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Competition law prescriptions and competitive outcomes: insights from Southern and East Africa

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Abstract

The spread of competition law across southern and East Africa is considered in light of issues raised by research done across the region in recent years in key markets. This research considers the nature and extent of competition in practice, and the role, if any, played by competition law and policy. The selected markets are for two commodities, cement and fertilizer, which can be considered the 'bread and butter' of competition enforcement, and the markets for services in telecommunications and finance commonly described under the heading of 'mobile money'. East Africa, specifically Kenya and Tanzania, are global leaders in the development of these services. The paper also reflects on work relating to barriers to entry in South Africa. Conclusions are drawn as to a competition policy and enforcement agenda to foster competitive markets in African countries.

JEL classification

L4, L61, L96

Introduction

Competition law has been vigorously promoted around the world with the adoption of competition laws being much remarked upon. There have been important debates, led by Eleanor Fox, on different models and possible convergence (for example, Fox 2012). In East and Southern Africa, most countries have adopted competition laws in the past twenty years. There has also been a push to adopt guidelines, for merger evaluation, restrictive practices (including cartels) and abuse of dominance. These have generally been done by 'international experts' and provide a picture of broad convergence on paper, albeit with the playing out of USA and EU differences, depending on the funding and the expert.

However, there has been relatively little comparative analysis of the interplay of policies and competition in practice as compared with the institutions and adoption of guidelines. Indeed, the latter have often been seen as outcomes in their own right. This chapter seeks to understand how competitive markets evolve and the challenges for competition authorities in nurturing this evolution.

There is a broad consensus that we want to foster competition which is based on investing in productive capacity and creating products responsive to consumers. We want markets which are open to participants and reward effort and creativity, while recognising that economies of scale and scope, and the size and duration of investments required for research and development, mean large firms are critical to economies. What is the role for competition law here?

In enforcement we seek to distinguish beneficial from harmful conduct, with the laws specifying how these effects should be distinguished in only the broadest terms. The tests seek to consider the probability and costs of type 1 and type 2 errors, where type 1 errors are false positives - finding harm where there is none, and type 2 errors are the failure to identify, sanction and deter harmful conduct where it is taking place. It is trite to observe that the probability and costs of these errors vary with country conditions. For example, higher barriers to entry mean the costs of under-enforcement are higher. The obvious implication is that countries should not necessarily have the same standards and onus in applying even identical legal provisions. In this context, the USA and the EU are far outliers in terms of their market characteristics being, by comparison with almost all other jurisdictions, incredibly large markets. They are outliers in many other ways also, such as in the history of their institutions and development of their laws. For example, the mandatory treble damages in the USA has very substantial implications for the balancing of possible under and over enforcement.

Most developing countries have faced a transplant of laws, no matter what has been done to 'localise' them in appearance. This is natural as experience is taken from other places and a body of knowledge is drawn on. The challenge is to craft a market-oriented approach to economic development which takes into account the real characteristics of these economies. These characteristics include the high levels of inequality along with the rapid growth of African economies since around the year 2000.

It is important to articulate and give effect to competitive markets which support the building of local capabilities, productive capacities and wider participation. If this cannot be done then competition law and the authorities will be side-lined. They will risk being viewed as irrelevant, something put in place simply to keep donors happy while the policy action happens elsewhere. Alternatively, the rules may simply be by-passed through corruption to skew market outcomes and secure opportunities.¹

¹ This is arguably what has been happening in South Africa. See Public Protector report on 'State of Capture', 2016.

The need to articulate an agenda which incorporates competition and inclusive growth is also urgent as the institutions are young, have weak capacity and need to garner support. Meanwhile the demands for alternatives to the development path are increasing, as people feel excluded. Barriers to the entry and growth of indigenous small businesses need to be visibly reduced.

