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**Competition in the regional sugar sector: the
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by

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Competition in the regional sugar sector: the case of Kenya, South Africa, Tanzania and Zambia

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1.0 Introduction

The sugar industry within the Southern and Eastern Africa region is an important one in so far as it generally encompasses several linkages to the local economies and domestic markets in which it operates. The industry is a strategic sector for employment creation throughout the region and it forms an important part of agricultural and development policy (SADC, 2009).

Sovereign governments are historically major shareholders in various sugar milling companies across the region although there is a progressive move towards privatising these firms. The world sugar market has in the past been highly distorted by protectionism however changes in agricultural policy in the European Union in particular, and progressive liberalisation of trade, have resulted in a market that is more competitive including preferential access to EU markets for several least developed countries (EC, 2013). This paper considers this important development in so far as it has affected the patterns of trade for sugar between countries within the region where there are a number of net-importing countries.

The study also considers the role of firms as potential drivers of trade and cross-border investment in the region. An important feature of the global sugar industry is that 70% of the world's sugar production is consumed within the country of origin and the rest is traded in world markets (Illovo, 2012:36). However, firm consolidations and equity transactions have over time resulted in the creation of two main multinational firms in the region, Illovo Sugar Ltd and the Tongaat Hulett Group that have been able to expand beyond their country of origin. These South African multinationals have pursued investment strategies to take advantage of investment incentives and preferential access to lucrative foreign markets. This aspect is important in so far as milling firms, as monopsonistic buyers of sugarcane, act as the fulcrum of the domestic sugar value chain. Their relationships with governments, their control over investment patterns in the industry, and their market power (whether held by a single firm or a group of firms in the form of tacit coordination) can affect the pricing and supply of sugar. Importantly however, in smaller economies (such as those under consideration when compared to the developed countries) it is typical to have more concentrated industries owing to the need to achieve economies of scale (Roberts, 2010). Concerns arise where firms in this position have the incentive to abuse this market power.

Regional competition can serve as an important competitive discipline to large firms in those small economies where markets are concentrated. This is particularly the case if firms are able to expand their capabilities to be able to compete in new geographic markets either through cross-border investments or import penetration. However, this potential for cross-border rivalry can be distorted when firms divide markets or seek to adversely influence trade and investment patterns on a regional level. It is acknowledged that under these arrangements regional trade is not going to provide competitive discipline to incumbents with market power. Sovereign competition authorities do not have the jurisdiction to deal with prohibited practices that originate in one country but have anticompetitive effects on other countries in the region. This was the case for example in the concrete pipes cartel in southern Africa. The concurrent ACF studies in commercial poultry and cement also address this issue. Fox (2012) argues that it is therefore important for competition authorities and developmental policy-makers to consider and share knowledge about firm behaviour at a regional level, which is a primary purpose of this study.

Intra-regional competition is also influenced by the prevailing trade regime in each country and the region as a whole, including through Regional Economic Communities in particular. Regional integration, intra-African trade and cooperation are a critical aspect of the efforts towards achieving economic transformation and sustainable economic development in Africa (UNECA, 2013a). A recent publication of the United Nations Economic Commission for Africa highlights the importance of harmonizing trade policy frameworks across the continent through Regional Economic Communities in particular, especially if a common market is to be established within the next decade (UNECA, 2013b). The promotion of intra-regional competitiveness and trade is central to this task. Through removing trade barriers that may inhibit foreign firms from competing in African national markets, trade liberalisation can enhance competition (Du Plessis and Mabuza, 2005). This also applies to the ability of African firms to grow and compete within the region itself. While trade liberalisation increases the contestability of markets and sets the context for a country's long run and sustainable growth, competition law and policy provides a complementary platform through which domestic market reform can be carried out as it promotes market access, economic efficiency, and consumer welfare. Competition policy can unlock markets to new entrants even where there are high levels of state intervention (Roberts, 2010) (other than simply providing regulatory oversight) as in the sugar industry. Recent literature establishes this important link between growth and development and removing constraints to accessing economic activity, and disciplining the market power of large firms (see North et al., 2009, and Acemoglu and Robinson, 2012).

The Spence Report (2008) notes that it is not only economic growth that matters, but rather *inclusive* economic growth. One of the building blocks towards an inclusive economy is building up the capacity of local firms by putting in place incentives that encourage competitive rivalry and effort and innovation. As these firms expand domestically they gain the know-how and scale to compete for adjacent markets in the region. Competition law fosters inclusive growth by breaking down barriers to entry arising from the abuse of market power in monopolised markets or markets with high levels of collusion amongst competitors. In both instances, the literature shows that there are significant losses in consumer welfare when barriers to entry and expansion are high. Anti-competitive behaviour by dominant firms and in cartelised markets can prevent growth and development by preventing new enterprises and more efficient competitors from entry and expansion in domestic markets. This ultimately affects consumers by denying them the benefits of dynamic competition on price, quality and choice. This is important in the context of the present study which considers a market where there is market power vested in one milling firm, another where there is effectively a government-sanctioned coordination amongst a handful of competitors, and others where the market structure should *ceteris paribus* result in more competitive outcomes but does not. In some of these cases, the study finds that regulatory barriers to trade and protectionism stifle the possibility for imports to compete away unduly high profits.

The study considers the important effect that market structure has on competitive outcomes in each domestic market and how these dynamics influence the levels of competition within the region. Where markets are highly concentrated, and there are firms with significant market power, it is increasingly likely that there could be adverse effects on competition as we see in some of the countries considered in this study. Furthermore, some of the outcomes observed in the focus

countries contradict what the basic economic theories suggest. For instance, in Kenya there are a large number of sugar producers which we would expect to drive pricing downwards absent any evidence of coordinated conduct. However, we see that pricing remains high due primarily to inefficient production, strong protections against imports, unreliable and insufficient sugarcane supply, and structural constraints to growth in productivity. In Zambia pricing is relatively high, without the expected entry of new rivals or imports to compete away the higher margins of the dominant producer. This situation is exacerbated by technical and non-tariff barriers to entry.

The sugar industries in each of the focus countries (Kenya, South Africa, Tanzania and Zambia) are well-established. Based on data from 2012, these countries produce 0.57 million, 1.88 million, 0.26 million, and 0.4 million tons of sugar per year, respectively. The top ten major sugarcane producers in Africa for 2012 (in descending order) are South Africa, Egypt, Sudan, Kenya, Swaziland, Mauritius, Zambia, Zimbabwe and Mozambique, with Tanzania lying twelfth in the ranking (FAO).⁶

The study has sought to address the following analytical questions in order to distinguish between the normative outcomes that we would expect to find in the region, and the observable outcomes which in some cases do not make economic sense from a competition policy perspective.

1. Why has there been limited trade in sugar products within the region whereas it would seem that there are several opportunities which exist for low-cost, surplus producers to export more of their output into countries which are net-importers within the region?
2. To what extent have regulatory and other more tacit barriers to entry and expansion affected the (low observed) domestic productivity of milling companies within each country, and the poor competitiveness of several of these firms within the region as a whole?
3. Have the observed competitive outcomes in the region come as a result of the strategic behaviour of large multinational milling companies within the region?

In addressing these questions, the study compares and contrasts the dynamics of competition in each focus country on the basis that different factors, such as regulation or market structure, have influenced the outcomes in each country differently.

In the sections to follow, Section 2 considers the sugar value chain and market structures in the focus countries; Section 3 considers pricing and trade data; Section 4 discusses regional competition concerns; and then we provide brief conclusions.

2.0 Sugar value chain and market structure⁷

Cane production is the first stage in the sugar value chain and it has strong bearings on costs and the availability of sugar in subsequent stages in the sugar value chain. Sugar is produced in a sugarcane mill when cane juice is extracted from sugarcane through the cane crushing process to produce raw sugar (which at this stage is not fit for human consumption). Following this,

⁶ FAO Statistics Division (FAOSTAT). Available online: <http://faostat.fao.org/site/339/default.aspx> [Site accessed: February 2014].

⁷ For detailed discussion please see ACF Working Paper (2014) titled 'Competition and regional trade flows in the sugar sector: the case of Kenya, South Africa, Tanzania and Zambia'.

impurities (and most of the molasses) and foreign particles are removed and the remaining juice is then crystallised into granular brown sugar, which is further refined to produce refined (white) sugar. Generally, brown and white sugars are used by both household consumers (direct consumption) and manufacturers such as those in the baking, confectionary, beverage and food processing industries (industrial consumption). The study focuses on the market for refined (white) and brown sugar (and also makes reference to raw sugar) which are the most widely produced and traded.⁸

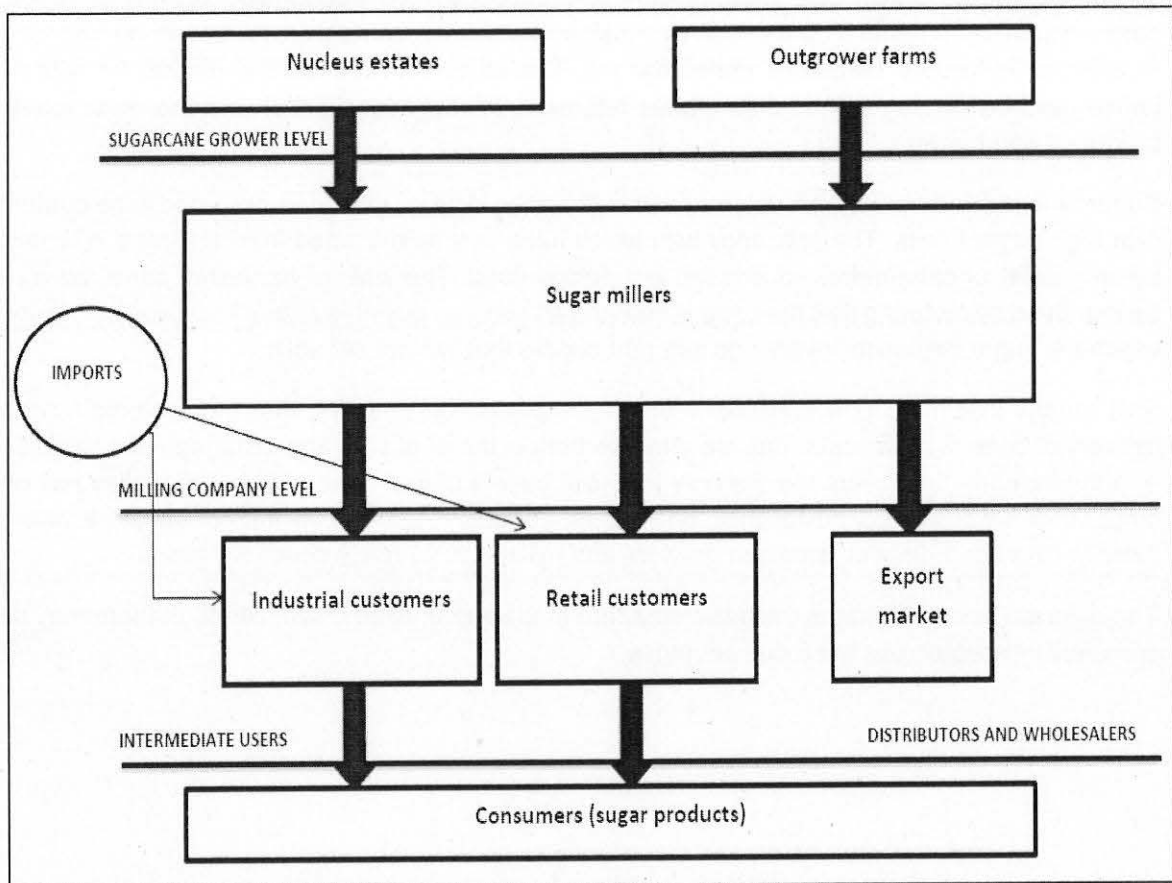
Sugarcane is a low value, high volume, and bulky crop. High quality cane has good juice content with high sugar levels. The efficiency with which juice can be extracted from the cane is limited by the quality of cane delivered and the technology used. The yield of harvested cane can also be improved by ensuring that the cane is crushed as soon as possible after it has been cut, failing which the sugar begins to 'invert' into different sugars that will not set solid.

