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**(Re)shaping markets for inclusive economic activity: competition and industrial policies relating to food production in southern Africa<sup>1</sup>**

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**Abstract**

The paper examines developments in key markets and value chains in food production in southern Africa in order to evaluate the role of markets and the significance of market power. Rising incomes and urbanisation are driving demand for processed food across the continent and, without substantial improvements in industrial development in food processing, the trade deficit is set to worsen. The paper draws on a range of research on regional value chains undertaken in recent years along with insights from competition cases to assess issues of competition, market power and industrial policy. The analysis covers key inputs in the form of fertilizer, two important food value chains namely animal feed to poultry, and sugar to confectionary, and developments in wholesale and retail trade. The paper identifies critical implications with regard to regional and international linkages, governance and market power, and industrial policy, if an appropriate agenda is to be pursued to shape markets for more inclusive growth.

**JEL classification**

**L18, Q18, O55**

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<sup>1</sup> In addition to drawing on a wider range of research undertaken by researchers in CCRED and research partner organisations, as reflected in the specific sections, I am grateful to Tatenda Zengeni and Thando Vilakazi for assistance with the data for the figures, and to Thando Vilakazi and participants at the Initiative for Policy Dialogue Africa Task Force meeting on 11 and 12 April at Columbia University, New York, for helpful comments.

## 1. Shaping markets and competition

The nature of competitive rivalry and the identity of market participants are central to the quality of growth. In particular, the rivalry may be understood in dynamic terms including whether it relates to improving capabilities and allows opportunities for new local participants, or whether incumbents are able to evolve strategies to entrench their historical positions. A key challenge in economic development is to *generate* competition and competitors.

This relates to a wider set of concerns regarding how markets are constructed and governed, in essence, what the rules are and how they are determined. Markets are shaped by regulations, as well as by dominant firms themselves, and previous industrial policies. The nature of market exchanges cover a spectrum from arms-length discrete transactions, through long-term relationships governed by contractual terms, to transactions between related entities within the same business group, at the other end of the range. Parties have different degrees of market power, influenced by a range of factors including related to incumbency.

The liberalisation agenda which has been aggressively pursued assumes away much of the real issues regarding how markets actually work. With regard to regional integration in Africa, the simplistic pushes to 'de-fragment' the continent ignore the questions about how to build industrial capabilities, as well as the influence of large multinational corporations over many areas of economic activity.

I consider the shaping of markets and competition concerns through the example of food production in southern Africa. Since the mid-1990s, many African countries have recorded very high rates of GDP growth, albeit based in most cases on minerals and agricultural commodities. This growth nevertheless represents an important change from the previous two decades and has been accompanied by renewed investment in infrastructure, and experiments with more proactive industrial policies in some countries. At the same time, there has been rapid urbanisation and changing consumption patterns. Most African countries have a trade deficit in food which is growing as demand for processed food products increases (Mills et al. 2017).

There are a number of important developments which need to be better understood and engaged with. I highlight three, in particular. First, there has been widespread liberalisation of trade and markets. Overall this has seen large international trading houses increasing their control over markets both for inputs and outputs. These businesses have also secured rights to logistics facilities such as storage at ports and silos, in southern Africa in partnership with South African agro-conglomerates. Aside from their size, they are generally domiciled in offshore tax havens raising a wider set of questions regarding financial flows which are not addressed here. Notwithstanding these changes, in some countries regulatory measures remain in place relating to primary agricultural production in many countries including bans on GMO seeds, fertilizer support programmes for small farmers, price controls, and restrictions on trade.

Second, as already noted, urbanisation is leading to a change in consumption patterns across African countries to more processed and packaged foods. This in turn is associated with changes in the ways in which food products are sold with a rapid spread of supermarkets across the continent taking place. As well as the growing middle class, supermarkets are also penetrating lower income markets. The implications of this have been little analysed.

Third, the industrial development of processed food production is important in its own right, and is a manufacturing sector in which there has been growing regional trade in southern Africa. Developing the sector requires building linked industrial capabilities along with logistics, packaging, testing and certification. The changing demand patterns provide an opportunity for African economies to move up the value chain to produce more sophisticated and complex products, including for export. There are important questions for industrial policy related to the extent to which this has been happening.

To understand the issues raised, the paper draws on a range of research on regional value chains and markets in southern Africa undertaken in recent years covering inputs, food processing and

wholesale and retail trade.<sup>2</sup> There have also been a number of competition cases, especially in South Africa, which shed light on issues of market power and corporate conduct across southern Africa. The findings reflect a need to change the rules if markets are to support wider participation and long-term investment, and realise a different quality of growth. The need to make changes is even more critical given the evident effects of climate change on agricultural production (Brahmbhatt et al., 2016).

The paper is structured as follows. Section 2 provides an overview of changes relating to food production and supply in southern Africa. Section 3 assesses developments in: fertilizer, as a key input; sugar, as an important agricultural crop; animal feed to poultry, as a value chain from maize and soya through to poultry products; and, the spread of supermarkets. Section 4 considers the implications for how markets have been shaped in terms of regional linkages, governance and market power, and the implications for industrial policies and the role of the state. Section 5 concludes.

## **2. Overview of changes in food production and supply in southern Africa**

There is a major change taking place in the pattern of food consumption in southern Africa. Rapid urbanisation and economic growth is associated with growing household consumption expenditure and, in particular, the demand for processed food is increasing strongly. Africa's urban population nearly doubled in absolute terms from 1995 to 2015 and, in relative terms, urban areas accounted for 40 per cent of the population, with the trend projected to continue (UNECA, 2017; Lall et al., 2017). Imports of food have supported urbanisation in the absence of a domestic agricultural surplus, however, food in African cities has been found to be around 35 per cent more expensive than in comparator countries (Nakamura et al., 2016).

The changes in urbanisation and consumption patterns are reflected in the spread of supermarkets to serve these markets. Supermarkets have also been important agents in the changes in the southern African region as they have invested in transport and logistics and have adapted their format to lower income markets, yet the implications of the growth of supermarkets is poorly understood. The studies drawn on here consider the factors underlying the spread of supermarkets, the competitive dynamics between the major supermarket chains and independent local retailers and the effects on suppliers in different countries.

The fact that Africa as a whole is a net food importer and has low yields and agricultural productivity, while generally having good conditions for agricultural production, has been widely observed (ACET, 2014; Suttie and Benfica, 2016). However, there does appear to have been a turning point in some countries from 2005 with some improvements in agricultural productivity (Jayne and Ameyaw, 2016). An important factor in low agricultural yields is the extremely low fertilizer usage. The supply and pricing of fertilizer is assessed in section 3.1 below.

The continued urbanisation coupled with premature de-industrialisation (Rodrik, 2015) poses sharp questions for the development of capabilities in food processing in African countries. Even as improved levels of agricultural production may be attained, there will be a rapidly growing trade deficit in processed food products without a substantially improved performance in manufacturing of these products (Jayne and Ameyaw, 2016). Food processing has characterized the early industrialization stages of many emerging economies, what is at issue is how the southern African region can seize the opportunity for local industrialization offered by growing demand for processed foods.

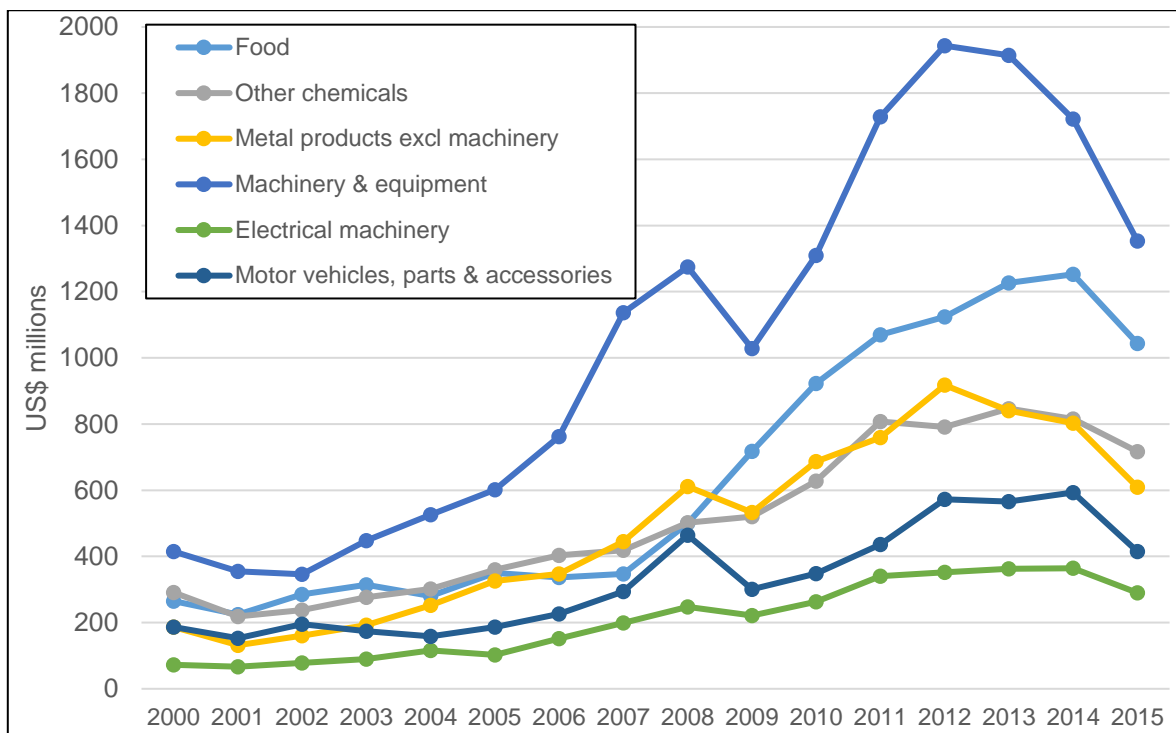
The changes in demand in southern Africa are reflected in the dramatic increase of South Africa's exports of food products to other Southern African Development Community (SADC) countries from 2007 (Figure 1), given South Africa's more advanced industrial base as well as the spread of

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<sup>2</sup> These papers are: Bagopi, Chokwe, Halse, Hausiku, Kalapula, Humavindu and Roberts (2016); Chisanga, Gathiaka, Nguruse, Onyancha and Vilakazi (2016); das Nair and Chisoro (2015 and 2017); das Nair, Nkhonjera, Ncube, Ziba (2017); Ncube, Roberts, Zengeni (2016); Ncube, Roberts and Vilakazi (2016); Ncube, Roberts, Samboko, Zengeni (2017); Vilakazi and Paelo (2017a and b); Ziba and Phiri (2017).

supermarkets. However, the SADC region as a whole has recorded a persistent and growing trade deficit in food. At the same time, South Africa is also becoming more reliant on agriculture imports given growing demand from cities and constraints on water. This is reflected in growing deficits in grains such as wheat and soya, and periodic deficits in maize in years of poor rains. Figure 1 illustrates the trend in South Africa's main exports to other SADC countries of diversified manufactures, that is, excluding basic metals, basic chemicals and petroleum products. It reveals the substantial growth in exports of machinery and equipment, much to supply mining across the region, metal products and the broad set of other chemicals products, as well as in food products already noted.

