	0.01	0.3	(16120) Other (boxes, belting, glass, abrasives, etc.)	0.04	0.4
20	(21000) Drilling and oil field equipment and platforms	0.01	0.2	(21180) Other industrial machinery	0.04	0.4

* Value of trade in US\$ Millions

Source: Own Calculations

This picture implies that South Africa's exports under AGOA are actually becoming more concentrated over time. In other words, an increasingly larger share of South Africa's exports is becoming dominated by specific commodities. This is despite the fact, however, that South Africa's exports remain comparatively more diversified when one considers other AGOA countries' exports to the United States. The broader implications of increasing concentration of South Africa's traded exports, within the context of increasingly volatile global markets, a fragile global economy and a United States economy that is undergoing a fragile recovery, are quite inevitable. The global

situation provides a telling case for the need for South Africa to strengthen and broaden its export base in order to become less vulnerable to global shocks.

The above sections examined South Africa's trade trends with the United States without due consideration to how it compares with the world. In this section, an effort is made to consider United States-South Africa trade within the wider context of trade with the rest of the world. By examining what proportion of South African trade with the United States and comparing it with total trade, one can determine the level of trade bias for or against importing from the United States and vice versa. Similarly, one can determine whether United States consumers have a bias against or have a preference for South African goods. This is determined by a simple calculation (Equation (i) and (ii)) of the export or import intensity of bilateral trade between South African and the United States.

Per definition, the import intensity index for South African imports from the United States is calculated by dividing the proportion of imports from United States in imports from the whole world by the proportion of United States exports in world export trade, once United States exports to South Africa have been excluded. The export intensity index is similar except that it is for South African exports to the United States. Mathematically, the import intensity is outlined as follows:

$$m_{ij} = \frac{\left(\frac{M_{ij}}{M_i} \right)}{\left(\frac{X_j}{(X_w - X_i)} \right)} \quad (i)$$

Where

M_{ij} =	SA imports from United States
M_i =	total imports of SA
X_w =	total world exports
X_i =	total SA export
X_j =	total United States exports

On the import side, the index of intensity of the United States export trade with South Africa is defined as:

$$x_{ij} = \frac{\left(\frac{X_{ij}}{X_i} \right)}{\left(\frac{M_j}{(M_w - M_i)} \right)} \quad (ii)$$

Where

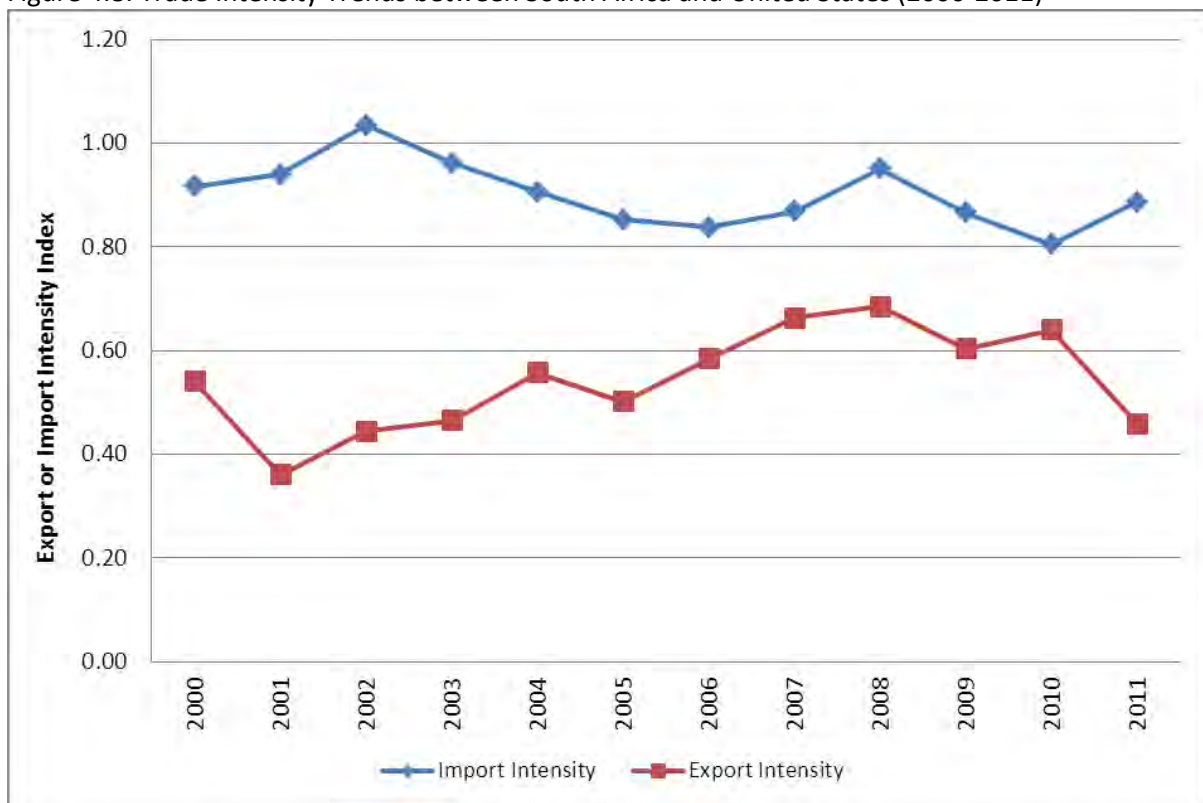
X_{ij}	SA exports to United States
M_w	total world imports
M_i	total SA imports
M_j	total United States imports

At the heart of the analysis of the trade index calculation is the interpretation of the index itself. If x_{ij} is greater than 1, then this implies that South African imports from the United States are greater than the proportion of United States exports to the rest of the world. This can be interpreted in two ways. Either, United States exporters have a bias towards trade with South Africa or South African

consumers have a preference for United States products. On the export side, this would indicate that South African exporters favor the United States market or the United States consumers prefer South African imports. If $x_{ij} = 1$, then there is no geographical bias in trade. In other words, bilateral relations between the South Africa and the United States would be the same as trade with the rest of the world. If x_{ij} is less than 1, then it would show that there is relatively low trade intensity in bilateral trade between the two countries.

Figure 4.8 is a graphical illustration that shows the trends in the export and import intensity trends between 2000 and 2011. Overall, the export intensity is lower than 1 throughout the observed period, which could mean that there is a bias against South African exports to the United States. Between 2001 and 2010, there has been an increasing trend in the export intensity, which could be a reflection of a growing positive bias for trade with South Africa, presumably due to the positive effect of AGOA.

Figure 4.8: Trade Intensity Trends between South Africa and United States (2000-2011)



Source: Own Calculations based on UN Comtrade data (2013)

The import intensity shows a slightly different picture. With the import intensity index being consistently lower than one (except in 2002), there has been a negative bias against United States imports in South Africa. In 2011, the import and export indices diverged, albeit remaining less than one. The slight increase in the import intensity index in 2011 may reflect South Africa's importance as a growing market for United States exports.

4.3 Conclusion

Actual trade data trends reflected growing export trade with United States, even though the share of South Africa's exports to the United States has been relatively stagnant. South Africa has maintained a positive trade balance throughout the period under review.

Trade data also showed that South Africa exports a significant value of mineral products, base metals, machinery, while other commodity sectors such as textiles, clothing and footwear remained

marginal. Most notably, South Africa experienced a 6 percentage point increase in share of advanced manufacturing exports to the United States (from 70% in 2000 to 76% in 2011) in the context of a decline in the share of South Africa's exports to the world in the same category.

South Africa's trade figures show that the United States is an important trade partner as revealed by 2011 trade statistics that show South Africa's exports to the United States totalled US\$ 8.2 billion. From the United States perspective, South Africa was ranked as the United States 37th most important trade partner with United States exports to South Africa in 2011 totalling US\$9.6 billion (UN Comtrade, 2013). In a nutshell South Africa's trade with the United States can be summarized with the following illuminating points:

- South Africa (outside of oil exporters) represented the biggest market (and trading partner in Sub-Saharan Africa) for the United States.
- In 2011 the United States was the biggest single-country market for South African exports, making the United States represented an important (and large) market for South Africa.
- South Africa was the biggest (non-oil) exporter under AGOA and that it also had the most diversified exports under AGOA³¹.

The chapter also plots graphs which feature the fastest growing sectors and the sectors with the largest shares in trade. In terms of targeting sectors with high potential, such products would be those with high export growth rates and high potential for export in the United States market. Commodity sectors which appear in both the share and the growth graphs were regarded as the high priority sectors and these included Ch. 17: Vehicles and Ch. 5: Mineral Products.