This paper draws on a range of research done in recent years in East and Southern Africa to consider the nature and extent of competition in practice, and the role, if any, played by competition law and policy. It starts with analysis of two commodities, cement and fertilizer, which can be considered the 'bread and butter' of competition enforcement. These are relatively homogenous products with concentrated markets and high incentives for firms to collude. Indeed, cartels in southern Africa in cement and fertilizer have been uncovered by competition authorities. Second, I draw on work at the other end of the spectrum in innovative markets for services in telecommunications and finance described under the heading of mobile money. East Africa, specifically Kenya and Tanzania, are global leaders in the development of these services. Network effects favour the first-mover implying it can become dominant and wield substantial market power. Third, I reflect on work relating to barriers to entry in South Africa.

The paper draws on the insights from these three areas to identify the main elements of a forward-looking agenda.

Competition in commodities: fertilizer and cement

Fertilizer and cement are important commodities in their own right. Fertilizer is the main input for commercial agriculture, and cement is critical for the expansion of housing and infrastructure. These sectors are central to most African countries' growth. The nature of competition issues in these markets point to important challenges for competition law enforcement in African countries.

Fertilizer²

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. 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 the naturally occurring endowment.

The only substantial producer of fertilizer in Southern and East Africa is South Africa. It is a producer of both ammonium nitrate based fertilizers and phosphate fertilizer.³ 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 in practice there are only a few major suppliers in each country. It still may remain a contestable market, one where a deviation from cost-reflective prices will see a new entrant readily able to take advantage of the opportunity presented.

² This section draws primarily from Ncube et al. 2015 and 2016, unless otherwise indicated.

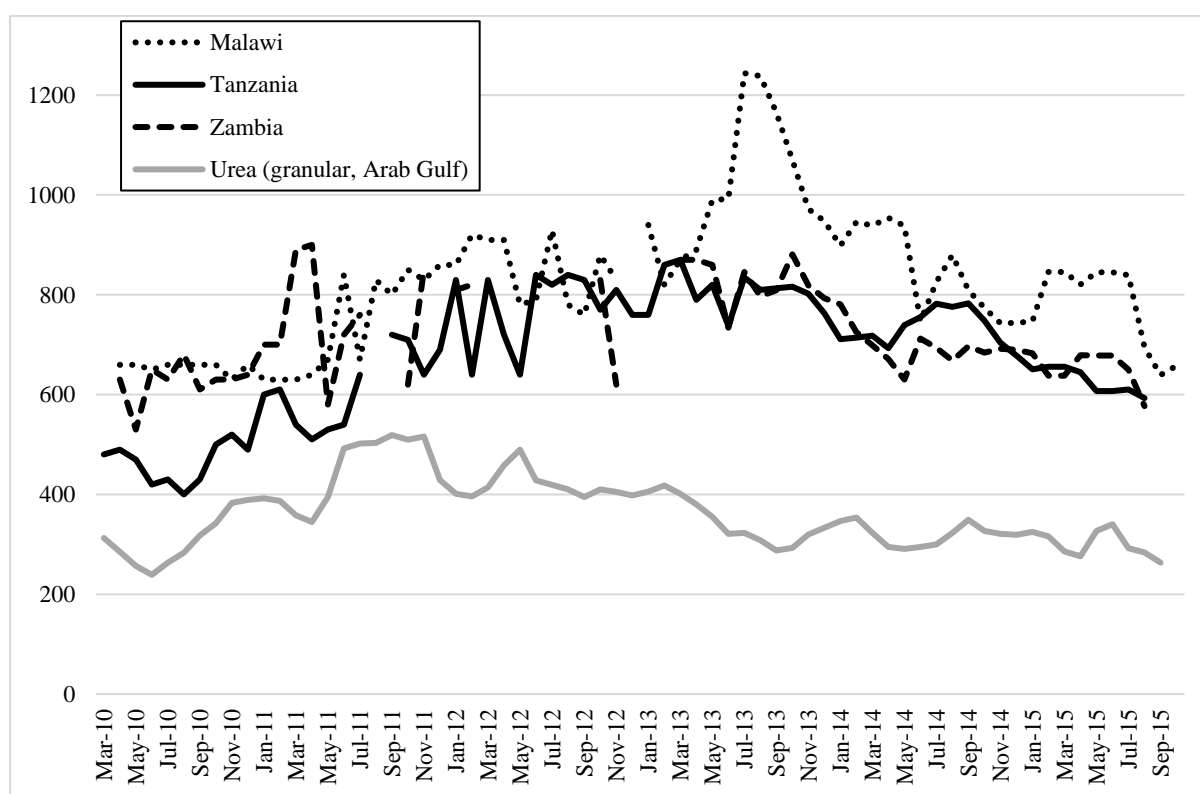
³ Minjingu in Kenya is a small producer of phosphate fertilizer. Other producers of fertilizers are blenders from imported fertilizer components rather than manufacturers.

