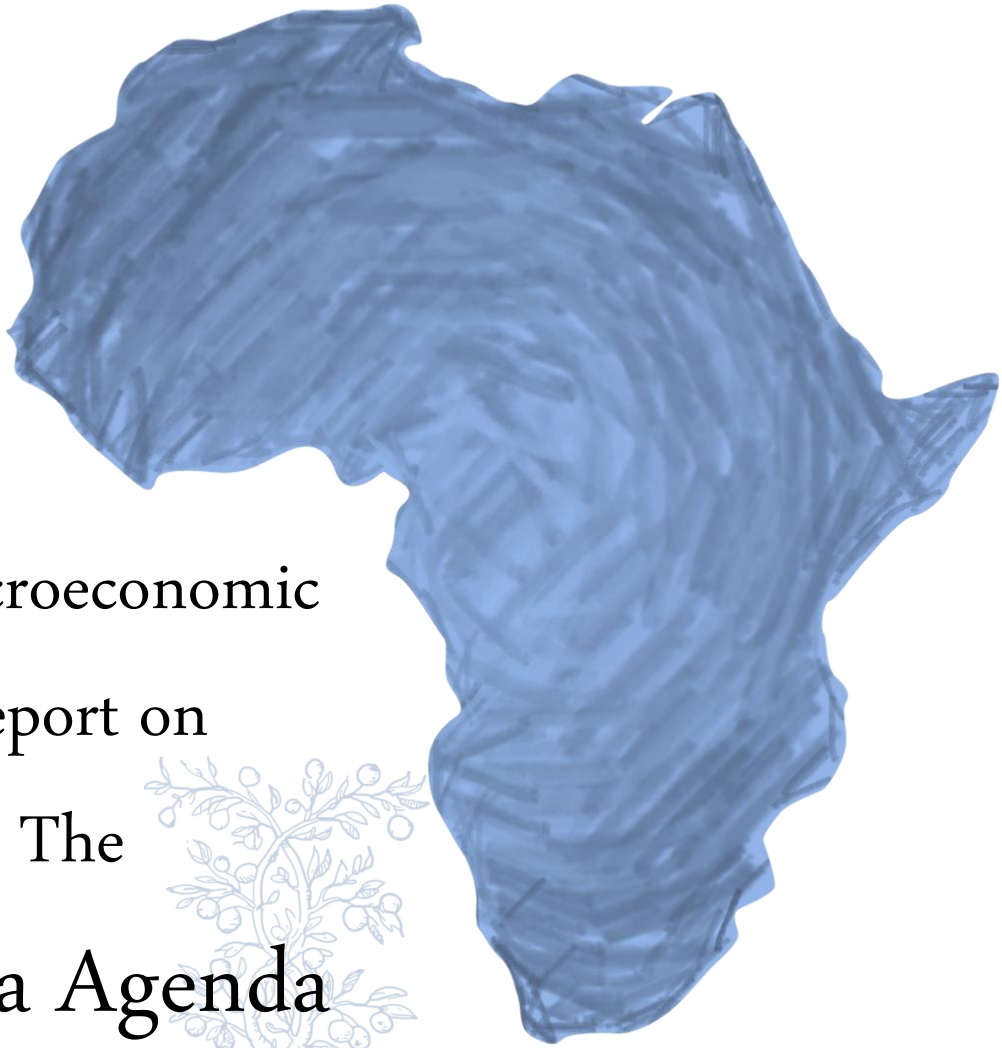
Western Cape Government
Agriculture

BETTER TOGETHER.



A Macroeconomic Report on The Africa Agenda

Western Cape Department of Agriculture
Macro and Resource Economic Services

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Contents

Executive Summary

In 2013, the Western Cape Department of Agriculture initiated research on the African continent which is commonly referred to as the "Africa Agenda". The research question relates to giving more in-depth information and intelligence on the continent with specific reference to increased integration and to guide the Department to better facilitate engagements for the agricultural sector to do business in the region.

The first section of this paper outlines the main macroeconomic outlook in Africa which helps to answer the question as to why the region has gained importance in the global context. The answer to this question was shown to lie in recent trends in Africa showing strong economic growth, increased trade, an upsurge in foreign direct investment (FDI) flows into the region as well as large populations which are rapidly growing and rapidly urbanising.

After focusing on the continent as a whole in Section 1, Section 2 looks to identify possible markets for investment and trade in agricultural products. This is done by using the International Trade Centre's (ITC) Market Attractiveness Index (MAI) in order to identify the most attractive markets for South African agricultural products into Africa. The technique was used to calculate the MAI scores for apples, pears, oranges, table grapes, wine and fruit juice.

Below the top five most attractive markets in Africa for the relevant products are listed in order of most attractive to least attractive:

- **Apples:** Nigeria, Mozambique, Angola, Kenya, Zambia
- **Oranges:** Mozambique, Angola, Zambia, Mauritius, Senegal
- **Pears:** Angola, Mozambique, Nigeria, Zimbabwe, Zambia
- **Wine:** Mozambique, Namibia, Zambia, Angola, Madagascar
- **Fruit Juice:** Mozambique, Angola, Namibia, Nigeria, Zambia

Whilst there were significant differences between the different products, especially once the analysis is expanded outside of the top five shown above; there were also some consistent trends in the MAI analysis. In particular, there were persistently high scores for Angola, Mozambique, Zambia and Nigeria, highlighting the fact that these are economies that are growing, present good market access prospects and are relatively close to South Africa for market penetration.

Identifying attractive markets is a big step towards developing an effective strategy for Africa but it is not sufficient in isolation. There are numerous other issues which need to be considered on a country-by-country basis. For this reason, Section 3 presents findings from country profiles for nine countries, chosen based on the MAI analysis discussed, current relations with South Africa and providing regional representation across Africa. The countries chosen were Angola, Mozambique, Zambia, Kenya, Tanzania, Ghana, Nigeria, Egypt and Tunisia.

Asides from Tunisia and Egypt, these economies remain small relative to the population sizes. The future looks promising through with a sharp rise in Gross Domestic Product (GDP) in the last ten years. Despite economic gains, poverty is still rife in most of the countries studied. The exceptions here are the more developed North African economies of Tunisia and Egypt, as well as Ghana. Monetary instability is a serious concern and unless dealt with, will be a discouragement for investment.

Governance remains a central point of concern, although there were signs of improvements n recent years. Ghana performed exceptionally well on all areas included in the World Bank's Worldwide Governance Indicators (WGI's). Tunisia and Egypt performed well but dropped sharply after 2011. Nigeria performed particularly badly on all WGI scores and despite gains in "political stability and absence of violence" for Angola and in "voice and accountability" for Kenya, these two countries also performed poorly. Tunisia and Ghana performed far better in terms of ease of doing business than the other countries analysed, although Zambia also noticeably performed relatively well, sitting around the midpoint of global rankings which emphasises how poorly the other countries did in this. The main areas to come out as cause for concern when it comes to doing business in the countries reviewed were "access to financing" and "corruption".

Most of the countries under review also had large populations which are disproportionately younger in age. Nigeria, Egypt, Tanzania and Kenya have particularly large populations. Tunisia, on the other hand, has a very small population in relation to the other countries. These populations have also been growing rapidly and urbanising at a rapid rate. This means there will be more and more urban dwellers creating more demand for agricultural imports into these countries.

Infrastructure is another concern, in particular the state of the roads in the countries under question which, asides from Egypt, Tunisia and Tanzania are predominantly unpaved. Most countries have access to at least one of either a well-developed port or good air infrastructure. The best overall performers in terms of transport infrastructure were Egypt, Ghana, Kenya and Tunisia. The air infrastructure ratings for Mozambique and Nigeria were also decent. The introduction of cellular phones has opened up opportunities in terms of communication which were not possible before due to persistently poor landline infrastructure. There has been a massive take-up in cellular phone

subscriptions in the past twenty years, particularly in Tunisia, Egypt and Ghana but also significant take-up across the board, even in Mozambique where take up has been slowest. There have also been smaller but still significant gains in terms of internet access, especially in Tunisia, Egypt, Nigeria and Kenya. With the diffusion of cellular phone technology, improvements in terms of internet access are likely to continue. Then there were also concerns over electricity access with the exception being Egypt and Tunisia. These concerns came in relation to a lack of electricity access and in relation to the instability in supply as measured by outages in a typical month.

There is clear evidence of the trade opportunities in the countries under review. There were significant increases in imports into all the countries under review, in particular Egypt and Nigeria recorded sharp rises in total imports in recent years. Despite the opportunities, there are also specific trade barriers which makes exporting to these countries either difficult or in cases costly. These issues need to be reviewed on a country-by-country basis in order to make sure they are addressed properly to ensure efficiency and also to make sure that a competitive advantage is realised and not be put at a competitive disadvantage trying to compete with a party who did consider the issue thoroughly.

Agricultural production has been increasing for all the countries under review, but in all cases at a slower rate than the rest of the economy leading to a declining importance of agriculture in each economy. Whilst agricultural production will increase in the countries under review, local agricultural demand is set to increase as consumers consume more goods and a greater diversity of goods, including increased consumption of higher value-added processed goods. Given this trend and the limited nature of resources needed for agricultural production, it is estimated that if things continue as they have been, agricultural demand will increase more rapidly than agricultural production, creating a net demand for agricultural products. This is illustrated with the aid of the International Futures (IFs) Model which estimates that whilst in 2010 all nine countries had agricultural production in excess of local demand, by 2050 this will only be true for Ghana and Tunisia.

In addition to the trade opportunities, there are also opportunities for knowledge sharing and collaborative research. Whilst Research and Development (R&D) expenditure as a percentage of GDP has been low by world standards for all the countries excluding maybe Tunisia, the data shows significant expenditures on Agricultural R&D. In particular Kenya, Ghana and Tanzania from both an aggregated and a per capita perspective, but also Nigeria from an aggregate perspective and Tunisia from a per capita perspective.

The full results from the "Africa Agenda" study on which the analysis of this report is based, are packaged into easy-to-use excel spreadsheets. These files can be downloaded from the following link:
http://www.elsenburg.com/economics/africaagenda.html

Section 1: Why is Africa Important

Global interest in the African continent is rising. This is clearly reflected in the African Competitiveness Report of 2013 stating that now is:

> *"A time when international interest in Africa is surging and the continent is seen both as an investment destination of choice and as a region marked by greater prosperity and development"* (World Bank, 2013a, p. v)

Various African counties have recorded exceptional economic growth rates in the last decade, a trend which is expected to continue in the midst of sluggish growth elsewhere in the world (WTO, 2013). In South Africa, at the Southern tip of the continent, there has been a realisation of the importance of engaging with Africa as many private companies, including some of the main South African retailers and banks, have increased activities in foreign African countries.

In the South African public sector reference is made to the importance of Africa in a number of important policy documents. South Africa's National Development Plan (NDP), which outlines the countries vision going through to 2030, suggests that South Africa should expand on regional, continental and African trade, based on informed understanding of these economies (NPC, 2011). Increased intra-Africa trade has also been listed as a strategic objective of the National Department of Agriculture, Forestry and Fisheries (Joemat-Pettersson, 2013). At the provincial level, looking to the African market for increased investment, trade, partnerships and international relations would enhance the mandate of the Western Cape Government to create and maintain an enabling environment for business, and provide demand-led, private-sector-driven support to the Province's growing sectors (Western Cape Government, 2013a). There is also a direct link to the Province's Provincial Strategic Objectives, with Objective 11 being for the Department of Agriculture to support the agricultural sector to at least maintain its export position for the next 5 years (WCDOA, 2011).

It is within this context that Western Cape Department of Agriculture seeks to gain more knowledge and understanding about African markets in order to facilitate increased integration in the region.

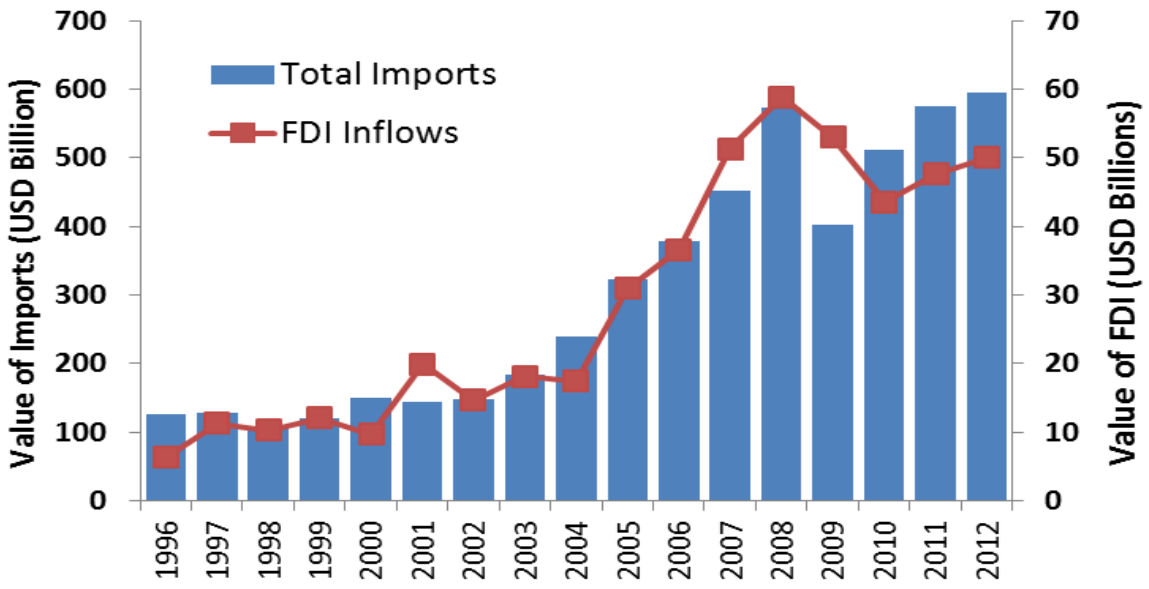
1.1 - Why Africa and why now?

The first question that needs answering relates to the reasons why Africa has become increasingly important in recent years. Figure 1 shows the total annual imports of all goods into Africa and the annual Foreign Direct Investment (FDI) inflows into Africa from 1996 to 2012. In this period total imports have grown in value from approximately US$ 127 billion to more than US$ 590 billion in 2012 (UNCTAD, 2013a). According to the World Trade Organisation's 2013 World Trade Report various economic factors will affect African trade patterns. These include demography, investment, technology, energy, transportation cost and the role of institutions (WTO, 2013). Africa is set to continue to be a major player in global trade with rising income levels, high population levels, increased public investment on roads, ports and other transport infrastructure (WESGRO, 2013)

FDI has increased from less than US$ 6 billion to more than US$ 50 billion in the past 20 years. This is illustrated in Figure 1 which shows FDI inflows into Africa as well as total imports for the region. These trends suggest a massive improvement in the ability of African countries to facilitate trade and business transactions with the world. This increased investment into Africa is typically a result of great improvements in the business environment. For example, in 2004 it took, on average, 10.8 days to start a new business and 113.5 days to register property in Africa. In 2011, this number of days declined remarkably to 8.4 and 64 days respectively (WESGRO, 2013).

Figure 1 - Total Imports and Foreign Direct Investment into Africa.

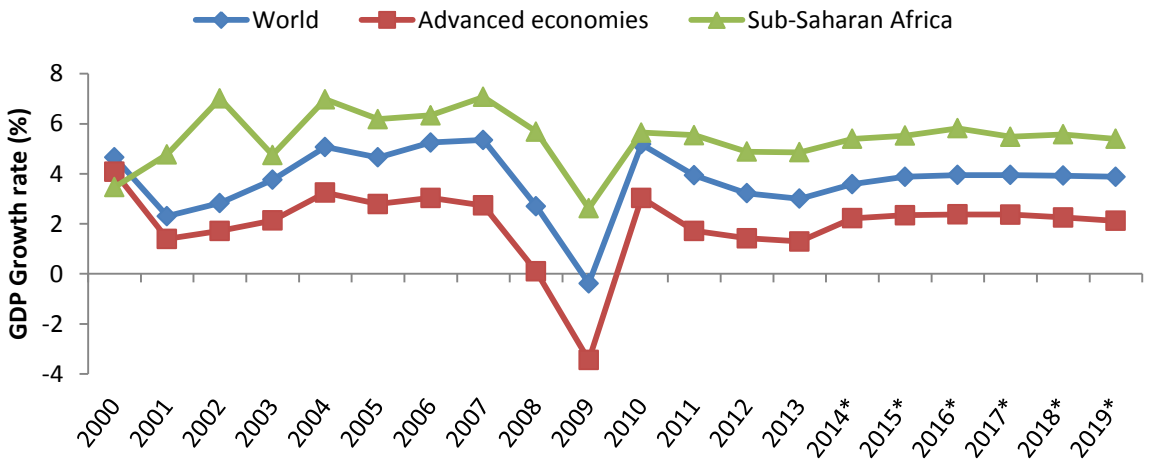
Source: (UNCTAD, 2013a)



In recent years there has consistently been many African countries obtaining high economic growth rates above the world average. Figure 2 sheds more light on this with an aggregate breakdown of regional growth rates in Gross Domestic Product (GDP) from 2000 to 2013 and then forecasts through to 2019 (*). Sub-Saharan Africa is the top line for all years after 2000, achieving an average growth of 5.6% over the period. This was much higher than the world average, 3.8%, and that of the advanced economies, 1.6%.

Figure 2 - Gross Deomestic Product (GDP) Growth Rates per Region, 2000-2019

Source: (Partridge & Pienaar, 2014)



The substantial drop in growth rates after 2007 can be attributed to the global economic recession. African economies showed remarkable resilience during the 2009 recessionary periods and outperformed the world in these harsh economic conditions. The general expectation is that these higher GDP growth rates will continue in a similar fashion going forward (AfDB, OECD, & UNDP, 2014).