A key conclusion can be drawn from the analysis of export data. It appears that a fair amount of growth in South Africa's exports to the United States is fundamentally characterized by two key aspects namely; growth in specific commodities and an export base that is becoming gradually concentrated over time. This would imply that trade between South African and the United States is shifting towards a new focus in line with AGOA incentives. Thus, it may reflect that South African firms are utilizing the market opportunities and the networks that enable them to effectively exploit the United States market.

Despite the AGOA opening up trade between South Africa and the United States, results of the export and import intensity calculations show that the two countries' trade is below potential. This was shown by trends in the import and export intensity which was consistently less than one. With the export intensity below 1, the implication is that South Africa could export more to the United States.

³¹ South Africa's superior infrastructure is the defining difference between South Africa and other AGOA countries that is believed to be the source of South Africa's diversity of exports to the US, under AGOA (Mhlanga, 2010).

5 Trade Indicator analysis

This Chapter will start off with developing our understanding of the tariffs that are faced by South African exports when they land in the United States. The analysis progresses on to measure the preference margin that the AGOA dispensation afford South Africa, as opposed to other countries that face MFN tariffs. The tariff analysis then goes on to unpack the Revealed Trade Barriers (RTB). The discussion then moves towards identifying areas of trade potential. For this analysis the study combines a Revealed Comparative Advantage (RCA) with an Indicative Trade Potential (ITP) analysis trade analysis. The chapter then ends with a summary of all the key findings.

5.1 South Africa and United States Tariff analysis

The general theoretical and practical consequence of tariffs is a reduction of potential mutually beneficial trade. Thus, higher tariffs are associated with lower trade volumes, and vice versa. On one hand, high tariff levels have been ostensibly used to protect local industry, while lower tariffs have been implemented to facilitate and augment trade on the other (and to raise government revenue³²). Under AGOA, the United States aims to achieve the latter, as has previously stated in earlier discussions. With the advent of AGOA, United States tariff levels for eligible members have been decreased to meet the policy objectives. The broad structural changes in trade patterns suggest that the supply response to AGOA has kicked in with considerable gains in export growth in AGOA products.

In this sub-section the study examines AGOA tariff levels as they currently stand. It is important to note however, that tariffs are by no means the only barriers to trade. Non-tariff barriers (NTBs) exist such as Sanitary and Phyto-Sanitary (SPS) measures, among other quality standards, that are pervasive and the effect they have is very difficult to quantify. Given the complexity and challenges to accurately measure and quantify NTBs, this section will only focus on tariff analysis.

5.1.1 United States Tariffs levied on South African Exports

The study unpacks tariffs levied by the United States to South Africa exports at the more aggregated HS6 digit level. Also, in order to be internationally comparable, HS6 is the most disaggregated 'shared' classification level, beyond which each country will have its own classification scheme³³. Figure 5.1: shows the MFN schedule condensed into a small number of tariff bands.

Table 5.1: United States Tariffs and Associated Exports from South Africa and the World (2011)

Tariff range	No. of HS6 Lines	US imports only from SA (US\$ '000)	Value of Total US Imports from the world (US\$ '000)	% HS6 Lines	% Imports from SA	% of US Total Imports
12%+	264	14 682	1 131 228	5.2%	0.18%	0.05%
10%-11.9%	116	14 294	1 251 481	2.3%	0.18%	0.06%
8.0%-9.9%	172	3 563	3 210 782	3.4%	0.04%	0.14%
6.0%-7.9%	205	12 521	11 899 008	4.1%	0.15%	0.53%
4.0%-5.9%	421	668 308	12 456 713	8.3%	8.26%	0.55%
2.0%-3.9%	810	349 509	10 962 106	16.0%	4.32%	0.48%
0.1%-1.9%	760	1 102 676	28 273 500	15.0%	13.63%	1.25%
0%	2295	5 927 292	2 193 400 816	45.4%	73.24%	96.94%
Total	5051	8 092 845	2 262 585 634	100.0%	100.00%	100.00%

Source: UN Comtrade (2013) ; ITC (2013)

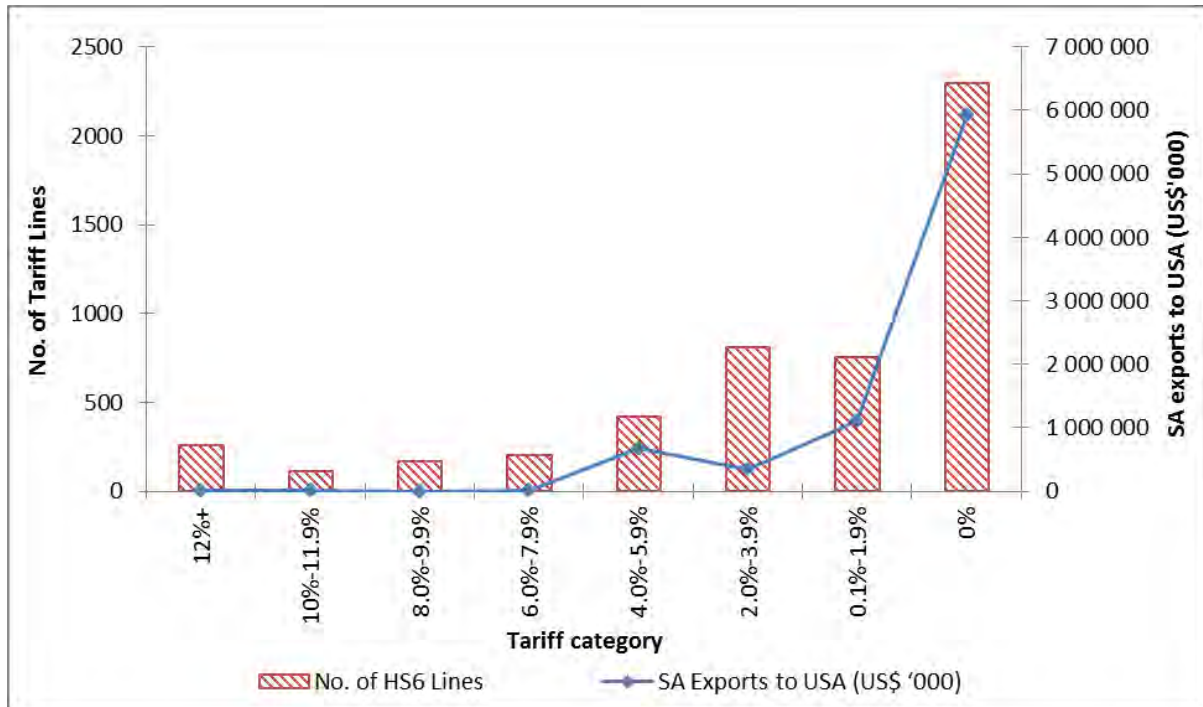
reveals that most of South African exports to the United States are those that have zero-tariffs under AGOA, 45% of the tariff lines being 0%. On the other extreme end, 5.2% of all tariff lines are higher

³² Very high tariffs tend to generate less government revenue than lower ones (because they restrict the volume of imports on which the tariff is levied), as well as encourage customs fraud.

³³ The AGOA tariff data was obtained online from the ITC Trade Map website.

than 12%. Meanwhile, 76.5% of Tariffs under 5% described as free or of nuisance value, are just above 76.5%. A key point to note from Figure 5.1 is the number of lines that have tariffs 2% - 5.9% tariff band (1231 tariff lines). As expected, 73.2% of South African exports to the United States are imported in lines with a tariff of under 2%. Similarly, South Africa's total exports are biased towards the lower tariffs. These differences can also be seen in Figure 5.1 below.

Figure 5.1: AGOA Tariffs and their Associated SA Exports to the United States (2011)



Source: Own Calculations based on WTO (2013)

5.1.2 Preference Margin Analysis

Preference tariffs include reductions or elimination of tariff barriers to imports from particular countries or regions. A country enjoying preferential tariffs is at a competitive advantage compared to other exporters that are not equally 'preferred' since it faces lower levels of duties. Thus, preference margins can be defined as the percentage by which particular imports from one country are subject to lower tariffs than the rate applying to its competitors (which may be the MFN rate or another preferential rate under an FTA or another non-reciprocal scheme) in a preferential trading arrangement.

While this simple definition is what applied in this study, it is important to note that there are varying definitions of tariff margins, and there remain no clear definitions of preferential tariff margins. However, it is impractical in this study to examine preference margins against all suppliers to the United States market, instead the focus in this chapter on margins over the MFN level. Such tariff margins could be expressed as relative or absolute, depending on the kind of information provided about trade policy.