In practice, it appears as if outcomes have been far from competitive. And, the high prices of fertilizer, and its importance for agricultural production, have led governments and donors to subsidise fertilizer supply through an array of programmes.

Fertilizer has cost substantially more in African countries than benchmark world prices (see also World Bank, 2016). Here we reflect the prices for the nitrogenous fertilizer product of urea on a free-on-board (fob) basis in the Arab gulf with the average retail prices in Malawi, Zambia and Tanzania (Figure 1).⁴ 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.

In 2010 prices in Tanzania were around \$100/t more than in the Arab gulf, while prices in Malawi and Zambia were around \$200/t to \$300/t more, or roughly double the fob prices. From 2011 the gap increased substantially although the direct costs of sea and land transport have not increased. It appears as if the increase in prices initially tracked international prices, but when international prices came down, the local prices remained at higher levels. 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.

Figure 1: Urea prices (average \$/ton retail across countries)



Source: Amitsa and World Bank

Are the prices the result of uncompetitive markets? Almost certainly. Are they the result of anti-competitive conduct? Not necessarily so.

⁴ A very similar picture is given by diammonium phosphate (DAP) prices. Urea and DAP are the two most important products in these countries.

As a landlocked importing country, prices in Zambia would be expected to be higher than coastal countries such as Tanzania, and similar to prices in its neighbor, 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 has been cartel conduct which was uncovered in Zambia in 2012.⁵ The 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.

Against the Zambian prices, those in Malawi and Tanzania certainly do not seem competitive but no cartel conduct has been identified. A competitive cost build-up suggests that in 2014 sea freight should be no more than \$50/t with off-loading, port charges, storage, bagging and an importer margin adding another \$80/t at most (Ncube et al, 2015 and 2016). This means that the cost price ex-warehouse for bagged fertilizer should be around \$130/t above the fob price. Inland transport to important agricultural producing areas were estimated at \$50/t while retailer margins and other costs should at most contribute another \$110/t meaning a retail price of some \$160/t above the ex-port price (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 were some \$100-\$150/t (around 20%) higher than the price calculated from cost and margin build-ups.

A number of factors underpin the higher prices in Tanzania. A combination of restrictions on transport, storage and trading have supported incumbents. In addition, the fertilizer subsidy programme had been increased in value to provide an effective floor price above the competitive price level. In terms of the overall market, a few large firms dominate fertilizer supply in Tanzania, led by Yara. Control of off-loading and bagging facilities at the port are critical also. High levels of concentration have gone along with high prices and margins in fertilizer trading after accounting for transport costs.

In Malawi fertilizer prices have been approximately \$200/ton higher than in Zambia, which can be explained by a combination of factors, including high domestic transport rates and fertilizer price distortions caused by the subsidy programme. Domestic transport rates in Malawi are between \$0.13 and \$0.14 per ton per kilometer, around double what rates should be (Vilakazi and Paelo, 2016). Part of this is due to higher costs and the substantial lack of return loads within Malawi. It also appears that local associations have a strong hold over transport in the country.

The uncompetitive markets are therefore due to a combination of factors. While anti-competitive conduct is likely to be part of the picture it is not clear how effective enforcement by national authorities can be. In addition to the cartel identified in Zambia, two further cartels which impact on these countries highlight the challenges. The South African Competition Commission uncovered a cartel in nitrogenous fertilizer between Sasol, Omnia and Yara which ran until the mid-2000s and does not affect the period considered here.⁶ 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 Fertiliser Society of South Africa of which the main members were the primary fertilizer companies (see 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

⁵ http://www.zambia-weekly.com/media/zambia_weekly_2013_-_wk_38.pdf. Also see CCPC (2013).