This means that there is a substantial emphasis placed on ensuring that the systems for the delivery of cane to a particular mill are effective both in terms of time and distance. This, coupled with the fact that the millers are the only potential buyers of that cane and that they also rely on large volumes of sugarcane for their operations, generally results in a market structure where there is direct coordination between growers and millers on mutually beneficial terms.

The diagram below illustrates the basic structure of the sugar value chain, although there may be some differences across the focus countries.

⁸ White sugar can be refined further to produce speciality sugars like icing sugar, castor sugar, invert sugar, treacle sugar, liquid sugar and caramel. For the purpose of this study we do not focus on the markets for speciality sugars and animal feeds and by-products (such as molasses and fibre).

Figure 1: Sugar industry value chain



Source: Researchers' compilation

The figure shows that at the upstream level there can be two types of growers being the nucleus (or miller-cum-planter) estates, and out-growers. A nucleus estate is where the miller farms their own land and produces their own sugarcane whereas out-growers are independent farmers that produce sugarcane and sell it to millers. The ratio of out-growers to nucleus farming is an important factor which influences the entire value chain for sugar production. For instance, in a market where there is a high proportion of out-growers, there may be greater risks for the millers in terms ensuring a steady supply of sugarcane, especially where there are many small farmers. This is because out-growers are sometimes mis-coordinated and they make independent decisions about where to deliver their cane, what farming practices to follow, and whether to invest further in their farms.

When millers farm on their own estates, they are able to control and secure the supply of sugarcane to their mills, which is an important competitive advantage for a miller. Productivity

differences between millers and out-growers can be attributed to differences in the level of adoption of improved farming practices.

The proportion of sugarcane supply from out-growers varies quite substantially across the focus countries. In Kenya out-growers provide approximately 92% of the crushed cane which is similar to South Africa where out-growers contribute approximately 93%. In Tanzania out-growers provide approximately 78% of cane. In Zambia the picture is quite different with only 40% of supply being contributed by out-growers.⁹

Following from this, the comparative yields per hectare under cane (tons of cane produced per hectare farmed) in each focus country are as follows: In Tanzania the average is 30-60 tons/ha (TASGA, 2013); in South Africa this was estimated to be 42.46t/ha for 2011/12¹⁰; 63.4t/ha in Kenya for 2011; and in Zambia it was estimated to be 106.25t/ha in 2012. Zambia is therefore far more productive in terms of sugarcane farming than the other focus countries.

2.1 Market structure: vertical agreements between growers and millers

Kenya, South Africa and Tanzania have similar vertical arrangements in terms of cane supply agreements between growers and millers governed by the relevant Sugar Act in each country. These contracts are typically negotiated between individual millers and growers. Of the three sugar millers in Zambia, only Zambia Sugar Plc has established vertical relationships governed by exclusive contractual arrangements with growers in its supply chain, although cane is mostly supplied through nucleus estates. In each country, the sugarcane price is based largely on Estimated Recoverable Crystals (ERC) (or recoverable value) of cane delivered by a grower for crushing (a measure of cane quality), and shared proceeds from the sale of sugar.

Generally, growers will enter into supply agreements with millers for the certainty that their cane will be processed, but in some instances it is also because the miller would offer some form of financial, technical or developmental assistance to the grower in exchange for a cane supply agreement. These agreements can range from having a duration of one season to 50 years, with effective exclusivity.

The expectation is that these cane supply agreements would be most prevalent in the countries where cane is mostly supplied by out-growers. Surprisingly the arrangements in Tanzania are fairly similar to those in South Africa whereby cane supply agreements govern the relationship between growers and millers, and there is an industry-wide arrangement in terms of the sharing of proceeds between growers and millers. The latter is to counteract the fact that growers often do not have a choice in terms where they can feasibly deliver their sugarcane (they will tend to deliver to their nearest mill to minimise transport costs over distances of up to approximately 100km) and as such the sharing of proceeds ensures that growers receive good value for their produce. In Tanzania, the division of proceeds agreement in the industry stipulates that proceeds from sugar production and sales are divided between growers in a ratio of 60:40 (although

⁹ The percentage for Zambia is an approximation based on the hectares of land under cane in the hands of out-growers versus nucleus estates and not based on the source of sugarcane crushed at mills.

¹⁰ SASA Sugar Industry Directory 2011/2012, taking hectares under cane and not hectares harvested for milling. Using hectares harvested for milling results in an estimate of 59.08 in 2010/11 and 62.06 in 2011/12.

currently only one miller applies this method); in South Africa this ratio is about 63:37 in favour of growers; and in Zambia it is currently 59:41 in favour of growers. In Tanzania this ratio has never been achieved and it currently stands at around 53% - 56.5% for growers, rather than 60% (SBT, 2013).

In terms of competition amongst millers for access to sugarcane, the transportation of cane is critical because if transport costs are too high for the growers relative to their other costs and the proceeds for their delivered cane, their business will be rendered uneconomical, which will reduce cane supply to millers. Transport costs account for approximately 12% (South Africa), 29% (Zambia) and 23% (Tanzania) of the costs of growers in the focus countries. In the case of Kenya, the transportation of cane is arranged by the millers themselves and that cost is then passed on to the grower in the form of deductions in the mill payments to growers.

Generally, the study has found that the most significant components of growers' costs are fertilisers, transportation and labour costs.¹¹

Vertical cane supply arrangements and transportation costs affect the regional market in that inefficiencies at the grower level of the market reduce the supply of cane to local millers. In Kenya for instance, difficulties experienced at this level have reduced the ability of millers to operate at optimal levels meaning that the Kenyan market is severely undersupplied by domestic millers.¹² These difficulties have arisen because of several reasons including poor payment of farmers (for instance, new mills tend to pay weekly while older mills pay monthly and sometimes delay payment) and low absorption of new farming technologies.

Whether the cane is transported to the mill by the actual grower, or if the miller makes arrangements (directly or via haulage companies) to collect the cane from the farm, mis-coordination and independent decision-making by growers can result in erratic cane supply for the miller. In Tanzania, reduced cane supply to millers and the resultant decline in production have arisen at the Mtibwa Sugar Estate because of strained relationships between growers and millers to the extent that some growers have decided to switch from sugarcane production to other agricultural produce, with out-growers complaining about the low prices paid by millers and the delayed payment of proceeds. This situation is exacerbated by unpredictable weather conditions and the fact that the low sugarcane prices mean that farmers invest less in fertilizer and herbicides which are already very expensive (SBT, 2013). It is worth noting that both Tanzania and Kenya are net-importers of sugar products which may be a direct result of the kind of difficulties outlined above.

¹¹ For detailed discussion please see ACF Working Paper.

¹² A shortage of sugarcane to millers is expected to result in more aggressive competition between millers for the cane that is available resulting in welfare gains for growers. However, it is worth noting that the ability of growers to play millers off against one another can be restricted by geographic location where there might only be a few, if any, millers in an area that lie within an economically feasible distance away from the grower's location. Despite this, Kenyan millers have experienced a distinct shortage of cane which has resulted in underutilized capacity and a price war as millers look to attract growers to deliver cane to their mills. This has increased operating costs at these mills. Furthermore, even though growers are receiving higher prices for their cane as a result, they seem to still operate in a high cost environment due to poor use of new farming technologies and poor payment practices by older mills.

2.2 Market structure: production and consumption

The next important level of the sugar value chain is the milling company level. The volumes of sugar produced by each focus country affect the extent of regional trade in sugar products that can be expected. Countries that enjoy a surplus in sugar production should, *ceteris paribus*, be exporting these additional volumes, and some of those exports should filter into net-importing countries in the region. Table 1 below shows the sugar production volumes (in tons) for each country, as well as a ratio of these production volumes versus the domestic consumption of sugar.

Table 1: Domestic consumption and domestic production of sugar, 2005-2012

YEAR	Kenya		South Africa		Tanzania		Zambia	
	Volume (tons)	Volume/ Domestic consumption	Volume (tons)	Volume/ Domestic consumption	Volume (tons)	Volume/ Domestic consumption	Volume (tons)	Volume/ Domestic consumption
2005	488997	0.70	2226869	1.76	229617	0.70	248222	2.01
2006	475670	0.66	2500504	1.88	263317	0.77	263451	2.43
2007	520404	0.70	2226853	1.65	192095	0.52	266347	2.23
2008	517667	0.69	2273499	1.67	265434	0.69	261713	1.84
2009	548207	0.72	2260244	1.58	279850	0.71	219444	1.53
2010	523652	0.68	2178450	1.45	263461	0.66	333304	2.27
2011	490210	0.63	1909236	1.23	304135	0.89	407326	2.48
2012	578615	0.72	1822488	1.08	262879	0.60	398694	2.35

Source: Researchers' compilation from country data

From the table above only South Africa and Zambia have historically produced more than what has been required for domestic consumption, noting that the South African domestic market includes the SACU countries. Zambia stands out in this regard as it produces, on average, more than double of what is consumed within that country. On the other hand, Kenya and Tanzania have substantial shortfalls. We would therefore expect that countries such as Kenya and Tanzania would import more of their sugar demand from countries such as South Africa and Zambia – we consider the data on trade in the following chapter.

Some of the differences in the milling output in each country can be explained by differences in the overall efficiency and productivity of millers. A useful measure for comparing the actual productivity of millers is to assess the ratio of tons of cane crushed to tons of sugar produced. This ratio also captures the efficiency of millers in each country in terms of the amount of sugar they are able to extract from delivered cane, although the latter is also a function of the quality of cane delivered. The ratio of the tons of cane crushed to the tons of sugar produced for 2011 for

each country was as follows: Kenya 10.74 (KSB, 2011), South Africa 8.35; Tanzania 9.93; and Zambia 8.10¹³.¹⁴ It is expected that countries that have millers which are relatively more productive will have a lower ratio as they are able to convert more of the cane they receive into sugar. Of course this ratio can be affected by the amount and quality of cane received by the miller.

The productivity in Kenya has been declining for several years apparently due to ageing machinery, low reinvestment in new technologies, frequent mill breakdowns, and poor maintenance programmes particularly at older mills. It is however unclear as to why this has been allowed to happen although it is worth noting that newer mills have started to make significant investments in new technologies, trucks, machinery, and weighbridges that are close to the farms. On the other hand, the ratio in Zambia has been improving in recent years due to substantial investments in new technologies by Zambia Sugar.

2.3 Market structure: concentration and barriers to entry

The level of market concentration in each of the focus countries also influences the relative competitiveness of each sugar industry. The table below outlines the market shares of firms within each country.