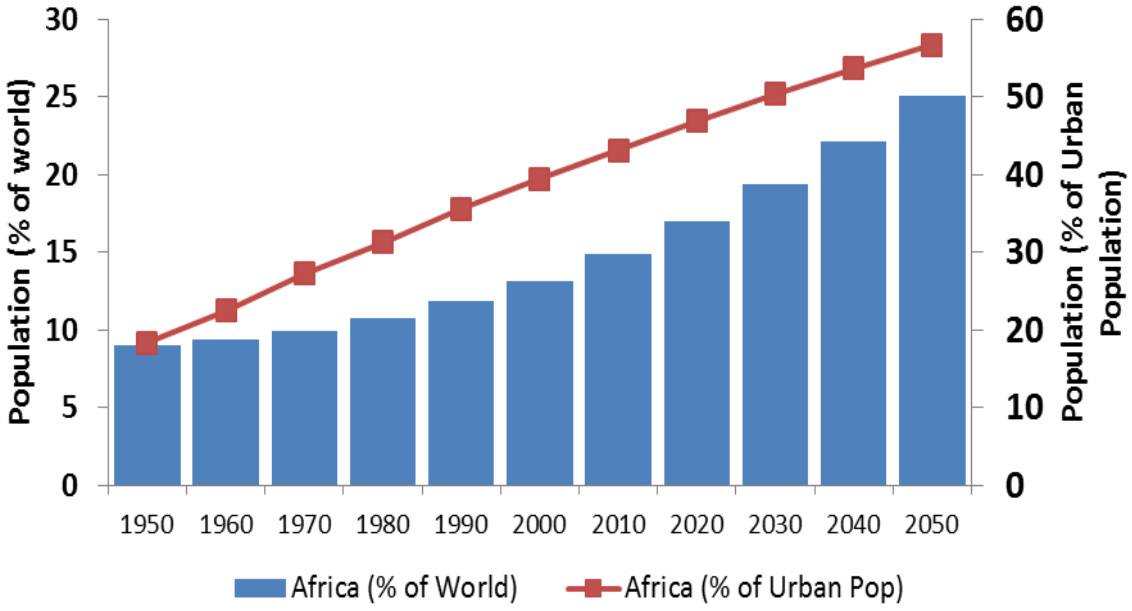
With these growing economies in Africa, opportunities will continue to develop for trade, investment and business opportunities. The African Economic Outlook (2014) also concurs with the favourable macroeconomic prospects for Africa with growth in sub-Saharan Africa expected to be between 5% and 6% at similar levels to those seen prior to the recession. This forecast is based on the premise that the world economy will continue to strengthen and gradual improvements be made in the political and social stability in areas currently affected by conflicts (AfDB, OECD, & UNDP, 2014).

Another reason why Africa is important relates to the fact that the African population is growing at an increasing rate and will continue to grow as a percentage of world population as indicated in Figure 3 below. It is expected that the African population will reach approximately 25% of the world population

by 2050 (UNCTAD, 2013b). Furthermore, the urbanization rate within Africa is expected to increase, albeit at a decreasing rate, with more than 56% of the population expected to be residing in urban areas by 2050. These trends in population aggregates suggest that there will be more people and more of these will be living in cities in the future. This, together with the improved trade facilitation, higher FDI and relatively high economic growth rates, suggests that Africa will develop a demand for more food, infrastructure, higher agricultural productivity, political stability and management of resources.

Figure 3 - Africa Population Growth and Rate of Urbanization, 1950-2050.

Source: (UNCTAD, 2013b)



Finally, the impacts of the 2007 recession were more pronounced for developed economies relative to the developing economies of Africa and Asia, indicative of the need for South Africa to diversify agricultural exports markets in the future (see Figure 2) and become less dependent on traditional Western markets.

1.2 - South African Agricultural Trade

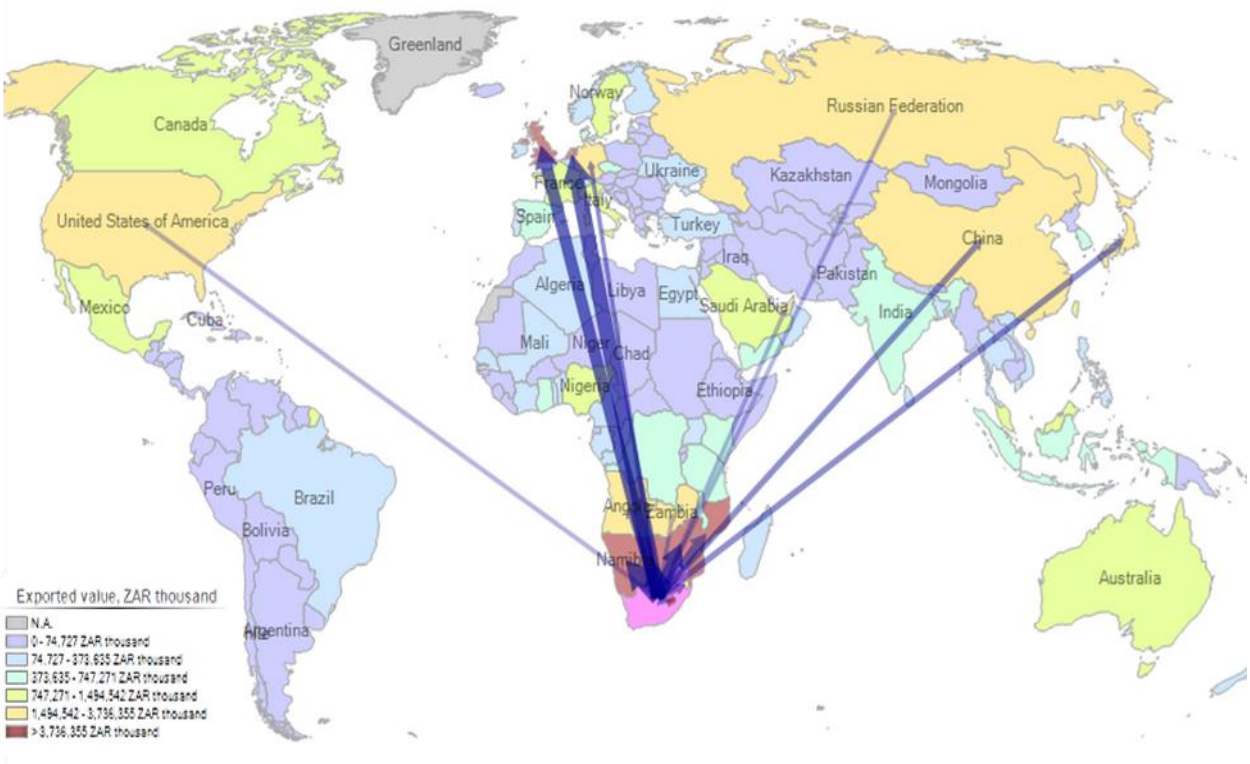
South African agricultural trade is characterised by a continued positive balance of trade with exports exceeding imports. Traditionally, South Africa is very dependent on the European Union (EU) for its agricultural exports[1] with approximately 30% of total agricultural exports going to EU countries in

[1] *Agricultural exports are aggregated according to the ITC (2013) agricultural product group. These include the following products at the HS 2-digit level: 01, 02, 04, 07-24, 51-53.*

2012 (ITC, 2013). Figure 4 shows the total agricultural exports from South Africa to the World for 2013, with the blue lines indicating the top 15 export destinations. The main destinations were the Netherlands, Namibia, Botswana and the United Kingdom, followed by Zimbabwe and Mozambique (indicated in red for importing values exceeding R3.7 billion). Other main markets include China, Russia, USA, Angola and Japan (ITC, 2013).

Figure 4 - South African Agricultural Exports to the World

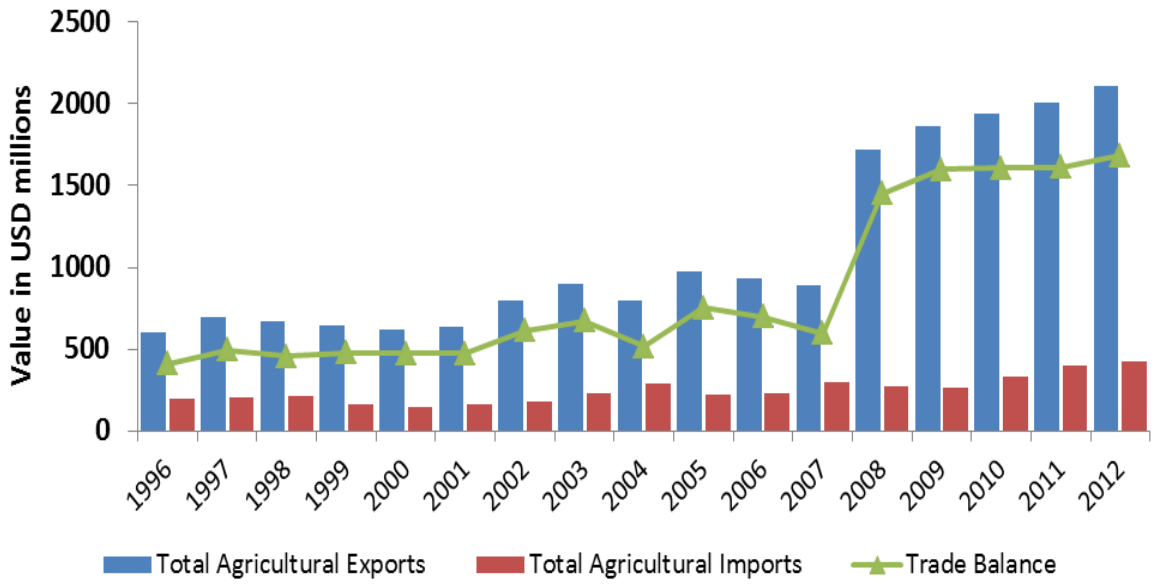
Source: (ITC, 2013)



In the last decade total South African agricultural exports to Africa have increased substantially in value from US$ 607 million in 1996 to US$ 2 110 million in 2012. This is illustrated in Figure 5 which shows total South African agricultural exports to Africa, total South African agricultural imports from Africa, and the corresponding trade balance. It should be noted from Figure 5 that South Africa continues to have a positive net trade balance for agricultural products, and increasingly more so, indicative of the fact that South African exports to Africa exceeds imports from African countries and that exports to African destinations are growing faster than imports from these countries. Trade with Africa therefore represents an important source of revenue into the South African economy.

Figure 5 - South African Trade with Africa in Agricultural Products, 1996 to 2012.

Source: (Global Trade Atlas, 2013)



The top ten agricultural products exported for 2012 in terms of value are given in Table 1 at the 4-digit Harmonized System (HS) codes. Sugar exports were the highest valuing US$ 148 million. Sugar was followed by food preparations and soya-bean oils making up the top three for 2012. Apples and pears, in fourth, yielded exports of US$ 124 million. According to ITC (2013), 34% of South African apples are exported to African countries. Other agriculture-related products included in the top ten were fruit and vegetable juices, wine and wheat. In general, apart from sugar and wine, all of the top ten products had high average annual growth rates of above 10% for the period 2008-2012.

Table 1 - Top 10 South African Agricultural Product Exports to Africa, 2012

Rank	Exported products	Value in US$ millions, 2012	Annual % Growth, 2008-2012
1	H1701:Sugar	147.53	1.94
2	H2106:Food prep	132.15	13.26
3	H1507:Soya-bean oils	124.52	107.67
4	H0808:Apples & pears	116.18	15.01
5	H2009:Fruit & veg juices	87.46	10.92
6	H2402:Cigars & cigarettes	86.77	16.03
7	H1512:Sunflower seed oil	77.30	25.80
8	H2204:Wine of fresh grapes	67.79	5.05
9	H2207:Ethyl alcohol	66.43	11.37
10	H1101:Wheat	55.19	42.23

Source: (ITC, 2013)

The top ten African destinations for South African agricultural exports are given in Table 2. Zimbabwe, Mozambique and Angola were in the top three with trade in value of US$ 601 million, US$ 348 million and US$ 281 million respectively. It is worth mentioning the high growth performance with the majority of these counties included in the top ten importers of South African agricultural products. Ghana (19%) and Angola (10%) had the highest average annual growth rates from 2008 to 2012, while only Zambia and Kenya had negative import growth in this period.

Table 2 - Top Ten Destinations for South African Agricultural Exports

Rank	Importing Countries	Value in US$ millions, 2012	Annual % Growth, 2008-2012
1	Zimbabwe	600.90	5.91
2	Mozambique	348.17	6.32
3	Angola	280.60	9.50
4	Zambia	181.88	-3.53
5	Ghana	84.36	19.25
6	Nigeria	78.53	8.96
7	Mauritius	68.25	2.72
8	Kenya	55.34	-14.11
9	DRC	53.90	6.07
10	Malawi	46.74	5.36

Source: (ITC, 2013)

1.3 - Western Cape Agricultural Trade

Looking at provincial trade statistics[2], the main agricultural exported products from the Western Cape to Africa are given in Table 3. Apples and pears were the main exported product with a value of US$ 86 million in 2012 and a steady annual growth rate of 24% for the period between 2008 and 2012. Other prominent agricultural products from the Western Cape include cigars, fruit & vegetable juices, citrus, potatoes and wine. The entire listed top ten had positive growth rates over this four year period.

[2] Note: Quantec (2013) provincial trade statistics are sourced from SARS. The import and export statistics from SARS are tied to postal codes. These are the postal codes of the head office or agent that report importing and exporting activity. Thus, a product can be listed as exported by the Western Cape when in actual fact it might have been produced in another province.

Table 3 - Top 10 Western Cape Agricultural Exports to Africa

Rank	Exported Products	Value in US$ millions, 2012	Annual % Growth, 2008-2012
1	H0808: Apples & pears	86.18	24.36
2	H2402: Cigars & cigarettes	80.42	11.49
3	H2009: Fruit and veg juices	16.02	15.97
4	H0805: Citrus fruit	14.57	6.79
5	H2208: Liqueur & spirits	12.79	3.21
6	H0701: Potatoes	11.85	14.01
7	H2204: Grape wines	10.88	1.40
8	H0703: Onions & shallots & garlic & leeks	10.65	28.86
9	H2106: Food prep	10.48	27.47
10	H1904: Cereal food (cooked grain not maize)	10.28	34.54

Source: (Quantec, 2013)

The main destinations for Western Cape agricultural exports are listed in Table 4 below. Here Angola, Zimbabwe and Mozambique make up the top three for 2012, followed by Zambia, Cameroon and Nigeria. Angola imported agricultural products from the Western Cape worth US$ 104 million in 2012, which was considerably higher than all the other importing countries. The distance and sea access to the Angolan market are possible reasons for this phenomenon. Again, apart from Mozambique (-2.5%), all of the main importers of Western Cape agricultural products had positive growth rates between 2008 and 2012. These are therefore growing markets for products produced in South Africa, and more particularly, the Western Cape.

Table 4 - Top 10 Export Destinations for Western Cape Agricultural Exports

Rank	Destination Country	Total Exports, US$ millions, 2012	Annual % Growth, 2008-2012
1	Angola	103.58	12.46
2	Zimbabwe	29.34	14.60
3	Mozambique	28.41	-2.48
4	Zambia	26.93	10.80
5	Cameroon	26.74	22.05
6	Nigeria	23.67	27.42
7	Benin	19.60	8.60
8	Mauritius	17.18	5.10
9	Ghana	16.30	16.98
10	Kenya	13.07	26.41

Source: (Quantec, 2013)

1.4 - Conclusion

This Section provides a perspective on the importance of Africa for the South African agricultural sector. Four main reasons for the emphasis on Africa have been highlighted. Firstly, there has been consistently high economic growth performance of many African counties in recent years. Secondly, African imports since 1996 have increased substantially, revealing an increased capacity of African countries to absorb and facilitate higher volumes of traded products. Thirdly, foreign direct investment into Africa has increased significantly in recent years which suggests improved business and investment environments in many African countries. Then lastly the impact of higher rural-urban migration and increasing population numbers will ensure demand for more agricultural products in the future.

In terms of South African agricultural trade with Africa, Zimbabwe, Mozambique and Angola are the top three destination markets, while sugar, food preparations and soya-bean oils are the main products exported. The main Western Cape agricultural exported products are apples & pears, cigars and fruit & vegetable juices, while the main importing countries are Angola, Zimbabwe and Mozambique.

Section 2: Identifying possible export markets

This Section seeks to address a very important factor in unlocking the potential within Africa for trade and investment; identifying high potential markets within the region. The African continent is very diverse and each country is unique. In order to develop a robust export strategy for the Western Cape's agricultural exports, the main products are identified and a method to highlight attractive markets for these products is introduced. This comes in the form of a composite index used to rank countries according to their market attractiveness for a particular product. This then enables more evidence-based selection criteria for identifying possible investment and export opportunities within Africa.

2.1 - Product Focus

The product focus and selection in this report was impacted by various factors; relevance to the Western Cape, products that were imported by African countries, practical challenges such as the Citrus Black Spot (CBS) occurrence (see: BFAP, 2013) and a mixture between processed and unprocessed agricultural products. In Table 5 below the selected products for further analysis are given. The main exported fresh products to Africa were apples, followed by oranges, grapes and pears. These products were also amongst the top sectors for products exported by the Western Cape (See section 1.4). Important to note from Table 5 is the very high annual growth rates from 2008 to 2013 for both the imports of these products into Africa and South African exports to Africa.