Nonetheless, margins are fundamentally calculations that are based on subtraction where both operands are expressed in the same metric – *ad valorem* or specific. In this sense, the study expresses the definition of preferential margins as:

$$T_{ik} = (t_k^r - t_{ik}^a) \tag{iii}$$

Where: T_{ik} = preferential tariff margin

$t_k^r =$ reference tariff applied (bounded MFN tariff) to product k
 $t_{ik}^a =$ preferential duty applied to imports of product k from country i

When the MFN tariff is zero, then it follows that the preference margin is zero. Table 5.2 below shows the preference margins associated with South Africa's commodity exports to the United States. To note is that, by implication, the preference margin enjoyed by South Africa is the difference between the MFN minus the AGOA. The preference margins are shown in Table 5.2.

Table 5.2: South Africa's Top 20 HS6 product lines that have the highest Preference Margins

HS Code	Product Description	Tariffs		PM
		AGOA	MFN	
H640110	Waterproof footwear, outer soles & uppers of rubber/plastic, metal toe-cap	0%	38%	38%
H640411	Sports footwear, incl. tennis shoes, basketball shoes, gym shoes, training shoes and the like, with outer soles of rubber or plastics and uppers of textile materials	0%	34%	34%
H640291	Footwear, outer soles/uppers of rubber or plastics, covering the ankle, nes	0%	29%	29%
H640419	Footwear with outer soles of rubber or plastics and uppers of textile materials (excl. sports footwear, incl. tennis shoes, basketball shoes, gym shoes, training shoes and the like, and toy footwear)	0%	29%	29%
H640199	Waterproof footwear, outer soles/uppers of rubber or plastics, nes	0%	28%	28%
H640299	Footwear, outer soles/uppers of rubber or plastics, nes	0%	27%	27%
H071220	Onions dried but not further prepared	0%	26%	26%
H200911	Orange juice, unfermented & not spirited, whether/not sugared /sweet, frozen	0%	22%	22%
H200919	Orange juice, unfermented, whether or not containing added sugar or other sweetening matter (excl. containing spirit, frozen, and of a Brix value ≤ 20 at 20°C)	0%	22%	22%
H640420	Footwear with outer soles of leather or composition leather and uppers of textile materials (excl. toy footwear)	0%	21%	21%
H070951	Mushrooms, fresh or chilled	0%	21%	21%
H070390	Leeks and other alliaceous vegetables, fresh or chilled (excl. onions, shallots and garlic)	0%	20%	20%
H070970	Spinach, N-Z spinach & orache spinach (garden spinach), fresh or chilled	0%	20%	20%
H420219	Trunks, suit-cases, vanity-cases, executive-cases, brief-cases, school satchels and similar containers (excl. with outer surface of leather, composition leather, patent leather, plastics or textile materials)	0%	20%	20%
H200929	Grapefruit juice, unfermented, Brix value > 20 at 20°C, whether or not containing added sugar or other sweetening matter (excl. containing spirit)	0%	20%	20%
H150710	Soya-bean oil crude, whether or not degummed	0%	19%	19%
H200840	Pears, prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, nes	0%	15%	15%
H240130	Tobacco refuse	35%	50%	15%

HS Code	Product Description	Tariffs		PM
		AGOA	MFN	
H960310	Brooms/brushes of twigs/other veg mat bound together, with/ w/o handles	1%	18%	16%
H810820	Unwrought titanium; titanium powders	0%	15%	15%

*PM: Preference Margins

As shown in Table 5.2, South Africa's eligibility under AGOA grants particular industry sectors higher preference margins than others. The industry that enjoys the highest preference margins is the HS64: footwear sector with an aggregate preference margin of 13.9%. As depicted in Table 5.2, the top 6 products at HS 6 that have the highest preference margin all belong in the footwear sector. Agricultural products were also ranked as the products that have the highest margin of preference, as shown in Table 5.2 . At HS 2 level agricultural products such as HS04: edible animal products, HS20: Vegetables, HS15: Vegetables oils and HS02: Meat, enjoy 3.1%, 3%, 2.8% and 2.1% respectively preference margins. Just outside the top 20 collection of tariff lines that is the automotive sector, specifically the categories H870421, H870423, H870431, H870432 and H870490, all displayed a preference margin of 13%³⁴.

The next sub section will shift the discussion towards the understanding of the revealed trade barriers that may exist in the product lines that are exported by South Africa to the United States.

5.1.3 Revealed Trade Barriers

Revealed Trade barriers (RTBs) seek to clarify whether United States imports of a particular commodity from South Africa are more (or less) significant compared to the United States total imports of that commodity from all other sources. If RTB is greater than one, the conclusion is that South Africa is exporting a commodity relatively more to the United States than to the rest of the world. This may be possible due to AGOA's preferential access provisions that entail lower trade barriers on South African exports.

Conversely, if the RTB is less than one, then it follows that South Africa exports less to the commodity to the United States relative to the rest of the world. Our conclusion in this scenario would depend on the tariff levels levied on a particular commodity – if the tariff levels are low, then one could conclude that the reason for lower exports is due to Non-Tariff Barriers (NTBs). This is because RTBs make no distinction in terms of the specific nature of the barriers – trade barriers can be in the form of tariffs or NTBs, such as transportation costs and other impediments to trade. The RTB index is calculated in the following way:

$$RTB_{ik}^j = \frac{M_{ik}^j}{\sum_k M_{ik}^j} \bigg/ \frac{\sum_i M_{ik}^j}{\sum_i \sum_k M_{ik}^j} \quad (iv)$$

Where: (v)

$M_{ik}^j =$ country j's imports from country i of product k.

$\sum_k M_{ik}^j =$ total of country j's imports of product k,

$\sum_i M_{ik}^j =$ Total of product k imported from all countries.

$\sum_i \sum_k M_{ik}^j =$ total world imports of commodity k

The results (seen in Table 5.2), revealed for all commodities at HS2 level that South Africa generally exports less to the United States relative to the rest of the world. As depicted in Table 5.2 there are

³⁴ The Automotive sector is a key contributor to South Africa's exports to the US

low tariff levels for HS26: Ore, Slag and ash and HS47: Pulp of wood. For these particular products one could argue for the existence of Non-Tariff Barriers (NTBs). If these are removed, or at the very least relaxed, then these sectors may realize more South African exports to the United States.

Table 5.3: RTB's for South African Exports to the United States, 2011

Product Description	USA imports from SA (US\$000)	World Imports (US\$000)	AGOA Tariffs	RTB
Ores, slag and ash	2 240 208	94 284 205	0%	0.380
Furniture, lighting, signs, prefabricated buildings	972 994	57 124 939	0.5%	0.370
Pearls, precious stones, metals, coins, etc.	7 983 509	478 364 403	1.8%	0.323
Explosives, pyrotechnics, matches, pyrophorics, etc.	2 252 419	170 907 240	2.5%	0.241
Wool, animal hair, horsehair yarn and fabric thereof	1 112 345	104 101 749	6.9%	0.206
Edible fruit, nuts, peel of citrus fruit, melons	1 552 391	146 948 423	0.7%	0.190
Pulp of wood, fibrous cellulosic material, waste etc.	498 338	54 659 039	0%	0.137
Iron and steel	339 984	37 545 377	0.1%	0.134
Aluminum and articles thereof	487 132	54 608 609	1.9%	0.106
Beverages, spirits and vinegar	264 054	31 500 838	0.8%	0.086
Inorganic chemicals, precious metal compound, isotopes	256 237	31 190 450	1.2%	0.085
Vegetable, fruit, nut, etc. food preparations	843 064	118 712 209	3.9%	0.073
Nickel and articles thereof	132 575	18 882 251	0.4%	0.073
Salt, sulphur, earth, stone, plaster, lime and cement	130 091	20 060 810	0.1%	0.072
Railway, tramway locomotives, rolling stock, equipment	7 205 370	1 250 733 330	4.2%	0.067
Raw hides and skins (other than furskins) and leather	14 288 173	301 234 838	2%	0.066
Cereals	2 240 208	94 284 205	1.1%	0.057
Milling products, malt, starches, inulin, wheat gluten	972 994	57 124 939	0.8%	0.056
Other base metals, cermets, articles thereof	7 983 509	478 364 403	3%	0.052
Vehicles other than railway, tramway	2 252 419	170 907 240	0.3%	0.046
Ores, slag and ash	1 112 345	104 101 749	0%	0.380

5.2 Potential trade analysis

In prior sections, an effort was made to unpack South Africa's trade with the United States – through trade trends, calculations, and rankings – at HS2, HS4 and HS6 levels. The analysis came to the fundamental conclusion that South African exports to the United States are growing at a fairly rapid pace, and this growth is shifting gradually towards a higher export share of particular commodity sectors. The picture set here suggests that there is a gradual concentration of South African exports to the United States. In light of this increasing concentration there remains scope for export growth to the United States. The question then is: which specific commodity sectors can be exploited to enhance gains in South Africa's export to the United States? This question evokes the need to further explore the dimension of trade from a comparative advantage perspective in an effort to establish which commodity groups South Africa would export.