¹³ Estimates for South Africa, Tanzania and Zambia are based on authors' calculation from available data on total cane crushed and sugar produced.

¹⁴ In a country such as Kenya the averages are misleading because there are a number of older and newer millers with different levels of efficiency. It is likely that the newer entrants would have more efficient processes although this can be counteracted by poor or unreliable cane supply.

Table 2: Market shares of milling companies¹⁵

Country	Milling company	Market share (%)
Kenya	Mumias Sugar	38.4
	South Nyanza	14.7
	Nzoia	12.4
	West Kenya	12.1
	Butali	7.2
	Kibos	5.4
	Muhoroni	5.1
	Chememil	4.4
	Soin	0.3
	Transmara	0.1
	Sukari	0.0
Kwale	0.0	
South Africa	Illovo Sugar Ltd	30.3
	TSB	28.5
	Tongaat Hulett	24.8
	Gledhow	6.1
	Umfolozi Sugar	5.6
	UCL Company	4.6
Tanzania	Kilombero	44.6
	Tanganyika (TPC)	25.6
	Mtibwa	14.2
	Kagera	13.1
	Manyara	2.5
Zambia	Zambia Sugar Plc	94.0
	Kafue Sugar	0.2
	Kalungwishi	5.8

Source: Researchers' compilation from data obtained from various sources

The Zambian sugar industry is the most concentrated amongst the focus countries with only 3 milling companies (including one dominant player) whereas the Kenyan industry comprises of 11 milling firms. The South African and Tanzanian industries are oligopolistic in nature with 6 and 5 players, respectively.

While the levels of concentration in the South African market are not high compared to Zambia, there seems to be very little competition for a share of the market amongst the operators in the

¹⁵ Market shares only account for the shares held by local producers in the domestic market and not those of imports. Data for Kenya is for 2011. For detailed information on the ownership structures of mills, please see ACF Working Paper.

South African market which is likely to be a function of the regulatory environment. Indeed, over the last decade there has been no greenfield entry into the South African market at the milling level, and market shares have remained very stable over this period.

Additionally, it is normally expected that the incentives to invest in technology and capacity are likely to be lower in a market where there is a dominant milling company such as in Zambia. However, contrary to this we have found that Zambia has seen substantial investments in capacity and technology in recent years, whilst the largest milling company in South Africa (Illovo) has had to intermittently close down one of their mills and divert cane to another mill. However, it could also be that the high level of investment in Zambia is due to the fact that Zambia Sugar has had to try to establish itself within that market, whereas the South African market is considered to be a mature market in which a vast majority of prime land for sugarcane cultivation has been utilised, and in which there has been severe drought conditions and uncertainty relating to the land claims process in recent years. Interestingly, both of these markets have not experienced the entry of new competitors for several years, whereas the situation has been quite different in Kenya and Tanzania where barriers to entry seems to be substantial but not prohibitive.

Barriers to entry and/or expansion at the milling level of the sugar industry are widely known to be high although several of the large firms have been able to grow within the region. Some of the commonly identified barriers to entry include¹⁶:

- High capital and maintenance costs for establishing a new mill.
- Sugar milling is a high fixed cost business requiring substantial economies of scale in cane crushed to break-even.
- The regulatory environment in each country, including tariff and non-tariff barriers to entry, can serve to deter entry to this level of the market.
- Existing relationships of patronage between governments and large milling companies serve to align the incentives of government and millers such that new entrants would find it difficult to compete with incumbents and obtain the same benefits.
- Shortages of sugarcane supply seem to affect the milling operations in several of the focus countries.

Despite the extent of these barriers, we continue to find several instances of new entry and expansion in the regional sugar industry by the large established multinationals, namely, Illovo and Tongaat Hulett. It is only in Kenya and Tanzania where we observe entry by even smaller, private operations.

Briefly, Illovo has production capacity in Tanzania and Zambia, as well as Malawi, Mozambique and Swaziland.¹⁷ Tongaat Hulett's presence in the region is limited to South Africa's immediate

¹⁶ For detailed discussion please see ACF Working Paper.

¹⁷ Illovo owns 90% of Maragra Acucar SA in Mozambique; 76% of Illovo Sugar (Malawi) Limited in Malawi where it enjoys a dominant position; and 60% of Ubombo Sugar Limited in Swaziland. For detailed discussion please see ACF Working Paper.

neighbours – the firm has packing and distribution operations in Botswana and Namibia, as well as milling capacity in Mozambique (2 mills), Swaziland and Zimbabwe (2 mills).

A large majority of sugar produced globally is consumed within the country of origin behind protective barriers, and export markets occur only under agreements (Tongaat Hulett, 2010). Thus by diversifying production within sugar deficit African countries, firms like Illovo and Tongaat Hulett enjoy the protection and incentives afforded to domestic producers in each country, and this can be used as a strategic benefit to maximize profits which compensate the firms for the costs of overcoming initial barriers to entry.

2.3.1 Kenya

With the exception of Mumias, West Kenya, Kibos, Sukari, Transmara, Butali, and Soin, all other sugar milling companies in Kenya are majority state-owned following a strategy by the Kenyan government to increase socio-economic activity in the rural areas (KSB, 2009:30). Mumias has shown better productive performance after privatisation relative to the state-owned mills, and it is now a strategy of the Kenyan government to privatise further.

Kenya's local sugar production does not meet local demand. The shortage of sugarcane has had dramatic effects on some of the milling companies. For instance, capacity utilisation at Mumias which has the largest installed crushing capacity in Kenya, has dropped from 98% in the period up to 2010 to 83% in 2011 and to 55% in 2012. Sugar output from this factory has declined while factory overheads have increased. Mumias has historically been the producer with the lowest cost-base due to their use of diffuser technology to extract sugar. Interestingly, West Kenya which is one of the private millers with a strong market position in Kenya is expanding its investments to Uganda and Tanzania.

Kenya features several small millers and additional licenses have recently been issued to new millers which may be because prices of sugar are very high, making the market very attractive to entrant millers. Three new millers have entered the market in the past five years. The concern with this nature of entry is whether the industry in Kenya is being driven towards overcapacity and whether the new entrants will be able to establish the scale of operations that is required to affect pricing and allow for expansion of production output. Most of the existing factories already operate below capacity due to several factors that range from cane shortage to machine breakdown. Overall, production efficiency in the Kenyan sugar industry has been declining due to aging machinery that is not regularly maintained.

Cane shortages and excess capacity suggest that the real competition between millers in Kenya occurs in terms of attracting cane and prices are high because of underutilised capacity and thus rising production costs. The problem of excess capacity is exacerbated by technical and management constraints that further limit the domestic production of sugar, and deny the factories the benefits of economies of scale. Information received further suggests that the millers have also had to offer higher prices to growers for sugarcane such that the prices for sugar in the market are also likely to be inflated as a result.

Finally, Kenya's sugar shortage is usually met by imports. However, in 2011 government delays in facilitating imports pertaining to the COMESA quota exacerbated the upward pricing effects in

this market (COMESA, 2012). Furthermore, the multiplicity of domestic and trade regulations, the subsequent amendment of these regulations, the poor linkages between different legislation, and the subjective vetting of import permit applicants may be constraining the administration of sugar imports and the efficiency of the domestic market. Collectively, these are non-tariff barriers which constrain regional trade in sugar.

2.3.2 South Africa

The table above shows that the three major milling firms together control a majority of the South African market. Illovo controls just more than 30% of the market and also holds a substantial shareholding in one of the other 'independent' mills, Gledhow. The market shares of sugar companies in South Africa have remained relatively stable over the past decade despite the adverse weather conditions, including drought, of recent years.

The competition authorities have argued before that the regulatory environment in the South African sugar industry has precipitated a market which is not highly competitive at the milling level. Cane supply agreements are able to protect millers from direct competition for cane; and domestic market entitlements and compensation mechanisms mean that millers do not really have to compete with each other for a larger share of the market either. This potentially explains the stability of market shares over time.

Briefly, the South African Sugar Association (SASA) is mandated by the Sugar Act to maintain a network of provisions designed to 'protect' the domestic industry. First, SASA estimates the amount of sugar that will be required by the local market based on consumer demand and then through the single export desk SASA ensures that surplus sugar is removed from the market to prevent excess supply and 'destructive' domestic market competition from driving prices down to export parity. Second, domestic market entitlements are allocated to each miller based on the volume of saleable sugar produced in the previous season.

Third, a flexible market share system allows firms to sell more sugar in the domestic market than their pro-rata share of total production (i.e. their entitlement) and in turn compensates those firms who would have had to 'divert' their share to the lower priced export market. When a firm has 'oversold' in the domestic market, it must pay over to SASA an amount that is calculated as the volume of the sugar oversold in the domestic market multiplied by the weighted average of the notional price (discussed below) less a manufacturing allowance and export realisation. This amount is redistributed to domestically 'underselling' firms as compensation on a quarterly basis.

Finally, with input from both producers and growers, SASA determines a notional price for sugar which serves as a reference price for the determination of the proceeds sharing between sugar producers and growers. It is important to point out that this notional price is not equivalent to the selling price nor is it a maximum price for sugar in the domestic market since producers are free to price above this level. According to SASA, the decision to sell sugar at a price which is above or below the local notional price rests solely with the individual milling companies.

It could be argued that because the entitlements of each miller to the domestic market are based on their contribution to total industry production (and not sales) in the first place, millers could compete on that basis for a larger share of the market. This form of competition might take the

form of increased levels of investment in capacity and efficiency-enhancing technologies. Unfortunately, the geographical constraints that exist in terms of sourcing sugarcane from long distances within South Africa make it unlikely that this level of competition takes place because it may not actually be economically feasible to compete for cane supply which is located very far from the mill. Coupled with the compensation mechanism, any likelihood of real competition between millers is diminished, at least in terms of volumes of cane sourced and crushed.

In terms of actual sugar sales, it is more beneficial for a miller to sell into the domestic market than to export, which at least increases the likelihood that millers may compete on the basis of the prices and discounts that they offer to domestic retail and industrial customers.

2.3.3 Tanzania

Tanzania's sugar demand exceeds the sugar currently supplied domestically. Tanzania currently has five sugar milling companies in operation of which two are partly state-owned, i.e. Kilombero Sugar and TPC. These two firms also have the largest share of the market and together they own more than 60% of the market. The share currently held by government in each of these mills is 25%. Illovo from South Africa holds 75% of Kilombero Sugar, and Sukari Investments from Mauritius holds 75% of TPC. The other two established firms in the industry, Mtibwa and Kagera, are now co-owned by the same two individuals. The fifth firm in the market is a new entrant, Manyara Sugar Company.

Presently, a number of the challenges arising in the sugar industry in Tanzania relate to concentration at both the miller and distribution level of the market. On the latter, TPC which has one plant in the North-Eastern part of the country distributes sugar through contracted agents where a written contract restricts agents from trading competing brands and requires the agent to sell at a specified location. Adherence to these requirements is closely monitored and TPC is easily able to control supply and the market price. Kilombero distributes their sugar through a marketing company called Kilombero Sugar Distributor Company (KSDC) that handles all of their marketing activities. Over 80% of the sugar marketed by KSDC is sold to two private dealers and to a large extent these dealers determine the amount and therefore the market price for large proportions of the country. The remaining sugar is sold directly to big wholesalers. The prices offered to the big wholesalers for buying from KSDC are higher than the price offered to the two main dealers. There is therefore a great deal of market power vested in these two dealers at the distribution level compared to a country like South Africa where there are several different routes to market.