**Figure 1. South Africa's leading manufactured exports to SADC countries (US\$)**



Source: Quantec

Note: this excludes petroleum, basic chemicals, and basic metals

There have been extensive policy reforms across African countries. Markets and international trade have been liberalized although there is still protection of sensitive crops such as maize in many countries. There has also been rapid integration into the global economy. Major traders such as Cargill, Louis Dreyfus and Bunge have expanded operations in southern Africa very substantially, as has ETG which has its origins in Kenya. Cargill and Louis Dreyfus handle 70 per cent of all the maize trading in South Africa (Greenberg, 2017). In South Africa, the two largest agro-conglomerate groups, Afgri and Senwes, both of which evolved out of the former cooperatives supported under apartheid, have been bought by or joint-ventured with international finance and trading companies (Makhaya and Roberts, 2013; Bernstein, 2012). Afgri has been bought by Agrigroupe (with ownership in Mauritius and the Cayman Islands and a controlling shareholder based in Canada). Bunge and Senwes formed a joint venture in 2012. Louis Dreyfus is a joint shareholder in an operation of a smaller company, NWK. In addition, Cargill bought into ETG although subsequently divested.

### 3. Developments in major inputs and value chains

### 3.1 Fertilizer<sup>3</sup>

There are three main plant nutrients provided by fertilizers, namely nitrogen, potassium (in the form of potash) and phosphate. A few main forms of fertilizer dominate world trade and production, and are sold to farmers in straight and blended form. Nitrogenous fertilizers are the most important with the main product being urea. This is produced in large, energy-intensive industrial plants. Other ammonia-based nitrogenous fertilizers also require cheap energy and large-scale production such as calcium ammonium nitrate and di-ammonium phosphate (DAP). These are normally produced where there are sources of natural gas. Phosphate and potash are mineral products with production depending on a country's natural resource endowment.

The only substantial producer of fertilizer in southern and East Africa is South Africa. The country is a producer of both ammonium nitrate based fertilizers and phosphate fertilizer.<sup>4</sup> It is still a large net importer of nitrogenous fertilizers, mainly in the form of urea. The markets in Southern and East African countries are thus supplied by importers. On the face of it, this means that barriers to the entry of new suppliers should be low. However, the scale required for economic shipping, and the logistics and transport infrastructure for local distribution, mean that as a matter of fact there are only a few major suppliers in each country.

In practice, while markets should be contestable, it appears that outcomes have been far from competitive. The cost of fertilizer in African countries has been significantly above benchmark world prices (see also World Bank, 2016). And, the high prices of fertilizer, and its importance for agricultural production, have led governments and donors from the early 2000s to subsidise fertilizer supply through an array of programmes. Fertilizer prices impact directly on its use by farmers and hence on food production and pricing.

There have been global, national and regional collusive arrangements between the main suppliers, as well as other factors such as transport and logistics costs which have added to the price.

The South African Competition Commission uncovered a cartel in nitrogenous fertilizer between Sasol, Omnia and Yara which ran until the mid-2000s.<sup>5</sup> Various bodies were used by market participants to coordinate the sharing of information, which had the effect of increasing transparency and the ability to monitor competitor behaviour (and possible deviations from the arrangement) in the market. These bodies included the Nitrogen Balance Committee (NBC), the Import Planning Committee (IPC), the Export Club, and the Fertiliser Society of South Africa of which the main members were the primary fertilizer companies (das Nair and Mncube, 2012). By monitoring domestic market shares, as well as exports and imports of products, members could track market shares and the behaviour of competitors, given the highly-concentrated nature of the market. It is also important to note that there was an agreement on how list prices would be determined, through adding on agreed costs to the international benchmark prices to get local prices in different regions. It is highly likely that the arrangements affected other countries in southern Africa especially as the Export Club was part of the arrangements.

The second set of cartels are the government sanctioned export cartels. The global potash market is dominated by two export cartels, Canpotex and BPC (World Bank, 2016). Canpotex is the marketing organisation for the three largest North American potash producers, PotashCorp, Agrium and Mosaic. BPC, is a joint venture between the three largest Russian and Belarusian potash producers, Uralkali, Silvinit and Belaruskali. Between them, Canada and Russia account for 80 per cent of global potash reserves. Mark-ups from the collusion in potash have been estimated for 2008 to 2012 at around 50 per cent to 63 per cent (Jenny, 2012; Gnutzmann and Spiewanowski, 2016).

In phosphates, PhosChem is a USA Webb-Pomerene export cartel whose members include PotashCorp and Mosaic which are also members of Canpotex (World Bank, 2016). The other major

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<sup>3</sup> This section draws primarily from Ncube, Roberts and Vilakazi (2015 and 2016), unless otherwise indicated.

<sup>4</sup> Minjingu in Tanzania is a small producer of phosphate fertilizer. Other producers of fertilizers are blenders from imported fertilizer components rather than manufacturers.

<sup>5</sup> The consent and settlement agreement between the Competition Commission and Sasol Chemical Industries Ltd relating to the cartel conduct was confirmed by the Competition Tribunal in June 2009.

source of phosphate fertilizer is OCP of Morocco which is a government owned monopoly over phosphate mining in that country. Over three quarters of global reserves of phosphate rock are located in Morocco and the Western Sahara. The impact on African countries of the potash and phosphate cartels can be taken as given, as the cartels are global in reach and the arrangements are not in doubt.

In nitrogenous fertilizers it appears international prices were also increased by collusion around 2008/2009. Gnutzmann and Spiewanowski (2016) find that the fertilizer price spike at this time reflected an increase by more than is explained by higher energy prices, while Taylor & Moss (2013) identify price increases from 2008 in all three main fertilizers, including likely collusion in nitrogenous fertilizers, although international prices fell back thereafter. It is not only explicit collusion which increases prices, higher levels of concentration have been found to be associated with higher prices for urea (Hernandez and Torero, 2013).

The prices of the largest volume fertilizer product, urea, reflect increased world prices from 2010 through 2011. Figure 2 compares the free-on-board price of urea in the Arab gulf<sup>6</sup> to the average retail prices of urea sold to farmers across Malawi, Tanzania and Zambia. It reveals that while international prices reduced once again from November 2011, a comparison with the average retail prices of urea in Malawi, Zambia and Tanzania indicates a substantial gap opening-up when compared with the free-on-board price, as the prices in these countries do not decline until later.<sup>7</sup> The direct costs of sea and land transport did not increase in this period. It meant that in 2012 through to 2014 prices in all three countries were around \$400/t more than the fob prices and, in the case of Malawi, for some of the time prices were substantially higher.

In Zambia, as a landlocked importing country, prices would be expected to be higher than coastal countries such as Tanzania, and similar to prices in its neighbour, Malawi. This is what is observed in 2010. In the later years, however, we see prices in Zambia which are in line with, or lower, than those in Tanzania. There was cartel conduct uncovered in Zambia in 2012.<sup>8</sup> The relatively lower prices in 2014 and 2015 are also a result of a new entrant and changes in the procurement processes which had effectively undermined new entrants' ability to bid to supply the government's farmer support programme. Prices in Zambia, however, remained around \$300/t higher than the international benchmark in 2015.