Table 5 - List of the Selected Products used in Analysis

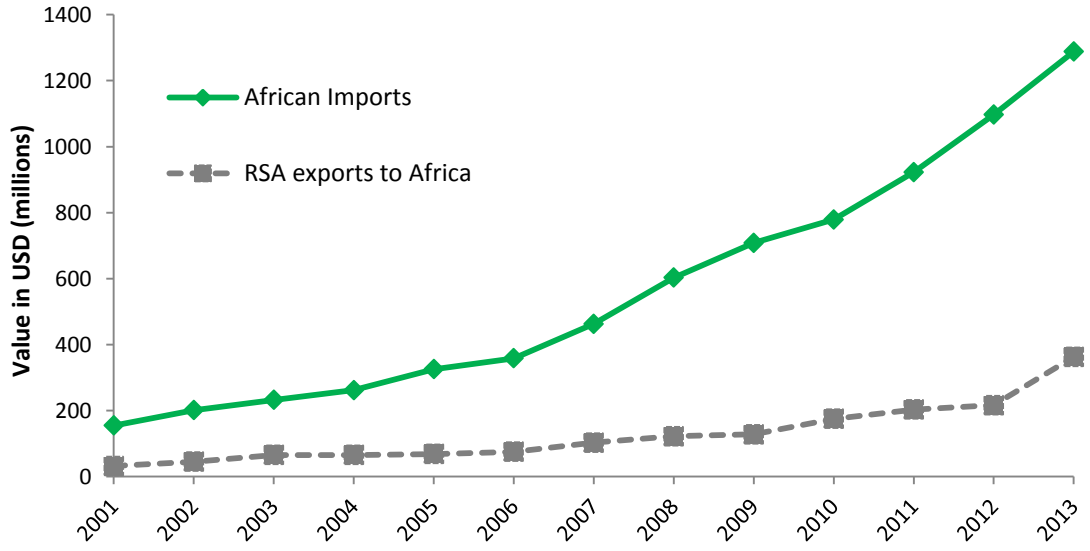
Code	Product	Value of African Imports, 2013 ('000)	Annual % Growth, 2008-2013	Value of RSA exports to Africa, 2013 ('000)	Annual % Growth, 2008-2013
Fresh Products					
HS: 080810	Apples	565 847	24.26	160 988	24.13
HS: 080510	Oranges	68 708	28.25	26 133	16.16
HS: 080610	Grapes	60 502	22.52	15 889	23.56
HS:080820	Pears	34 730	33.34	10 563	27.47
Processed products					
HS: 220421	Wines	532 934	10.63	74 476	21.71
HS: 200990	Fruit Juice	148 435	7.20	74 167	31.76

Source: Compiled using (ITC, 2013)

The growth rates in Table 5 do not only suggest massive increases in African imports of these goods, but also that South African exporters are increasingly exporting into African markets. This point is highlighted in Figure 6, aggregating the totals from the selected products and showing the growth over time. African imports of these products increased from US$ 150 million to US$ 1 300 million by 2013 (ITC, 2013). Since 2007 exports from South Africa to African destinations has grown from US$ 102 million to US$ 362 million by 2013 (ITC, 2013).

Figure 6 - Total African imports and South African exports for the selected products

Source: (ITC, 2013)



Opportunities for trade into Africa have been illustrated; however the question remains as to why South Africa has not been able to capture bigger market shares in these African. In light of the current complication with market access with the CBS infections (see BFAP, 2013) and the high costs involved in exporting to European markets, it would be wise to consider some alternative export opportunities.

Thus, if Africa is becoming more attractive for exports, it is important to have a method to identify which African countries should be targeted. Even more specifically, what markets in Africa should be focused on for specific Western Cape agricultural products? In order to answer this question this study develops a framework in which attractive markets can be identified. The analysis comes in the form of the development of a Market Attractiveness Index (MAI) using trade and related data which is then used to rank African countries from the most to the least attractive for each product.

2.2 - Methodology

There are currently various methods used for market selection methods which can be used as a critical tool in firms' and government's policy and planning processes. Market selection is often a very difficult task seeing that such a wide combination between the mix of products and countries exist for possible export opportunities. Selecting the "best" markets for export expansion is crucial in order to ensure success in foreign markets. The challenge in selecting markets is well-explained by Steenkamp et al:

> "*The process of evaluating worldwide export opportunities is complicated for a number of reasons. These include the difficulty of examining all possible export opportunities to all the countries of the world and the availability of data for specific consumers, businesses or governments that limits the screening process to using only published data"* (Steenkamp et al, 2009, pp 2-3)

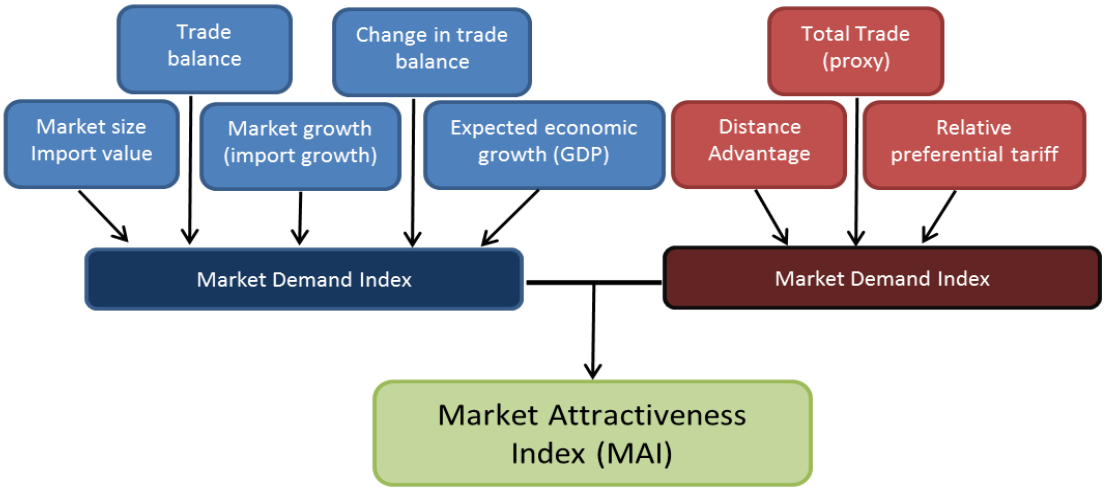
The main methods found in the literature can be divided into qualitative and quantitative approaches (Papadopoulos & Denis, 1988). The quantitative methods will receive more attention here as these were the most conducive for this study. Quantitative methods can be further disaggregated into Market Grouping Methods and Market Estimation Methods. The former employs a type of clustering of markets according to their similarities. The most attractive groups can them be identified. Market Estimation Methods can be done on either country-level or firm-level (Steenkamp et al, 2009)

For the sake of this study to identify attractive countries in Africa, the country-level estimation method is used. One of these techniques is the Market Attractiveness Index (MAI) that has been developed by the International Trade Centre (ITC) to help developing countries select attractive markets to extend exports into. According to Gaston-Breton & Martin (2011), using general segmentation bases such as attractiveness are independent of concrete objects and are more stable and enduring than domain-specific indicators and therefore provide decision makers with long-term and general guidance for international market selection.

The MAI is an instrument aimed at supporting the selection process of identifying attractive markets from an export perspective (ITC, 2014). A composite index such as the MAI is formed when individual indicators are compiled into a single index, on the basis of an underlying model of a multi-dimensional concept that is being measured (OECD, 2004). Thus, in order to identify possible export markets in Africa an MAI is developed for each product. Figure 7 below shows all the indicators used to construct the MAI in order to generate the final rankings of attractive markets. The indicators are all weighted

and standardized in order for comparability and will contain a value of between 0 and 100 (ITC, 2014). Currently the ITC employs a standard weight for each indicator which is a simple average[3].

Figure 7 - The Market Attractiveness Index (MAI) Framework and Indicators
(Source: Compiled using ITC, 2014)



The detailed steps used to create the MAI in Microsoft Excel are given in the ITC's step by step guide to building a market attractiveness index (ITC, 2012). This is done for each product at the 6-digit level. The following products were selected as indicated in Table 5: Apples (HS: 080810); Oranges (HS: 080510); Grapes (HS: 080610); Pears (HS: 080820); Wine (HS: 220421); Fruit juice (HS: 200990).

2.3 - Results and Discussions

The MAI results for each product are given in this section, presented in graphs showing the MAI rankings and followed by discussions on each finding. Important to note when interpreting these results is that these are not absolute measures of market attractiveness, but rather a macro-economic framework to identify the main attractive markets. Thus, all of the top ranked markets could possibly give attractive potential for increased exports and need further country-specific research to establish whether or not a market is suitable for market entry.

[3] *According to the ITC, there is currently no advanced weighting scheme used within the MAI methodology. It should be noted that the same weights for each indicator are used, but improvements to the weights are currently being worked on in order to make them more statistically sound.*

Typically, countries with high import growth, high expected GDP growth, high level of imports, negative trade balance, closer to South Africa and with lower tariffs will get higher MAI scores and are therefore classified as attractive markets.

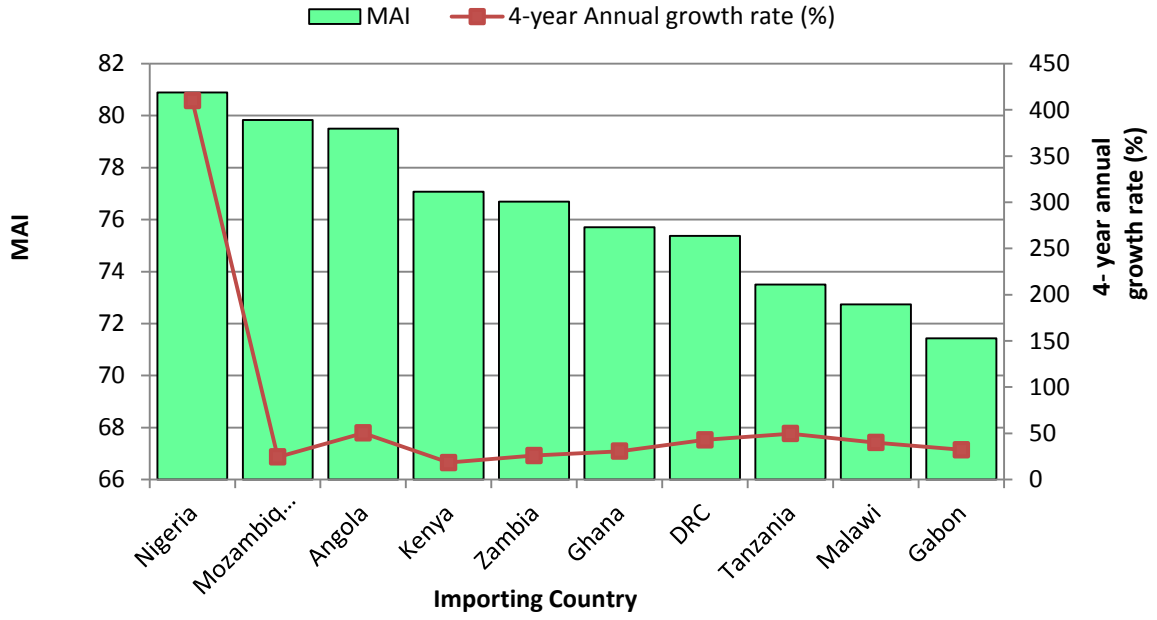
2.3.1. Apples (HS: 080810)

Nigeria, Mozambique and Angola are the top three attractive markets that were identified for apple exports, followed by Kenya, Zambia and Ghana. Nigeria is ranked top because of the massive increase in apple imports since 2012. Furthermore, with high expected GDP and population growth, this market seems very attractive for South African apple exports. All the countries in the top ten have import growth of more than 34%, while factors such as distance and tariff advantages also give Mozambique, Angola and Kenya high MAI ratings.

The results from the apple MAI analysis are given in Figure 2 below where the bars show the MAI for each country, ordered with the highest score on the left. Indicated by the red line is the average annual growth rate of South African exports of apples to the specific country between 2009 and 2013. It is evident that all of the countries listed in the top ten have positive growth rates of greater than 20% for this period, indicative of the fact that all of these markets are already importers of South African apples.

Figure 8 - Top Ten Attractive Export Markets for Apples (HS: 080810)

Source: Own calculations

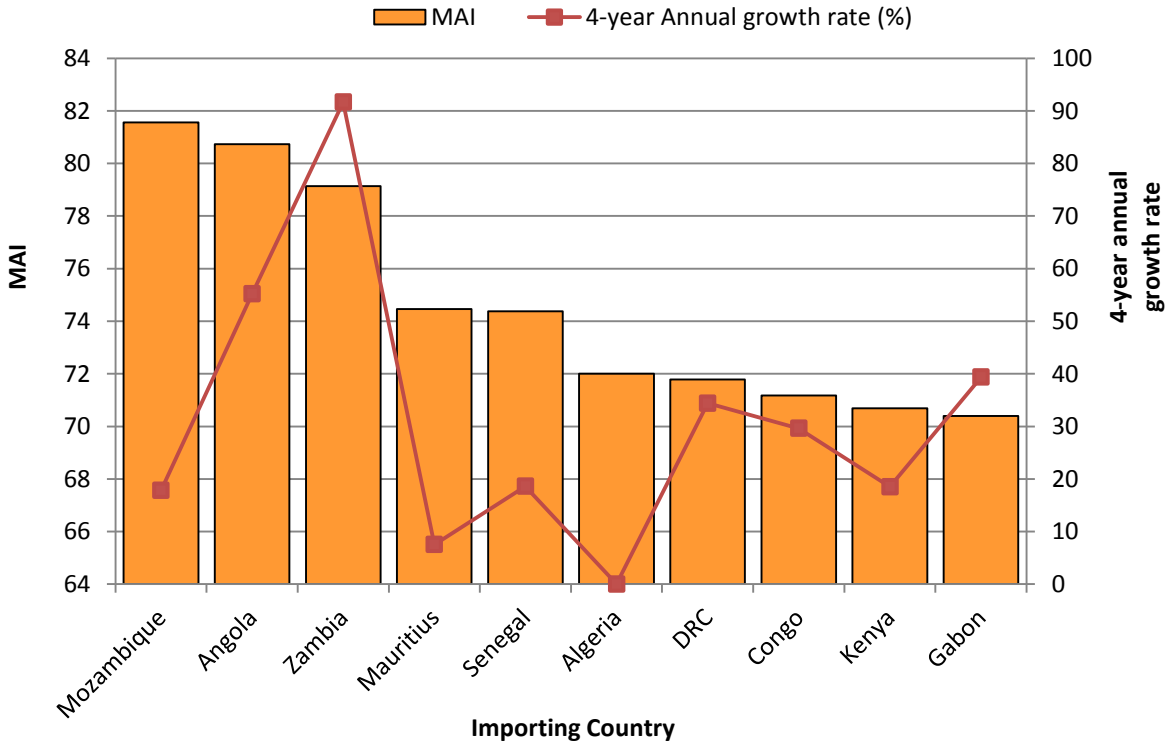


2.3.2. Oranges (HS: 080510)

The top ten attractive markets for oranges according to the MAI rankings are shown in Figure 9. The top markets are Mozambique, Angola and Zambia. These markets have high expected economic growth rates, strong import growth and favourable market access conditions. Algeria, even though at a distance disadvantage, has a high MAI ranking because it is the 2nd biggest importer of oranges on the continent, it should however be noted that South Africa does not currently export to this nation (therefore a 0% growth rate). Senegal, Congo, Kenya and Gabon have import growth greater than 25% from 2009 to 2013.

Figure 9 - Top Ten Attractive Export Markets for Oranges (HS: 080510)

Source: Own calculations



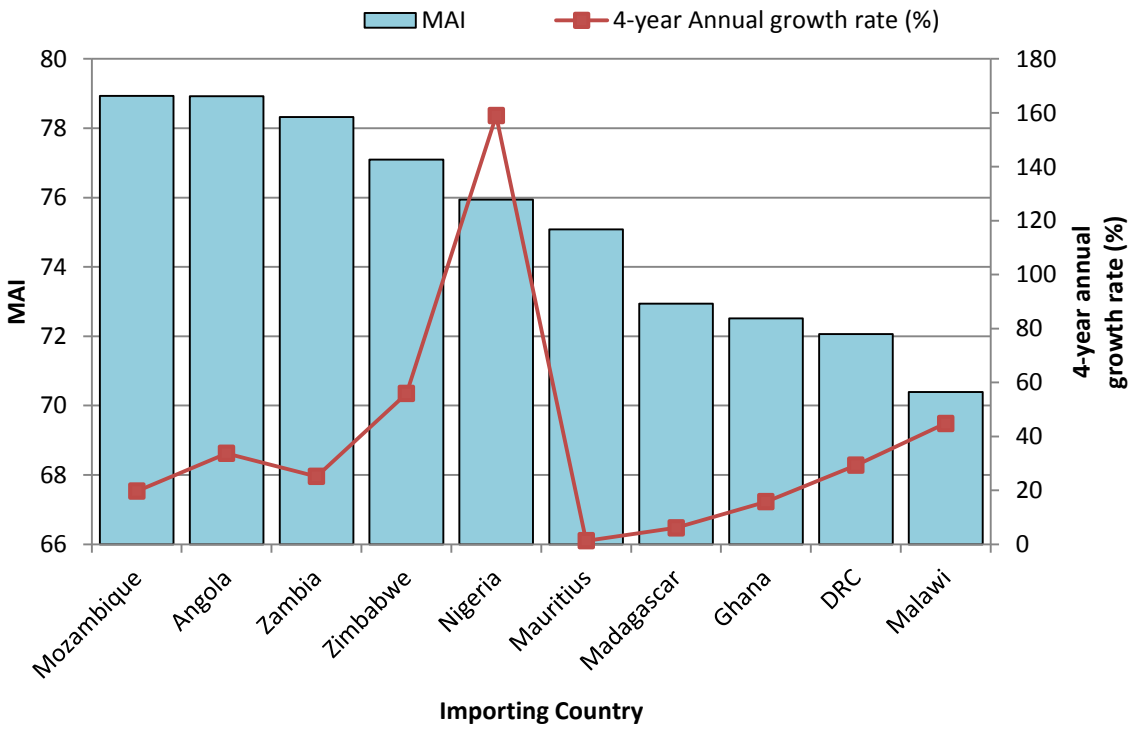
All of the markets listed in the top ten for oranges, apart from Algeria, are markets that South Africa is already engaged in. The top ten countries present good potential export opportunities going forward with average annual growth rates of South African exports to these countries very high, particularly Angola and Zambia with rates greater than 25%.