Tanzania has been the benefactor of substantial capital investments in recent times. According to the association of millers, investments totalling \$500 million have increased the total milling capacity from 98 000 tons before privatisation in 1998 to over 300 000 tons in the current year. Investments by millers have focused on ensuring sugarcane supply and improving the current efficiency of existing milling operations such as methods to ensure sustainable mill electrification and worker employment conditions. Further to these investments, in April 2013 the Sugar Board of Tanzania outlined 9 sugar production projects whose implementation will see the country tripling its annual sugar production from the current estimate of 300 000 tons to 910 000 tons in 2016 which would make the country a net-exporter of sugar. This plan includes providing tax and

other investment incentives in order to attract foreign direct investment (TIC, 2010). Interestingly, some of these tax incentives are very similar to those which Zambia Sugar (Illovo) has recently been accused of misusing in Zambia as described in Lewis (2013).

2.3.4 Zambia

National capacity has almost doubled to 482 600 tons in the last decade resulting in the doubling of national output from around 200 000 tons per year in 2002 to about 400 000 tons. The doubling of production can be attributed to expansion led by Zambia Sugar. In 2006 Zambia Sugar embarked on a massive expansion of estates and plant capacity which saw the company's installed capacity increase to 450 000 tons per year. A favourable economic environment domestically has resulted in high sugar demand both by industrial and direct users.

Zambian legislation requires all sugar meant for direct consumption in the domestic market to be fortified with Vitamin A in specific quantities.¹⁸ The legislation, which came into effect in 2000, was motivated by the need to enhance Vitamin A availability to Zambians which was an initiative of the government through the Ministry of Health and USAID Micronutrient Programme. Zambia Sugar has embraced fortification, which has also served to control the influx of cheap imported sugar to the Zambian market at a time when Zambia Sugar had started feeling pressure from legal and illegal imports of sugar from Malawi and Zimbabwe in amounts estimated to have reached 25% of Zambia's domestic market (Serlemistos & Fusco, 2010). The USAID Micronutrient Program, however, observed that the legislation had the potential to entrench Zambia Sugar as a monopoly effectively reducing competition from imports and distorting the domestic industry (Serlemistos & Fusco, 2010).

This legislation does not generally exist in most countries and this effectively blocks potential imports from entering Zambia. In addition to the above legislation, there are administrative barriers to sugar imports including high tariff rates on imported sugar from outside the trading blocs where the country is a member. These rates surpass the rate commonly applied to most finished products (WTO, 2007). Potential importers are also required to obtain import permits from the government but the process is not transparent and is often delayed. In addition, imports have to be cleared by three ministries (Ministry of Agriculture and Livestock, Ministry of Health and Ministry of Commerce, Trade and Industry). The effect of these non-tariff barriers is evident in the negligible sugar imports of both direct consumption and industrial sugars.

Within Zambia, millers therefore have the ability to price domestic sugar at the highest price with high margins, even when Zambia is a low-cost sugar producer. In 2012, Zambia Sugar raised the domestic price of sugar by 14% (Lewis, 2013) although Zambia is widely considered to be a low-cost producer (Nyberg, 2011)¹⁹.

¹⁸ We understand that in Africa, Malawi and Nigeria also fortify their sugar.

¹⁹ Nyberg, J. (2011). 'Sugar International Market Profile'; Background paper for the Competitive Commercial Agriculture in Sub-Saharan Africa (CCAA) Study. Available online: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/0,,contentMDK:21730621~menuPK:4900969~pagePK:146736~piPK:146830~theSitePK:258644,00.html> [Site accessed: February 2014].

3.0 Sugar pricing and trade

Regional trade can lead to competition within a country and in the region as firms begin to trade in different geographic markets. Regional trade itself is driven by comparative advantage and the ability of domestic producers to leverage their capacity and capabilities into producing goods for export at competitive terms of trade. In this section we consider comparisons of cross-country domestic prices, world prices and trade dynamics.

In all of the study countries the ex-factory prices for sugar are higher than the world prices. For net-importing countries like Tanzania and Kenya, it is normal to have domestic prices exceeding the world price but for net-exporting countries this potentially signifies some exercise of market power. However, in the sugar industry the world price is not necessarily a good benchmark for comparison in that it is a depressed price (although it has been increasing in recent years). In the period before 2006 when there was a 25-year spike in the world price (Nyberg, 2011), the world price for sugar was viewed as artificially low due to the subsidization of large, inefficient producers in Europe and elsewhere which distorted world prices. After 2006, the EU has progressively phased out these subsidies such that the world price has risen towards a market-based competitive level.

3.1 Comparison of domestic average prices

Ex-factory prices are the prices for a commodity at the factory. Usually wholesalers or distributors purchase sugar from the factory and their price is termed the wholesale price. The final price facing consumers that buy sugar is the retail price. Retailers usually purchase from wholesalers although some large retailers such as retail chains can purchase directly from the factory.

3.1.1 Ex-factory prices

The ex-factory prices for white sugar for the study countries are reflected in the table below.

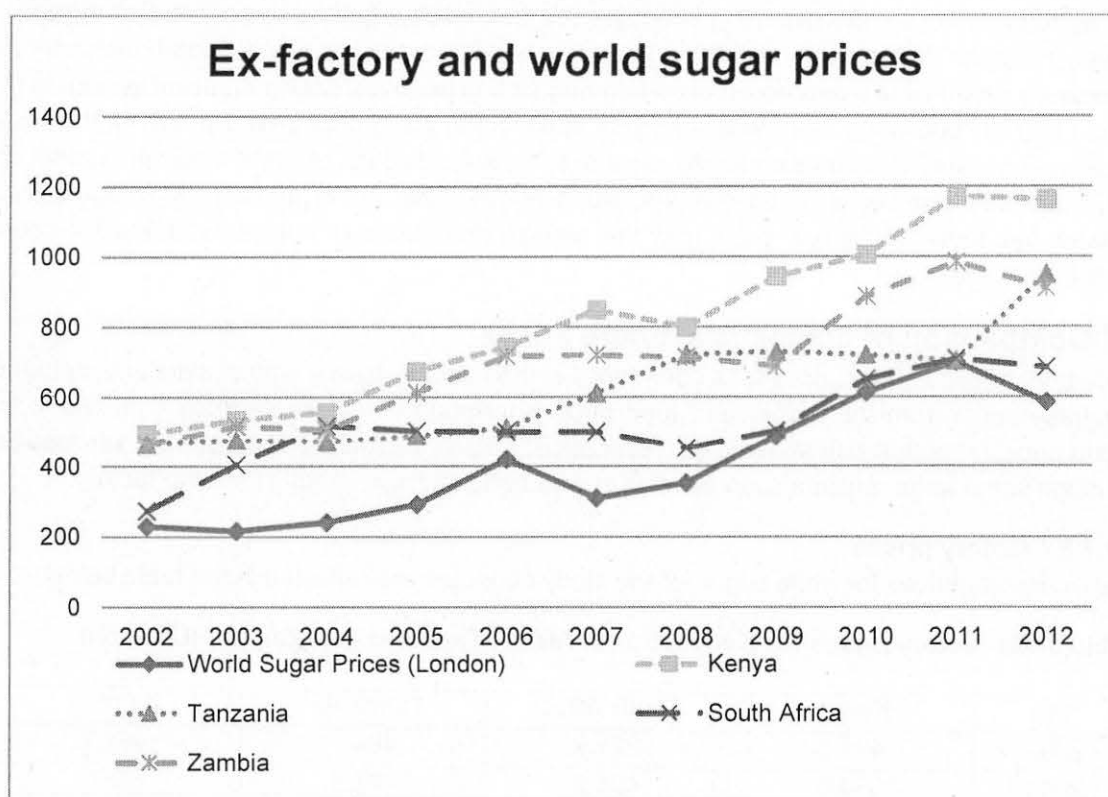
Table 3: Ex-factory prices for Kenya, South Africa, Tanzania and Zambia (US\$/ton)

Year	Kenya	South Africa	Tanzania ¹	Zambia
2002	494.5	271.9	464.1	461.7
2003	534.0	404.2	475.5	516.1
2004	556.5	516.7	471.0	505.8
2005	673.7	502.4	488.2	612.2
2006	742.6	500.2	511.7	716.5
2007	847.6	499.9	610.6	718.8
2008	798.6	451.9	719.9	712.6
2009	942.7	502.7	727.2	686.4
2010	1004.5	649.6	719.5	884.8
2011	1171.7	707.3	702.5	983.0
2012	1162.0	683.1	950	910.0

Source: Researchers' compilation from study country data

The principal determinants of the ex-factory price of sugar are the cost of raw materials such as sugarcane, processing costs, agricultural overheads and margins. The ex-factory price can be administered or it can be set by the millers themselves. In the case of Tanzania, Zambia and South Africa, the price is set by the millers while in Kenya the KSB pricing committee works out ex-factory sugar prices and makes recommendations to millers. The millers have in most instances said that the price recommendations are not usually realistic and that they are not adhered to at all. The figure below compares ex-factory prices in the focus countries with the world price for sugar for the period 2000 to 2013.

Figure 2 : Ex-factory and world sugar prices (US\$/ton)



Source: Researchers' compilation from study country data

Kenya has the highest ex-factory prices followed by Zambia while Tanzania and South Africa have relatively lower ex-factory prices. Tanzania only produces brown sugar (and imports white sugar) which is less costly to produce due to the fact that less refinement is required. Typically the difference between the prices of white and brown sugar is approximately 10% or less (based on estimates from South Africa) and so in the diagram above we can assume that Tanzanian prices could be conservatively adjusted to be about 10% higher to make them directly comparable with white sugar prices. Even with this adjustment we would observe that in recent years since 2006 the price of sugar in Tanzania is still generally lower than prices in Kenya and Zambia (to a lesser extent).

Kenya is a less efficient producer with high levels of import protection for the domestic market. In normal competitive markets we would expect that competition would erode away any excessive margins earned by millers, especially in cases such as Kenya where there has been new entry to the market. However, because of cane shortages and strong protection against cheaper imports, prices remain extremely high. Tanzania on the other hand has fewer players in the market but the prices have been able to stabilize in recent years since about 2008. This is primarily because Tanzania has managed their trade policy such that there have been increased imports of sugar to the market to bridge the deficit in domestic production. This is in contrast to the situation in Kenya. The Tanzanian government at times also intervenes in terms of allowing imports which reduces domestic prices from millers or by issuing indicative prices (price caps) which suppress domestic prices.

Tanzania is an interesting case study in terms of developmental policy which seeks to increase domestic production capacity (and by implication employment) whilst also managing the domestic price of sugar in the short- to medium-term. This is in contrast to Zambia which has increased domestic production substantially since 2006 but domestic prices have also increased substantially over the same period as shown in the figure above. In the figure, Zambian prices stabilized and declined for a short period between 2006 and 2009 and then they increase rapidly over the next three years. This decline in prices from 2006 to 2009 is likely to be because of the global decrease in world prices in that period. Although Zambia would not be fully exposed to world market prices because imports are negligible, world prices are likely to act as a benchmark for the domestic market, particularly Zambia Sugar. Following 2009 up to 2012 world market prices recovered and increased substantially and the prices in Zambia, South Africa and Kenya all increased substantially.