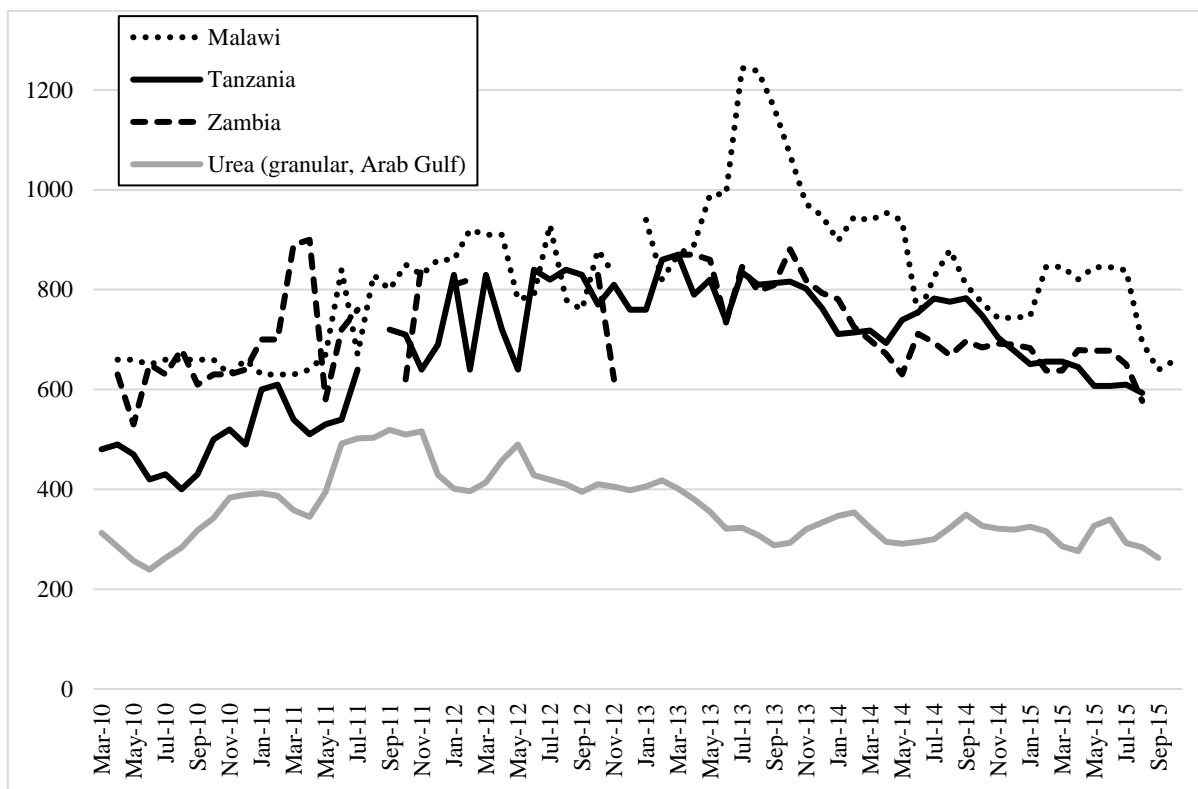
**Figure 2. Urea prices (average \$/ton retail across countries)**

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<sup>6</sup> The Arab gulf prices are most relevant for actual supplies to these countries through the ports of Dar es Salaam (in Tanzania) and Durban (in South Africa), however, the prices are similar to those quoted for shipments from the Black Sea and from the USA, prices which are available to farmers, with overland transport costs added, in Eastern Europe and North America.

<sup>7</sup> A very similar picture is given by DAP and CAN prices. Urea and DAP are the two most important products in these countries.

<sup>8</sup> [http://www.zambia-weekly.com/media/zambia\\_weekly\\_2013\\_-\\_wk\\_38.pdf](http://www.zambia-weekly.com/media/zambia_weekly_2013_-_wk_38.pdf). Also see CCPC (2013).



Source: Amitsa and World Bank

Note: Prices in Malawi, Tanzania and Zambia are average prices reported monthly to AMITSA by agro-dealers

Against the Zambian prices, those in Malawi and Tanzania certainly appear even less competitive, but no cartel conduct has been identified. A competitive cost build-up suggests that in 2014 sea freight, off-loading, port charges, storage, bagging, inland transport and generous importer, wholesale and retailer margins should add at most \$290/t (Ncube et al, 2015, Table 5). This took into account actual costs of transport, given the existing inefficiencies, as well as reported margins. Observed prices in Tanzania in 2013 were some \$100-\$150/t (around 20 per cent) higher than the price calculated from cost and margin build-ups, and Malawi by even more.

A number of factors underpin the higher prices in Malawi and Tanzania. A combination of restrictions on transport, storage and trading have supported incumbents. In addition, the value of the fertilizer subsidy programme had been increased meaning it provided an effective floor price above the competitive price level in Malawi. In terms of the overall market, a few large firms dominate fertilizer supply in the region led by Yara. Control of off-loading and bagging facilities at the port are also critical. In this regard, Yara has been at the forefront of initiatives at the ports of Beira and Dar es Salaam. In addition, when a smaller rival, Greenbelt, established a blending facility in Beira and became a major supplier in Mozambique, Malawi and Zambia, Yara moved to acquire it in 2016, removing a maverick regional competitor.<sup>9</sup>

The uncompetitive markets are therefore due to a combination of factors. While anti-competitive conduct is part of the picture it is unclear how effective enforcement by national authorities can be against regional and international arrangements. Identifying cartels of multinational suppliers is very difficult if not impossible for national authorities. In addition, the available margins and rents to be

<sup>9</sup> [http://yara.com/media/press\\_releases/1971313/press\\_release/201512/yara-expands-downstream-footprint-in-africa/](http://yara.com/media/press_releases/1971313/press_release/201512/yara-expands-downstream-footprint-in-africa/) . The merger was approved by the Comesa Competition Commission. Zambia and Malawi are members of Comesa, Mozambique and South Africa are not.

earned mean that there is a strong incentive for businesses to lobby for rules and regulations which bolster their position and keep out rivals.

### 3.2 Sugar and confectionary

The sugar industry in SADC is highly concentrated with two multinationals, Illovo and Tongaat-Hulett, accounting for the majority of production. Illovo, controlled since 2006 by Associated British Foods, has its origins in Tate & Lyle. It has sugar mills in Malawi, Mozambique, South Africa, Swaziland, Tanzania and Zambia. In 1996 it acquired Lonrho's sugar interests in South Africa, Mauritius, Swaziland and Malawi, and in 1998 it acquired Kilombero Sugar in Tanzania (Chisanga et al., 2016). In 2013 it accounted for close to 100 per cent of production in Malawi and Zambia and between 30 per cent and 40 per cent in South Africa, Swaziland and Tanzania. The second largest producer, Tongaat Hulett is historically part of the Anglo-American group and has sugar mills in Mozambique, South Africa, Swaziland and Zimbabwe. The third South African producer, TSB, is part of the Remgro group and also has operations in Mozambique as well as South Africa.

The history of the sugar industry illustrates the intertwining of British and South African big business, from the colonial era onwards. The main producers bring together Tate & Lyle, Lonrho, Anglo-American and Remgro. Anglo and Remgro are historically the two largest South African family-controlled conglomerates (respectively the Oppenheimer and Rupert families) (see Chabane et al, 2006).

Countries such as Zambia and Malawi have very good conditions for growing sugar, amongst the lowest cost in the world (Chisanga et al. 2016). This is reflected in a net trade surplus for SADC (das Nair et al. 2017). However, the prices charged in the domestic markets of many sugar producing countries are extremely high by international comparison as also reflected in the margins of the leading producers in countries such as Zambia and Malawi (Chisanga et al, 2016). At the same time, the region has a net trade deficit in sugar confectionary and baked goods (in which sugar is an important input) (das Nair et al. 2017).

The market power of producers over domestic markets is reinforced by regulation of international trade. For example, Zambia requires vitamin A fortification of household sugar, which effectively blocks imports from neighbouring countries that do not have such a provision. In addition, importers, including of sugar for industrial use in food product manufacturing, require a licence (Chisanga et al., 2016). The Southern African Customs Union (comprising South Africa, Botswana, Lesotho, Namibia and Swaziland) has a system of regulation governing pricing and trade, with provisions under the Sugar Act of South Africa (das Nair et al., 2017). The tariff protection on sugar imports into SACU member states kick in when the long-term average world price of sugar (adjusted for distortions in global markets like subsidies and cheap loans) drops below a given dollar-based reference price.<sup>10</sup> Prices in SACU had been relatively low, and close to the London sugar price in some years such as 2009 to 2011 (Chisanga et al., 2016). In 2014 the reference price was raised by the South African International Trade Administration Commission (ITAC) by 58 per cent and importers had to pay tariffs.<sup>11</sup> The increase in the reference price was a result of heavy lobbying since 2008 of ITAC by the South African Sugar Association (SASA) and the Swaziland Sugar Association (SSA).

Under the South African Sugar Act (1978) and the Sugar Industry Agreement of 2000, there is a system governing the sales to local and export markets, as the prices in export markets are generally substantially lower than in the local market. SASA allocates each mill a quota for both the local and export markets (das Nair et al., 2017). This quota is allocated for refined white sugar and brown sugar, and is done so in proportion with each mill's total saleable production of sugar. If mills sell more than their allocated quota on the local market, then they are obliged to pay an amount for redistribution purposes to other millers. Export quotas are managed by the South African Sugar Export Corporation (Sasexcor) through which all export volumes have to go. Further, exports have

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<sup>10</sup> [http://www.sasa.org.za/sugar\\_industry/MarketCompetitiveness.aspx](http://www.sasa.org.za/sugar_industry/MarketCompetitiveness.aspx).

<sup>11</sup> <https://www.bloomberg.com/news/articles/2014-04-08/south-africa-sugar-fee-raise-means-first-import-duty-in-4-years>.



to be of bulk raw sugar unless if special permission is obtained from SASA. Sasexcor is then obliged to buy the full export quota from millers at prices determined by SASA (das Nair et al., 2017).

The SADC Sugar Cooperation Agreement is meant to facilitate trade within the region and the development of the industry. Under this agreement, there is partial access to the SACU market for SADC surplus sugar producers. This partial access is in the form of import quotas governed by a formula that allocates access based on the size of each country's surplus sugar production, and the level of market growth in SACU. The rationale is to offer non-SACU surplus producers the opportunity to export some level of duty-free sugar to the region at higher prices than they can get in global markets. This process is managed by the Technical Committee on Sugar (TCS) made up of government and industry representatives. The TCS meets allegedly after the sugar producers meet in their own forum, the Sugar Producers Consultative Forum (SPCF) (das Nair et al., 2017).

The regulation of the industry appears strongly influenced by the major businesses although, in some years, government oversight in South Africa has constrained prices by comparison with countries where a quasi-monopoly producer has been able to exert its market power without oversight. In countries such as Zambia and Malawi, although there are policies for the sector, there is a single dominant firm in each country which effectively has unilateral pricing power. In Tanzania and Mozambique there are industry arrangements managed together with the government.

In addition, mergers have yielded greater regional concentration, such as through the acquisition of Lonrho's interests in Malawi by Illovo. This means that the closest major rival across a border may be a related entity which would not engage in head-to-head competition. Concerns have also been raised about tax avoidance (Lewis, 2013).