⁶ 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.

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.

Fertilizer prices in African countries have also been affected by global arrangements in potash and phosphates, which are important alongside nitrogenous fertilizers such as urea. The arrangements include two export cartels which dominate the world potash market (World Bank, 2016). Between them, Canada and Russia account for 80% of global potash reserves, with the three largest North American potash producers operating in the Canpotex joint marketing organization and the three largest Russian and Belarusian potash producers in the BPC joint venture. Mark-ups from the international collusion in potash supply have been estimated for 2008 to 2012 at around 50% to 63% (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 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.

Cement

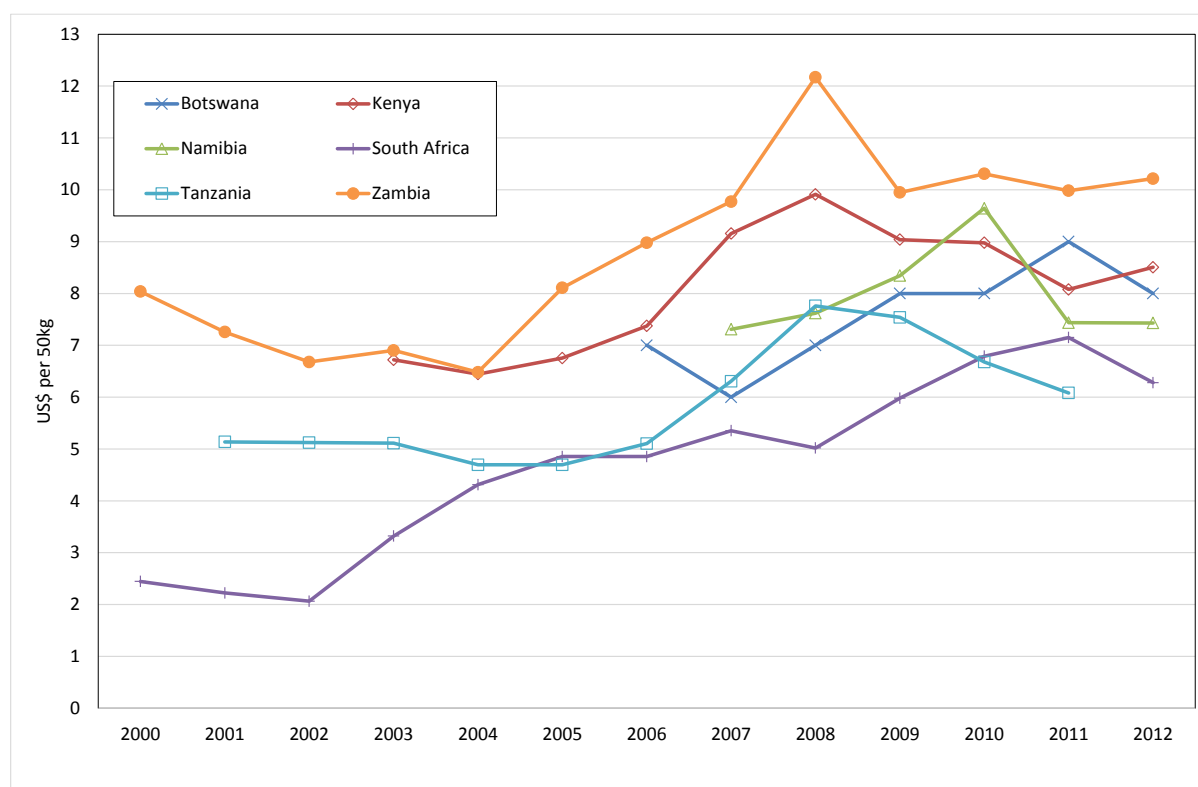
Cement is the product perhaps most often associated with cartel conduct around the world. In Southern and East Africa, as in developing countries more generally, the local producers are affiliated with or are subsidiaries of large multinationals, of which the most significant are Lafarge and Holcim (now merged), and Heidelberg Cement. These companies have a history of collusive arrangements between them in several country markets globally (Connor, 2014). These firms have multi-market contacts across many countries in Africa (World Bank, 2016).