It is worth mentioning that ex-factory prices vary amongst different millers reflecting their different competing strategies within their respective domestic markets. For example in Zambia, the ex-factory price for Zambia Sugar was significantly higher per ton in 2012 than its competitor, Kafue Sugar.²⁰ As a dominant firm, Zambia Sugar is able to sell sugar at a significantly higher price in the domestic market while Kafue Sugar can only improve its share by 'undercutting' Zambia Sugar. This is the most likely explanation as to why Kafue, as a follower in the market, does not price at a level which is closer to that of Zambia Sugar.

Kenya is a high-cost producer of sugar and domestic prices are higher than import parity. The ex-factory price of domestic sugar has on average been over 300% of the world market price as a result of protectionism and the high costs of production. Zambia has been able to sustain prices well above the world market price as well largely as a result of market power vested in one firm, without imports to moderate the domestic price. This is facilitated, at least in part, by the fortification requirements. In South Africa there is effectively a government-sanctioned coordination. In recent years South African prices have closely tracked the world sugar price and are generally lower than those of the other focus countries. These outcomes are likely to be because although the country exports a significant amount of sugar as a net-exporter, the

²⁰ The underlying comparison of prices between these producers has been deemed confidential by the milling companies.

domestic price of sugar is moderated by the fact that there is a flow of imports (mainly from Brazil) as well. As such, the pricing and margins in the domestic market are below what one would expect to see in a typical 'cartelized' market.

3.1.2 Retail prices

Table 5 shows the retail prices in the study countries. It can be seen that Kenya's retail sugar prices are the highest, followed by South Africa, Zambia and Tanzania in that order. It can also be noted that prices in Zambia and Kenya have more than doubled over the last ten years. The two surplus sugar producers, Zambia and South Africa have relatively high prices which exceed Tanzania which is a deficit country.

Again this signifies some abnormal pricing in the domestic market whereby millers, wholesalers and retailers are probably overpricing sugar in the domestic market despite having comparative advantage and surplus production. This is possibly a function of protectionism and significant market power.

Table 4: White sugar retail prices in Kenya, Tanzania, South Africa and Zambia (US\$/Kg)

Year	Kenya	South Africa	Tanzania	Zambia
2002	0.57	-	-	0.58
2003	0.61	-	-	0.65
2004	0.65	-	-	0.77
2005	0.86	-	-	0.93
2006	0.89	-	-	1.21
2007	1.06	-	-	1.07
2008	1.00	0.93	0.97	1.36
2009	1.16	1.01	1.09	0.98
2010	1.23	1.27	1.11	1.26
2011	1.52	1.45	1.28	1.32
2012	-	1.45	1.33	1.39

Source: Researchers' compilation from study country data

Retail prices of sugar are theoretically determined by market forces of demand and supply, subject to millers recovering their average costs of production. In Kenya sugar retail prices exhibit minimal variations across the regions. This is despite the fact that sugar is bulky and it entails huge transport costs. The study has found that this is likely to be because of closely monitored arrangements between millers and wholesalers/retailers whereby when sugar is delivered, the trucks return carrying some other goods hence subsidizing the cost of transport for the millers and/or even the wholesalers and retailers. The study revealed that this may be one of the main reasons why the cost of local sugar is the same whether it is sold near the sugar belts or far away.

In 2011 in Kenya, there was a general shortage of sugar domestically which triggered an increase in sugar prices. The government could have ameliorated the situation by allowing more imports

of COMESA sugar, but it only allowed limited imports during this period. Although sugar prices have since declined, they are yet to return to 2010 levels.

In Zambia in 2008, sugar retail prices increased by more than 100% within a month. This was partly due to a slump in production due to heavy rains that were experienced in 2007, which reduced sugarcane yields in 2008. This spike in retail prices sparked a lot of debate on sugar pricing in Zambia with various stakeholders blaming millers, particularly Zambia Sugar, which they felt was abusing its market power. On the other hand, the millers accused wholesalers and distributors of forming cartels and hoarding sugar to artificially create shortages and inflate prices.

In Tanzania, retail sugar prices have been gradually increasing due to a mismatch between demand and supply. However, the measures taken by the government in consultation with industry stakeholders to allow imports at reduced tariffs have proved to be a reliable mechanism for stabilizing prices.

3.2 Comparisons of margins, production costs and profitability

In the section below we consider comparisons of estimates of factory costs and margins for millers across the study countries.

In Kenya, the major cost components of the ex-factory price at the mill are the costs of raw materials including purchasing sugarcane and agricultural overhead costs. The balance at Mumias, Nzoia and West Kenya comprises of factory direct and overhead costs, and marketing, distribution and support costs.²¹ Although the contribution of each item to the ex-factory price varies from one factory to the other depending on operational efficiency, the cost of raw materials and agricultural overheads accounts for the largest proportion in most factories considered in the study.

According to the KSB (2010) the retail price of sugar in Kenya comprises the millers' cost and mark-up (51.3% of the price), farmers' production cost and mark-up (30.3%), wholesaler cost and mark-up (6.1%), and retailer cost and mark-up (12.3%). The millers' costs are estimated to be 30.8% (50% to 70% of which is costs for purchasing cane and agricultural overheads) of the price while the mark-up for the miller is estimated to be at 20.5%.

In Tanzania millers' costs of production range from \$360/ton to \$580/ton depending on miller's efficiency - the major cost components are sugarcane, factory overheads and marketing (SBT, 2011). At each stage of the production process the associated costs are accumulated to include margins such that the current ex-factory price is \$950. Therefore, the margin accrued by the millers in Tanzania is estimated to approximately 60% and higher.

In terms of the Zambian market, a number of previous studies have made estimates of the costs of producing sugar in Zambia. In 2004 LMC International ranked Zambia as the 4th lowest cost sugar producer in the world with costs ranging between US\$160 and US\$240/ton. In 2006, LMC International found that Zambia was the 8th lowest-cost sugar producer in the world with costs ranging from US\$220 to US\$430/ton (LMC International (in Ministry of Commerce, Trade and

²¹ For detailed discussion please see ACF Working Paper.

Industry, 2010)). The most recent study by LMC International and the Overseas Development Institute (ODI) in 2012 placed Zambia in the low-cost bracket among Africa Caribbean Pacific (ACP) sugar producing countries. Based on these estimates and information submitted for this study, Zambia's production costs are likely to range between US\$400/ton and \$600/ton (LMC & ODI, 2012; Data from sugar millers).²² These estimates are broadly consistent with estimates provided by market participants. This estimate would generally include the major costs components for production but does not include the costs of distribution and capital.

In the table above we have estimated the average ex-factory price per ton of sugar in Zambia to be approximately \$910/ton for 2012 based on data from millers. This suggests that the ex-factory (operating) margins earned by millers on the basis of average factory costs and ex-factory prices in Zambia could be between 34% and 56%. This may of course be higher for individual millers with more efficient production processes.

In South African mills, indications are that cane procurement costs are also the most substantial components of the ex-factory price of sugar. These costs can constitute approximately 60-70% of the ex-factory price at some mills, followed by labour which accounts for approximately 6-10%. The balance of costs is attributable to factors such as factory overheads, fuel, maintenance and packaging. Some millers have estimated their operating margins for 2012 to be below 5% whilst the margins of other millers could be roughly estimated to be close to 20% for some categories of customers.

Unfortunately, this data is highly sensitive and as such has been difficult to obtain from millers. However, indications are that milling companies earn substantially higher profit margins in other countries compared to South Africa. In terms of operating margins and profits, it is worth noting the information regarding Zambia and South Africa above is broadly consistent with what can be gleaned from the annual reports of the multinational firms. For instance, in Illovo's 2012 Integrated Annual Report, the company notes that it has experienced a growth in their operating profits in terms of their operations throughout the continent. The firm's operating margins grew by 16% to 14.7% for the 2012 financial year (Illovo, 2012). Illovo reported that the contributions of their different operations in African countries to their operating profits were as follows: Malawi 39%, Zambia 33%, Tanzania 11%, South Africa 7%, Swaziland 6%, and Mozambique 4%. This suggests that the firm is generally able to be more profitable in Zambia and other markets in the region than in South Africa and the SACU area.

Tongaat Hulett generated approximately 29% of their operating profits from their operations in Zimbabwe for the year until March 2013.²³ For the year ended March 2012 the company's operating profits from sugar operations were generally distributed as follows: Zimbabwe 31%, Swaziland 2.5%, Mozambique 20%, and South Africa 4.6% (Tongaat Hulett, 2010). The company registered a 53.2% increase in profits from operating areas for the year ended March 2012 although this includes their starch and other operations as well (Tongaat Hulett, 2010). This

²² This estimate is based on the independent estimates of LMC International and data sourced from millers.

²³ Financial Mail. 'How Tongaat Hulett operated in Zim', news article published 11 October 2013; available online: http://www.financialmail.co.za/business/money/2013/09/05/how-Tongaat_Hulett-operates-in-zim [Site accessed: 14 October 2013].

increase in profits is mostly attributed to increased sugar production and 'higher export realisations' on sugar produced (Tongaat Hulett, 2010). This is consistent with the view that the two largest multinational firms in the regional sugar industry are increasing their profits substantially through their operations in countries outside of South Africa.

3.3 Sugar trade in the region

Sugar trade in eastern and southern Africa region is governed by national, regional and international regulations and trade agreements.²⁴ These agreements include the SADC trade Protocol, COMESA FTA, the Everything But Arms (EBA) agreement under the EU, Common Protocol for commodities in the EAC, and preferential market access under AGOA. Notably, Kenya and Tanzania as members of the EAC consider sugar to be a sensitive product whereby the sector has to be protected from import competition. This entails that restrictions are imposed on importation or imports are controlled or managed by the state.

Kenya imposes tariffs of 100% on imports outside COMESA in addition to VAT of 16% while Tanzania applies tariffs of 100% in addition to VAT at 18% (although, if there is considerable shortage, CET protocols are waived to allow imports at a lower tariff). Zambia's sugar industry appears to follow a similar structure but in this case restrictions are imposed through the Vitamin A fortification requirement as well as stringent and bureaucratic import procedures. Zambia also imposes tariffs on imports from outside the COMESA and SADC countries at about 23.8%. South Africa is a relatively open market with regard to imports but also regulates its imports although only through tariffs based on the volatile world market price and market dynamics.