On the other hand, the division of proceeds by which sugar cane farmers are rewarded with a share of the revenues from sugar sales means these farmers, typically contracted through out-grower schemes, have a stake in a higher domestic sugar price (das Nair et al. 2017). At the same time the high local prices undermines downstream manufacturers of food products such as confectionary and baked goods. There are even examples of firms relocating production from Zambia to South Africa due at least in part to the sugar price (das Nair et al. 2017). In other words, the exertion of market power by multinational producers is an important factor in the premature de-industrialisation.

### **3.3 Poultry and animal feed**

The animal feed to poultry value chain highlights the critical challenges which need to be met for local industrialisation to satisfy the demand from growing urban populations. The competitiveness of the overall value chain depends on the pricing and supply of the main feed components (of maize and soya, partly dependent in turn on fertilizer), through the efficient production of poultry in breeding, broiler production, processing and distribution arrangements. Linked investments at each level and overall coordination are obviously important (Ncube et al, 2017).

Commercial poultry demonstrates particularly rapid demand growth as the most important source of protein for consumers. Although almost all countries in Southern African remain net importers, poultry production across the countries in the study has increased substantially (Bagopi et al. 2016). Production in South Africa has come under pressure in 2015 and 2016 from low cost imports from Europe, North and South America which have accounted for around 20 per cent of local demand (Ncube et al., 2017).

The growth in the poultry sector has been especially rapid in countries such as Zambia where there is potential for substantially expanded production of the main components of animal feed (maize and soya). This can lower the cost base of the region as a whole with the appropriate enabling framework and linked investments at different levels of production. Indeed, Zambia moved to being a net exporter in 2013/14, mainly to the DRC, Zimbabwe and Malawi (Ncube, Roberts and Zengeni, 2016). In 2017, Zambia exported animal feed and soya to South Africa.

In addition to poultry, South Africa is a large net importer of soya beans and oilcake (from Argentina and Brazil) much of which is destined for animal feed. Moving to source from the region would mean a major growth in production in other southern African countries such as Zambia. The

competitiveness of production requires investment and reduced transport costs, to build value-addition onto the competitive production of the agricultural feed inputs.

Commercial poultry in the region is largely undertaken by businesses which are associated with three main groups, Rainbow (RCL Foods), Astral and Country Bird Holdings. The two main inputs to poultry meat production are feed and breeding stock which make up 58 per cent and 13 per cent respectively of the cost of a processed chicken.<sup>12</sup> Breeding operations produce parent stock and supply the day-old chicks for broiler production. Feed requires processing facilities such as for the crushing of soya beans and the milling of maize. Finally, the chickens have to be slaughtered, processed and supplied to retail outlets and the fast food industry, meaning investments in abattoirs and the cold chain for distribution.

A more competitive regional value chain requires cheaper animal feed, which in turn depends largely on the prices of soya and maize, together with coordinated investments along the value chain to achieve economies of scale and throughput.

South Africa, by far the largest producer and consumer of poultry in sub-Saharan Africa, liberalised almost all agricultural markets (aside from sugar) in 1996 (Makhaya and Roberts, 2013). Maize supply has generally been in surplus and prices on the South African Futures Exchange (SAFEX) reflect this being close to export parity prices in years without drought conditions. Figure 3 illustrates the computed export parity prices that could be earned on exports (that is, net of transport and related costs) and the import parity prices which a customer would expect to pay for delivered imports of maize (that is, including transport and related costs). The quoted prices for yellow maize on SAFEX and for maize traded in Zambia reflect the actual market prices in these countries. In drought years in South Africa, notably in 2015 and 2016, Figure 3 reflects the jump in the SAFEX yellow maize prices towards and even beyond import levels which, given transport costs, mean prices some \$80 or around 50 per cent above export prices.

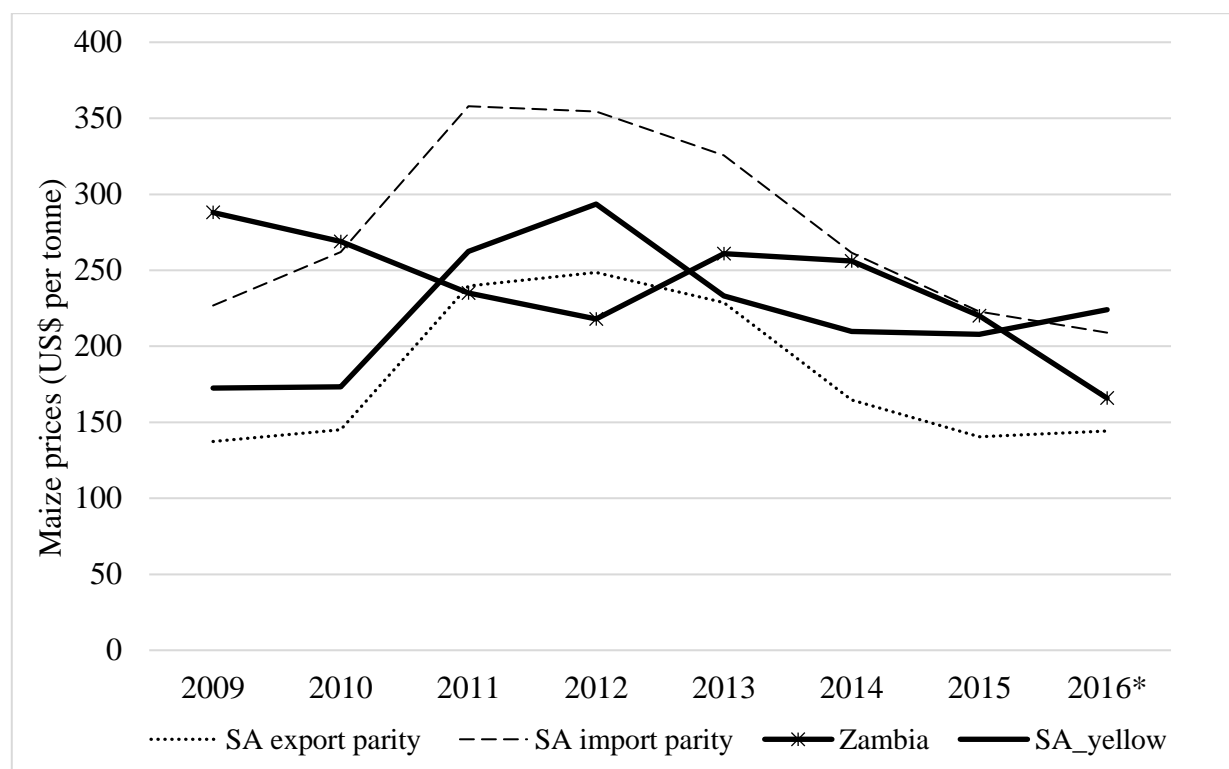
The higher prices in drought years place the local poultry producers in South Africa in a much worse position against international competitors such as in Europe or South America. Increased rainfall variability with climate change, coupled with growing local demand, means that the poultry industry will be affected by these shocks more frequently. By comparison, maize prices in Zambia are sustained by the price floor decided by government at which the Food Reserve Agency will buy from small farmers.<sup>13</sup> Zambia is also not necessarily subject to the same rainfall variability as South Africa and, indeed, it had good harvests in 2015/16 when South Africa had a drought. As a result, prices in US dollar terms declined in Zambia in 2015 and 2016 (Figure 3) and Zambia allowed substantial exports in 2016 after ensuring its local stocks were maintained.

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<sup>12</sup> Calculated from costs for South African producer, including slaughtering costs (but not brining, freezing and packaging) (Ncube et al., 2016).

<sup>13</sup> This price was maintained at 75 kwacha per 50kg bag in 2016 or close to US\$150/tonne.

Figure 3. Maize prices



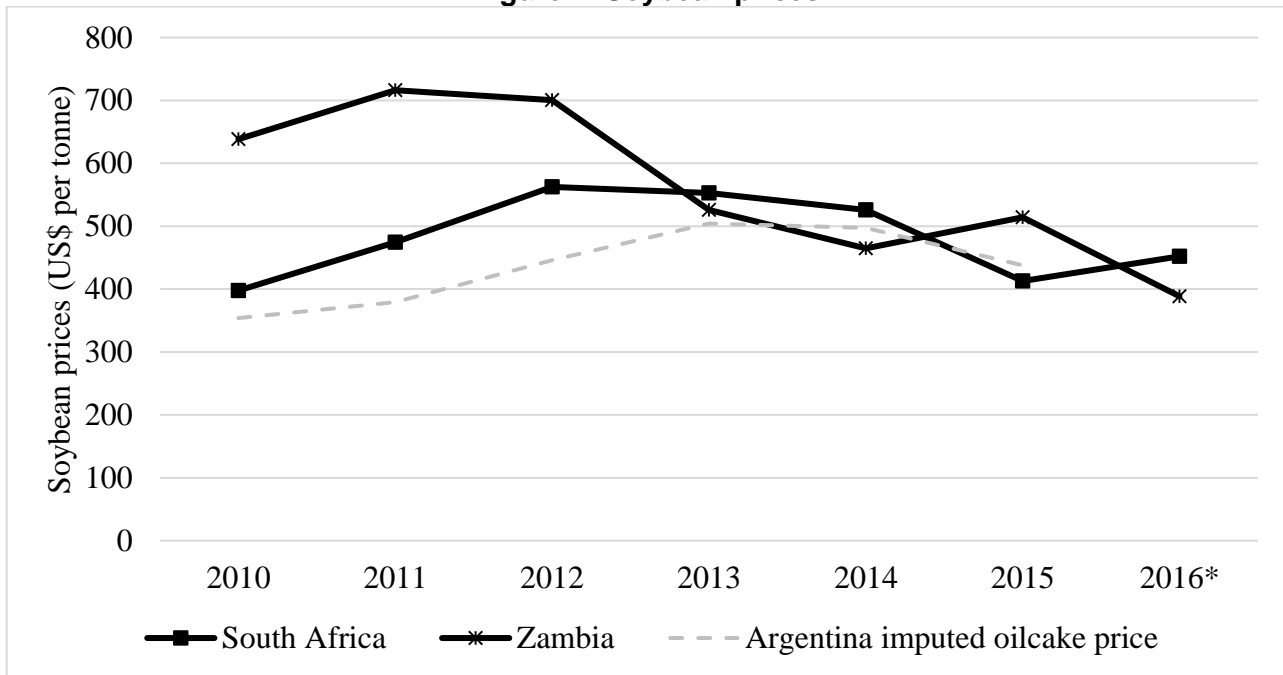
Source: FAO (2015); SAFEX; Zambia National Farmers Union; Stockfeed Manufacturers' Association.