Very different ex-factory prices have been observed in a six-country study across Botswana, Kenya, Namibia, South Africa, Tanzania and Zambia over the period 2004 to 2012, (as in Figure 2, from Amunkete et al., 2016). In countries in the Southern African Customs Union (SACU) there had been a cartel prosecuted in South Africa of the four producers which had operated through the industry association until 2009. In the East African Community (which includes Kenya and Tanzania) there is a similar association, the East African Cement Producers Association. Prices in Zambia were the highest of all the countries and had a single dominant firm, Lafarge, until 2015.

In 2015 and 2016 prices came down in all of the countries as new entrants brought more competitively priced product to market. The most important entrant with plants across several countries including South Africa, Zambia and Tanzania is Dangote Cement. In Kenya there have been several entrants since 2011, including National Cement and Savannah Cement. In Namibia, Ohorongo entered soon after the ending of the SACU cartel, starting operations in 2010. The entrants reduced prices in the order of \$5.50/bag in Kenya in 2015, a reduction of \$2.50 or 30%.⁷ The entry of Dangote in Zambia saw prices falling to below \$6 in 2015, 40% lower than the prevailing levels in 2009 to 2012. In South Africa prices reduced to \$4.50 with the starting of supplies by Sephaku Cement (in which Dangote is the major investor), a further 25% reduction from the 2012 levels after the cement cartel (Vilakazi and Roberts, 2017).

⁷ <http://www.businessdailyafrica.com/Cement-and-steel-manufacturers-cut-retail-prices/-/539546/2631942/-/foyracs/-/index.html>

Figure 2: Estimated ex-factory cement prices, 50kg bag, US\$



Sources: As in Amunkete et al. 2016. Averages computed by researchers from data obtained from companies and national statistics. Note: Kenya and Tanzania data from respective National Bureau of Statistics (per tonne prices converted to per 50kg and thus exclude bagging costs). South Africa data for 2008 to 2012 was extended to earlier years using the producer price index for ordinary and extended cement. Calculated in US\$ using average annual exchange rates.

There are three main implications from the experience of the cement industry. First, as illustrated by fertilizer, cartels are likely to operate at a regional level. In the SACU cement cartel some countries with relatively small cement markets were effectively allocated to a single producer. Viewed from the perspective of the country it appears to be a single dominant firm and supra-competitive pricing would appear to be unilateral conduct, in the form of excessive pricing. It is not possible to tell whether the single substantial Zambian producer was the result of market division arrangements. What is clear is that none of the other regional producers entered Zambia and only when Dangote entered did prices drop substantially to levels in line with what appear to be competitive levels (of around \$4-\$6/bag on an ex-factory basis).

Second, as competitive rivalry or cartel arrangements operate across countries, trade restrictions can be used to effectively allocate markets. Firms can lobby to protect small local markets and to raise entry barriers using national champion type arguments while the government is unaware that this may be simply reinforcing a regional cartel arrangement. Trade flows can also be used to monitor market shares. The SACU cartel used monthly sales data to monitor adherence to the market division arrangement which was an agreement on market shares for the whole SACU market. Sales volumes by regions within South Africa and the other countries in SACU were used by firms to be able to identify where they were gaining or losing sales in order to continually adjust to meet the targeted shares. List prices were transparent and effectively set by the lead firm. The agreement on market shares meant there was no competition in terms of discounting from these list prices to win customers. The only aspect which may be observed by the competition authority of a country is the information exchange and, unless the scope of the geographic market over which arrangement operates is correctly identified, the stability in market shares will not even be observed.