2.3.3. Table Grapes (HS: 080610)

The top ten attractive markets for table grapes according to the MAI rankings are shown in Figure 10. The most attractive markets for table grape exports are Mozambique, Angola and Zambia, followed by Zimbabwe, Nigeria and Mauritius. These markets are characterized by high expected GDP growth rates, favourable tariff and distance advantages. Angola's imports of grapes have grown in value from US$ 0.8 million in 2009 to US$ 3.0 million in 2013. Zimbabwe and Nigeria have average annual import growth rates of 71% and 83% respectively, placing them 4th and 5th in the top ten attractive export markets.

Figure 10 - Top Ten Attractive Export Markets for Grapes (HS: 080610)

Source: Own calculations



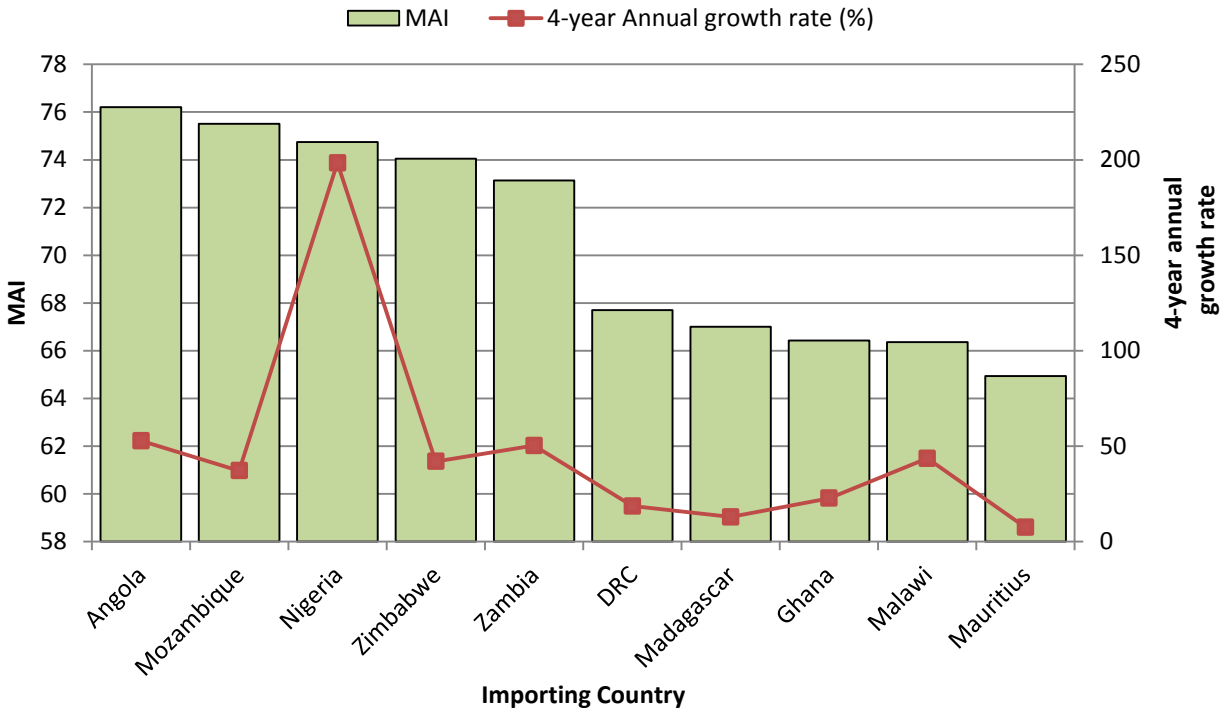
All of the markets listed in the top ten have favourable growth rates in imports from South Africa and are expected to continue with the current trend. Nigeria's imports of table grapes have also been impacted with the lifting of the import ban in 2012, growing by 66% in one year.

2.3.4. Pears (HS: 080830)

Even though pear imports into Africa are much lower when compared with apples, they are still very significant. The top ten attractive markets for pears according to the MAI rankings are shown in Figure 11. Angola, Mozambique and Nigeria make up the top three. Zimbabwe and Zambia are in 4th and 5th place respectively. All of these markets have high market access rankings and import growth rates of greater than 50% over the period from 2009 to 2013. After Zambia, the MAI value drops considerably, evident of the fact that these markets have much lower market demand.

Figure 11 - Top Ten Attractive Export Markets for Pears (HS: 080810)

Source: Own calculations



South Africa already exports pears to all of the top five markets and these have all seen exceptional growth, especially Nigeria since 2012 because of the lowering of restrictions.

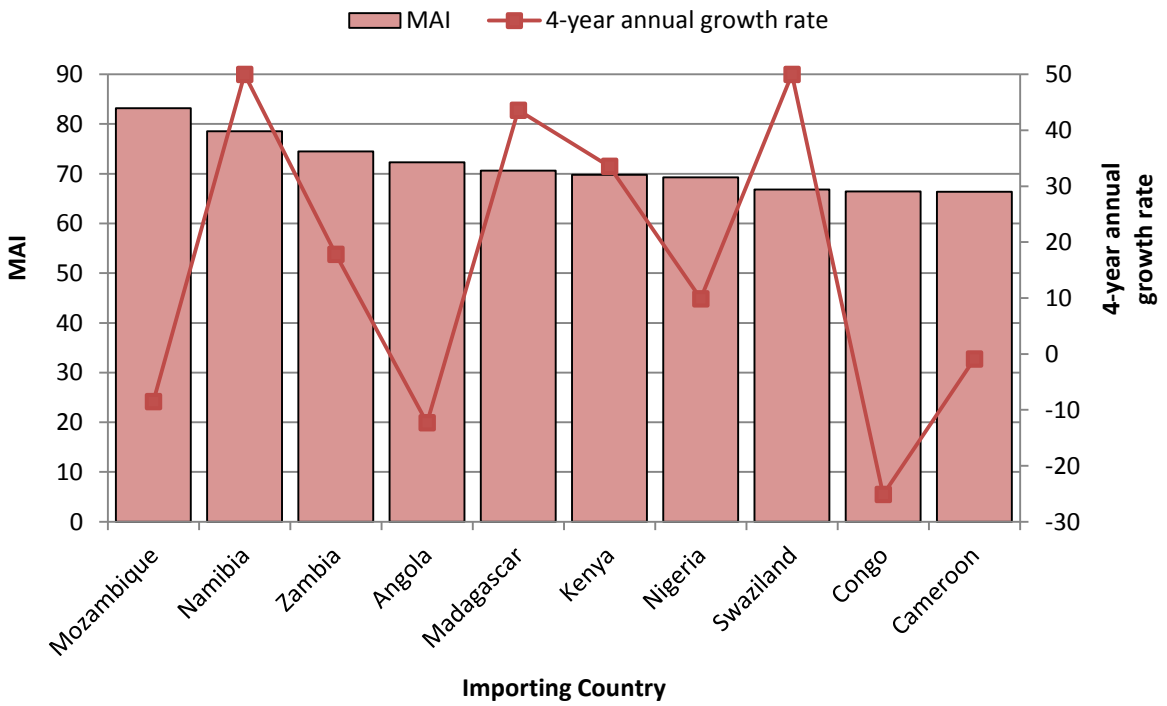
2.3.5. Wines (HS: 220421)

The top ten attractive markets for wine according to the MAI rankings are shown in Figure 12. The results indicate that the top markets for wine exports to Africa are Mozambique, Namibia and Zambia. These countries are all big net-importers with steady growth of wine imports since 2009. This is

especially so in Namibia with wine imports increasing from US$ 0.2 million in value in 2009 to US$ 2.7 million in 2013. This sharp increase is mainly due to South Africa exporting more than US$ 2.6 million into Namibia in 2013. Angola, Madagascar and Kenya make up the next top three, followed by Nigeria and Swaziland. Even though South Africa has been losing market share in the Mozambique and Angola markets, they remain attractive due to high expected economic growth and the relative distance and access advantages South Africa enjoys in these markets.

Figure 12 - Top Ten Attractive Export Markets for Wine (HS: 220421)

Source: Own calculations

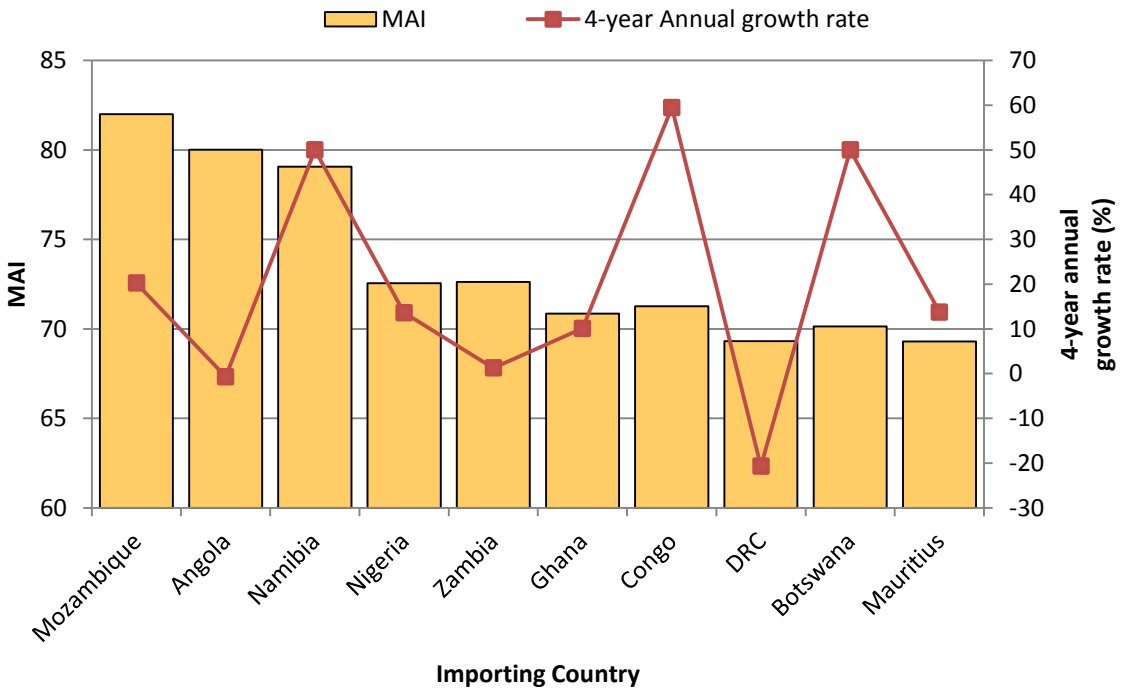


2.3.6. Fruit juice (HS: 200990)

Finally, the top ten attractive markets for fruit juice according to the MAI rankings are shown in Figure 13. The main potential export markets are Mozambique, Angola and Namibia. Again, Namibia appears in the top listed markets mainly due to massive increases in South African imports in 2013, compared to low levels previously. The top ten markets are characterised by high expected economic growth rates and favourable market access conditions, while Mozambique and Angola also have distinct distance advantages relative to other competitors in the market.

Figure 13 - Top Ten Attractive Export Markets for Fruit Juice (HS: 200990)

Source: Own calculations



The growth rates in the MAI Figure 13 also indicate that South Africa is already exporting to these countries with 8 out of the 10 having strong growth over the past 4 years.

2.4 - Conclusion

In conclusion, using the MAI methodology by the ITC, this section made use of various trade related indicators to compile a ranking of countries according to their attractiveness for selected products. For each product, at the HS 6-diget level, a MAI was created and the results given.

In summary, the main markets for apples are Nigeria, Mozambique and Angola, while Mozambique, Angola and Zambia are the top three attractive markets for oranges. In the MAI results for table grapes, Mozambique, Angola and Zambia are again highly ranked. The most attractive markets for pear exports to Africa are Angola, Mozambique and Nigeria.

For the processed products, wine and fruit juice were included in the analysis. The top three markets for wine were Mozambique, Namibia and Zambia, while Mozambique, Angola and Namibia were the main attractive markets for fruit juices.

From these findings there seems to be a consistent trend of countries listed in the positions of market attractiveness. Angola, Mozambique, Zambia and Nigeria present economies that are growing, present good market access prospects and are relatively close to South Africa for market penetration. Overall the results from all the indices indicate that certain African markets consistently perform high on the MAI ranking across the board. These countries will therefore receive more detailed country level analysis in the next section.

Section 3: Country-Level Analysis

In 2009, Nigerian author Chimamanda Ngozi Adichie gave a Ted Talks presentation titled "The Danger of a Single Story". She spoke about the common tendency to develop a single idea of Africa and how this is misleading due to the vast diversity on the African continent (Adichie, 2009). When studying Africa it is important to not view Africa as a single geographic location but to narrow the focus and zoom in on particular countries and even look at further disaggregation within countries. In light of this, in 2013, economists at the Western Cape Department of Agriculture in South Africa developed country profiles for nine select countries in Africa. These countries are analysed in terms of specific areas which are of particular importance to agricultural opportunities on the African continent (Partridge & Pienaar, 2013).

The countries were chosen based on a market attractiveness analysis as discussed in the previous section, whilst also considering current international relations that exist with South Africa. In order to get a more regionally representative view, three countries were chosen from the Southern African Development Community (SADC), two from East Africa, two from West Africa and two from North Africa. The chosen countries are listed in Table 5 below, along with web download links for the full country profiles.

Table 5 - Africa Countries Chosen for Country-Level Analysis and Country Profile Download Links

SADC Region	
Angola	http://goo.gl/1BFvbs
Mozambique	http://goo.gl/FdVhsa
Zambia	http://goo.gl/sx2Psi
East Africa Region	
Kenya	http://goo.gl/Bih1BY
Tanzania	http://goo.gl/ijErLx
West Africa Region	
Ghana	http://goo.gl/QRlVRf
Nigeria	http://goo.gl/HtZuXS
North Africa Region	
Egypt	http://goo.gl/zuOFlo
Tunisia	http://goo.gl/nuzZ1i

Source: (Partridge & Pienaar, 2013)

The rest of this section provides a synopsis of the Partridge and Pienaar (2013) study. This is done by highlighting some key findings from the country profiles and discussing the relevant implications.

3.1 - Economic Potential

There are two facts which have become clear in recent times. The first is that Africa has featured some of the world's best performing economies. The second is that this success is not generic and economic performance has been very varied across the continent. The African Economic Outlook for 2014 states:

> *"Africa's macroeconomic prospects remain favourable. In 2013, Africa maintained an average growth rate of about 4%. This compares to 3% for the global economy and underscores again the continent's resilience to global and regional headwinds. However, growth performance varied widely across country classifications and regions"*
> (AfDB, OECD, & UNDP, 2014, p. 17)

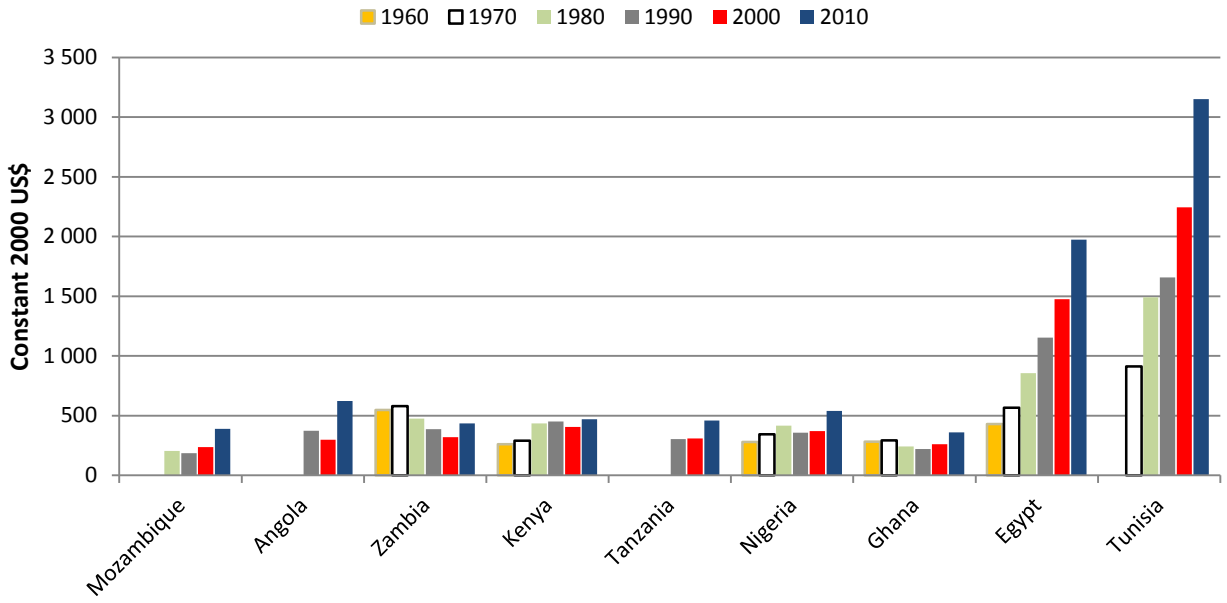
Figure_ 14 gives a historic perspective of economic development for the countries used in the analysis. The graph shows the Real Gross Domestic Product (GDP) per capita, measured every ten years from 1960 to 2010 for the select nine countries, where data was available. The North African countries of Egypt and Tunisia far outperform the other countries over this period, exhibiting far higher levels of Real GDP per capita and consistently growing over the fifty year period. In particular Tunisia, which had a Real GDP per capita in 1970 higher than any of the countries outside of Northern Africa had reached by 2010, reached a particularly high Real GDP per capita by 2010. As at 2010 only Egypt had a GDP per capita anywhere even near to that of Tunisia.