5.2.1 Revealed Comparative Advantage (RCA)

The concept of comparative advantage forms the core foundation that informs the conventional knowledge and theory of international trade analysis. According to the theory of comparative advantage, a country possesses comparative advantage if it can produce a good more efficiently (at a lower opportunity cost) than it can produce other goods. It is in this theory that the argument of specialisation of production is founded. The pre-supposition emerging out of comparative advantage theory is that welfare gains can be derived from increased consumption that comes as a result of the surplus to purchase imports.

Some scholars may believe comparative advantage is more of a theoretical notion and what is most important is the concept of competitiveness, the reasoning that supports such thinking is based on the distortions that are present in the global trading system. In a world of completely free trade, competitiveness would equal comparative advantage; but in reality the world is very far from free trade. A classic example of such an instance would be the impact of European Union subsidies – because the European Union subsidises its agricultural exports, countries which might have a comparative advantage in such goods are not competitive. Because of preferences (e.g. AGOA) a country that might not have a comparative advantage in, say, clothing might be able to export competitively. Given the complexity of determining true comparative advantage, the RCA was developed precisely because it is so difficult to identify exactly which goods a country exports has comparative advantage. As such trade analysts simply look at what a country exports and infer from that the products in which it has a comparative advantage.

If the comparative advantage in a particular commodity group is ‘revealed’, it means that its share in the country’s export basket is larger than the share of the commodity’s trade in the world total. Otherwise stated, the good is more significant to South Africa's exports than to world trade. The variation in the importance of the countries’ comparative advantage in particular products has been theoretically accepted as a basis for trade. Mathematically, the RCA of country i in cluster j can be calculated as the share of cluster j in country i ’s total exports $X_{ij}/\sum_j X_{ij}$ relative to (or divided by) the share of cluster j in global trade $\sum_i X_{ij}/\sum_{ij} X_{ij}$, i.e., summed across all countries i . Thus:

$$RCA_{ij} = \frac{X_{ij}/\sum_j X_{ij}}{\sum_i X_{ij}/\sum_{ij} X_{ij}} \quad (vi)$$

If $RCA_{ij} = 1$, the relative importance of j in country i 's exports reflects its average importance across the globe. If $RCA_{ij} > 1$ then it is more important and, based on the notion of Ricardian comparative advantage, the measure suggests that the country is able to produce the relevant cluster of commodities more efficiently and therefore at relatively lower costs than other countries and its exports could be considered as welfare enhancing. Finally, if $RCA_{ij} < 1$, commodity j is relatively less important to South Africa and it is said to be at a comparative disadvantage.

The results for this calculation are reported in Table 5.4, and show the RCA index values for the years from 2007 to 2011. The RCA indices are ranked according to the 2011 index. If RCA_{ik} is greater than 1, then the indication is that South Africa possesses a revealed comparative advantage. The higher the value, the more efficient South Africa is in the production of that product.

Table 5.4: Top 20 Product Lines with RCA ranked from largest to smallest in 2011 High Export Potential Codes and Descriptions, 2012

HS code	Product label	2007	2008	2009	2010	2011	Ave. Change of the RCA (2007-2011)
2617	Ores and concentrates	136.2	12.1	207.2	128.8	104.4	20.1%
2610	Chromium ores and concentrates	58.5	51.0	87.6	80.3	91.5	14.5%
3704	Photographic plates	51.9	101.1	37.3	79.3	61.8	1.1%
7110	Platinum	68.3	56.5	63.8	65.3	59.4	-1.3%
2602	Manganese ores and concentrates	31.9	48.2	36.0	53.2	44.6	8.0%
2614	Titanium ores and concentrates	55.0	50.6	80.3	56.8	43.0	-3.7%
2615	Niobium, tantalum, vanadium or zirconium	36.8	37.1	57.3	48.6	37.7	3.2%
4702	Chemical wood pulp, dissolving grades	41.7	34.1	38.7	35.6	29.9	-6.0%
2820	Manganese oxides	32.9	36.5	32.5	29.9	28.2	-4.9%
3201	Vegetable tanning extracts	29.0	24.5	28.3	29.3	27.7	0.8%
7202	Ferro-alloys	23.6	27.7	32.1	33.0	26.3	4.0%
3605	Matches	5.6	5.7	7.6	12.2	23.2	43.5%
2802	Sulphur, sublimed or precipitated	21.9	24.8	13.8	11.8	21.7	-7.4%
3804	Residual lyes from wood pulp	22.9	18.5	22.0	20.1	18.2	-3.8%
2705	Coal gas, water gas, producer gas	0.7	0.6	0.7	1.0	17.7	101.7%
7506	Nickel plates, sheets, strip and foil	24.2	23.9	19.6	28.6	17.4	-4.8%
2619	Slag, dross other than granulated slag	31.6	19.6	23.5	19.9	14.7	-14.0%
0805	Citrus fruit, fresh or dried	13.3	12.7	13.5	15.9	14.5	4.0%
2823	Titanium oxides	16.1	11.0	12.7	15.6	13.8	0.4%
2809	Di-phosphorus pentaoxide	16.4	23.2	17.7	12.3	13.1	-10.2%

According to the calculations reported in Table 5.4, South Africa's comparative advantage is generally and more distinctly stronger in primary goods and commodities. The results show that South Africa's RCA is more inclined towards the mining sector, with 11 of the top 20 ranked commodities constituting minerals and mining products. This shows that South Africa's core competency is in the mining sector. While this is the case, South Africa's level of industrial development could shift the terms of trade against primary mining and mineral products, as reflected by the country's loss in the RCA of key commodities. It is not surprising, therefore, that South Africa shows a greater propensity to trade in the more advanced manufactured goods in line with its level of industrial development. Advanced manufactured goods (Section 16 Machinery and Section 17 Vehicles) are notable in the list, although not among the top 20 ranked commodities. Since these are products that South Africa can continue to produce more efficiently, together with those of other sectors such as agriculture (fruits and agro-processing, and so forth), the country stands to benefit more if it diversifies and broaden its export base through an expansion of its commodity scope.

Prevailing bilateral trade patterns suggest that South Africa exports a wide spectrum of products to the United States that range from basic fairly low value to more capital intensive high value products. On the import side, South Africa imports higher value labour intensive products, while still maintaining a positive trade balance with the United States. This suggests that AGOA is particularly beneficial to South Africa, and underlines the importance of the United States as a key export market. Evidence from recent global shocks in general, and a weakened United States economy in particular, suggest that the South Africa's export base can be broadened and expanded to utilise existing potential while hedging the economy from the risk of vulnerability. The opportunity created by AGOA remains critical in this regard and industrial and trade policy can play a larger role in ensuring that the facility can bring more trade related benefits to the local economy. Building on the analysis hitherto, the study proceeds to unpack specific value chains with the identification of

commodities with high export potential in the United States market. The objective is to find how AGOA has re-framed South Africa’s global value chains in specific strategic commodity sectors, and from there determine the impacts the facility has on employment and the economy.

Before this can be done, it is necessary to first introduce the concept of potential supply capacity. To attain the potential supply capacity, the study attempts to establish the most that South Africa could export to the United States, constrained either by total export supply or import demand. To do this one has to subtract actual current South Africa exports to the United States from the calculated total export supply or import demand to attain the Indicative Trade Potential (ITP). Helmers and Pasteels (2006) define the ITP as a purely mechanical indicator calculated as follows:

$$ITP_{ij} = \min(X_{ij}, X_{ij}) - X_{ij} \quad (vii)$$

Where

$$X_i = \sum_{j=1}^J X_{ji} \quad X_i \text{ is the sum of South Africa's exports to the world}$$

$$X_j = \sum_{i=1}^I X_{ij} \quad X_j \text{ is the sum of United States imports from the world}$$

The ITP essentially serves to show the size of the United States import market that is yet to be fully explored. The idea behind this indicator is to identify the products for which there is the highest trade complementarity between South African exports and United States imports. The trade potential indicator is underlined by a key assumption that the United States could in principle absorb perfectly all South African exports. Given this strong underlying substitution assumption, the ITP becomes only indicative. One can however, use it to order or rank South Africa’s export products. As such, a ranking of all HS6 commodity groups according to the measurement of ITP is done to outline the specific commodity sectors that could be considered for export promotion into the United States.

5.2.2 Ranking Potential of South African Exports to the United States

To enhance the analysis, the study incorporates export growth into the framework such that it overlays the ITP analysis with export growth (see Table 5.5). Weighted average annual growth rates are calculated for South African exports to the United States, South African exports to the world as well as United States imports from the world for the period 2000-2011 for each HS6 commodity group.