Third, there can be very substantial benefits in entry by 'outsider' firms rather than entry or expansion by those in the country or across the border in a neighbouring market. However, the economies of scale combined with the need to secure critical inputs, in particular, limestone and energy, mean that expansions in output are more likely to come from insiders than outsiders. The limestone deposits for Sephaku's plant in South Africa were only secured as the 'use-it-or-lose-it' provision in the mining laws meant it came up for sale (Amunkete et al. 2016). Exclusive supply arrangements for extenders such as fly ash from coal fired power stations can also weaken the ability of entrants to be efficient low cost producers. Industrial policies may therefore be required to create competition, which becomes easier as economies grow, as long as the temptation to simply support the expansion of incumbent(s) is resisted.

Summary

The examples of fertilizer and cement illustrate that cartel enforcement is very difficult at a national and even a regional level where the arrangements are international in nature. In addition, the available margins and rents to be earned mean that there is a strong incentive for businesses to lobby for rules and regulations which bolster their position and keep out rivals. While we can decry corruption and rent-seeking, it is naïve to do so without recognizing the globally concentrated nature of the industry and the ability for large suppliers to control markets. Lobbying governments is simply one tool in their arsenal for maintaining control.

More importantly, while enforcement may be very difficult it is likely to be limited in its impact where there are range of other restrictions on competitive markets. The competition agenda also effectively overlaps with a regional trade agenda where trade restrictions are the result of lobbying by firms to divide markets. The competition agenda must in addition be an industrial policy agenda if competitive markets and investment in increased local production is to go hand-in-hand.

Competitive dynamism in network industries – the case of mobile money

Mobile money refers to mobile telecommunications network operators (MNOs) offering money transfer services, payments and banking services, including through partnerships with banks. The rapid growth of mobile money has led to dramatic improvements in financial inclusion (Aron, 2015). For example, in Kenya and Tanzania, which have led the way in Africa, financial inclusion measured by the ability to access banking services, including through mobile money facilities, covered the great majority of adults in 2015 (MacMillan, Lloyd and Roberts, 2016; Blechman, 2016; Mazer and Rowan, 2016). Uganda has followed closely behind its East African neighbours (MacMillan, Paelo and Paremoer, 2016). Zimbabwe has also seen a rapid take-up of mobile money services (Robb and Vilakazi, 2016). I draw on these country experiences to consider the implications for a constructive competition and development agenda.

Allowing MNOs to offer money transfer services has substituted for the transfer of physical cash between people such as where urban wage earners are seeking to transfer funds to family members in rural areas. Where there is latent demand due to basic infrastructure deficits, light regulation (not requiring licenced banks to manage the transfers, but simply trust accounts in which funds are held against the mobile wallets) and the growth of an agent network hand-in-hand with subscribers, then mobile money has achieved critical mass, take-off and explosive growth (Evans and Pirchio, 2015). The services have evolved from simply transfers to payments, and to mobile banking where subscribers have access to deposit and loan facilities with potentially very substantial benefits, for example, to small-scale farmers in accessing credit. However, this also brings the MNO-led platforms into competition with banks (MacMillan, Lloyd and Roberts, 2016).

These observations reflect that fact that mobile money services involve network effects and multi-sided market dynamics. The more users there are, the more valuable the service is. And

it is necessary to secure a critical mass of agents to provide a sufficiently ubiquitous service to attract customers, but also a critical mass of customers to generate commissions necessary to attract agents to come on board.

The dynamic and innovative services raise a number of competition and regulatory issues. The services do not exist in the first place unless the regulatory regime is permissive (Bourreau and Valletti, 2015). As new services, it was not possible to predict in advance how rapidly they would evolve. The M-Pesa product of Safaricom in Kenya was piloted with development funding as a small test case and the rapid take-up was unanticipated. The services straddle different regulatory regimes, most obviously financial services and telecommunications. In some countries the central bank has played a lead role while in others it has been the telecommunications authority. There is a range of competition issues which has seen competition enforcement actions in Kenya and Zimbabwe by the respective competition authorities. The issues are complex as they involve balancing network regulation concerns of investment and access, as well as prudential considerations relating to the payments and banking systems.