To gain a comparative point of view, it is worth also considering the following countries' Real GDP per capita for 2010 using the same data source (World Bank, 2013b):

- India: US$ 804
- China: US$ 2 427
- South Africa: US$ 3 753
- South Korea: US$ 16 219
- European Union: US$ 19 395

Figure 14 - Gross Real Domestic Product (GDP) per Capita, 1960-2010

Source: (Partridge & Pienaar, 2013)



From a relative perspective, the African economies being analysed are very small, with the exception of Tunisia and, to a lesser extent, Egypt. Outside of North Africa, the countries examined appeared to experience a great deal of stagnation over the fifty years and several economic contractions as Real GDP per capita declined for certain decades. However, Figure 14 is showing a historic perspective going back all the way to 1960. When the last two bars for each country are viewed (2000 and 2010) it is obvious that the most recent decade saw significant economic growth for all the countries under review.

Table 6 shows the performance in terms of Real Gross Domestic Product (GDP) over the ten year period from 2001 to 2011. The statistics show phenomenal growth. In particular, Angola grew at an average of over 11% per year for the ten year period, and at over 13% for the latter five years of that. This helped the economy to grow by approximately 188% over the ten year period. Even asides from Angola the growth rates are impressive, especially considering the fact that the ten years between 2001 and 2011 covers a period when the world economy was experiencing a recession following the global financial crisis (Priewe, 2010).

Table 6- Growth in Real Gross Domestic Product (GDP), 2010-2011

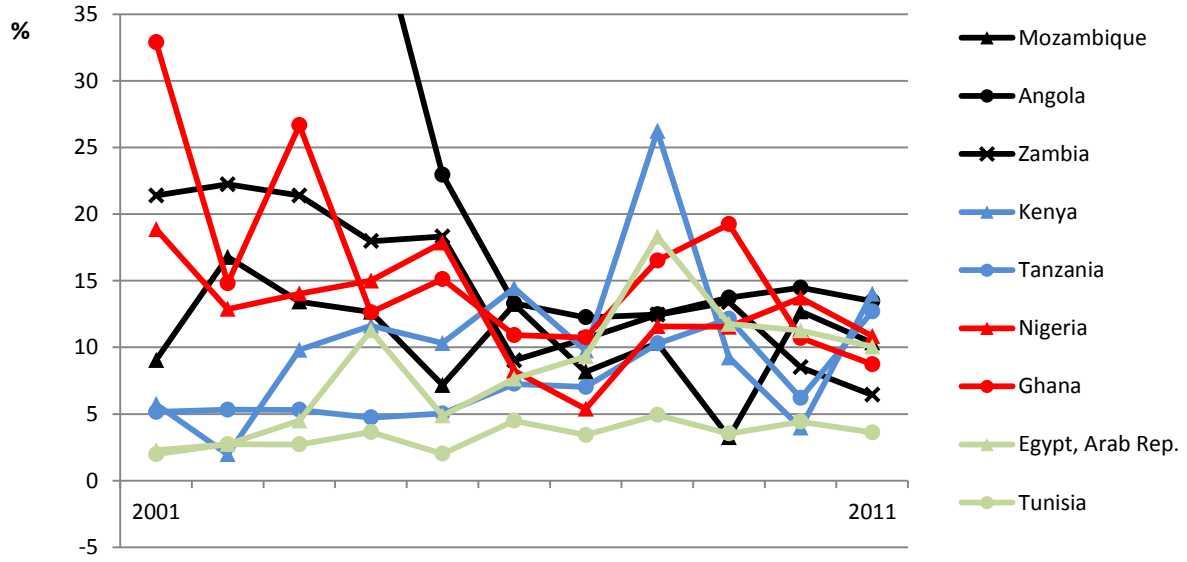
Country	GDP 2001 (constant 2000 US$ billion)	GDP 2011 (constant 2000 US$ billion)	% Change 2001-011	5 year Average Annual Growth Rate 2001-2006	5 year Average Annual Growth Rate 2006-2011	10 year Average Annual Growth Rate 2001-2011
Angola	4.29	12.36	188.33 %	13.43 %	8.96 %	11.17 %
Egypt	103.37	163.14	57.83 %	4.18 %	5.16 %	4.67 %
Ghana	5.18	10.05	94.00 %	5.52 %	8.20 %	6.85 %
Kenya	13.19	19.90	50.91 %	4.14 %	4.26 %	4.20 %
Mozambique	4.82	9.75	102.12 %	7.71 %	6.87 %	7.29 %
Nigeria	47.41	91.96	93.97 %	6.76 %	6.94 %	6.85 %
Tanzania	10.80	21.25	96.85 %	7.20 %	6.82 %	7.01 %
Tunisia	22.53	32.58	44.59 %	4.55 %	2.96 %	3.76 %
Zambia	3.41	5.98	75.28 %	5.08 %	6.47 %	5.77 %

Source: (Partridge & Pienaar, 2013)

Despite fast growing economies, there are also economic concerns for African countries. One such area is with monetary stability. Figure 15 shows the annual inflation rates for the select group of African countries between 2001 and 2011. The graph is difficult to read, which is precisely the point. Inflation for these countries is erratic and can reach very high levels. Angola's inflation was off the chart up until 2006, although this was coming down from exceptionally high inflation previously and has shown far more stability in recent years.

Figure 15 - Inflation, Consumer Prices (annual %), 2001-2011

Source: (Partridge & Pienaar, 2013)



Another concern is that despite strong economic growth in recent years, poverty is still rife across the African continent. Table 7 shows poverty and inequality statistics for the nine select African countries. The first two columns show the percentage of each country's populations living on less than $1.25 and $2.00 per day, measured at purchasing power parity (PPP) to account for differences in the cost of living across countries. The numbers are quite alarming. For all 3 SADC countries (Angola, Mozambique and Zambia), Nigeria and Tanzania, more than half of the population live below even the $1.25 per day poverty line. Tanzania and Zambia reach headcounts of 88% and 87% below the $2.00 per day poverty line respectively. Whilst Ghana and Kenya are markedly better, they still both have more than half their populations below the $2.00 per day poverty line. The North African economies are again the exception to the norm, with very low poverty headcount ratios.

Table 7 - Poverty Statistics for Select African Countries *(year of most recent available data used)*

Country	Poverty Headcount: $1.25/day, PPP (% population)	Poverty Headcount: $2.00/day, PPP (% population)	Inequality (Gini Index)	Prevalence of Undernourishment (% population)	Life Expectancy at Birth (years)
Angola	54 % *(2000)*	70 % *(2000)*	59 *(2000)*	58 % *(2011)*	39 *(2011)*
Egypt	2 % *(2008)*	15 % *(2008)*	31 *(2008)*	5 % *(2011)*	73 *(2011)*
Ghana	29 % *(2006)*	52 % *(2006)*	43 *(2006)*	5 % *(2011)*	64 *(2011)*
Kenya	43 % *(2005)*	67 % *(2005)*	48 *(2005)*	30 % *(2011)*	57 *(2011)*
Mozambique	60 % *(2005)*	82 % *(2005)*	46 *(2008)*	39 % *(2011)*	50 *(2011)*
Nigeria	68 % *(2010)*	84 % *(2010)*	49 *(2010)*	9 % *(2011)*	52 *(2010)*
Tanzania	68 % *(2007)*	88 % *(2007)*	38 *(2007)*	39 % *(2011)*	58 *(2011)*
Tunisia	1 % *(2008)*	4 % *(2008)*	36 *(2010)*	5 % *(2011)*	75 *(2011)*
Zambia	74 % *(2010)*	87 % *(2010)*	57 *(2010)*	47 % *(2011)*	49 *(2011)*

Source: (Partridge & Pienaar, 2013)

The Gini index in the third column of Table 7 is a measure of the level of income inequality within each country (Bellù & Liberati, 2006). It is displayed as a percentage, so 0 represents complete equality and inequality increases as the index moves towards 100. Taking the most recent data available for each country, South Africa comes out as the world's most unequal economy as measured by the Gini index, with a rating of 63 (World Bank, 2013b). Whilst none of the countries in the study have an index that high, Angola and Zambia come close with Gini Indices of 59 and 57 respectively, making them amongst some of the world's most unequal economies by this measure.

The final two columns show the percentage of the population who are undernourished as well as the life expectancy in each country. The three SADC countries of Angola, Zambia and Mozambique come out as the three worst in both areas, in that order. The North African economies of Egypt and Tunisia

again outperform the rest. Ghana, however, matches them in achieving an undernourishment percentage of only 5% and has life expectancy as high as 64, not far below theirs.

To summarise on economic performance, it has been shown that Egypt and Tunisia possess far greater wealth per capita than the other countries under review, however, the past decade has been one of phenomenal growth for these other countries, in particular Angola and to an only slightly lesser extent, Kenya. Monetary instability remains a concern with annual inflation rates volatile and often very high. It has also been shown that there are clear cases where economic growth has not filtered through to significant progress in terms of poverty alleviation and outside of Northern Africa, much of the populations being studied still live in poverty.

3.2 - Governance

Historically governance has been an area of deep concern in Africa. It is also a very broad issue with several distinct components. When governance is broken down into these different components there are areas where African countries have made huge strides but also areas where there is still much to be desired.

The Worldwide Governance Indicators, compiled by the World Bank, have been developed by spanning numerous data sources to come up with an accurate measure of several facets of a country's governance (Kaufman, et al., 2010). For detailed scoring and descriptions of the Worldwide Governance Indicators and the different areas analysed see Partridge and Pienaar's (2013) country profiles. For the purpose of this paper a few of the main highlights and lowlights are summarised below.

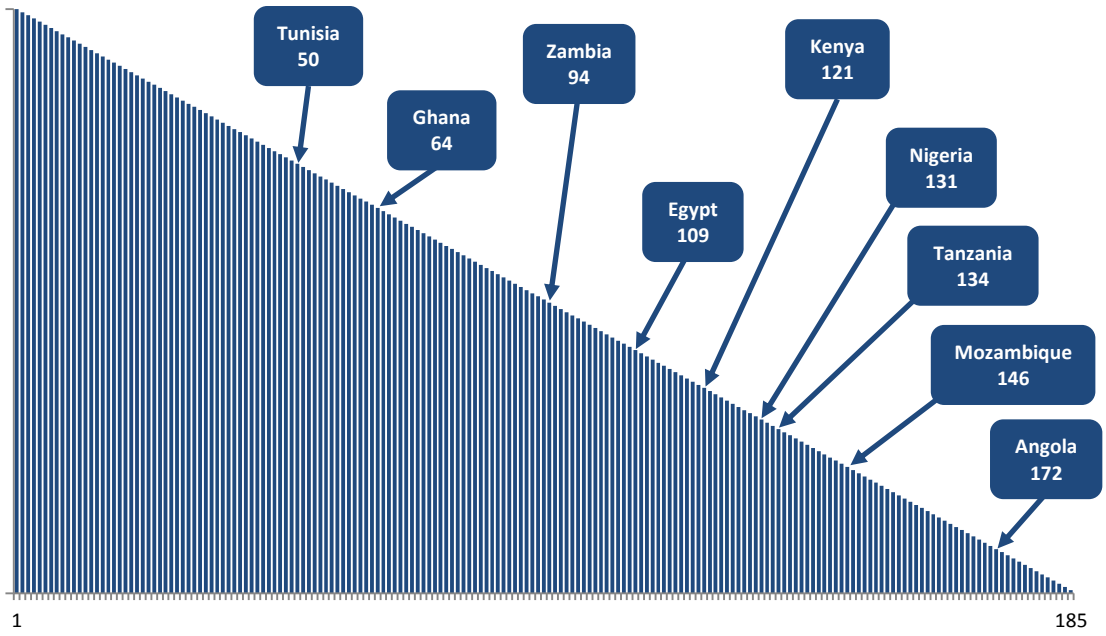
One of the main positives was scores above the global average for all governance measures for Ghana. There were also vast improvements between 1996 and 2011 on measures of "political stability and absence of violence" for Angola and Zambia. In 1998 Angola was right at the bottom of the world rankings of "political stability and absence of violence", but by 2010 had risen to only slightly below the global average. Zambia was far below the world average in 1996 but by 2011 had a score far higher than the average. There were also significant improvements in "voice and accountability" for Kenya over the same period.

On the other hand, Nigeria scored poorly on all areas of governance, including being in the bottom percentile globally on measures of ""political stability and absence of violence", "regulatory quality"

and “control of corruption”. Despite the positive improvements mentioned above, Angola and Kenya still performed poorly on other measures of governance. In particular, Angola was in the bottom percentile globally for “control of corruption” and Kenya was in the bottom percentile globally for “political stability and absence of violence”. Tunisia and Egypt performed well on the Worldwide Governance Indicators up to 2010 but showed signs of a decline with a sharp drop into 2011 in most areas.

Another measure of governance is the Ease of Doing Business Rankings which for 2013 ranked 185 countries based on scoring in areas relating to how easy it is to carry out business activity in each country (World Bank, 2013c). Figure 16 shows the order of countries according to the Ease of Doing Business Rankings for 2013, with the nine countries under review highlighted. The graph is such that the top country, the country which has the most conducive environment for business activity, has the tallest bar and is on the far left of the x-axis. On the other side the lowest ranked country, the country where business activity is most difficult to carry out, has the shortest bar and is on the far right of the x-axis.

Figure 16 - Ease of Doing Business Rankings for 185 Countries, 2013
Source: (Partridge & Pienaar, 2013)



Angola is a particularly difficult place for business, ranked 172nd out of the 185 countries. Mozambique, Tanzania and Nigeria are also low down, all falling into the bottom third of country rankings. Tunisia and Ghana have friendly business environments, more in line with what is observed

in developed countries. Zambia's ranking is also impressive, sitting near to the midpoint of the global rankings.

The Global Competitiveness Report, compiled by the World Economic Forum, contains results from enterprise surveys, where business executives are asked to rank a list of issues in terms of what the biggest barriers to business are in their country. The issues are then scored based on these rankings to determine what the main issues are in each country (Schwab, 2010).

Table 8 shows the top five barriers to business activity as per the 2010/2011 Global Competitiveness Report, with number 1 being the biggest barrier and number five being the fifth. Access to financing is the most dominant issue, appearing in the top five for every country and being the biggest issue for five of the nine countries: Mozambique, Zambia, Nigeria, Ghana and Tunisia. Corruption is another dominant issue, appearing in the top five for all the countries bar Tunisia and being the biggest issue for three of the nine countries: Kenya, Tanzania and Egypt.

Table 8 – Biggest Five Barriers to Business per Country, 2011

	1	2	3	4	5
Mozambique	Access to Financing	Corruption	Inefficient government bureaucracy	Inflation	Inadequate supply of infrastructure
Angola	Inefficient government bureaucracy	Inadequately educated workforce	Inadequate supply of infrastructure	Corruption	Access to Financing
Zambia	Access to Financing	Corruption	Inadequate supply of infrastructure	Tax Rates	Inefficient government bureaucracy
Kenya	Corruption	Access to Financing	Inefficient government bureaucracy	Inadequate supply of infrastructure	Crime and Theft
Tanzania	Corruption	Access to Financing	Inadequate supply of infrastructure	Tax Rates	Tax Regulations
Nigeria	Access to Financing	Inadequate supply of infrastructure	Corruption	Policy Instability	Government Instability / Coups
Ghana	Access to Financing	Inadequate supply of infrastructure	Inflation	Inefficient government bureaucracy	Corruption
Egypt	Corruption	Inflation	Inadequately educated workforce	Tax Regulations	Access to Financing
Tunisia	Access to Financing	Restrictive labour regulations	Inefficient government bureaucracy	Foreign Currency Regulations	Inadequately educated workforce

Source: (Partridge & Pienaar, 2013)

It is clear from this sub-section that governance is a critical issue in Africa, but the extent to which it is an issue depends on the country in question. It is also important to note that governance should not be viewed as one individual variable but rather refers to a number of issues which should be looked at separately. The results from the country profiles are mixed. Ghana and Tunisia have been shown to be shining lights in terms of governance, scoring well around the board. Oil-rich Nigeria and Angola on the other-hand performed very poorly across the board. Access to finance and corruption were dominant areas of concern amongst the nine countries under review.

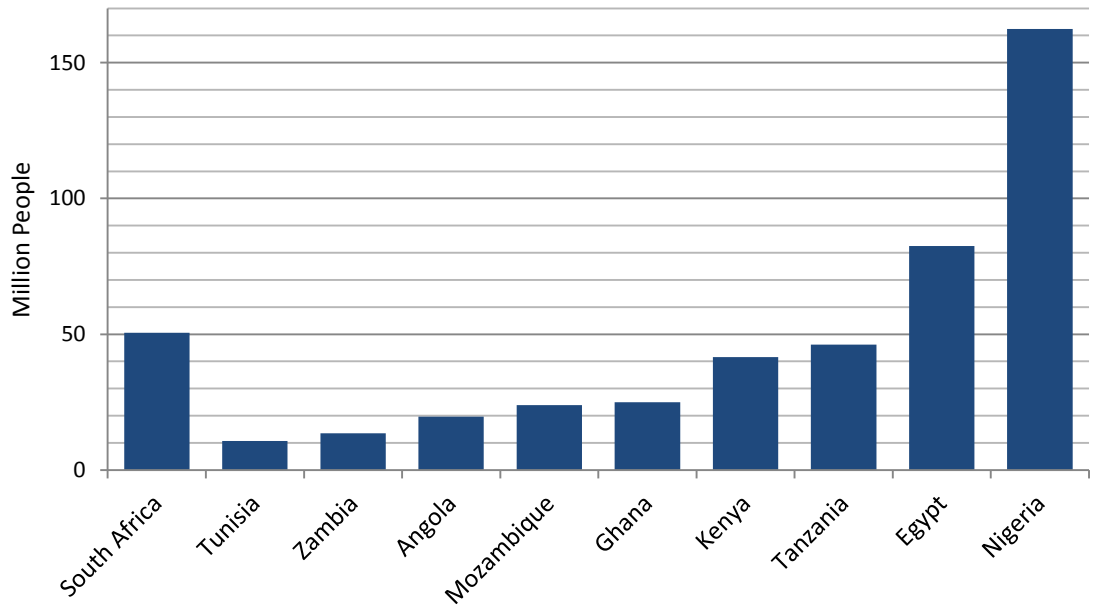
3.3 - Populations

In the section on economic potential, it was seen that Real GDP per capita amongst the countries under review, whilst growing, was low by global comparison. This means that the amount of income per person in these countries is not high. However it does not tell us how many people there are and what type of people there are. To answer these questions requires an in depth analysis of the countries' populations.