An attempt is made here to devise a selection criterion that classifies the export growth values. For any of the observations during the period 2000-2011 is assigned “+” (positive) if the growth is positive, and 0 or – negative if it is less than 1% for each commodity. The assigned + and 0 or - classification, is then put into 5 categories (defined in Table 5.5) according to these growth rates. The categories are described below in what is thought as an appropriate ranking for policy makers and the goods that fall into each group are shown in Table 5.5.

Table 5.5: Classification of Export Potential: category definitions

Potential exports code Category	Growth in SA exports to United States	Growth in SA total exports	Growth in USA total imports	
5	0 or -	+	+	High potential in United States but not realised by South African exports in that market, although significant South African exports elsewhere occur
4	+	+	+	High potential in United States, realised by South African exports in that market with significant South African exports elsewhere
3	+	0 or -	+	High potential in United States, realised by South African exports in that market but with export supply constraints elsewhere
2	0 or -	0 or -	+	High potential in United States, not realised by South African exports in that market and with export supply constraints elsewhere
1	+	+	0 or -	Low potential in United States, realised by South African exports in that market with significant South African exports elsewhere
	0 or -	+	0 or -	Low potential in United States but not realised by South African exports in this market, although significant South African exports elsewhere occur
	0 or -	0 or -	0 or -	Low potential in United States but not realised by South African exports in that market with export constraints elsewhere.

Source: Author's interpretation

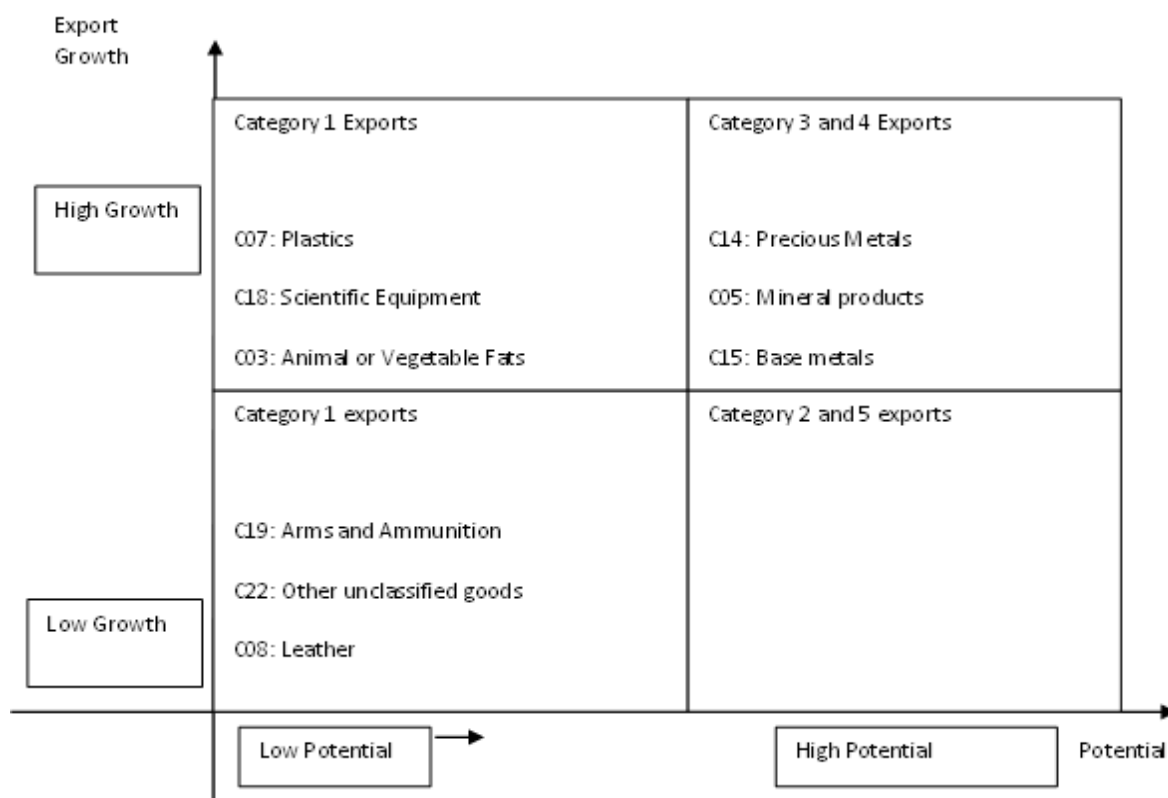
In keeping with what is believed to be a trade policy maker's reasoning, the study argues that priority commodities are those that have displayed high growth in the United States market and for which South Africa has displayed high growth of exports to the world, but not to the United States. Commodities that possess these characteristics are assigned as category 5 products. The following is the rationale of the other four categories for the policy maker's decision model:

Category 4: Although this category appears to be 'doing all right' (with South African exports to the United States that are positive instead of flat or negative), policy makers may still want to improve access further in order to perhaps facilitate even greater gains in market share in the United States.

Category 1, 2 and 3: Commodities with negative or flat total export growth for South Africa may feature less on the policy makers priority list (category 2) even if the United States market is expanding and South African overall exports to that market are positive (category 3). Category 1 exports are all low potential exports, whether they exhibit positive growth or not.

For all potential export codes discussed so far a simplifying assumption made was that a minimum market size of US\$1 million is required to trigger an offensive interest. Exports less than US\$1 million are considered to be too small. If the United States market is contracting, South African policy makers may only consider an offensive interest if the size of the market is relatively large. These commodity groups have been grouped into category 1. In order to simplify the categorisation and selection process, Figure 5.2 depicts an export growth-export potential matrix as a model to be used when crafting policy choices on which sectors to prioritise.

Figure 5.2: South African export growth-export potential matrix in United States markets (2000-2011)



Source: Own Calculations (UN Comtrade data, 2013)

As shown in Figure 5.2 the export growth-export potential matrix, there are four quadrants in which commodity options lie – and from the description of categories, these can be broadly grouped according into either one of four quadrants. Ideally, high growth- high potential commodities would be safe to prioritise – the top right quadrant in which category 3 and 4 commodities are located. The bottom right quadrant - where category 2 and 5 commodities are placed - can also be important if there is scope to unlock growth by addressing supply side constraints.

5.2.2.1 High Potential Exports not fully Exploited by South Africa

In identifying the high priority category 5 goods, the study outlines the trade data at chapter level to give a broad overview of the critical commodity sectors in Table 5.6. As discussed, the commodities under category 5 are those that are experiencing growth in South African exports to the world, a growing United States market but also whose exports to the United States are experiencing either zero or declining. Chapter level data displayed in Table 5.6 shows that a considerable amount of commodities are of high potential

Table 5.6: Commodity Groups with High Potential

HS2	Product label	SA Exports		SA Exports	
		USA	World	USA	World
H71	Pearls, precious stones, metals, coins, etc	2 101 791	66 143 500	20 750 979	18 649 188
H27	Mineral fuels, oils, distillation products, etc	221 836	464 313 999	9 734 556	9 512 720
H72	Iron and steel	784 469	29 630 152	7 983 509	7 199 040
H84	Machinery, nuclear reactors, boilers, etc	496 719	293 919 350	6 249 013	5 752 294
H87	Vehicles other than railway, tramway	2 250 811	205 955 066	7 205 370	4 954 559
H26	Ores, slag and ash	352 454	4 167 098	14 288 173	3 814 644
H08	Edible fruit, nuts, peel of citrus fruit, melons	70 639	10 917 900	2 240 208	2 169 569
H76	Aluminium and articles thereof	269 863	16 205 003	2 252 419	1 982 556

HS2	Product label	SA Exports		SA Exports	
		USA	World	USA	World
H85	Electrical, electronic equipment	83 312	283 288 017	1 658 834	1 575 522
H28	Inorganic chemicals, precious metal compound, isotopes	425 211	18 550 346	1 552 391	1 127 180
H73	Articles of iron or steel	71 728	33 871 549	1 164 416	1 092 688
H39	Plastics and articles thereof	21 435	41 412 742	1 097 225	1 075 790
H22	Beverages, spirits and vinegar	62 192	18 682 571	1 112 345	1 050 153

Source: Own Calculations based on UN Comtrade (2013) data

Thirteen commodity groups were identified as having high potential for further exports into the United States market, and the top 10 commodities are displayed in Table 5.6. Ch71: Pearls, precious stones and metals have the highest indicative trade potential even though it has far fewer HS 6 groups identified as having potential than many of the other industries. The ITP value for this group is by far the largest among the rest of the commodity groups and this suggests that there is enormous potential and a great scope for export of pearls, precious stones and metals to the United States. At HS6 level, the commodity groups face an un-weighted average tariff of 2% in 2011.