Note: \* The 2016 prices are up to September and July 2016 for Zambia and South Africa, respectively. Yellow maize is predominantly used in animal feed although the prices are in line with those of white maize.

Soya prices in South Africa reflect a large and sustained shortfall in production (of around half of demand) which is met by imports of beans and soya oilcake from Brazil and Argentina (Figure 4). The investments in production in Zambia have led to relative prices in that country falling significantly from 2012 when supply exceeded demand and the country became a net exporter to its neighbours. The next challenge is for Zambia to be in South Africa, especially in the main urban areas of Gauteng province including Johannesburg. This means being competitive against Argentina oil cake landed in South Africa. As a large net importer, the South African price is always an import price. In 2013 and 2014, and again in 2016, Zambia prices dipped below those in South Africa, reflecting strong growth in production and prices which enable overland transport costs to be incurred from Zambia to South Africa in order to be competitive when delivered in South Africa. Major producers in Zambia indicated that they anticipated being able to produce at around \$350/tonne which would realise this potential with transport costs which have been around \$100/t, although these transport costs are far above competitive levels (Ncube et al. 2016; Vilakazi and Paelo 2017a and b). In early 2017, transport costs from Zambia to South Africa for soya and animal feed fell to around \$40/t as Zambian exporters benefitted from back-hauls from the transport of consumer goods from South Africa to Zambia and this made Zambian soya and feed competitive landed in South Africa.<sup>14</sup>

<sup>14</sup> Interview with Heiko Koster, animal feed supplier, January 2017.

**Figure 4. Soybean prices**



Sources: FAOSTAT for Brazil, Zambia and Zimbabwe. SAGIS for South Africa (Randfontein); Trademap for Argentina imputation, which is an estimated landed price of oil cake in South Africa. Note: \* The 2016 prices are up to September for both Zambia and South Africa; Data for South Africa and Zambia was updated from SAFEX and Zambia Farmers Union website respectively. The price from Zambia National Farmers Union is an average of the Central province converted at \$1=ZMW10.1.

The potential for a competitive poultry industry requires integrating production from the best land for expanded low cost agriculture, such as in Zambia, to supply the major sources of consumption, in the big cities led by Johannesburg. In Brazil, the middle of the largest soya production region of Mato Grosso state in Brazil to Sao Paulo, the largest city, is around 1800km. This is about the same as from the agricultural production in Zambia to Johannesburg. Incidentally the USA has similar distances from the grain baskets of Iowa and Illinois to the large east coast urban conurbations. In southern Africa, coordination of investment and production along the value chain means working together across borders. This is the challenge of the colonial legacy and requires country cooperation as part of regional integration focused on industrial policy and not simply liberalisation.

The major companies in the region already have operations stretching across borders. Animal feed and poultry production in the region is dominated by large vertically integrated firms, who hold the rights to breeding stock, typically on an exclusive basis, from European and North American multinational corporations (Ncube et al, 2016). While vertical integration can support the large linked capital investments required at different levels of the value chain, the concentration raises concerns about market power and anti-competitive conduct. This has been evident in a number of competition cases in South Africa and Zambia involving poultry producers. It also appears to be evident in the pricing of day-old chicks in Zambia. In 2012, day-old chick prices in Zambia were more than twice that in South Africa. Increased investment in production and competition in breeding stock brought a halving of chick prices in Zambia from 2012 to 2015 (Ncube et al. 2016).

Broiler production is widely undertaken by small-scale producers who can be part of the value chain provided that they can access inputs and are able to utilise facilities for slaughtering. This talks to an appropriate policy framework which builds capabilities while ensuring participation.

### 3.4 The spread of supermarkets<sup>15</sup>

Southern African countries have experienced strong growth in the number and spread of supermarkets over the past two decades, part of what has been identified as a fourth international wave of expansion (Reardon and Hopkins, 2006). Alongside rapid urbanisation, supermarkets are changing food systems, driving trade flows in food and consumer goods, as well as related services such as transport (Reardon et al., 2004). At the same time, supermarkets have moved away from serving the traditional high-end affluent consumers in urban areas and are successfully penetrating new markets in lower income communities (Tschirley et al. 2015). The diversity of offerings includes wholesalers extending into retail and buying groups supporting independent supermarkets with purchasing and logistics.

The two main South African chains (Shoprite and Pick n Pay) have rapidly spread across southern Africa, for example, these groups now have 38 stores in Zambia from a handful ten years earlier. Zimbabwe has a longer established supermarket presence with the TM/PnP joint venture, Spar and OK chains accounting for 140 stores. There are other chains reaching across countries, including Choppies of Botswana, Food Lovers Market, Game (Walmart) and Woolworths. The numbers of stores in different countries are still small compared to the penetration of supermarkets in South Africa, pointing to the continued expansion underway. Between 80 per cent and 90 per cent of Shoprite and Pick n Pay's total number of supermarkets are still in South Africa.

The routes to market of supermarkets are oriented to processed and packaged food products, a large proportion of which are imported by SADC countries (other than South Africa). For example, it is estimated that more than 80 per cent of the products sold in supermarkets in Zambia are imported, mostly from South Africa, even while local food processing has been growing in that country. The food, beverages and tobacco sector accounts for more than 70 per cent of manufacturing value added in Zambia.

Supplying supermarkets means meeting the private standards and requirement of supermarket chains in terms of costs, quality, packaging, delivery schedules and quantities. These require significant investments in plant and capabilities. Obstacles also include payments for shelf space and long payment periods in some instances. The results of a survey of supermarkets and suppliers in Zambia revealed that the perceptions of local suppliers of their capabilities deviated substantially from that of the supermarkets across the range of price and non-price dimensions. The gap was most notable in terms of volume, lead times and condition of the processing plant (Ziba and Phiri, 2017).

The importance of investment in productive capabilities is highlighted by the association of investment in machinery and systems (such as barcoding) with supplying the supermarkets. The supply by Zambian producers to supermarket chains in Zambia is also associated with exporting by these producers as the spread of supermarkets across the region mean they have effectively become key governors of routes to market (Ziba and Phiri, 2017). The supermarkets have invested heavily in regional distribution centres and logistics to lower the costs of regional sourcing. While this has led South Africa exports into other countries in the region, it also does open the possibility of increased trade in the other direction if the local producers can meet supermarket expectations.

While the growth of supermarkets in the region has improved competitive pricing and accessibility to a broader range of products and services in the different countries, it has also imposed challenges on the ability of suppliers (specifically small farmers, food processing and manufacturing firms) to enter the supermarkets' supply chains. The obstacles include meeting supermarkets' standards and packaging, investing in productive capabilities, cost competitiveness in sourcing and processing of agricultural produce. At the same time, the main supermarket groups are also linked with property developers and secure space in shopping malls on an exclusive basis. This undermines the ability

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<sup>15</sup> Unless otherwise indicated, this draws from das Nair and Chisoro (2015 and 2017); das Nair, R., M. Nkhonjera, P. Ncube, F. Ziba (2017); Ziba and Phiri (2017).

of local stores to access prime retail space and, given the concentration of supermarkets, raises competition issues which can be addressed in different ways including through urban planning.

Supermarkets are integrating the region through their investment in transport and logistics but not necessarily in ways supportive to local producers. This has been exacerbating unbalanced trade and raises challenges for the adoption of regional strategies if some countries perceive themselves to be losing out from integration. The issue is, therefore, how can supermarkets be partners in regional industrial development in order for increased trade to be part of building capabilities across countries which holds the prospect of moving the southern African region as a whole from being a net processed food importer to being a net exporter of food products. This requires a combination of: a regional code of conduct for supermarkets; supplier development initiatives with targets for local sourcing; and, agro-processing policies to build industrial capabilities of suppliers, with supermarkets as key routes to market.

The code of conduct is necessary to ensure the retail space is open, such that shelf space is available to smaller brands, and anti-competitive arrangements are not employed to restrict rivalry. Supplier development initiatives combine advice by supermarkets on standards and supply requirements with commitments to stock products. It means that supermarkets take-on a critical role in fostering local supplier capabilities in order to meet concrete targets for local and regional sourcing. Without these expectations, individual supermarket chains do not have the incentive to develop suppliers who can also sell to their rivals. There is positive externality effect in supporting suppliers which means the buyers under-invest in their upgrading. An alternative is for supermarkets to have exclusive arrangements with suppliers. While this is a possible solution to a limited extent, suppliers also need to achieve scale economies (and supply a wider range of customers), and exclusive arrangements can be abused by a buyer with market power.

Initiatives to support local procurement by supermarkets can induce local production in food products (as well as other consumer goods) and regional trade. In the absence of such interventions, trade and production is likely to be increasingly skewed to South Africa as well as deep sea imports. In countries such as Zambia, soft interventions have induced supermarkets to increase local procurement of dairy, processed grains, edible oil and household products over the last 5 years. For example, Shoprite has made commitments to local procurement and has signed memoranda of understandings to work together with the Zambian Development Agency and private enterprise development programme. Complementary measures are required to ensure improved supplier capabilities back through the value chain.