Figure 17 shows the total populations, in millions, for the select nine countries. South Africa is also included for comparative purposes. There is a wide range of population sizes but collectively these nine countries amount to approximately 426 million people, over 6% of the world's total population. This is a very significant number of people.

It was shown in the section on economic potential that Tunisia had a far superior GDP per capita to the other countries; however it can now be seen that the country has a relatively small population. Kenya and Tanzania, although having smaller populations than South Africa, are similar to that of a large European country such as Spain or Ukraine. Egypt's population is immense, similar to that of Germany which has the biggest population in Europe, assuming Russia is not included as part of Europe. Nigeria's population is even bigger than Russia's, an astonishing fact considering the differences in land area.

Figure 17 - Total Country Populations (million people), 2011
Source: (Partridge & Pienaar, 2013)



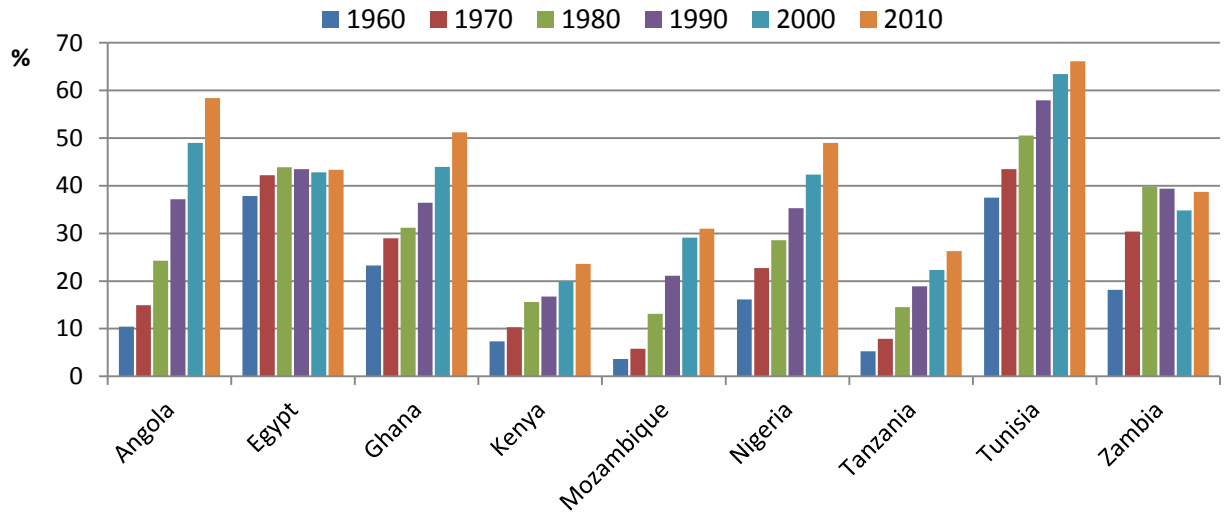
A further fact to consider in relation to the number of people residing in these countries is that in addition to being very large populations, African countries are some of the fastest growing populations in the world, suggesting in coming years they are going to get significantly larger (Partridge & Pienaar, 2013).

The positive relationship between economic development and urbanisation has been central to the economics discipline ever since it was brought to light by Simon Kuznets in his ground-breaking work looking at the quantitative aspects of economic development (Kuznets, 1956). Urbanisation has important implications in terms of opportunities for South Africa's Agricultural Sector. For one thing, urban populations are only able to produce a small amount of agricultural goods, meaning there is more demand for agricultural products to supply enough food for the people. Urban individuals tend to also demand a more diverse range of goods to consume, meaning increasing demand for new products (Regmi & Dyck, 2001; Kearney, 2010).

Even though economic development has mostly only really taken off in recent years for the countries for which country profiles were done, urbanisation has been happening for some time now. Figure 18 shows the percentage of each country's population which reside in urban areas, measured every 10 years from 1960 to 2010. Asides from Egypt and Zambia, all the countries showed progressive urbanisation over this period. Tunisia became more than 50% urban by 1980 and the urban share of the population has still increased significantly since then, reaching apprimately 66% by 2010. Angola has shown rapid urbanisation since 1960 and, along with Ghana, became more than 50% urban between 2000 and 2010. Nigeria has also been urbanising rapidly and by 2010 was on the verge of pasisng the 50% mark. Kenya, Mozambique and Tanzania are still predominantly rural but have become a lot more urban over time.

Figure 18 - Percentage of Populations Living in Urban Areas, 1960-2010

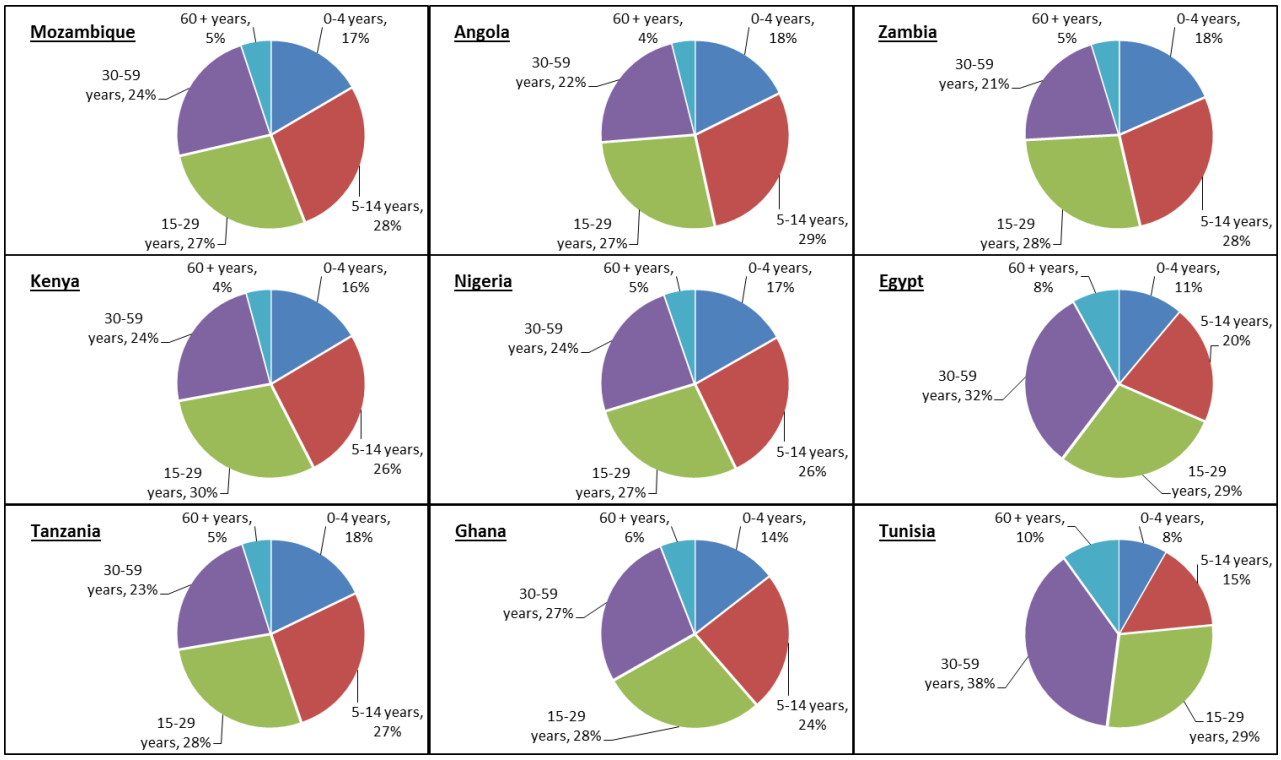
Source: (Partridge & Pienaar, 2013)



There were very different age distributions amongst the different countries. Figure 19 shows the distribution for each country being reviewed. The results to some extent echo the life expectancies observed in Table 7 with the countries with higher life expectancies, Tunisia, Egypt and Ghana, having higher proportions of their populations being older and the countries with particularly low life expectancies, specifically the SADC countries in the top row, having few older people and high proportions of their populations of younger age.

Figure 19 - Age Distributions for Latest Available Data

Source: (Partridge & Pienaar, 2013)



Having a young population has a number of implications. Having such large proportions of the population below the age of 15, as in Mozambique, Angola, Zambia, Kenya, Tanzania and to a slightly lesser extent Ghana, means that there are a lot of individuals who are almost working age and suggests rapid growth in the labour force of these countries in coming years (whilst it should also be acknowledged that individuals younger than 15 are often working in full-time employment in these countries). As these young individuals become adults, they will also reproduce; suggesting the rapid population growths observed in these countries are likely to continue.

Whilst there were low life expectancies shown in Table 7, the young dominance of the populations mitigates concerns over trying to build relationships with people in these countries for fear of people not being around long. Younger individuals are also more likely to change consumption patterns than older individuals, meaning more opportunities to bring new products into these markets. Finally,

young individuals will also more easily take up new technologies, which should be taken note of when reading the next sub-section.

It has been shown in relation to populations that for most of the countries under review, the populations are large and only getting larger; in short there are a lot of mouths needing feeding. The populations are also mostly young, particularly outside of North Africa. In Tunisia and Angola most of the populations live in urban areas. Given that 2010 data was used, the same is most likely true for Nigeria at this stage now too. With the exception of Egypt and Zambia, all the countries under review have been urbanising rapidly over the past fifty years. If the trend continues, these countries will contain disproportionately more and more individuals residing in urban areas.

3.4 - Infrastructure

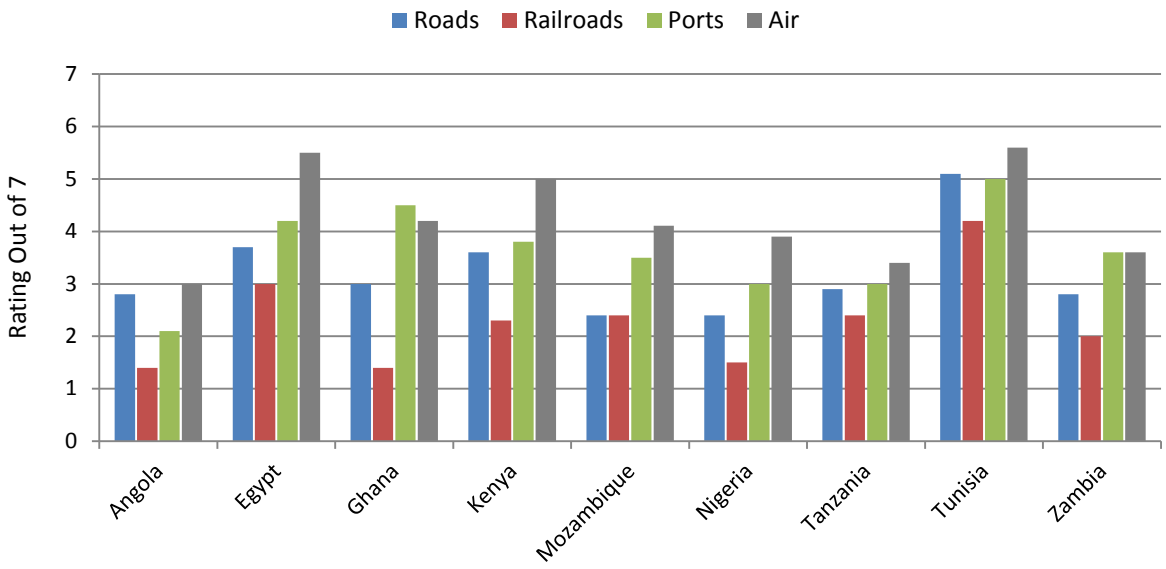
Infrastructure in Africa is generally poor. However, recent years have seen significant improvements in a number of areas. Infrastructure is very important for agriculture for a number of reasons. To be able to establish relationships to facilitate trade and develop global value chains requires sufficient communications channels. Additionally many agricultural products are perishable meaning that goods need to reach destinations timeously, be transported correctly so as not to damage goods and have the correct storage facilities when goods need to be stored.

Figure 20 shows the ratings of transport infrastructure for the nine countries taken from the World Economic Forum's 2010/2011 Global Competitiveness Report (Schwab, 2010). For each country the bars show the ratings, from left to right, for roads, railroads, ports and air. The results show which countries have relatively better infrastructure but also show within countries which modes of transport each country is best suited to.

Railroads are the lowest rated form of infrastructure for all nine countries. Angola received generally low ratings, but particularly so for the railroads and the ports. Tunisia on the other hand received the highest rating of the nine countries across all four infrastructure categories. Egypt was second to Tunisia on all accounts except for port infrastructure where Ghana scored particularly high. Kenya's high rating for air infrastructure is also worth noting.

Figure 20 - Ratings of Transport Infrastructure (Out of 7), 2010

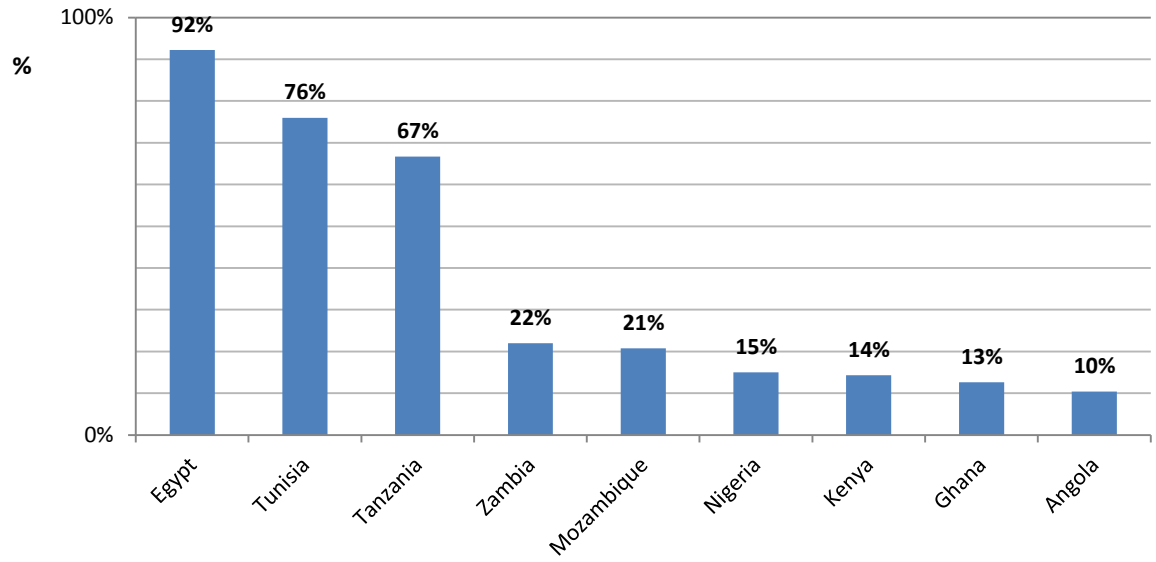
Source: (Partridge & Pienaar, 2013)



The fact that roads received such low ratings is a cause for concern as this is the most common form of transport and the one most likely to damage delicate produce during transportation. This is particularly the case where trucks have to use dirt roads instead of paved roads. Figure 21 shows the percentage of each country's total road network which is paved. Egypt has almost all of its roads paved, whilst Tunisia and Tanzania also have large portions of their road networks paved. For the other six countries the picture is bleak with only 10%-22% of the roads being paved depending on the country.

Figure 21 - Percentage of Total Road Network which is Paved

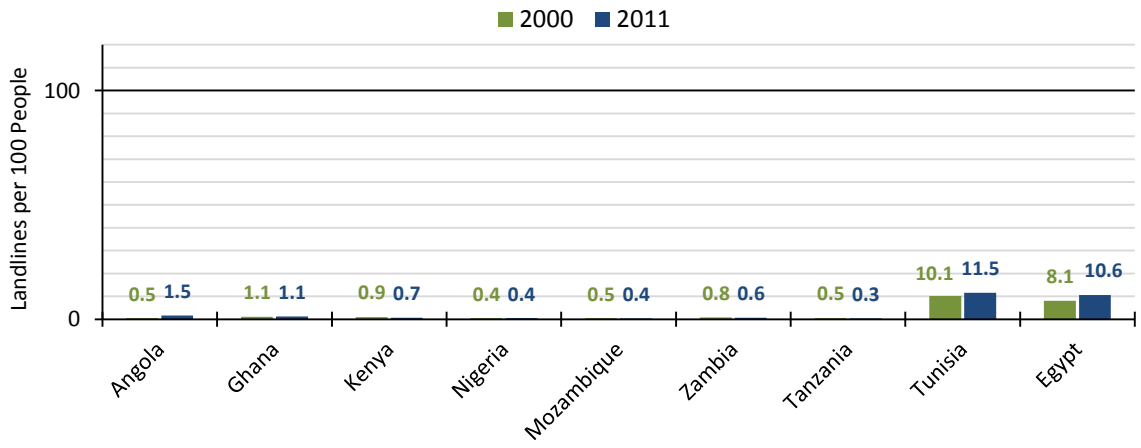
Source: (Partridge & Pienaar, 2013)



There are various different technologies which can be used for communications. Figure 22 shows the number of landline telephones in each country per 100 people for 2000 and 2011. The graph clearly shows that in 2000 there were very few people with landline telephones, and little progress was made through to 2011. Even the North African countries with their superior economic growth hover around 10% of the population. For the rest of the countries being reviewed the best achievement was from Angola which only managed 1.5 telephone landlines per 100 people in 2011.