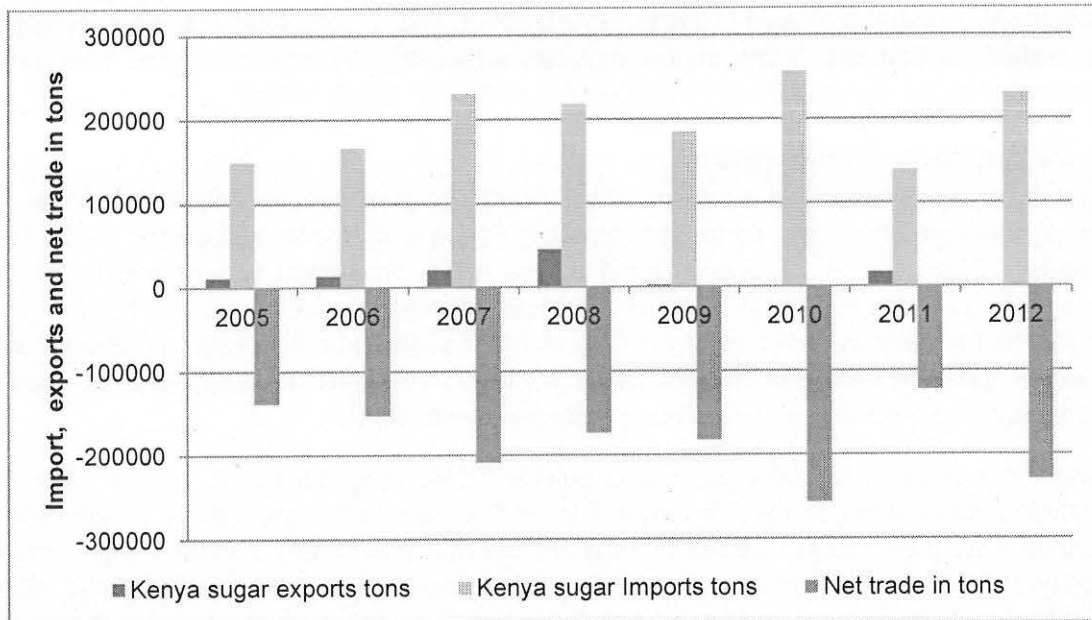
The study identifies that there is low trade in sugar within the region while there are many instances of increasing trade with countries outside the region. The following is an analysis of each focus country with respect to trade.

3.3.1 Kenya

Sugar imports to Kenya have been on the rise and currently stand at over 200 000 tons while exports have remained very low. Figure 3 below reflects trade flows to Kenya. Traditionally, Kenya imports sugar from Egypt, Saudi Arabia, South Africa, Malawi and Madagascar. The EU has been the main export destination of Kenyan sugar under ACP preferential trade access, although generally exports are marginal. Other export destinations include Sudan, Somalia and Uganda. As a deficit market, Kenya offers a large market for sugar in the region from low-cost sugar producers such as Zambia and Malawi. However, the administration of imports and the complexity of the regulatory framework make it difficult for sugar exporting countries in the region and from outside of it to access the Kenyan market which results in persistently high prices in Kenya's domestic market.

²⁴ For detailed discussion please see ACF Working Paper.

Figure 3: Kenya's exports, imports and net trade flows



Source: Researcher's compilation from country data

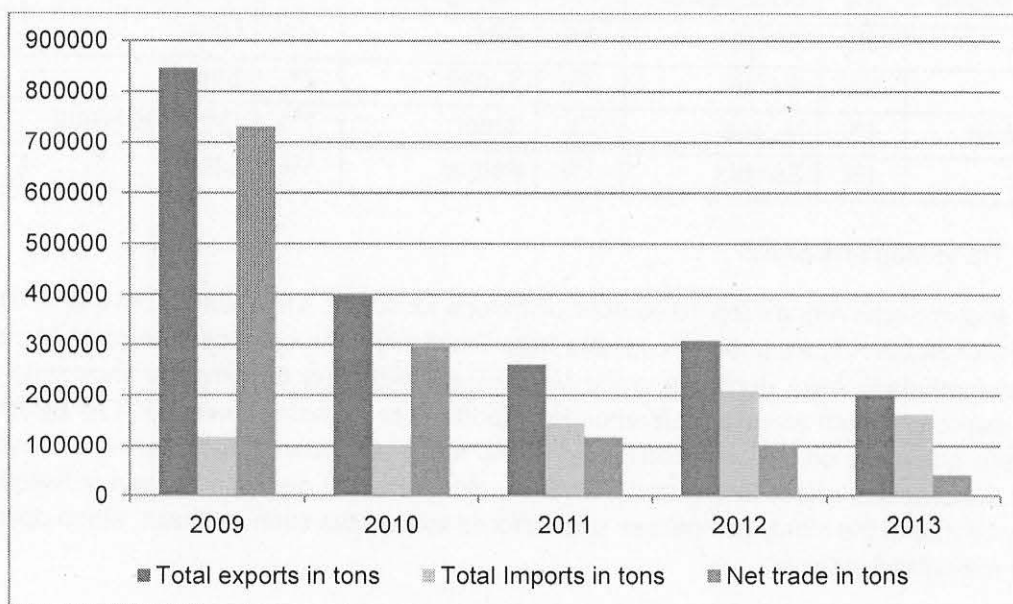
Sugar imports especially from COMESA would ordinarily level shortfalls in local sugar production, but the situation on the ground is different. Looking at 2011, Kenya imported 139 076 tons of sugar against a shortfall of 293 000 tons. The COMESA duty free quota of 340 000 tons was not exhausted ostensibly due to sugar shortage in the region. COMESA countries (FTA and non-FTA) supplied 48 896 tons of the total sugar imports during the year. The bulk of the sugar imports in 2011 came from Saudi Arabia (51 861 tons or 37.3% of total imports), Egypt (30 038 tons or 21.6%) and South Africa (24 686 tons or 17.8%) (COMESA, 2012). This is likely to have been mostly imports of industrial sugar which is reflected under a separate tariff line to ordinary refined sugar. The discrepancy between COMESA in-quota supplies is peculiar considering that trade outside the COMESA region attracts 100% MFN duty in comparison (except on industrial sugar) to the lower in-quota tariffs under the COMESA safeguards. It does seem that imports are too restricted (by tariff and non-tariff barriers such as regulatory delays which often lead to importers incurring significant demurrage charges) to meaningfully affect domestic prices. Despite the shortage of sugar in the domestic market, Kenya exported 16 716 tons in 2011. Mumias Sugar Company exported the largest consignment of 15 000 tons to the EU.

The Kenyan sugar market case demonstrates that there is low regional trade in sugar. We would expect that surplus sugar producers would have sufficiently supplied the sugar deficit in Kenya. Trade diversion may be as a result of trade barriers, including the high levels of bureaucracy associated with import administration in addition to the import quotas imposed by Kenya. With the existing trade agreements such as the COMESA FTA, it is expected that Kenya should trade more within the region and that the increased imports of cheaper sugar, if allowed, would reduce prices in the domestic market.

3.3.2 South Africa

South Africa is a net exporter of sugar and exports both to the region and to the rest of the world. The figure below shows South Africa's exports, imports and net trade flows. South Africa's total exports have been on a downward trend with exports falling significantly from over 800 000 tons in 2009 to 300 000 tons in 2012. On the other hand, imports have been on the rise from about 100 000 tons in 2009 to 200 000 tons by 2012. This trend is largely because of interruptions in sugarcane supply, including a drought, in recent years.

Figure 4: South Africa's exports, imports and net trade flows



Source: Researcher's compilation from country data

Table 5 shows South Africa's export destinations as a percentage of total exports. South Africa trades within the region and with overseas markets. Regional markets mainly include, but are not limited to, Mozambique, Zimbabwe, Madagascar, Angola, Tanzania, and DRC. South Africa's export markets internationally include amongst others Japan, Indonesia, Bangladesh, USA and South Korea. With the decline in exports, South Africa has shifted its attention from supplying overseas markets to regional markets. This can be observed from 2012 exports where Mozambique and Zimbabwe are South Africa's top two export markets together making up 28%, while Angola and Madagascar are also important markets together accounting for 19% of South Africa's exports. This was not the case 3 years prior when most of South Africa's exports were directed to overseas markets.

Table 5: South Africa's top 10 export markets for sugar

2009		2010		2011		2012	
Indonesia	29%	Japan	35%	Japan	24%	Mozambique	20%
Japan	21%	Zimbabwe	17%	Mozambique	20%	Zimbabwe	18%
Mozambique	9%	Mozambique	17%	Angola	19%	Indonesia	12%
Bangladesh	8%	Angola	9%	USA	11%	Angola	10%
USA	7%	Tanzania	6%	Zimbabwe	10%	Japan	10%
Rep of Korea	6%	Madagascar	4%	Madagascar	7%	Madagascar	9%
Iran	5%	Kenya	3%	DRC	4%	USA	8%
India	5%	Sudan	3%	Sudan	2%	Sudan	2%
Zimbabwe	4%	Nigeria	2%	Israel	1%	Comoros Island	1%
Russia	4%	Zambia	1%	Kenya	1%	Other	1%

Source: Trade Map and SARS

Table 6 shows South Africa's top 10 sources of imports for sugar. It is evident from this table that over 90% of South Africa's imports originate from Brazil while the balance of imports is met by overseas markets in Asia, Europe and the Middle East (with very few imports originating from African markets). South Africa's preference for imports from distant markets such as Brazil and Asia raises questions on the competitiveness of the region considering that there are a number of trade concessions under SADC and COMESA. Some market participants have advised that this may be due to the highly competitive price offered by sources such as Brazil, which operates a highly subsidised industry.

Table 6: South Africa's top 10 sources of imports for sugar

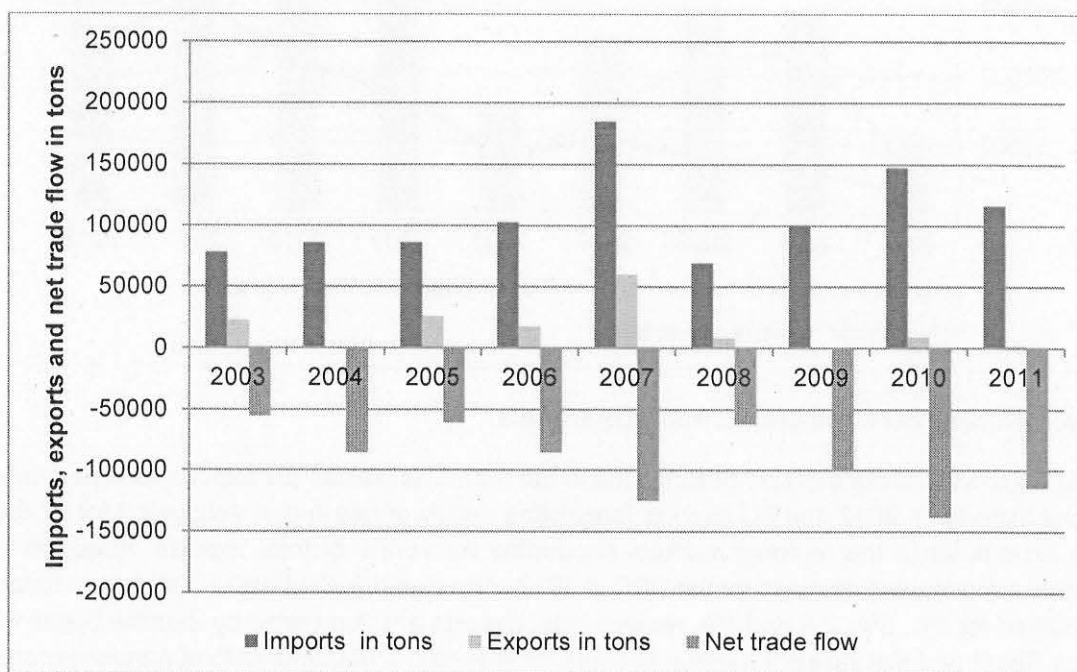
2008/09		2009/10		2010/11		2011/12	
Brazil	93.9%	Brazil	91.7%	Brazil	93.7%	Brazil	90.8%
India	3.1%	UAE	4.3%	UAE	3.3%	Thailand	3.7%
Hong Kong	1.2%	Thailand	1.7%	Poland	0.7%	India	2.6%
Thailand	1.0%	Korea, Rep	1.4%	Netherlands	0.6%	UAE	1.4%
Malawi	0.5%	Singapore	0.5%	Belgium	0.5%	Denmark	0.3%
UK	0.1%	UK	0.1%	Colombia	0.5%	Pakistan	0.3%
UAE	0.1%	India	0.1%	Switzerland	0.3%	Finland	0.3%
United States	0.1%	Germany	0.1%	UK	0.2%	China	0.3%
Germany	0.0%	Belgium	0.0%	Germany	0.0%	Belgium	0.1%
Zambia	0.0%	Turkey	0.0%	India	0.0%	Mauritius	0.1%

Source: Trade Map and SARS

3.3.3 Tanzania

Tanzania is a net importer of sugar. Figure 5 shows Tanzania's imports, exports and net trade flows. Import levels have grown significantly from about 78 000 tons in 2003 to about 116 000 tons in 2011. Export levels are very low and have declined significantly over the past 4 years. Currently the incumbent millers tend to only export to build an international reputation in anticipation of exports in future, and in light of the substantial new entry that is expected in the Tanzanian market in the medium term.