#### **4. Markets and industrial development in Africa**

There has been growth in manufacturing across African countries from the mid-1990s accompanied by increased trade in manufactures between African countries (Balchin et al, 2016). Food and beverages is one of the largest manufacturing sectors in African countries, albeit oriented to domestic demand. In spite of the growth in manufacturing, it is from a very low base and the improvements in productivity have been relatively poor compared to other regions (Diao et al., 2017). There have been some productivity improvements within sectors and little improvement from a structural change perspective in terms of resources shifting to higher productivity sectors. This is consistent with the findings of Rodrik (2015) and McMillan et al. (2014) that in terms of the share of manufacturing, in employment or in output, there has been deindustrialisation which is attributed to the effects of trade and globalisation as African countries have failed to develop comparative advantages in manufactures.

This is not surprising. The importance of developing more sophisticated and diversified capabilities in industrial production has been widely identified (see Cimoli et al. 2009). Learning is an incremental and path dependent process. This is consistent with observations as to the way in capabilities can evolve across product space (Hausmann et al., 2007; Hidalgo, et al. 2007), which is an important part of the rationale for a coherent and focused industrial policy to shape structural change. Liberalisation does not support the learning and upgrading which is required. Instead, upgrading and returns depend on how firms are located in international value chains in terms of: the nature of the processes they undertake; the differentiated product lines manufactured (in terms of quality and

sophistication); the functions including design, R&D and branding they are engaged in; and, the ability to leverage capabilities to move to different sectors (Humphrey and Schmitz, 2004).

I draw on the discussion of the issues related to agriculture and food production to consider the implications for three main areas. First, what is the nature of regional and international linkages? Second, how does governance work and what is the extent of market power and its exertion? Third, what are the implications for industrial policy and the role of the state?

#### **4.1 Regional and international linkages**

There has undoubtedly been greater international integration of food production in the economies of southern Africa. The question is whether it was accompanied by local investment and capabilities development, as was claimed by proponents for opening-up markets. Inputs such as fertilizer and seed (not covered here) are supplied by a very few multinational corporations. Large global trading groups also account for a substantial proportion of the crops in countries such as South Africa where they have bought or joint-ventured with local agro-conglomerates (Greenberg, 2017). Alongside this are regional groups such as ETG and those involved in animal feed and poultry.

On the agricultural inputs side, African countries appear to be exposed to the market power of global companies with little recourse, as discussed further in section 3.1, with reference to fertilizer. There are very limited linkages through which local capabilities are being built, aside from in South Africa. In the production and retail of food, there are more significant regional linkages which have evolved to serve the main markets being the growing urban areas in the region. However, the cases of sugar and poultry are quite different. The sugar sector has seen development of production for export into deep sea markets while high prices are imposed on local buyers even while this undermines local industrialisation through downstream processing.

In poultry, coordination and expanded production of animal feed, as part of the regional organisation of production in poultry, is linked to the observed growth in trade (see, for example, Farole, 2016, Keane, 2015). As highlighted in the studies drawn on here, international firms operate across the southern African region and make linked investments at different levels of processing, with trade in intermediate and final products to supply regional markets. A regional value chain approach recognises the increasing organisation of production within and between firms across borders and the potential for building strong regional production systems.

Supermarkets are making regional linkages through investments in distribution centres, logistics and transport. They are concentrated with a small number of mainly South African groups shaping routes to market for suppliers. The supermarkets have bargaining power over suppliers and govern the supply chain. However, they are also regionally rooted which means that there is scope to engage them to support local upgrading by suppliers to meet first regional and then international standards. In this way, there is the potential for firms to first seek insertion into *regional* value chains in order to gain the capabilities required to then participate successfully in global value chains (Farole, 2015). Supplier development programmes can be implemented where suppliers upgrade to improve their competitive position in local, regional and then global value chains. Issues such as harmonisation of standards or border controls may be easier to negotiate between countries that share borders than between those that do not. It has also been suggested that, for some countries, plugging into regional value chains as an end in itself might be the most viable strategy for development, as they may have very low domestic capabilities (Keane, 2015). However, regional value chains in southern Africa remain underdeveloped as there has not been a coherent approach by governments to support regional linkages associated with capabilities development and industrialisation, and to engage with regional business groups.

The failure to develop coherent strategies is partly because the regional spread of businesses and the linkages across countries has been ignored until recently. In food, it is extremely important to understand regional systems of production and supply, identifying where there is the potential for increased production to meet the growing demand from major urban areas in the region.

#### **4.2 Governance and market power**

Governance is at the heart of the value chain approach in describing the “process by which particular players in the chain exert control over other participants and how these lead firms appropriate or distribute the value that is created along the chain” (Bair, 2009: 9). The lead firms have typically led to the chains being described as buyer driven or supplier driven, depending on the firm’s position in the chain (Ponte and Sturgeon, 2014). The lead firms drive the coordination of activities across countries, generating and controlling the division of the returns. The economic forces at work are not new, nor in many ways are the challenges they pose to industrial policy in African countries (UNCTAD, 2015). What is new is the much greater potential for the functional integration of internationally dispersed activities and their control through advances in logistics, design, branding and marketing with the use of information and communication technology.

The nature of the coordination is a second important dimension (Ponte and Sturgeon, 2014). The arrangements span a spectrum from arms-length market relations, through modular, relational, captive, and hierarchical. These vary in the balance of power between parties in the value chain, and with the specificity of assets, the ability to switch suppliers, the extent of collaboration on product development, and the tolerance of distance. In relational arrangements, a third level of governance can be identified in terms of the setting of norms and conventions which establish the orders of worth or value (Ponte and Sturgeon, 2014). These may be values set by supermarkets as buyers in terms of the uniformity of products or influenced by tastes to impose standards related to the conditions under which production takes place (such as organic or free range production).

The lead firms and the complex governance structures influence the evolving nature of production and trade networks, and determine trajectories of upgrading and patterns of access and or exclusion (Gereffi, 2014). Firms in different countries can participate in international production to undertake different tasks rather than producing a complete product. The analysis also identifies where there are pressure points where government interventions can influence the outcomes.

The studies of food production and retailing in southern Africa drawn on here emphasise the importance of understanding regional power relations in governing the location of economic activities and the returns to different parties. The spread of supermarkets is very much about regional investments and control across borders. This has important implications for suppliers, for example in Zambia, seeking to supply urban consumers in South Africa. Walmart, which has entered through an acquisition of a South African chain, has failed to have the impact which was predicted by global value chain analysis.<sup>16</sup> Instead, it is the control over urban retail space (including exclusive arrangements with property developers) by regional supermarket chains led by Shoprite, their investment in logistics and distribution, and relationships with suppliers, which have governed activity (das Nair et al, 2016).

The importance of logistics has been widely overlooked in international studies (Coe, 2014). For example, the arrangements regarding port facilities, storage, warehousing and transport are critical to the power exerted by suppliers of fertilizer as well as grain traders. While notionally markets appear to be contestable, the mark-ups that are applied along the supply chain reflect the importance of control over these facilities. This also points to the rationale of large multinationals, such as Yara in fertilizer, promoting corridor initiatives alongside donors, to governments. For example, the Beira Agricultural Growth Corridor (BAGC) and the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) announced with much fanfare at the World Economic Forum appear to be partly associated with control over the mundane activities of warehousing and bagging of fertilizer at the ports of Beira and Dar es Salaam in the context of the very high fertilizer prices being earned.<sup>17</sup>

The ability of rivals such as ETG, which expanded operations from East Africa, and Greenbelt, from South Africa, to exert competitive pressure has depended partly on logistics. ETG’s expansion was aided by being able to acquire Kynoch in 2014 with its blending and storage facilities (Greenberg,

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<sup>16</sup> See Competition Appeal Court decision in the Massmart Walmart acquisition.

<sup>17</sup> See also Makhaya and Roberts (2013).



2017).<sup>18</sup> Greenbelt established a blending facility in Beira and became a major supplier in Mozambique, Malawi and Zambia. However, as noted above, Yara subsequently acquired Greenbelt and neutralised the competitive threat it posed.

The dimensions of governance and exertion of market power can also only be properly understood if seen in a global context which reveals the influence of international cartels over prices and supplies, with major effects on food production in Africa. The case of sugar (as with fertilizer) reflects high levels of regional concentration, with the major producers being part of multinational and regional companies. Trade barriers and regulatory restrictions have been heavily influenced by the main industry participants. While sugar production has grown, the high prices charged in many national markets have undermined downstream industrialisation of food processing (das Nair et al., 2017). This has effectively reinforced southern Africa as an exporter of agricultural commodities and importer of manufactures.

Dominant firms and tight knit oligopolies may be able to entrench their positions and the supra-competitive rents being earned, creating long-term problems in the performance of the economic system (Geroski and Jacquemin, 1984: 22). A more permissive stance to dominant firms internationally and in particular jurisdictions such as the USA (Baker and Salop, 2015) has further allowed higher levels of concentration and the exertion of market power. International consolidation in agriculture and food production at different levels from inputs through to retail has been mirrored in southern Africa (Greenberg, 2017).

This raises questions about what is the role for competition law and policy as an important part of setting the rules for the market economy. How can the rules be changed in order to shift the balance in favour of different outcomes, such as constructively opening-up markets? Competition policy is not simply limited to enforcement against egregious offences such as hard core cartels that can be compared to racketeering or fraud. Indeed, there is a risk that elevating competition law as the primary mechanism for disciplining market power diverts attention from using other policy levers as part of a wider competition policy, including industrial policies and development finance to foster the dynamic competition required for industrialisation, where linkages and collaboration are part of upgrading and improving the quality of competition. For much of the southern African region there is inadequate national and regional competition to stimulate technology upgrading and regional development (see AfDB *et al.*, 2014), and competition enforcement will not create local competitors. For example, proactive intervention to lower transport costs and provide support services to poultry can promote a more integrated and competitive poultry industry. Similarly, regulatory provisions to ensure that supermarkets engage in supplier development can overcome the positive externalities which see supermarkets instead focusing on exerting buyer power to increase their short-term margins instead of entering into arrangements to support supplier upgrading and investment.