Large potential also exists in Ch. 27: Mineral fuels, oils, distillation products (zero tariffs), and also iron and steel manufacturing Ch72: Iron and Steel (zero), Ch84: Machinery (1%), Ch87: Vehicles exports are Ch26: Ore, slag and ash (zero tariffs). All these commodities, except for machinery, enjoy 0% un-weighted average tariffs and so are relevant to the AGOA discussion only to the extent that there exist HS6 sub-heads facing positive MFN tariffs. Potential for edible fruit exports is also fairly large, and exploiting this opportunity can be critical in broadening and further diversifying the country's export base by extending to the agricultural sector.

5.2.2.2 High Potential in the United States, Realised By South African Exports

In this section we attempt to unpack commodity groups which have growing South African exports to the world and growing United States imports from the world amid growing South African exports to United States (Category 4 commodities).

The number of commodity groups which had made use of their potential is considerably smaller than the list of product groups with untapped potential that we reported on in the previous section. There are 87 such commodity groups as opposed to the 2261 category 5 goods. Because there are fewer commodity groups.

5.2.2.3 High potential in the United States, South African export supply constraints

In categories 2 and 3, the market is growing in the United States, but South African exports have not experienced growth. Although these commodities display potential for growth in the United States, South African exporters have not tapped into the efficient production and export of these products, at least not over the last 5 years. Hence, this category of commodities should not be as high on the policy maker's agenda.

Table 5.7: Commodity Groups with High Potential in United States, South African Exports Supply Constraint

HS 2 Code	Description	No. of HS 6 Groups	% of Total	ITP	% of Total	Average Tariff (%)
85	Electric Machinery	65	4.7	155,128	2.6	13.2
84	Machinery	115	8.3	139,356	2.3	14.4
17	Sugar	5	0.4	77,005	1.3	0.0
48	Paper and paperboard	25	1.8	72,687	1.2	14.3
38	Misc. chemical products	17	1.2	63,763	1.1	10.0
3	Fish	23	1.7	56,935	0.9	25.0
87	Vehicles	14	1.0	56,661	0.9	18.9
47	Wood pulp and paper	8	0.6	56,268	0.9	0.0
94	Furniture and bedding	11	0.8	41,424	0.7	20.0
72	Iron and steel	32	2.3	37,470	0.6	5.0
61	Apparel articles , knit	41	3.0	33,165	0.6	40.0
25	Salt, sulphur, stone and cement	25	1.8	30,761	0.5	0.0
62	Apparel articles , not knit	53	3.8	26,873	0.4	33.9
44	Wood and articles of wood	19	1.4	24,940	0.4	14.6
28	Inorganic chemicals	53	3.8	18,966	0.3	10.0
29	Organic chemicals	127	9.2	18,313	0.3	10.5
20	Prep vegetables, fruit, nuts	11	0.8	17,552	0.3	21.1
22	Beverages and spirits	6	0.4	16,944	0.3	21.6
39	Plastics and articles thereof	36	2.6	14,374	0.2	14.0
73	Articles of iron and steel	15	1.1	12,721	0.2	10.4
82	Tools, cutlery of base metal	21	1.5	12,702	0.2	18.8
33	Essential oils	11	0.8	11,323	0.2	16.0

Source: UN Comtrade (2013) and own calculations

This category is dominated by one HS 6 group, HS 271000: Petroleum oils with a US\$1.13 billion indicative potential trade for 2011. The least important categories of our potential analysis are 1.

5.3 Conclusion

Chapter 5 starts off with a tariff analysis which reveals that AGOA tariff peaks are mainly in the agricultural and clothing and textiles sectors. However, South Africa enjoys 2 295 HS6 product lines of 0% tariff, including mining and mineral products, base metals, machinery, among others. It is in most of these products that are in sectors that South Africa possesses a comparative advantage in. South Africa, as one of the more developed AGOA beneficiaries, and as a consequence, faces slightly stringent rules of origin and this means that sectors such as textiles face unique challenges in competing with other AGOA beneficiaries.

In terms of revealed comparative advantage, South Africa has a comparative advantage in live animal products and the obvious mineral commodities. There also appears to be a slight comparative advantage in the Ch. 11 Prepared Foodstuffs, Ch. 06 Chemicals and the advanced manufactured chapter Ch. 16: Machinery. United States comparative disadvantage appears to be more diverse than South Africa's notably regarding precious stones, art and animal or vegetable fats.

The potential trade analysis results in a large amount of untapped export trade that can be utilised under AGOA. Together with the fact that 2 295 HS 6 commodity groups are zero-tariff and identified as category 5, there is greater scope for enhanced exports to the United States. The majority of these HS 6 goods are from Ch. 15: Base Metals and Ch. 16: Machinery. Some advanced manufactured goods also make an appearance as part of Ch. 16: Machinery and HS 87: Vehicles. The

rest of the categories for our potential analysis contain much fewer HS 6 commodity groups. The important HS 2 groups that emerge from the rest of the analysis are: HS 71: Precious Metals, HS 72: Iron and steel and HS 26: Ores, slag and ash.

6 Results and discussion

To bring into perspective the purpose of the study, this chapter will start off by recapping the research questions and the associated research objectives of this study, as was stated in Section 1.1. The research questions this study sought to address are:

1. To what extent has South Africa benefited from the AGOA trade dispensation in terms of improved exports to the United States?
2. What should be the focus of South Africa's lobby for continued and enhanced preferential access under AGOA?

In a bid to answer this question, the study sought to assess the extent to which increased preferential access to the United States market has translated into a real and tangible increase in exports from South Africa to the United States. Secondly, the study sought to identify the areas where South Africa and the United States have high trade potential, and help make a case for inclusion of these high potential trade products. Thirdly, the study attempted to highlight the key elements that have enabled South Africa to exploit AGOA, and also identify the constraints that are limiting South Africa's export performance. Specifically the set out to achieve the following objectives:

1. Analyze South Africa – United States bilateral trade under AGOA.
2. Identify sectors of high trade potential between South Africa and United States.

This discussion will start off with a theoretical understanding of how market access is likely to impact international trade, and then discuss the key findings of this analysis, with respect to the research questions.

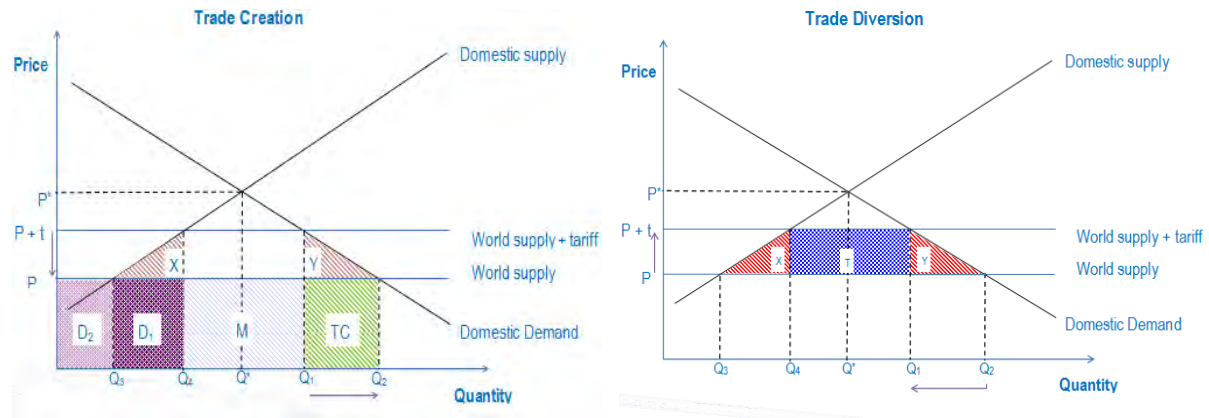
6.1 Review of AGOA's Impact on SSA Trade

The theoretical impact of a preferential trade agreement in the mould of AGOA can be illustrated using a basic two country, one good partial equilibrium model³⁵ as shown in Figure 6.1. The conjectural impact of AGOA preferences may take two forms; trade creation or trade diversion. This occurs when consumption shifts from a high cost producer to a low cost producer. After the enactment of AGOA, it is now possible to import wine from South Africa without paying the tariff. This will lead to an efficiency gain to United States consumers. The diagram above shows that before AGOA the United States had to pay the South Africa price plus the tariff, $(P+t)$. At $P+t$ the United States produced Q_4 (to the value of D_1+D_2), consumed Q_1 , and therefore imported $Q_4 - Q_2$. With the removal of the tariff the price falls to P . Consumption increases to Q_2 and domestic production falls to Q_3 . Imports have therefore increased to $Q_3 - Q_4$. Trade has been created as illustrated in the trade creation panel in Figure 6.1.