The initial investments by providers to build a network leverage off the MNO's existing network and agents who sell airtime. There is also a need to raise awareness and encourage uptake to ensure a critical mass of subscribers for the network to be attractive. The first mover bears a greater share of these costs while others can benefit from the acceptance created and potentially use the network infrastructure of the first mover. At the same time, the most important aspect is the telecommunications network, and dominance and substantial market power in mobile money can reinforce a dominant position in mobile telecommunications. For example, in Kenya while Safaricom's mobile money market share measured in terms of subscribers was around 77% in 2015, in terms of active users its share is above 95% (Mazer and Rowan, 2016; Intermedia, 2015).⁸ The lack of interoperability means that to use mobile money requires being on the Safaricom network raising concerns for competition in mobile telecommunications more broadly than just mobile money.

There are a range of restrictive arrangements which protect the investments made by the incumbent but also enable it to entrench its position (Robb and Vilakazi, 2016; MacMillan, Paelo and Paremoer, 2016; Mazer and Rowan, 2016).

The first set of issues is agent exclusivity. An agent network is crucial as it enables cash-in and cash-out by users. While exclusivity supports investment in building a network by the lead operator, it also undermines rivals' ability to compete as the ideal agents are existing retailers. The systems typically remain independent meaning that there is no free-riding on the investment in the physical equipment itself. Tanzania prohibited agent exclusivity in 2010, two years after the launch of mobile money. The removal of agent exclusivity came later in Kenya, Uganda and Zimbabwe, in each case after legal and regulatory proceedings relating to possible anticompetitive conduct by the incumbents.

The second set of issues relate to access. The initial growth of mobile money transfer has been where one or both parties is unbanked. However, the rapid growth in these countries has meant that it has overlapped with those who are banked. In addition, banks can use the mobile money subscriber base to extend branchless banking services. This means banks can provide access to their services through a mobile platform, typically using unstructured supplementary service data (USSD). However, the MNOs control USSD. MNOs can simply refuse to provide this access or can charge such high prices that it is unattractive. This has been the case in a number of countries, including Kenya, Uganda and Zimbabwe.

⁸ This is corroborated by 99% of active mobile money account users reporting using Safaricom M-Pesa in 2014, where 'Active' means accounts used within the previous 90 days (Intermedia, 2015).

The incentive of the incumbent is to block those offering services which do, or may, compete with the MNO's mobile financial services offering. This stifles creativity and responsiveness to the needs of different groups of consumers as the incumbent MNO seeks to keep everything under its umbrella. By comparison, where there is rivalry between MNOs they are incentivised to offer reasonable terms to attract customers, as in Tanzania. USSD pricing and access has been an issue in each of the countries except Tanzania. In Uganda private litigation was brought against the incumbent (Macmillan, Paelo and Paremoer, 2016). In Kenya and Zimbabwe, the competition authorities have engaged with it (Robb and Vilakazi, 2016). A lack of transparency further hinders competition through increasing search costs and making comparability more difficult (Mazer and Rowan, 2016).

Countries have also had different experiences with inter-operability, which is the third set of competition issues. In Tanzania interoperability arrangements have been negotiated bilaterally under the firm encouragement of the central bank (Blechman, Odhiambo and Roberts, 2016). In the other countries there is no interoperability between mobile money networks and transactions can only be made on-net. Non-members of the network are treated as if they had no mobile money account at all. The harm to competition from the absence of interoperability is greatest where the market is highly skewed in favour of a dominant firm. This is also where it is very unlikely that interoperability will be agreed without regulatory intervention.

The fourth set of issues relate to the importance of data on credit records. A critical consideration in the mobile credit offering is ability to evaluate risk. Information from money transfers is an important source of data on subscribers' behavior which can be used in mobile credit extension, which is typically in the form of small short term loans (Blechman, 2016). In turn, an individual's track-record built-up from mobile credit is a valuable source of information for credit worthiness for longer-term loans. But, the credit record is controlled by the mobile money service provider and, as of 2016, is not shared with credit bureaus in Tanzania and Kenya (Blechman, 2016). This is possible due to a regulatory patchwork in Kenya and Tanzania with many gaps with respect to provisions and their enforcement.