The competitive market mechanism should be evaluated in terms of its accomplishments in promoting individual freedoms (to produce, develop productive capabilities, and make autonomous choices), as opposed to the conventional framework of welfarist assessment (Sen, 1993). Sen distinguished the 'opportunity aspect' relating to the range of choice, and the 'process aspect' which includes decisional autonomy not restricted by interference from others. Each of these is directly relevant for the choices made regarding competition provisions. With direct reference to competition law, Atkinson has recently argued further that competition policy should explicitly take distribution into account, both for fairness considerations and because it will mean a more dynamic economy (Atkinson, 2015). A rebalancing of the standards used to judge dominance and its abuse also needs to take into account the interface with industrial policy (Roberts, 2010 and 2013).

### **4.3 Institutions of industrial policy, regulation, and the role of the state**

The analyses of value chain upgrading, the importance of developing more diverse and sophisticated export capabilities, and the need to recognise processes of learning and capabilities formation, have not led to a consensus on the appropriate policies to be followed. At one extreme

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<sup>18</sup> See also <http://www.kynoch.co.za/about-us/> accessed 4 April 2017. In November 2012, ETG became co-owned by Carlyle, Standard Chartered Private Equity and Pembani Remgro, although it appears Carlyle later exited in August 2015.

are recommendations that countries lower labour and other costs and aggressively market themselves to foreign direct investors in order to be able to compete to insert themselves into global value chains (see, for example, Morris et al., 2012). This may work well in attracting cut-flower exporters, but it is not evident how this addresses the challenges of market power and ensuring meaningful participation in value addition and upgrading. It is notable that Zambia Sugar was given a five-year tax holiday and other government support but this did not discipline their local prices.

The credibility of government commitments is obviously important and this need not be established through formal institutions (see, for example, Sen and te Velde, 2012; Sen, 2013). However, if the arrangements to which governments commit allow businesses simply to exercise market power to extract rents then there may be little value from the deals for the host country and the arrangements will be at risk under a change of regime, no matter what formal backing they have. Institutional collaborations which support the provision of limited public goods, such as infrastructure and targeted skills, along with measures to address coordination failures, involve shared benefits which support the creation of productive rents and the facilitation of learning (Khan, 2010; Noman and Stiglitz, 2012).

The development of competitive regional food manufacturing indicates that institutional collaborations could be set up on a regional basis, across countries in which the companies are located. For example, a supermarket strategy for supplier development could be adopted by neighbouring countries. Similarly, the development of the animal feed to poultry value chain requires regional arrangements to grow production in Zambia, and efficient processing and supply across two borders to supply the largest demand in the region in the greater Johannesburg area of South Africa. The potential is highlighted by the recent investments trebling production of soya in Zambia over five years to meet regional demand for animal feed.

Effective regional institutions are also required to discipline market power. Cartels that operate across countries are not necessarily evident to individual agencies. For example, market sharing arrangements for sales across a group of countries will only be readily apparent if data on sales and marketing strategies are obtained for the countries together. Companies can also lobby for tariff and non-tariff barriers to entrench their unilateral dominant positions through effectively dividing country markets up. Instead of what is in fact collusion, national competition authorities may end up trying to separately prosecute excessive pricing. There is evidence of the regional spread of cartels in southern Africa, as demonstrated by the cartel cases uncovered by the South African authorities where settlements have revealed the regional extent of the conduct (Kaira, 2017). The fertilizer cartel described above had regional aspects in the form of exports. The cement cartel operated across the whole of SACU using information exchange through an industry association (Competition Commission, 2015).

The credibility of governments does not just relate to keeping to commitments made to investors but also to disciplining abuses of market power if expectations are to be set for performance-based support. These are part of Amsden's reciprocal control mechanisms (Amsden, 2001). In addition, industrial policies are important to foster competitive markets through supporting potentially efficient local participants. Korea and Japan used competition policy as part of a wider industrial policy to ensure effective rivalry (Amsden and Singh, 1994). The Korean Fair Trade Commission also monitored subcontracting arrangements by the large *chaebols* to ensure that collaboration supported the development of subcontractor capabilities (Roberts, 2010). Competition authorities can be understood as wider regulatory bodies for markets, generating competition, rather than simply as enforcers operating on the underlying premise that *in the absence of* discrete conduct, competition will prevail (Budzinski and Beigi, 2015).

Lastly, it is also important to build regional industrial policy institutions across southern Africa. These include: development banks; institutions supporting the adoption and adaptation of improved technologies; and, facilities for testing and certification of products to lower the costs of meeting standards as imposed, for example, by supermarkets as well as in export markets.

## 5. (Re)shaping markets?

The agriculture and food processing activities explored here illustrate the dimensions of regional and global integration, the ways in which power is entrenched and exerted, and the key challenges for the state. I have argued that the regional spread of businesses, the linkages of production systems and value chains across borders and the implications for industrialisation need much greater attention in southern Africa. Businesses, and notably supermarkets, are integrating the region. The question is how does this impact on the challenges to generate the structural change required for industrialisation.

The analysis has also highlighted the impact of international and regional arrangements to exert market power in fertilizer and sugar. The high cost of fertilizer undermines agricultural production and is partially responsible for the high food prices in African cities. High sugar prices have undermined downstream processed food producers. The pricing and availability of agricultural products impacts on the ability to grow the manufacturing of processed food products as part of industrialisation.

By comparison, the developments in poultry demonstrate the potential for building regional value chains with linked investments across countries. The agricultural potential in Zambia has increased supply of, and lowered prices for, animal feed. This has been supported by more efficient intra-regional transport. While the growth in Zambia has been substantial, for there to be a significant regional impact on the competitiveness of poultry production in order to replace deep sea imports the growth needs to continue, together with coordinated actions along the value chain to ensure efficient processing of the inputs through to supply of poultry products.

Ultimately, the analysis points to the challenge of moving the competition discourse from one of enforcement, which assumes that by addressing discrete anti-competitive conduct local competition will flourish, to the integration of competition policy with the development of local productive capabilities. It is important to address international cartels and this, in itself, poses important challenges for the development of international regulatory regimes. However, we need to go further, to frame the agenda in terms of the ways in which industrial policy and economic regulation can reshape markets to generate competition within local and regional markets in southern Africa.

Three key areas were identified for this agenda. First, the regional scope of actual and potential linkages needs to be better understood. Big businesses are integrating their activities across the region, but not necessarily to build productive capabilities for competitive production across borders. This relates to the second key area which is understanding how the regional value chains are governed and the extent of market power and its exertion by large firms. The regional reach of businesses can reinforce cartels and unilateral exertion of market power to earn rents and exclude local rivals, undermining industrialisation. A competition policy agenda which links to industrial policy is essential to generate competitive markets and stimulate dynamic rivalry built on investments in improved capabilities. Third, effective regional institutions are required to simultaneously discipline market power and support industrialisation. The appropriate actions and initiatives require sector-specific analysis. This paper has assessed the situation with regard to food production, an important sector in its own right.

## References

African Centre for Economic Transformation (ACET) (2014) *2014 African Transformation Report: Growth with depth*, Accra: ACET.

African Development Bank (AfDB), Organisation of Economic Co-operation and Development (OECD), United Nations Development Programme (UNDP) (2014). *African Economic Outlook: Global value chains and Africa's industrialization*. Available: <http://www.africaneconomicoutlook.org/en/downloads> .

Amsden, A. (2001). *The Rise of the "Rest": Challenges to the West late-industrialising Economies* . New York: Oxford University Press.

- Amsden, A. and A. Singh, (1994) 'The optimal degree of competition and dynamic efficiency in Japan and Korea', *European Economic Review*, 38: 940-951.
- Atkinson, A. (2015) *Inequality: what can be done?* Boston: Harvard University Press.
- Baker, J. and S. Salop (2015) 'Antitrust, Competition Policy, and Inequality', Working Paper 41, [http://digitalcommons.wcl.american.edu/fac\\_works\\_papers/41](http://digitalcommons.wcl.american.edu/fac_works_papers/41)
- Bagopi, E., Chokwe, E., Halse, P., Hausiku, J., Kalapula, W., Humavindu, M. and Roberts, S. (2016) 'Competition, agro-processing and regional development: the case of the poultry sector in South Africa, Botswana, Namibia and Zambia', in Roberts, S. ed. *Competition in Africa*, HSRC Press
- Bair, J. (2009). 'Global Commodity Chains', in Bair, J. (ed) *Frontiers of commodity research*. Palo Alto: Stanford University Press.
- Balchin, N, S. Gelb, J. Kennan, H. Martin, D. te Vilde, C. Williams (2016) *Developing Export-Based Manufacturing in sub-Saharan Africa Report*. Supporting Economic Transformation Programme, London: ODI.
- Bernstein, H. 2012. "Commercial Agriculture in South Africa since 1994: 'Natural, Simply Capitalism.'" *Journal of Agrarian Change* 13 (1): 23–46.
- Brahmbhatt, M., Bishop R., Zhao, X., Lemma, A., Granoff, I., Godfrey, N., and te Velde, D.W., 2016. *Africa's New Climate Economy: Economic Transformation and Social and Environmental Change*. New Climate Economy and Overseas Development Institute. London and Washington, DC.
- Budzinski, O. and M. Beigi (2015) 'Generating instead of protecting competition', in M. Gal, M. Bakhoun, J. Drexler, E. Fox, D. Gerber (eds) *Economic Characteristics of Developing Jurisdictions: Their Implications for Competition Law*, Cheltenham: Edward Elgar.
- Chabane, N., A. Goldstein, S. Roberts (2006) 'The changing face and strategies of big business in South Africa: more than a decade of political democracy', *Industrial and Corporate Change*, 15(3): 549-578
- Chisanga, B., Gathiaka, J., Nguruse, G., Onyancha, S. and Vilakazi, T. (2016) 'Agricultural development, competition and investment: the case of sugar in Kenya, South Africa, Tanzania and Zambia', in Roberts, S. ed. *Competition in Africa*, Pretoria: HSRC Press.
- Cimoli, M., G. Dosi, J.E. Stiglitz (2009) *Industrial policy and development: The political economy of capabilities accumulation*. Oxford: OUP.
- Coe, N.M. (2014) 'Missing links: Logistics, governance and upgrading in a shifting global economy', *Review of International Political Economy*, 21(1): 224-256.
- Competition Commission of South Africa. (2015). Referral of Complaint by Competition Commission of South Africa, Case No. 2008Jun3769.
- das Nair, R. and S. Chisoro (2015) 'The expansion of regional supermarket chains, changing models of retailing and the implications for local supplier capabilities in South Africa, Botswana, Zambia and Zimbabwe', WIDER Working Paper 2015/114.
- das Nair, R. and S. Chisoro (2017) 'The expansion of regional supermarket chains: Implications on suppliers in Botswana and South Africa', WIDER Working Paper 2017/26.
- das Nair, R., M. Nkhonjera, P. Ncube, F. Ziba (2017) 'Growth and Development in the Sugar to Confectionary Value Chain', CCRED Working Paper, forthcoming.
- das Nair, R. and L. Mncube, (2012). 'The role of information exchange in facilitating collusion: Insights from selected cases' in Moodaliyar, K. and S. Roberts (eds), *The Development of Competition Law and Economics in South Africa*. Pretoria: HSRC Press.