On the other hand trade diversion occurs when consumption shifts from a lower cost producer outside the trade arrangement to a higher cost one. For example, assume that the most efficient producer of staplers in the world is Spain- a country that is not eligible for AGOA benefits. Also, assume that before the enactment of AGOA, and identical tariff on staplers was levied to all the countries, and on this basis, the United States would import staplers from Spain rather than the South Africa. On enactment of AGOA the removal of the tariff made the South Africa's staplers cheaper as the tariff remains on Spain's staplers. Consumption is therefore switched to the higher cost South African staplers, leading to a reduction in worldwide efficiency. As far as the United States is concerned there will be gains and losses in welfare (Areas X and Y marked in the Trade diversion panel in Figure 6.1). Area T marked in Figure 6.1, indicates the tariff revenue collected.

³⁵The analysis in this section is adapted from and Condon and Stern (2011)

Figure 6.1: Illustration of Trade creation and trade diversion



Source: Author's own interpretation

Condon & Stern (2011) point out that the preference-gaining AGOA countries can only attain export gains depending on/ given their the propensity to respond and effectively exploit the opportunities presented by the preference. As outlined by Condon & Stern (2011), possible factors which may impede the supply response of AGOA beneficiaries to preferences include:

1. Supply side constraints – which may include: the lack of skills, capital and other requisite material resources needed to raise production in the short-term;
2. The conditions of the agreement – for instance, rules of origin could increase production costs for South Africa exporters, putting a cap on the extent to which the supply curve shifts downwards in response to the preference margin, and;
3. The scale and longevity of the preferences – which present the risk of preference erosion by extending similar benefits to other exporters

Many of the analyses that have been made to estimate the relative scale of diversion and creation use partial equilibrium models. This can explain that the modeling inherently requires a calculation of the counterfactual – which is why different scholars come up with different conclusions.

Against this background, it is not surprising; therefore, that early empirical work established fairly large and increasing levels of SSA exports to the United States under AGOA (Shapouri & Trueblood, 2003). At aggregate level, Nouve (2007) argued that AGOA has had a strong positive effect on collective SSA exports to the United States. At commodity level, AGOA has made the greatest impact in the SSA textile and apparel sector, where countries like Kenya, Lesotho, Madagascar, and Swaziland have enjoyed notable employment and output gains (Brenton and Hoppe, 2006). Expanded oil and petroleum exports from oil-rich AGOA-beneficiaries (such as Nigeria, Angola, Republic of Congo, Equatorial Guinea, Chad, and Gabon) have been observed even in the light of lower preference margins (Frazer & Biesebroeck, 2007). Strong growth has also been observed in diamond, ferro-alloys and vehicle exports from South Africa (ibid).

In light of these findings, AGOA has been perceived as a policy that accelerated SSA export growth. Condon & Stern (2011) point out that the generally improved export growth to the United States market under AGOA has been backed by broad-based factors which include improved economic growth rates in SSA, better governance and fiscal management; relative peace and stability; among others.

While a section of scholarly literature support the view that AGOA had a significant impact on SSA exports at aggregate and/or disaggregated levels, a vein of contradiction runs through a part of the scholarly perception. A section of empirical literature has argued that even though AGOA has improved SSA exports to the United States, the gains are however not significant (Fayissa & Tadasse,

2007; Frazer & Biesebroeck, 2007; Mueller, 2008; Seyoum, 2007). In this regard, (Ombuki, 2011) argued that the gains from the AGOA preferences, though positive, are much smaller than what had been previously established in certain sections of literature. This conclusion was also reached by (Obembe, 2011) who suggested that this scenario may be due to the supply side constraints that typify SSA, as outlined earlier. As such, the view that AGOA has been insignificant in stimulating SSA exports is not entirely misplaced.

Another plausible argument raised in the literature is that certain SSA commodity exports are inelastic, and therefore remain unchanged regardless of the existence of preferential trade arrangements. For instance, SSA oil exports to the United States have not been driven by AGOA and are argued to occur whether AGOA is in place or not (Condon & Stern, 2011).

In summary, the empirical work on how African exporters have actually responded to these preferences has shown that AGOA has had a positive effect. The magnitude of this effect has been shown to be significant in some respects, and others argue it did not have an effect. The insignificance of the AGOA impact shown in some studies draws attention to the factors which have constrained Africa's ability to effectively exploit the full benefits of AGOA; and the potential impact of preferences on AGOA exports.

The rest of the chapter is dedicated to detailing the key findings of the study as responses to the research questions posed in Chapter 1.

6.2 Research Question1: To what extent has South Africa benefited from the AGOA trade dispensation in terms of improved exports to the United States?

To answer this question, a detailed trade statistics analysis was carried out with the hope of gaining a greater understanding of the extent to which AGOA has influenced trade patterns between the United States and South Africa. South Africa's trade figures show that the United States is an important trade partner as revealed by 2011 trade statistics that show South Africa's exports to the United States totalled US\$ 8.2 billion. From the United States perspective, South Africa was ranked as the United States 37th most important trade partner with United States exports to South Africa in 2011 totalling US\$9.6 billion.

Actual trade data trends reflected growing export trade with United States, even though the share of South exports to the United States has been relatively stagnant. The analysis also revealed that South Africa exports a significant value of mineral products, base metals, machinery, while other commodity sectors such as textiles, clothing and footwear remained marginal. Most notably, South Africa experienced a 6 percentage point increase in share of advanced manufacturing exports to the United States (from 70% in 2000 to 76% in 2011) in the context of a decline in the share of South Africa's exports to the world in the same category. In a nutshell South Africa's trade with the United States can be summarized with the following illuminating points:

- South Africa (outside of oil exporters) represented the biggest market (and trading partner in Sub-Saharan Africa) for the United States.
- In 2011 the United States was the biggest single-country market for South African exports, making the United States an important (and large) market for South Africa.
- South Africa was the biggest (non-oil) exporter under AGOA and that it also had the most diversified exports under AGOA³⁶.

A key conclusion can be drawn from the analysis of export data. It appears that a fair amount of growth in South Africa's exports to the United States is fundamentally characterized by two key

³⁶ South Africa's superior infrastructure is the defining difference between South Africa and other AGOA countries that is believed to be the source of South Africa's diversity of exports to the US, under AGOA (Mhlanga, 2010).

aspects namely; growth in specific commodities and an export base that is becoming gradually concentrated over time. This would imply that trade between South African and the United States is shifting towards a new focus in line with AGOA incentives. Thus, it may reflect that South African firms are utilizing the market opportunities and the networks that enable them to effectively exploit the United States market.

Despite the AGOA opening up trade between South Africa and the United States, results of the export and import intensity calculations show that the two countries' trade is below potential. This was shown by trends in the import and export intensity which was consistently less than one. With the export intensity below 1, the implication is that South Africa could export more to the United States.

6.3 Research Question 2: What should be the focus of South Africa's lobby for continued and enhanced preferential access under AGOA?

To a large extent this research question was tackled by the detailed trade potential analysis that is propped up by a robust analysis of trade trends. The trade potential analysis identified thirteen commodity groups as having high potential for further exports into the United States market, and the top 10 commodities are displayed in Table 5.6. Ch71: Pearls, precious stones and metals have the highest indicative trade potential even though it has far fewer HS 6 groups identified as having potential than many of the other industries. The ITP value for this group is by far the largest among the rest of the commodity groups and this suggests that there is enormous potential and a great scope for export of pearls, precious stones and metals to the United States. At HS6 level, the commodity groups face an un-weighted average tariff of 2% in 2011.

Large potential also exists in Ch. 27: Mineral fuels, oils, distillation products (zero tariffs), and also iron and steel manufacturing Ch72: Iron and Steel (zero), Ch84: Machinery (1%), Ch87: Vehicles exports are Ch26: Ore, slag and ash (zero tariffs). All these commodities, except for machinery, enjoy 0% un-weighted average tariffs and so are relevant to the AGOA discussion only to the extent that there exist HS6 sub-headings facing positive MFN tariffs. Potential for edible fruit exports is also fairly large, and exploiting this opportunity can be critical in broadening and further diversifying the country's export base by extending to the agricultural sector

In summary, AGOA, has been the cornerstone of America's economic engagement with sub-Saharan Africa for the past fifteen years, and in those years it has had some very important successes. The unilateral trade preference scheme has unlocked trade between SSA from \$8.2 billion in 2001 to \$26.8 billion in 2013, a threefold increase. Non-oil AGOA trade has increased almost fourfold during the same period from \$1.4 billion to almost \$5 billion, in the process, AGOA has managed to catalyze FDI injection into eligible countries (from \$9 billion in 2000 to \$35 billion in 2013) – creating a reported 300,000 jobs in sub-Saharan Africa and 120,000 jobs in the United States³⁷.

In spite of these impressive figures, there is potential for even greater gains to be realized. This is on the basis of the knowledge that the utilization of AGOA is low and uneven. Further to this, the bulk of United States imports under AGOA come from a handful of countries and are concentrated in a few sectors; although this is beginning to change as recent years have seen increasing diversification in exports under the program.