Figure 22 - Telephone Landlines per 100 People, 2000 & 2011

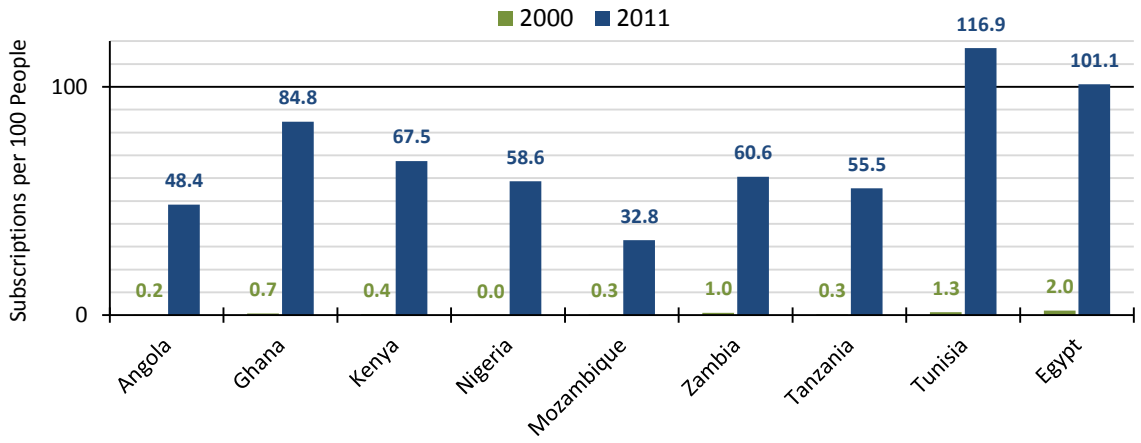
Source: (Partridge & Pienaar, 2013)



A contrasting picture to Figure 22, Figure 23 shows the number of cellular phone subscriptions per 100 people in each country. Whilst the figures for 2000 looks like a similar story to that of landline telephones, in fact the numbers are fewer for every country, following the turn of the millennium there has been a huge take-up in cellular phone subscriptions in each country. Egypt and Tunisia have more cellular phone subscriptions than people, and Ghana is not far off. Even the worst performing countries, Mozambique and Angola, have made huge strides since 2000 and now have significant reach in terms of cellular phones.

Figure 23 - Cellular Phone Subscriptions per 100 People, 2000 & 2011

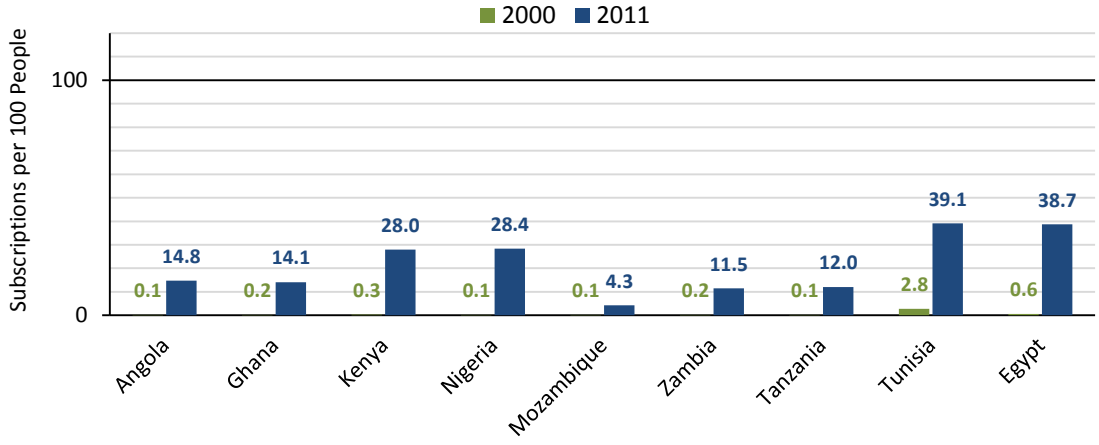
Source: (Partridge & Pienaar, 2013)



Whilst not quite as dramatic as the rise in cellular phone access, there has been a significant take up in internet subscriptions. Figure 24 shows the number of internet subscriptions per 100 people. Again there were very low numbers in 2000 with only Tunisia showing a figure of more than 1 per 100 people. By 2011 this number had risen significantly. Again Tunisia and Egypt lead the pack with both countries just below 40 subscriptions per 100 people. The numbers were also particularly impressive for Kenya and Nigeria, with both countries just below 30 subscriptions per 100 people. The take-up has not been as fast in Mozambique, with only just over 4 subscriptions per 100 people. With the huge take-up in cellular phones and recent developments in mobile internet technology it is likely that the number of people with internet access in these countries will continue to rise significantly.

Figure 24 - Internet Subscriptions per 100 People, 2000 & 2011

Source: (Partridge & Pienaar, 2013)



An area of concern with some of the countries being studied is in relation to electricity, both the access to electricity and the stability of electricity supply. Table 9 shows the percentage of each population with electricity access and the number of power outages in a typical month in that country. Tunisia and Egypt stand apart from the rest with 100% electricity access and no power outages in a typical month in Egypt (data was not available to confirm this latter fact for Tunisia). For the rest of the countries there is very little electricity access, even getting below 20% of the population for Kenya, Mozambique, Tanzania and Zambia. Ghana looks best of these countries with 61% electricity access, although 10 power outages a month equates to approximately a power outage every 3 days. Nigeria has relatively decent electricity access at around half the population but this electricity is highly unstable with on average almost a power outage every day. Tanzania showed signs of both bads, with only 14% electricity access and 12 power outages in a typical month.

Table 9 - Percent of Population with Electricity Access and Number of Monthly Power Outages (year)

	People With Electricity Access (% of population)	Power Outages in a Typical Month (#)
Angola	26 % *(2009)*	5 *(2010)*
Egypt	100% *(2009)*	0 *(2008)*
Ghana	61 % *(2009)*	10 *(2007)*
Kenya	16 % *(2009)*	7 *(2007)*
Mozambique	12 % *(2009)*	3 *(2007)*
Nigeria	51 % *(2009)*	26 *(2007)*
Tanzania	14 % *(2009)*	12 *(2006)*
Tunisia	100% *(2009)*	*[no data]*
Zambia	19% *(2009)*	3 *(2007)*

Source: (Partridge & Pienaar, 2013)

Both lack of access to electricity and instability of supply are serious concerns when trying to carry out economic activity. This is particularly the case for agricultural products where produce often has to be stored and processed in very specific ways and under very specific conditions.

This sub-section has highlighted that there are serious infrastructure concerns for the countries under review. Outside of North Africa, only Tanzania has a sufficiently paved road network and only Tunisia's rail network received a decent rating. Whilst good ports and air transport generally exist, this means that goods can be exported into these countries alright but there will be serious difficulties in moving goods around within the country, making it hard to get goods to consumers.

The transport issue also means it will be difficult to take advantage of regional value chains with these countries as in many cases there will be issues getting products to and from producers in these countries. Angola's case is particularly severe where even the ports and air transport infrastructure is poor.

The new millennium has seen a rapid take up of communications technology in the countries under review. This has not been the case for landline telephones which remain severely undersupplied, but this should not matter with the phenomenal take up of cellular phones in all countries, although despite huge progress Mozambique has been lagging behind the other countries analysed. There has

also been significant progress in terms of internet access for most of the countries with Mozambique again making progress but lagging behind.

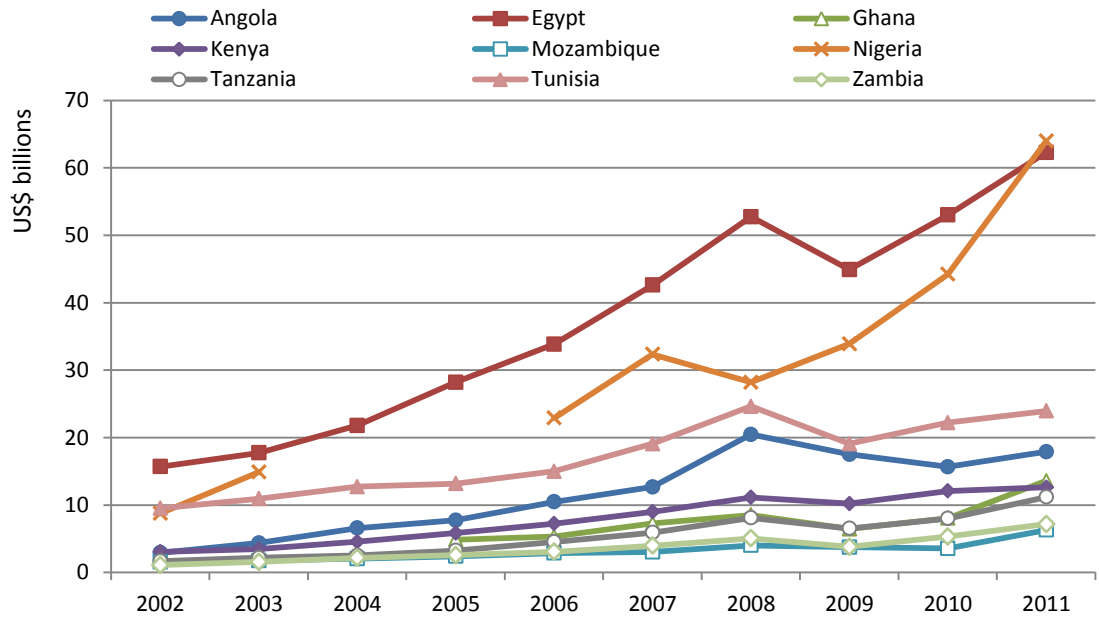
Finally, whilst Tunisia and Egypt have well developed electricity infrastructure, the same cannot be said for the rest of the countries under review. For the other seven countries there is either very little electricity access, as in Angola, Kenya, Mozambique and Zambia, else the electricity supply is unstable, as is the case for Nigeria and Ghana, or there is a combination of both issues as observed in Tanzania.

3.5 - Trade

Between 2002 and 2011 there was a significant rise in imports for the countries under review. Figure 25 shows the annual imports for each country over this period. Egyptian imports have risen steadily over the period with the exception of a decrease between 2008 and 2009. Nigeria's imports have incresed very radiply since 2008, making it the country with the biggest imports in 2011 with imports valuing approximatel US$ 64 billion. Mozambiqua and Zambia have the least imports over the period, athough between 2010 and 2011 Mozambique recorded a growth in imports of approximately 77%, the highest annnual growth rate recorded by any country over period between 2002 and 2011.

Figure 25 - Annual Imports, 2002-2011 (US$ billions)

Source: (Partridge & Pienaar, 2013)



Despite increasing export demand to the countries under review, there are several barriers to trade which need to be taken into consideration before looking to export to these countries. Partridge and Pienaar (2013) give a detailed list of all trade barriers for each country, contained in the country profiles. The rest of this sub-section gives a summary of some of the key barriers taken from the study.

In Mozambique and Zambia there are import quantity restrictions which, whilst there to protect local industries, place limitations on trade opportunities into these countries. In Nigeria this is more extreme with bans on certain imports, although some of these bans have been relaxed in recent years.

Kenya has high import tariffs on agricultural products, which impedes trade opportunities into the country. Whilst Tunisia had committed to opening up its borders for trade under their "Structural Adjustment Programme" from 1986 to 1994, there was resistance with agricultural trade due to worries about the sectors survival under full liberalisation. Therefore the sector remains heavily protected with high customs tariffs and import quotas. Ghana levies numerous different charges and taxes on imports which together significantly inflates the costs of importing into the country.

Egypt went through a period of serious trade liberalisation from 2004. However, there still remain serious barriers to trade including ambiguities with the valuation mechanisms and the inconsistent enforcement of mandatory quality-control standards.

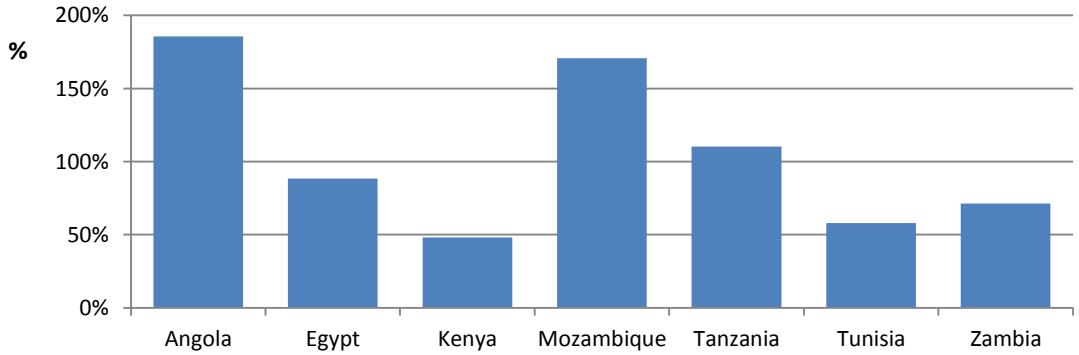
In Angola, Mozambique, Kenya, Tanzania, Ghana and Nigeria bureaucratic procedures and delays make trading more difficult and costly, especially where produce has a short shelf life and risk being destroyed. In most cases these costs are added to by the need to also ensure security of goods once in the country. Additionally the nature of customs creates opportunities for unlawful payments and other corrupt practices. For example, in Mozambique there is a requirement for compulsory warehousing at destination where exorbitant prices are charged. Kenya has been known to alter agricultural regulations to reflect fluctuations in domestic supply and demand as well as political factors.

In summary, from a trade perspective, Africa presents a great opportunity but there are also areas of concern which need to be considered when looking to trade with these countries. These issues differ significantly from country to country so it is important to not have a single strategy for Africa but to tailor each strategy to meet the specific aspects of each country. Whilst the barriers to trade are burdensome for exporters and make trade difficult, they can also be seen as an opportunity to gain a competitive advantage. If exporters and others doing business in these countries are able to find ways to overcome the trade barriers and can have a strategy which directly addresses all the issues specific to a particular country, they will gain a competitive advantage against competitors also looking into the same markets.

3.6 - Agriculture, Land and Water

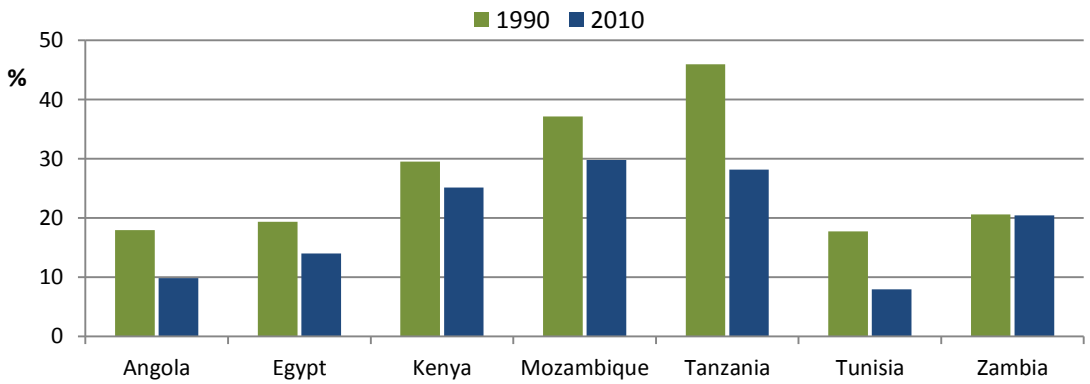
In all the countries under review agricultural production has increased significantly in recent years. Figure 26 shows the change in agricultural value added for each country[4] between 1990 and 2010. In Angola and Mozambique there was particularly large growth, approximately 186% and 171% respectively. Growth was smallest in Kenya and Tunisia but even here there were increases of approximately 48% and 55% respectively.

Figure 26 - Percentage Change in Agriculture Value Added, 1990-2010
Source: (Partridge & Pienaar, 2013)



Whilst agricultural activity has increased, in all cases studied it has not been increasing at the same rate as the rest of the economy resulting in a declining importance of agricultural production for each economy. Figure 27 shows agriculture's percentage share in Gross Domestic Product (GDP) for 1990 and 2010. For all countries there was a decline in the share, although the decline was negligible for Zambia.