- Diao, X., M. McMillan, M. D. Rodrik (2017) 'The recent growth boom in developing economies: a structural change perspective', NBER Working Paper 23132.
- Farole, (2016) 'Factory Southern Africa? SACU in Global Value Chains', summary report, World Bank, 2016.
- Gereffi, G. (2014) 'Global value chains in a post-Washington consensus world', *Review of International Political Economy* 21(1): 9-37.
- Geroski, P and A Jacquemin (1984) 'Dominant firms and their alleged decline', *International Journal of Industrial Organisation* 2(1), 1-27.
- Gnutzmann, H. and P. Spiewanowski (2016) 'Did the fertilizer cartel cause the food crisis?', Beitrage zur Jahrestagung des Vereins fur Socialpolitik 2016: Demographischer Wandel – Session: International Trade and Development, No. A19-V2.
- Greenberg, S. (2017) 'Corporate power in the agro-food system and the consumer food environment in South Africa', *The Journal of Peasant Studies* (forthcoming).
- Hausmann, R, J. Hwang, and D. Rodrik. 2007. "What you export matters." *Journal of Economic Growth* 12(1): 1–25.
- Hernandez, M. and M. Torero (2013) 'Market concentration and pricing behavior in the fertilizer industry: a global approach', *Agricultural Economics*, 44: 723-734.
- Hidalgo, C., B. Klinger, A. L. Barabasi, and R. Hausmann. 2007. "The product space conditions the development of nations." *Science* 317: 482–487.
- Humphrey, J. and H. Schmitz (2004) 'Governance in global value chains', in H. Schmitz (ed) *Local enterprises in the global economy*. Cheltenham: Edward Elgar.
- Jayne, T. and D. S. Ameyaw (2016) 'Africa's Emerging Agricultural Transformation: evidence, Opportunities and Challenges', chapter 1 in AGRA (2016) *Africa Agriculture Status Report: Progress Towards Agriculture Transformation in Sub-Saharan Africa*. Nairobi: Kenya.
- Jayne, T. and S. Rashid (2013) 'Input subsidy programmes in Sub-Saharan Africa: a synthesis of recent evidence', *Agricultural Economics* 44(6): 547-562.
- Jenny, F. (2012) 'Export cartels in primary products: the potash case in perspective', S. Evenett and F. Jenny (eds) *Trade, Competition and the Pricing of Commodities*. Centre for Economic Policy Research.
- Kaira, T. (2017) 'A Cartel in South Africa is a Cartel in a neighbouring country', in Klaaren, J., S. Roberts and I. Valodia (eds) *Competition law and Economic Regulation: addressing market power in Southern Africa*, WUP forthcoming.
- Keane, J. (2015) 'Firms and Value Chains in Southern Africa', ODI Working Paper.
- Khan, M. (2010) *Political settlements and the governance of growth-enhancing institutions*. London: SOAS
- Lall, S. V., J. V. Henderson, A. Venables (2017) *Africa's cities: opening doors to the world*. World Bank.
- Lewis, M. (2013) *Sweet nothings: the human cost of a British sugar giant avoiding taxes in southern Africa*. Action Aid.
- McMillan, M, D. Rodrick and I. Verduzco-Gallo (2014) 'Globalization, structural change and productivity growth with an update on Africa', *World Development* 63: 11-32.

- Makhaya, G. and S. Roberts (2013) 'Expectations and outcomes – considering competition and corporate power in South Africa under democracy', *Review of African Political Economy* 138: 556-571.
- Mills, G., O. Obasanjo, J. Herbst, D. Davis (2017) *Making Africa Work: A handbook for economic success*. Cape Town: Tafelberg.
- Morris, M, R. Kaplinsky, Kaplan, D. (2012). "One thing leads to another" – commodities, linkages and industrial development', *Resources Policy* 37 (4): 405-484.
- Nakamura, S., R. Harati, S. Lall, Y. Dikhanov, N. Hamadeh, W. Oliver, M. Rissanen, M. Yamanaka (2016) 'Is living in African cities expensive?', World Bank Policy Research Working Paper 7641.
- Ncube, P., S. Roberts and T. Zengeni (2016) 'The development of the animal feed to poultry value chain across Botswana, South Africa, Zambia and Zimbabwe', WIDER Working Paper 2016/2.
- Ncube, P., S. Roberts, P. Samboko, T. Zengeni (2017) 'Identifying growth opportunities in the Southern African Development Community through regional value chains - The case of the animal feed to poultry value chain', WIDER Working Paper 2017/4.
- Ncube, P., S. Roberts and T. Vilakazi (2015) 'Study of competition in the road freight sector in the SADC region: a case study of fertilizer transport and trading in Zambia, Tanzania and Malawi', CCRED Working Paper 2015/3.
- Ncube, P., S. Roberts and T. Vilakazi (2016) 'Regulation and rivalry in transport and supply of fertilizer industry in Malawi, Tanzania and Zambia', in Roberts, S. (ed) *Competition in Africa – Insights from key industries*. Cape Town: HSRC Press.
- Noman, A. and J.E. Stiglitz, (2012) 'Introduction', in A. Noman, K. Botchwey, H. Stein and J.E. Stiglitz (eds) *Good Growth and Governance in Africa: Rethinking Development Strategies*, Oxford: OUP.
- Ponte, S. and T. Sturgeon (2014) 'Explaining governance in global value chains: A modular theory-building effort', *Review of International Political Economy*, 21(1): 195-223.
- Reardon, T., P. Timmer, and J. Berdegue (2004). 'The Rapid Rise of Supermarkets in Developing Countries: Induced Organizational, Institutional, and Technological Change in Agrifood Systems'. *e-Journal of Agricultural and Development Economics* 1(2): 168–183.
- Reardon, T., and R. Hopkins (2006). 'The Supermarket Revolution in Developing Countries: Policies to Address Emerging Tensions among Supermarkets, Suppliers, and Traditional Retailers'. *European Journal of Development Research* 18(4): 522–545.
- Roberts, S. (2010) 'Competition policy, competitive rivalry and a developmental state in South Africa', Chapter 11 in O. Edigheji ed. *Constructing a Democratic Developmental State in South Africa: Potentials and Challenges*, Pretoria: HSRC Press.
- Roberts, S. (2013) 'Competition Policy, Industrial Policy and Corporate Conduct' in J.E. Stiglitz, J. Lin Yifu and E. Patel (eds) *The Industrial Policy Revolution II: Africa in the 21<sup>st</sup> Century*. Palgrave MacMillan, New York.
- Rodrik, D. (2015) 'Premature deindustrialization', NBER Working Paper 20935.
- Sen, A. (1993) 'Markets and Freedoms: Achievements and Limitations of the Market Mechanism in Promoting Individual Freedoms' *Oxford Economic Papers* 45: 519-541.
- Sen, K. (2013). 'The political dynamics of economic growth'. *World Development* 47: 71-86.
- Sen, K. and D. te Velde, (2012) 'State-Business Relations, Investment Climate Reform and Economic Growth in Sub-Saharan Africa', in A. Noman, K. Botchwey, H. Stein and J.E. Stiglitz (eds) *Good Growth and Governance in Africa: Rethinking Development Strategies*, Oxford: OUP.

Suttie, D. and R. Benfica (2016) 'Fostering inclusive outcomes in sub-Saharan African agriculture: improving agricultural productivity and expanding agribusiness opportunities', IFAD Research Series 03.

Taylor, C.R. and D.L. Moss (2013) 'The Fertilizer Oligopoly: The case for global antitrust enforcement', Washington DC: The American Antitrust Institution.

Tschirley, D., T. Reardon, M. Dolislager, and J. (2015). "The rise of a middle class in East and Southern Africa: Implications for food system transformation." *Journal of International Development* 27 (5): 628-646.

UNECA (2017) *Economic Report on Africa 2017: Urbanization and Industrialization for Africa's Transformation*. Addis Ababa: Economic Commission for Africa.

Vilakazi, T. and A. Paelo (2017) 'Understanding intra-regional transport: Competition in road transportation between Malawi, Mozambique, South Africa, Zambia, and Zimbabwe'; WIDER Working Paper No. 2017/46.

Vilakazi, T. and A. Paelo (2017) 'Towards the integration of markets: Competition in road transportation of perishable goods between Malawi, South Africa, Zambia, and Zimbabwe', WIDER Working Paper No. 2017/49.

World Bank (2006) *Breaking Down Barriers – Unlocking Africa's potential through vigorous competition policy*. Washington DC: World Bank.

Ziba, F. and M. Phiri (2017) 'The Expansion of Regional Supermarket Chains: Implications for Local Suppliers: The Case for Zambia.' WIDER Working Paper 2017/58. Helsinki: UNU-WIDER.