South Africa is one of the only beneficiary countries that has been able to export a diversified and is often applauded for its ability to diversify exports to the United States under AGOA. However there is potential for South Africa to extract even more benefits from AGOA that will contribute substantially to the development challenges that South Africa currently faces. This finding is particularly important given that South Africa's economic policy context is driven by the fear of

³⁷ <http://iipdigital.usembassy.gov/st/english/texttrans/2014/07/20140731304682.html#axzz3QDcsEd00>

deindustrialization. As reported by Ensor (2013), South Africa has experienced a decline in industrial capabilities especially in the manufacturing sector. This is amid job losses and factory closures in the manufacturing sector. This is further compounded by rising imports and declining exports of some manufactured products.

As acknowledged in South Africa's economic policy circles – export growth is seen as a key driver of growth and dispensations such as the AGOA are crucial to addressing the socio-economic challenges that are unique to South Africa. AGOA provides South Africa with an opportunity to gain competitiveness in the world's largest market, through the duty free access to United States markets for a range of manufactured goods. This study has provided ample evidence of the importance of the AGOA dispensation to United States and South Africa trade relationship.

7 References

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Appendix 1: United States General Systems of Preferences Requirements³⁸

The U.S. Generalized System of Preferences (GSP) is a program designed to promote economic growth in the developing world by providing preferential duty-free entry for up to 5,000 products when imported from one of 127 designated beneficiary countries and territories.

As previously stated in Section 2.2.1.1, The President determines which countries and which products are eligible for GSP benefits, based on the recommendations of the United States Trade Representative (USTR, 2008). An appointed GSP Subcommittee conducts annual reviews of GSP product and country eligibility. These reviews typically involve both public hearings and a public comment period. The GSP Subcommittee reports the findings of these reviews to the Trade Policy Staff Committee (TPSC) and the U.S. Trade Representative.

Mandatory criteria

According to the 19 USC 2462(b) (2) of the GSP statute sets forth the criteria that each country must satisfy before being designated a GSP beneficiary.

- 1) A GSP beneficiary may not be a Communist country, unless such country receives Normal Trade Relations (NTR) treatment, is a World Trade Organization (WTO) member and a member of the International Monetary Fund (IMF), and is not dominated or controlled by international communism;
- 2) A GSP beneficiary may not be a party to an arrangement of countries nor participate in actions the effect of which are:
 - (a) to withhold supplies of vital commodity resources from international trade or to raise the price of such commodities to an unreasonable level and
 - (b) to cause serious disruption of the world economy;
- 3) A GSP beneficiary may not afford preferential treatment to products of a developed country that has, or is likely to have, a significant adverse effect on U. S. commerce;
- 4) A beneficiary may not have nationalized, expropriated or otherwise seized property of United States citizens or corporations without providing, or taking steps to provide, prompt, adequate, and effective compensation, or submitting such issues to a mutually agreed forum for arbitration;
- 5) A GSP beneficiary may not have failed to recognize or enforce arbitral awards in favour of United States citizens or corporations;
- 6) A GSP beneficiary may not aid or abet, by granting sanctuary from prosecution, any individual or group that has committed an act of international terrorism;
- 7) A GSP beneficiary must have taken or is taking steps to afford internationally recognized worker rights, including :
 - the right of association,
 - the right to organize and bargain collectively,
 - a prohibition on the use of any form of forced or compulsory labour,
 - a minimum age for the employment of children, and a prohibition on the worst forms of child labour, and
 - acceptable conditions of work with respect to minimum wages, hours of work and occupational safety and health.

In addition A GSP beneficiary must implement any commitments it makes to eliminate the worst forms of child labour

³⁸ This section relies heavily on the USTR U.S. Generalized System of Preferences Guide Book that was released in December 2012.

Appendix 2: Economic Modeling Methodologies

Gravity Model³⁹

The gravity model (GM) of international trade, comparable to other gravity models in social science, forecasts bilateral trade flows based on the economic sizes and distance between two trading units. Stated differently, the gravity model relates bilateral trade flows to the GDP levels of the countries and their geographic distance (Linders & Groot, 2006). Anderson (2011) praises the GM as probably the most successful trade analysis tool. Findings from Eichengreen and Irwin (1996) support this idea, concluding that the GM is the primary methodology for empirical studies of regional integration. Although Newton's gravity equation in physics inspired this model, its theoretical underpinnings in fundamental economic theory as well as empirical specification have been proven and are well known.

The log-linear equation is the simplest and most often applied form of the gravity model and is often expressed as follows:

$$\ln Y_{ij} = \beta_0 + \beta_1 \ln(x_i) + \beta_2 \ln(x_j) + \beta_3 \ln(d_{ij}) + \sum_h \gamma_h w_{ijh} + \varepsilon_{ij} \quad (1)$$

Where:

- Y_{ij} = Trade volume from region i to region j
- x_{ij} = Gross Domestic Product (GDP) in countries i and j respectively
- d_{ij} = Distance from country i to country j
- w_{ijh} = Dummy variables
- ε_{ij} = Error term.

In equation 1, the GDP is used as a proxy for the size of the country in question's economy, while the distance between two trading units proxies the importance of relative economic relationships and contiguity factors between the two trading countries. The inclusion of dummy variables in the model caters for the array of categorical variables such as the presence of special trade agreements, or other characteristics such as sharing of common borders. As Egger (2000) noted, equation 1 is specified for cross-sectional data, and it excludes the effects of changes over time. As a result, the interpretation of the coefficients in the equation will be the combined effect within and between trading units (Egger, 2000)

Generally, *panel data* is preferred to cross-sectional data, mainly because panel data is richer and allows for the analysis of unobserved countries' effects, temporal aspects of trade and foreign trade dynamics, factors that would otherwise be collectively lumped in the error term and yet are the cause of variation (Greene, 2007). Földvári (2006) contends that equation 1 is likely to suffer from omitted variable bias. A better specification of equation 1 (in the presence of panel data) would be as follows:

$$\ln Y_{ij} = \beta_0 + \beta_1 \ln x_i + \beta_2 \ln x_j + \beta_3 \ln d_{ij} + \sum_h \gamma_h w_{ijh} + \sum_h \lambda_{tk} t_{tk} + c_{ij} + \varepsilon_{ij} \quad (2)$$

Where

- t = Dummy variables for each period of time
- c = Unobservable variable.

³⁹ The subsection on the gravity model relies heavily on the work that was carried out by Chinembiri (2012).

This specification of the model is able to clearly depict the relationship between variables over time and quantify the impact of business cycles – captured by the yearly dummy variables. Equation 2 parameters are elasticities of influence of the predictor variables, on the criterion variable, that is to say that, β_2 is the income elasticity of the j^{th} country (Aguilar, 2006).

Partial Equilibrium Models

In partial equilibrium analysis, the effects of policy actions are examined only in the markets that are directly affected. Supply and demand curves are used to depict the price effects of policies. Producer and consumer surplus is used to measure the welfare effects on participants in the market. A partial equilibrium analysis either ignores effects on other industries in the economy or assumes that the sector in question is very, very small and therefore has little if any impact on other sectors of the economy. In contrast, a general equilibrium analysis incorporates the interaction of import and export sectors and then considers the effects of policies on multiple sectors in the economy. It uses offer curves to depict equilibria and measures welfare with aggregate welfare functions or trade indifference curves.

This section analyzes the price and welfare effects of trade policies using a partial equilibrium model under the assumption that markets are perfectly competitive.

Assume there are two countries, the United States and South Africa. The analysis can be generalized by assuming one of the countries is the rest of the world.

1. Each country has producers and consumers of a “tradable good”, such as wheat. The analysis can be generalized by considering broad classes of products, like manufactured goods, or services.
2. Wheat is a homogeneous good. All wheat from Mexico and the United States is perfectly substitutable in consumption.
3. The markets are perfectly competitive.
4. We assume that the two countries are initially trading freely. One country implements a trade policy and there is no response or retaliation by the other country.

The Large versus Small Country Assumption

Two cases are considered regarding the size of the policy-setting country in international markets. The effects of policies vary significantly depending on the size of a country in international markets.

If the country is a “large country” in international markets, then the country’s imports or exports are a significant share in the world market for the product. Whenever a country is large in an international market, domestic trade policies can affect the world price of the good. This occurs if the domestic trade policy affects supply or demand on the world market sufficiently to change the world price of the product.

If the country is a “small country” in international markets, then the policy-setting country has a very small share in the world market for the product—so small that domestic policies are unable to affect the world price of the good. The small country assumption is analogous to the assumption of perfect competition in a domestic goods market. Domestic firms and consumers must take international prices as given because they are too small for their actions to affect the price.