Figure 27 - Agriculture Share in Gross Domestic Product (%), 1990 & 2010
Source: (Partridge & Pienaar, 2013)

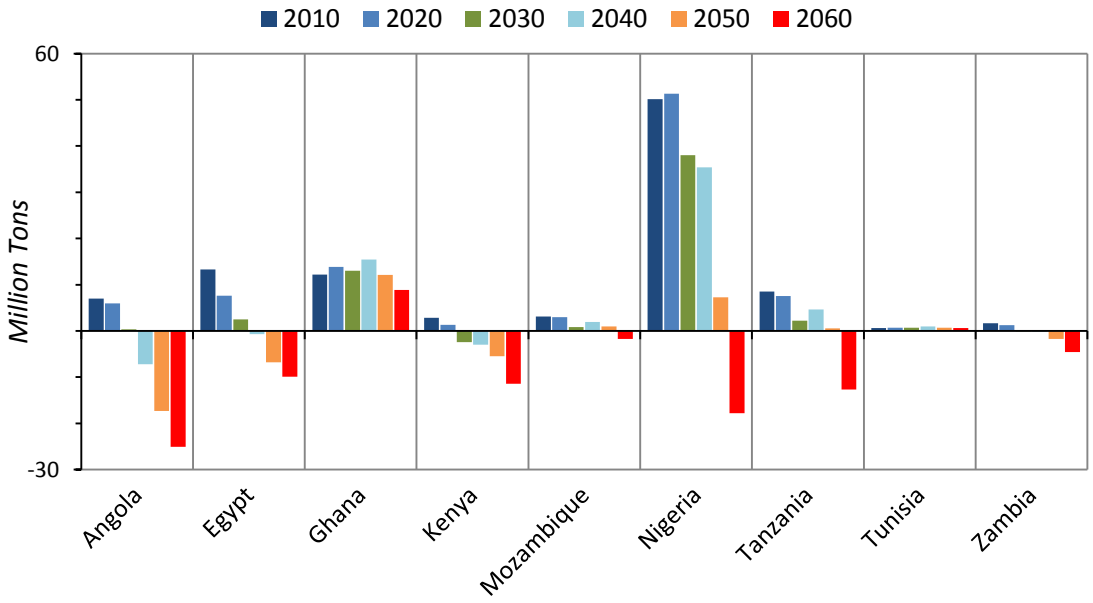


[4] Data unavailable for Ghana and Nigeria

The International Futures (IFs) model, developed at the Frederick S. Pardee Center for International Futures is "a computer modelling system that represents relationships and interactions within and across key global systems for 183 countries from 2010 to 2100. IFs is an integrated assessment model, which means that it is characterised by dynamically interacting sub-systems. These sub-systems include population, economic, health, education, infrastructure, agriculture, energy, environment, governance, and international political modules. The relationships modelled in IFs are structured in an interacting process that leverages a broad historical database and incorporates relevant academic literature" (Western Cape Government, 2013, p. 2)

Figure 28 shows the projections in terms of food security, measured as domestic agricultural production less domestic agricultural demand. In 2010 all of the countries have positive values, meaning there is surplus production, the countries produce more than they consume. Over the next 50 years this changes as all countries except for Ghana and Tunisia consume more than they produce in 2060.

Figure 28 - Food Security (Agricultural Production less Agricultural Demand) Projections, 2010-2060
Source: (Frederick S. Pardee Center for International Futures, 2013)



One potential reason for the increasing inability to satisfy local demand is the limited capacity of the country's resources which are needed for agricultural production. Table 10 shows the amount of land each country has under agricultural production in relation to the country's total land area. Whilst there is a lot of land area in Africa, a lot is already under agricultural production. In Nigeria 83% of the country's land is already under agricultural production. Ghana, Mozambique and Tunisia all have more than 60%. Only 4% of Egypt's land is under agricultural production, but this should be expected as much of Egypt is desert which is not suitable for agricultural production.

Table 10 - Land Availability and Agricultural Use in Select Countries, Most Recent Available Data

	Country Area (Hectares)	Agricultural Land (Hectares)	% of Land Used for Agriculture
Angola	125	58	*46%*
Egypt	100	4	*4%*
Ghana	24	16	67%
Kenya	58	28	*47%*
Mozambique	80	49	*62%*
Nigeria	92	76	*83%*
Tanzania	95	37	*40%*
Tunisia	16	10	*62%*

Source: (Partridge & Pienaar, 2013)

Water is another important resource for agriculture. Table 11 shows the renewable water resources and the amount currently being withdrawn each year for each country. Asides from Egypt and Tunisia all the countries have annual water withdrawals far below the amount of renewable water resources available. This is particularly so for Angola and Mozambique who only withdraw 0.5% and 0.4% of their respective annual renewable water resources.

Table 11 - Water Availability and Withdrawal, Most Recent Available Data

	Renewable Water Resources per year (billion m^3)	Total Water Withdrawals per year (billion m^3)	% of Water Resources Being Withdrawn
Angola	148	0.7	0.5%
Egypt	57	68.3	119.2%
Ghana	53	1.0	1.9%
Kenya	31	2.7	8.9%
Mozambique	217	0.9	0.4%
Nigeria	286	13.1	4.6%
Tanzania	96	5.2	5.4%
Tunisia	5	2.9	62.0%
Zambia	105	1.6	1.5%

Source: (Partridge & Pienaar, 2013)

As a final note on food demand in these countries, as these countries develop there is an increase in aggregate consumption as people have more money to buy more food. An analysis of consumption patterns in these countries also reveals definite shifts in consumption preferences. In particular, there is a diversification of consumption as consumers begin to consume a greater variety of products. When countries are underdeveloped consumers tend to have their consumption bundles dominated by one of two basic foods, particularly starches such as cassava and yams. As economies develop and consumers have more income, they diversify their consumption and begin to consume more of other products. This means that there is new demand being created for new agricultural products. The consumption analysis also reveals that as development occurs there is a significant increase in the

consumption of higher value products. This includes the consumption of value-added processed goods in addition to higher value primary produce.

To summarise in terms of agriculture, land and water, it was shown that agricultural production is increasing for the countries under review, particularly Angola, Mozambique and Tanzania. However, it was also shown that for all the countries under review that agricultural activity increased slower than the rest of the economy, meaning a declining importance of agriculture for economic activity. It was also shown that asides from Ghana and Tunisia, as economic growth occurs, in the face of finite resource endowments and the population dynamics discussed in Sub-Section 3.3, agricultural demand is expected to grow faster than agricultural production, leading to a shift in these countries from having a production surplus to having a production deficit which will need satisfying through foreign imports.

3.7 - Technology and Innovation

Asides from technology and innovation being an important factor for economic development (Solow, 1957), it also highlights a new kind of opportunity often overlooked when doing these kinds of analysis. This is the opportunity that comes from technology and innovation spill overs from other countries. This can occur through knowledge sharing, collaborative research and also through value chain development. These opportunities will occur more where distance between countries is small, cultures are similar and where the movement of individuals between the countries is relatively free. Thus for South Africa, neighbours on the African continent would be the ideal place to look for these opportunities.

Technology and Innovation in this sub-section is looked at mainly through research and development (R&D). Figure 31 shows each country's[5] expenditure on R&D as a percentage of Gross Domestic Product (GDP). Whilst significant, these percentages are mostly small by global standards. To gain a comparative perspective, here are some percentages from other countries:

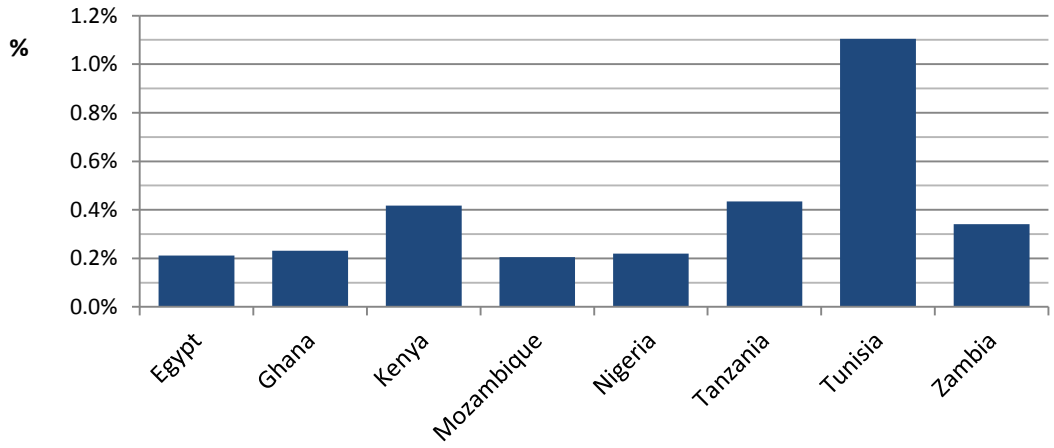
- South Africa: 0.76%
- South Korea: 4.04%
- China: 2.79%
- USA: 2.79%
- Spain: 1.30% (World Bank, 2013b)

[5] *Data for Angola was unavailable, for the rest of the countries the latest available data is plotted on the graph*

Tunisia is the only country to invest more than 1% of their GDP into R&D. The rest of the countries all have percentages between just over 0.2% and just over 0.4%.

Figure 31 – R&D Expenditure % Share of GDP, Most Recent Available Data

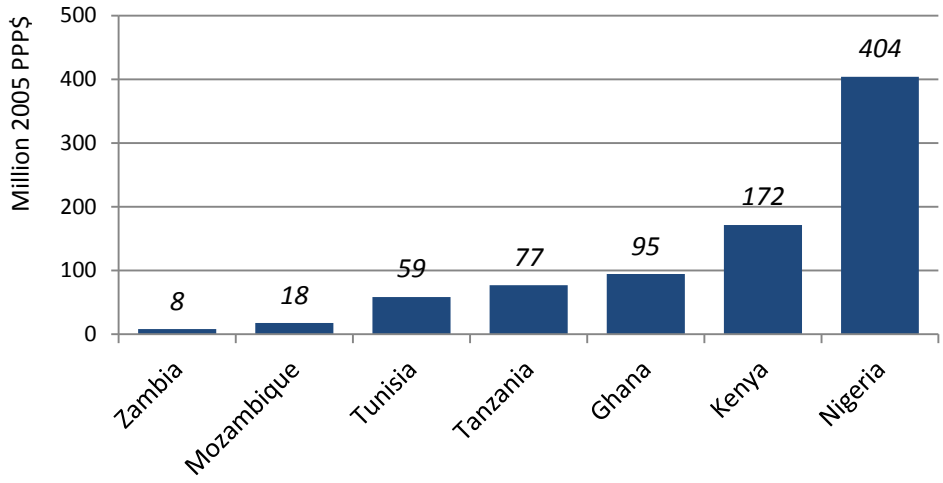
Source: (Partridge & Pienaar, 2013)



Despite investing less in R&D as a proportion of GDP than other countries, there were significant investments into Agricultural R&D within R&D expenditure. Figure 32 shows each country's[6] annual expenditure on Agricultural R&D for the most recent year for which data was available. The amount is expressed in 2005 Purchasing Power Parity Dollars (PPP$) to allow for different price environments for each country. Nigeria had particularly high expenditure at PPP$ 404 million. Kenya also had a high expenditure at PPP$ 172 million. Tunisia, Tanzania and Ghana are also worth noting with PPP$ 59 million, PPP$ 77 million and PPP$ 95 million respectively.

Figure 32 – Real Public Expenditure on Agricultural R&D (million 2005 PPP$)

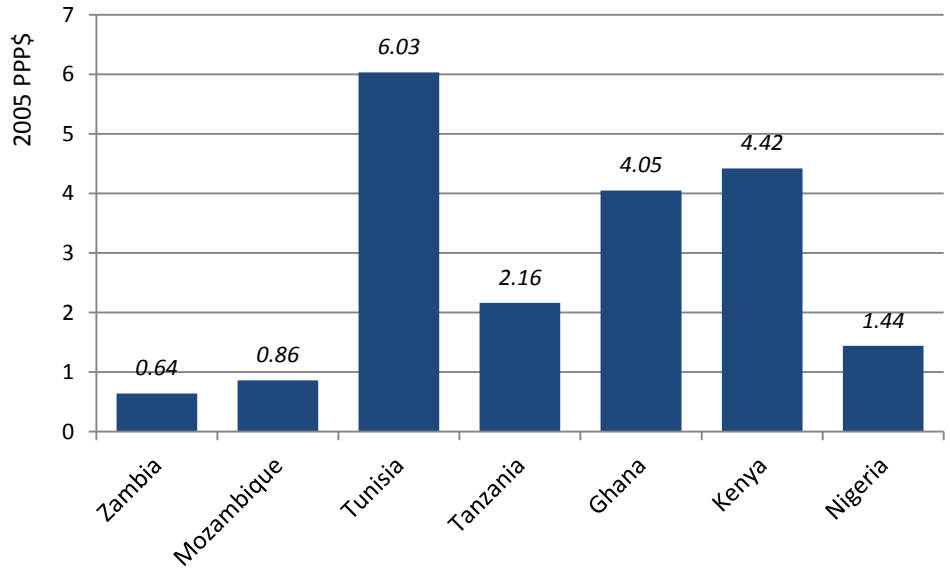
Source: (Partridge & Pienaar, 2013)



[6] Data for Angola and Egypt was unavailable, for the rest of the countries the latest available data is plotted on the graph

If population size is controlled for by looking instead at expenditure per capita rather than aggregate expenditure, a different picture emerges which is illustrated in Figure 33. Kenya still came out strongly with expenditure of PPP$ 4.42 per capita. Due to a small population, Tunisia now leads the pack with R&D expenditure of PPP$ 6.03 per capita. Ghana also had significant expenditure for capita of PPP$ 4.05 per capita. Nigeria's expenditure diminishes in relation to the other countries when population is controlled for. Zambia and Mozambique have the lowest expenditures from both an aggregated and from a per capita perspective.

Figure 33 – Real Public Expenditure on Agricultural R&D per capita (2005 PPP$)
Source: (Partridge & Pienaar, 2013)



In summary of this sub-section, there are investments going into R&D in the countries under review. Whilst from an aggregated point of view, with the exception of maybe Tunisia, the percentage of GDP spent on R&D is relatively low, there are significant expenditures going into Agricultural R&D. In particular Kenya, Ghana and Tanzania from both an aggregated and a per capita perspective, but also Nigeria from an aggregate perspective and Tunisia from a per capita perspective. This means that the opportunities in Africa are not just there from a trade perspective but there are also opportunities for knowledge sharing and collaborative research which can be used to strengthen South Africa's agricultural sectors back home.

3.8 – Conclusion

In conclusion, the analysis of Partridge and Pienaar's (2013) country profiles should serve three key objectives. The first objective is to highlight the fact that Africa presents a great opportunity in terms of agricultural development in South Africa.

Secondly, the analysis should help to illustrate the diversity on the African continent. To show that strategies to promote integration on the African continent cannot be done at an aggregate level, with one generic strategy for every country. Instead each country needs a specific strategy to address the issues and opportunities for that specific country.

Then the third objective is to provide some broad information on nine select countries. These countries were chosen based on an attractiveness index, developed as described in the previous section, and based on current relations on the African continent. They thus present what is believed to be a regionally representative sample of the most promising opportunities in Africa. These countries were Angola, Mozambique, Zambia, Kenya, Tanzania, Ghana, Nigeria, Egypt and Tunisia. These economies were analysed in terms of their economic potential, governance, populations, infrastructure, trade, agriculture, land and water, as well as the state of technology and innovation. The analysis revealed numerous areas of both opportunities as well as issues which need to be considered..

As a final point it should also be noted that Africa is a dynamic place where almost any particular environment is at risk of sudden shocks which can have dramatic impacts. For this reason it is important to always stay up to date with currently affairs. The country analysis painted a very positive picture for North Africa, but the data available had not yet properly picked up the impact of political instability and civil unrest in the region in recent years (UN, 2014). Similarly Ghana appeared a shining light in many areas, achieving strong economic growth whilst also scoring consistently well on governance ratings. However, more recent times have seen high inflation cause economic slowdown which has in turn led to a cry for help to the International Monetary Fund (IMF) and demonstrations of civil unrest which is not captured in the data (Allison, 2014; Bax & Dontoh, 2014; GBC, 2014).

Overall, it can be confidently said that Africa presents areas of great opportunity. In order to fully realise the opportunity will require doing the required homework. The issues highlighted could prove serious threats to activities in these countries and those wishing to go into these areas need to be prepared.

Concluding Comments

This report has highlighted the importance of Africa for South African agriculture. The importance stems from both the need to diversify away from reliance on traditional export markets and also the huge potential which Africa presents. In addition to having the advantages of short transport distances and cultural similarities, looking to countries in Africa fits in with the objective of African integration which comes through strongly in numerous national and provincial policy documents in South Africa.

Africa is an extremely diverse continent and it is important that anyone looking to do business in Africa tailor their strategies specifically based on the countries in question and the nature of business. A useful way for prioritising countries is to use indices such as the Market Attractiveness Index (MAI) developed in this paper. Such an index manages to take into consideration a number of factors and give a measure of market attractiveness for a specific product from a particular origin.

This analysis showed some of the results for the MAI for some of the key agricultural exports of the Western Cape. Whilst there were some countries which performed well on a number of product MAI's, there was also a significant amount of diversity depending on the product being analysed. This highlights the fact that the optimal product destination will not be the same for all agricultural products and export strategies should be tailored accordingly.

Based on some overall trends in the MAI analysis, taking into consideration current relationships with the various African countries, nine countries were chosen as having the most potential to be beneficial for Western Cape Agriculture. These countries were Angola, Mozambique, Zambia, Kenya, Tanzania, Ghana, Nigeria, Egypt and Tunisia. Country profiles of these nine countries revealed some key findings which should be considered when looking into opportunities in these countries.

The challenges and opportunities in each country were far from generic, again highlighting the diversity in Africa and the need to look at each country on its own merits if integration is to be effective. Two things became clear through the country profiles. The first thing which is clear is that Africa presents a very promising opportunity with much promise for the future. This goes beyond opportunities simply for new consumer markets and extends to opportunities in terms of the development of global value chains and opportunities for knowledge sharing and collaborative research. There is no one country that presents the best opportunity as this will vary depending on the nature of business that is in question and hence the issues which are more relevant.

The second point that becomes clear is that Africa also presents some unique and serious challenges which need to be considered when conducting business on the continent. These issues vary from country to country, again highlighting the need to do thorough research depending on the nature of business. Whilst these issues present challenges, they also provide an opportunity to gain a competitive advantage against competitors. If South Africa can be prepared and find ways to overcome these issues, or at least mitigate against their impacts, the country stands to gain a competitive advantage against competitors from the rest of the world.

The African future is certainly bright, and South Africa is perfectly positioned to take advantage of the opportunities this future presents. Going forward it is important that thorough research is done so that the correct countries are focused on and then it is also of the utmost important that strategies are tailored specifically for the type of business conducted and the location in which it is being done. If this can be done, South Africa could seriously benefit, whilst also be a major player promoting development in the region.

** The full results from the "Africa Agenda" study on which the analysis of this report is based, are packaged into easy-to-use excel spreadsheets. These files can be downloaded from the following link:*
http://www.elsenburg.com/economics/africaagenda.html

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