Figure 5: Tanzania's exports, imports and net trade flows



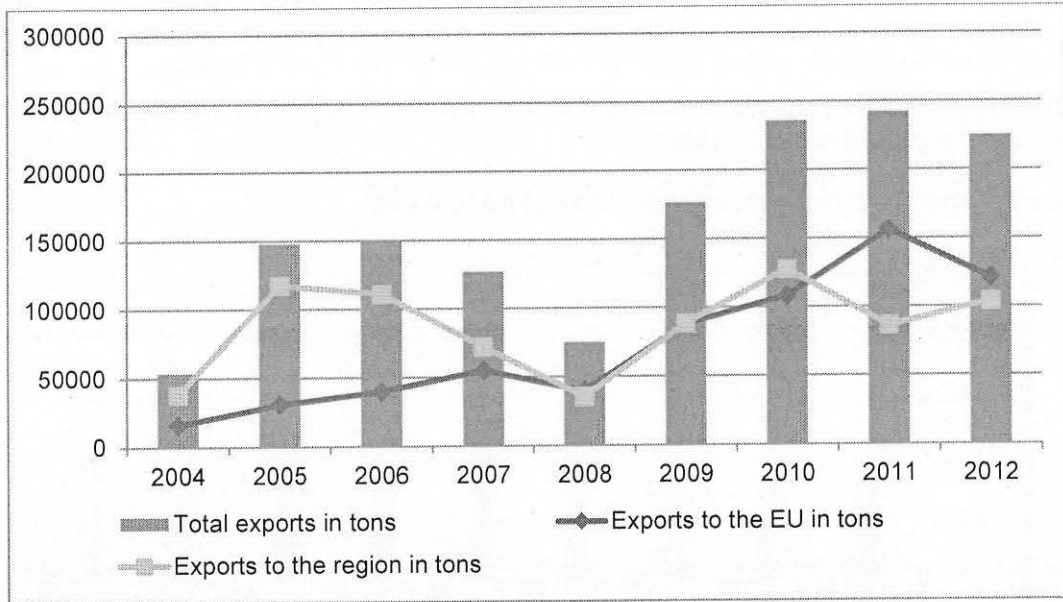
Source: Researcher's compilation from country data

Sugar importation in Tanzania is managed by the state. Private sector companies are contracted by the government to import through tenders. This 'managed' trade regime has proven to be problematic and has resulted in shortages of sugar, although it has served to control domestic prices. Moral hazards are common in this process as importers can sometimes use this opportunity to withhold imports in order to keep the domestic price high.

3.3.4 Zambia

Zambia is a net exporter of sugar, exporting mainly to the EU and regional markets. Sugar imports to Zambia are almost non-existent. Figure 6 shows Zambia's total sugar exports, exports to the region, and exports to the EU. Total sugar exports have increased from about 50 000 tons in 2004 to over 200 000 tons in 2012.

Figure 6: Zambia's sugar exports



Source: Researcher's compilation from country data

Table 7 shows Zambia's export destinations in the region as well as EU exports as a percentage of total exports. In 2012, the EU exports (consisting mainly of raw sugar) accounted for 53.8% of total exports while the regional markets accounted for 46.2% of total exports. About 36% of regional exports were destined for the DRC in 2012 while Burundi, Zimbabwe, Kenya and Rwanda accounted for 5%, 3%, 2% and 1%, respectively. Exports are dominated by Zambia Sugar while Kafue Sugar and Kalungwishi Estates account for less than 3 000 tons of total annual exports. It must be noted that the high level of EU exports has been due to the trade agreement of which Zambia is a beneficiary. This agreement allows Zambia to export sugar on a duty- and quota-free basis until 2015 at a preferential price. In order to access the preferential market, Zambia has been directing increasing amounts of sugar to the EU and reducing exports to regional markets.

Table 7: Zambia's export markets for sugar²⁵

Export Destinations	2008	2009	2010	2011	2012
EU	53%	50%	46%	64%	54%
DRC	31%	33%	36%	20%	36%
Burundi	6%	3%	5%	4%	5%
Rwanda	5%	6%	3%	6%	1%
Tanzania	5%	5%	2%	2%	0%
Kenya	0%	0%	0%	2%	2%
Uganda	0%	0%	0%	1%	0%
Zimbabwe	0%	4%	8%	1%	3%

Source: Researcher's compilation from country data

The observed trends show that Zambia's export growth is increasingly skewed towards supplying markets outside the region. The growth is also facilitated by the relatively lower costs of production in Zambia which has attracted Illovo Sugar to invest heavily in Zambia presumably in order to supply preferential access markets in the EU. The phasing out of the preferences by 2015 inevitably implies that Zambia will have to target regional markets which it can serve more competitively. However, it is important to note that even with the preferential access to the European market the net returns are lower from exports to Europe than local sales due to the extensive transport costs involved.

The effect of the industry dominance by the multinational Illovo manifests in the determination of the direction of trade. For example the SACU market accounted for 8-11% of Zambia's sugar exports between 2004 and 2007. Since 2008, there are practically no exports from Zambia into SACU possibly because Illovo South Africa and Tongaat Hulett supply that market. This might imply distortions in trade as trading regions are potentially allocated along with the strategic interests of the multinational firm. For similar reasons, Zambia appears to be well-positioned within the strategic interest of Illovo to service overseas markets such as the EU.

²⁵ Note that Zambia exports raw sugar to the EU and refined sugar to regional markets.

4.0 Discussion of regional competition concerns

The discussion in previous sections demonstrates that each domestic sugar industry is very different in terms of the economic outcomes observed, and the possible reasons for those outcomes. This also impacts on regional competition dynamics. The nature of the sugar industry is such that the ability of any firm to start competing effectively in the regional market generally relies on that firm's ability to compete strongly in their domestic market. Illovo, Tongaat Hulett and most recently West Kenya are good examples of this.

The paper lays out a set of key questions to frame the discussion of regional competition dynamics in the sugar industry. We restate these below:

1. Why has there been limited trade in sugar products within the region whereas it would seem that there are several opportunities which exist for low-cost, surplus producers to export more of their output into countries which are net-importers within the region?
2. To what extent have regulatory and other more tacit barriers to entry and expansion affected the (low observed) domestic productivity of milling companies within each country, and the poor competitiveness of several of these firms within the region as a whole?
3. Have the observed competitive outcomes in the region come as a result of the strategic behaviour of large multinational milling companies within the region?

To answer these questions, it is important to briefly capture what the main competition problems are within each focus country.

In South Africa, the competition authorities have generally considered the concern in the industry to be that there is a lack of dynamic competition between millers and this is entrenched by a regulatory structure which seeks to protect these firms. The issues related to vertical agreements between millers and growers are perhaps secondary to this. Although South African firms have been relatively more competitive within the region, the nature of the domestic regulatory environment has also meant that continued growth from innovation in this market is limited by the same regulatory provisions. This is perhaps the reason why Illovo and Tongaat Hulett have sought to increase their footprint elsewhere in the region where there are smaller markets (with preferential access to European markets) and with large potential for growth and profitability.

The Zambian sugar industry is perhaps most closely affected by the investment behaviour of large multinationals and the fact that market power is vested in one firm. This is in contrast to the South African market where there is effectively market power jointly vested in a group of firms due to the nature of the regulatory environment. As discussed, Illovo through Zambia Sugar has over 90% of market share and the firm enjoys high profitability in the Zambian market. This strong market position and high profitability is further entrenched by import protections which have allowed the firm to strategically position itself to produce for lucrative export markets. Zambian exports to the region are limited and relate to countries such as the DRC. From their operations in Zambia, Illovo is able to leverage the benefits under the current duty free and quota free trade regime granted to LDCs by the EU which it has not been able to do from their base in the South

African market. It is important to note that the firm is a low-cost producer due to investments in state-of-the art machinery and technology, technical expertise and world-class management resulting in high efficiency. The firm should thus be in a position to offer more competitive pricing to the Zambian domestic market and to net-importers in the region. Despite this, we have discussed that the prices of sugar in Zambia do not reflect the cost-advantages and high levels of productivity in that market.

The competition authority and government in Zambia has alleged that there is likely to be excessive pricing in the domestic market. This is supported by the fact that the export prices are lower than the price that Zambia Sugar charges in the domestic market. Zambia Sugar is also able to sustain arrangements whereby it charges the same single national delivered price to all its depots around the country through a closely monitored network of distributors.

The competition concerns in Kenya are substantially different from the other focus countries. The current situation in Kenya is that the prices of sugar are exceptionally high, despite the significant amount of new entry that has occurred in the market. The sector is experiencing a lack of competitiveness and there are vested interests against reform, which undermine investment and growth. In this regard, it is worth noting that the competitiveness of the sugar sector in Kenya is substantially affected by the comparatively high degree of state intervention in the sector. The entry of new private millers using more efficient production methods could change this situation although newly licensed private millers have been accused of cane poaching. Cane poaching is a significant concern in so far as it highlights the fact that there are more fundamental problems around the high costs of inputs, low cane yields, and an unreliable supply of good quality cane. This raises the costs of millers, and these costs are seemingly passed through to consumers. Critically, the existing regulations which restrict the influx of imports to compete away high margins serve to sustain the relatively high prices for sugar.

As discussed, competition concerns in Tanzania arise because of the vertical relationships between millers and distributors or wholesalers. The market is oligopolistic (with multinationals owning a majority share in the two largest producers) and there is limited direct competition between domestic producers. This relates largely to the nature of the geographic market whereby sugar factories are widely dispersed. Effectively, within each sugar zone in the country, millers have a network of distributors and wholesalers either through direct distribution through exclusively contracted agents or indirect distribution to agents through the millers' sister companies. It seems that the higher levels of concentration and the vertical linkages between the milling level of the market and the downstream distribution market account for the relatively high sugar prices observed in Tanzania. This lack of competition therefore limits the extent of innovation and dynamism in the market, resulting in an industry which is unable to meet domestic demand. Consumers are denied the benefits of competition by the fact that distributors are price takers and because producers have high market power in the regions in which they operate. Further to this, it has been alleged that millers through the industry association have coordinated their efforts to limit the level of imports coming into the Tanzanian market.

Why has there been limited trade in sugar products within the region whereas it would seem that there are several opportunities which exist for low-cost, surplus producers to export more of their output into countries which are net-importers within the region?

An important feature of the sugar industry in the region is that competition and trade across borders is closely governed and affected by a network of trade agreements and protocols.²⁶ Whereas some of these provisions are intended to facilitate increased trade, they also play a substantial role in constraining trade by protecting domestic industries. Furthermore, agreements with the EU and other markets create strong incentives for net-exporting countries to direct substantial volumes of sugar to those markets. Zambia, for instance, has consistently exported the majority of its surplus sugar to the EU. South Africa has experienced declining exports in recent years however the industry still directs significant proportions of exports to markets outside of the region.

We note that although there are firms which are trading products within the region, the degree to which this has taken place is limited. It is certainly limited relative to the comparative advantage enjoyed by operations in countries such as Zambia, and the substantial deficits observed in countries such as Kenya and Tanzania. An environment of high barriers to entry and state protectionism has allowed large firms to enter markets within the region and establish positions of market power. This has certainly been the case in Zambia.

This relates to strategic action by firms. The attractiveness of investments in the sugar industry to governments is an important factor in this regard. The sugar industry in any country is often in a position to create a large number of jobs. This aligns the incentives of sovereign governments with those of private entities. Governments in Zambia and Tanzania, for instance, have created lucrative incentive programmes for investments in their respective sugar industries. The alignment of the interests and incentives of government and sugar companies is increased in those countries where the government operates as both a regulator and a substantial shareholder in milling companies. This is certainly the case in Kenya and Tanzania. This alignment of incentives serves to distort the nature and quality of competitiveness in those industries. In turn, this affects the levels of productivity of milling companies. In Kenya, the best performing milling companies are generally those without state ownership. Partly as a result of these sorts of distortions, Kenya and Tanzania are low producing, net-importers of sugar products whereas one might expect more dynamic competition in these domestic markets driven by the substantial demand and competition-driven innovation.

As discussed, firms that have successfully traded and expanded into other countries in the region have been those that have been able to first achieve success in the domestic markets in which they are based. This allows firms to build up the financial and resource capacity to leverage their operations into other countries. This seems to be important even where there are strong government incentives that encourage firms to invest in respective markets.

It is not clear whether transport costs are a significant constraint to regional trade. The preceding discussions have certainly shown that firms have favoured exporting to more lucrative

²⁶ For detailed discussion please see ACF Working Paper.

international markets. They have also been inclined to do so from markets where they have the advantage of preferential access to these lucrative markets such as Swaziland, Mozambique, Zambia, and other LDCs in the region. Where there have been imports to net-importers in the region, they have tended to originate from countries such as Brazil at very competitive prices. Brazil in particular is characterised by significant capital grants and subsidies to sugar firms such that the net cost of production is very low relative to many producers in the region. In essence, importation of sugar is driven almost exclusively by price which explains the gradual increase in imports to a country like South Africa where domestic prices are relatively high. Similarly, the willingness of milling companies to export is also driven by price. For instance, one miller has advised that in Zimbabwe the relative local price of sugar is high such that millers in that market will be less inclined to sell their sugar outside of Zimbabwe into the region. This is also the case for Zambia, for instance.

To what extent have regulatory and other more tacit barriers to entry and expansion affected the (low observed) domestic productivity of milling companies within each country, and the poor competitiveness of several of these firms within the region as a whole?

The short answer in this regard is that regulatory and tacit barriers to entry and expansion have substantially affected domestic productivity and regional competitiveness. The study has demonstrated that government intervention in the sugar industry has a significant effect on the ability of firms to increase their productivity and compete more on the basis of innovation and efficiency. Regulation particularly with regards to the issuing of licenses and protection against imports is central to this discussion.

With regards to licensing, it has been shown that in Tanzania and Kenya government has sought to issue further licenses to new milling companies. However, this is not necessarily commensurate with the ability of existing companies to remain competitive. In both of these countries, distortions within the domestic industry at different levels of the value chain have meant that mills have not been producing at close to full capacity. A large reason for this is the inconsistencies in the supply of quality sugarcane. Whereas the introduction of further competition may serve to increase employment and reduce prices, it may have the effect of increasing the disparities in terms of adequate cane supply and productivity. Mills may therefore face high costs of maintaining underutilised capacity such that supply is constrained and prices do not decrease as expected.

In terms of protectionism, the study has addressed the fact that this is in fact a global phenomenon in the sugar industry. In countries such as Zambia and South Africa, the network of protections offered to domestic producers has resulted in the creation of a position of market power in those markets. Although it can always be argued that in an industry with high fixed and investment costs it is prudent to support firms in order to allow them to achieve economies of scale, this same protection is also likely to create market power for incumbent firms. Firms that have developed these strong positions in their respective markets then have the incentive to increase prices. In South Africa this has manifested in a lack of dynamic rivalry between milling companies and low levels of investment and innovation. In Zambia the incumbent firm is able to drive up domestic prices even though they are able to export sugar at lower prices. In the Zambian case it is particularly interesting that government support has benefitted the incumbent firm however this

same support is unable to allow for new entry into the market. High profit margins are therefore not competed away. Furthermore, tacit barriers such as the Vitamin A fortification requirements have prevented the influx of imports into the Zambian market meaning that domestic prices remain high.

In these cases, there is therefore a contradiction in terms of the net effect of government influence on domestic sugar industries. While state support has certainly made it possible for increased investment to take place, as in the case of Zambia, it has also served to constrain the creation of more competitive markets. In terms of the region, this also means that there are few milling companies that are able to enter domestic industries, expand within those industries, and then compete within the region. Instead, a handful of large firms have been able to take advantage of state support and close relationships with governments to increase their market power, to the detriment of competitive processes and ultimately to the detriment of consumers. In countries such as Kenya and Tanzania, the influence of the state as shareholders in milling companies and regulators at the same time has also affected the possibility for dynamic rivalry between firms.

Have the observed competitive outcomes in the region come as a result of the strategic behaviour of large multinational milling companies within the region?

The observation above is an important one. Although governments are tasked with advancing developmental objectives and creating the regulatory frameworks to foster growth, this should not be in a manner that can negatively affect consumers. For instance, by allowing firms to gain positions of market power and/or to continue to operate inefficiently, domestic prices are often driven upwards. This not only affects consumers, but it also affects the incentive and ability of firms to trade and compete regionally. As discussed, where domestic prices are high, firms will have less incentive to sell into other markets within the region. It is only in cases where those firms operate in countries with preferential access to more lucrative international markets that they will export their sugar products. This is not to say that milling companies do not export at all, or that they should not seek out the most profitable opportunities for growth, but rather that trade and competitiveness within the region is not at the levels that would otherwise be expected.

Despite this, it is important to note that a number of the strongest firms in the focus countries are private entities that have achieved high levels of productivity through innovation and investments in more efficient technologies. This accounts for the fact that millers in countries such as South Africa and Zambia are some of the world's lowest-cost producers of sugar.

In this context it is therefore increasingly important that where governments are closely involved in domestic sugar industries, they need to be strategic in so far as their involvement in markets can affect the realisation of positive competitive outcomes to the benefit of consumers. As it stands, there is limited regional competition in the sugar industry for the reasons discussed above. Particularly in cases where firms are allowed to establish large operations and positions of market power, governments through agencies such as sugar boards and competition authorities need to ensure that firms do not manipulate special advantages to the detriment of consumers domestically and in the region. In South Africa, Zambia, and to some extent Tanzania firms have seemingly been able to leverage their market power to affect competitive outcomes along the entire value chain. In Tanzania this has taken the form of exclusive arrangements with distributors.

Although beyond the scope of this study, it is also important to note that regional competition can also be constrained by structural bottlenecks such as poor road networks. Furthermore, if growers are not able to use new technologies to produce high quality cane then millers will not be able to compete domestically and in the region. The prevalence of cane poaching in Kenya is an example of ineffective enforcement of regulatory provisions that results in a constraint on the ability of millers in that country to compete effectively.

5.0 Conclusion

The following provides an overview of the findings of the sugar study.

- Growers will typically deliver sugarcane to the nearest mill resulting in local economic development. Vertical cane supply agreements entrench this relationship and limit competition amongst millers for sugarcane.
- The distortions in competitive rivalry between milling companies within countries and across the region are substantially overshadowed by tacit and explicit barriers to entry and expansion created by regulatory processes and protectionist policies.
- Government support has assisted domestic industries to develop although it has also distorted competitive outcomes where government has participated in markets as an inefficient producer.
- While regulatory barriers and capital requirements are substantial, we observe that there has been new entry in Kenya and Tanzania. South Africa has not experienced greenfield entry in the past decade.
- Exports from net-exporting to net-importing countries within the region are not as high as would be expected when domestic prices and costs of production are compared.
- Access to European markets through preferential access agreements distorts the possibility for intra-regional trade in sugar between countries such as Zambia and South Africa which are 'low-cost' net-exporters, and Kenya and Tanzania which are net-importers. Domestic protectionism in countries such as Kenya is another factor.
- From the late 1990s and well into the 2000s multinational firms such as Illovo Sugar Ltd from South Africa have intensified the expansion of their operations into other countries within the region such as Tanzania, Zimbabwe and Zambia. This is seemingly in response to more favourable terms of trade in countries such as Zambia where there are favourable barriers to (further) entry and the possibility of trading with more lucrative markets such as the EU.
- Large milling firms have been able to exert a degree of market power in some of the markets which we analyse, e.g. Zambia and South Africa. We observe that close relationships between these multinationals and governments have resulted in stable, non-competitive markets where these firms have been able to leverage the favourable regulatory environment to the benefit of their international shareholders.

Progressive liberalisation of global markets is likely to result in increased competitiveness in the regional sugar industry as firms seek to grow their capabilities in order to trade globally. It is desirable that firms within the region will grow and compete across borders however this will be severely impeded by protectionist trade policies. In order for the developmental benefits of increased regional integration and trade to be realised, policymakers need to better harmonize their consideration of policies which affect the sugar industry. Specifically, they will need to better manage the nexus between the protection of domestic producers (industrial policy) and microeconomic considerations of the high prices faced by consumers in the short- to medium-term for food products such as sugar in particular.

The study has shown that while firms have strategically positioned themselves in markets which are characterised by trade and investment incentives, the competitive outcomes in the region are more likely to be affected by protectionism. These protectionist policies are not necessarily misplaced in the context of contemporary industrial policy; however they can be severely undermined if the correct incentives (and support mechanisms) are not given to domestic firms to increase their competitiveness on the basis of innovation and increased efficiency. For instance, this could involve placing conditions on continued state protection that require firms to meet certain production or export targets. On the other hand, this could also involve the state in addressing key bottlenecks such as the distortions in the supply of quality sugarcane by making the supply of key agricultural inputs more affordable and reliable. In this way, countries that have followed the strategy of increasing entry into the sugar industry (Kenya and Tanzania) can achieve the goal of inclusive growth and the development of local industry, whilst ensuring that there is dynamic rivalry within the domestic market.

Competition authorities and regulators have a role to play in terms of ensuring that firms that develop positions of market power or are afforded the protection to grow their capabilities are still prevented from abusing this market power to the detriment of consumers. Additionally, coordination between competition authorities within the region will help to limit the potential for firms to coordinate their strategies at a regional level by allocating geographic markets for instance.

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²⁷ Researchers also conducted various interviews and requested submissions from different industry participants in each focus country.

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