How should the challenges of this field be addressed when it straddles telecommunications, financial services, competition and consumer protection? A nuanced approach is required to making judgements which take into account challenges in prudential regulation of the financial system, economic regulation to address market failures and consumer protection (Blechman, 2016; Mazer and Rowan, 2016). It bears repeating that privileging the existing prudential regulations and placing banks ahead of MNOs in the provision of services stifles their development at birth (Evans and Pirchio, 2015). All of the countries here have chosen not to go down that path.

The countries demonstrate quite different approaches to the balancing of the concerns, however, all are grappling with the challenges recognising the economic value of the services and the need to support their growth. In Tanzania Kenya, Tanzania, Uganda and Zimbabwe all have similarly high levels of mobile money adoption but different market structures. In Kenya and Zimbabwe the emergence of overwhelmingly dominant firms has seen the competition authorities take action while in Uganda there has been private enforcement. In MMT services, extended agent exclusivity and lack of interoperability appear to have further bolstered the lead of incumbents in Zimbabwe and Uganda, while there is no interoperability and little effective rivalry in Kenya even after the ending of agent exclusivity. Ex poste enforcement has meant that a single dominant mobile money provider is reinforcing its dominance in telecoms and enforcers find themselves grappling with very powerful interests. The leading MNOs in Uganda, Kenya and Zimbabwe also appear to seek to retain greater control over aggregators' ability to innovate on their mobile money platforms than in Tanzania.

Tanzania by comparison has had effective rivalry in mobile telecommunications and has adopted a 'test and learn' approach to mobile money which has been fostered by the central bank through engagement. Expectations were set in broad terms with early interventions

regarding agent exclusivity and to promote interoperability which were not, in fact, binding. Participants recognised the objectives and believed that other steps would be taken if necessary. Competition was nurtured by the broad rules for the services. Active competition between the MNOs for improved MMT services also appears to have driven greater cooperation of the MNOs with the banks, such as to facilitate transfers between bank accounts and mobile wallets, and with independent third parties (aggregators) in developing innovative services. Maintaining competition *in* the market through ongoing engagement has been more effective than allowing competition *for* the market and *ex post* enforcement, as recommended by Bourreau and Valletti (2015).

Barriers to entry

The third set of issues and one which goes beyond the standard prescriptions for competition enforcement is that of barriers to entry to local firms. Barriers to entry are typically part of the initial market analysis, following on from market definition as part of the consideration of whether there is substantial market power. Reducing barriers may be part of the advocacy efforts of a competition authority, especially targeted at regulations and government policies which harm competition. However, understanding the barriers to the entry and growth of effective competitors is also important for understanding why markets are configured in the way that they are and how this might be changed to foster the kind of rivalry we seek, namely one which encourages investments in capabilities. If we care about the identity of market participants and care about whether indigenous firms can compete and not just multinationals then this is something to consider when evaluating entry barriers.

An assessment of barriers to entry is critical for the correct balance between the risks of over and under enforcement and is one reason why countries should adopt different standards (see Evans, 2009). Barriers are higher in the context of market failures, including imperfect information. Along with economies of scale and scope, they provide the context for strategic behaviour by dominant firms. For example, if there is little consumer switching because of imperfect information and brand loyalty then the contestable market will be smaller and a dominant firm can more effectively employ retroactive rebates to further undermine rivals. Financial markets which are relatively underdeveloped also raise the likelihood of exclusionary strategies. In smaller less developed markets, as characterise most developing countries, this is all the more important (Brusick and Evenett, 2008).

A very narrow view can be taken of what constitutes entry barriers as being the costs that an entrant has to incur which were not incurred by the incumbent (see, for example, Carlton and Perloff, 2004, following Stigler, 1968). This, however, allows for substantial incumbent advantages where the incumbent was able to recoup its investment costs while the prospective rival incurring the same costs is likely to be deterred, including because of possible strategic behaviour by the incumbent. In other words, incumbency advantages can be 'locked in'. Some sunk costs and network effects are exogenous, incurred due to the nature of the product and the set-up costs required to produce at minimum efficient scale. Other sunk costs are influenced by the incumbent such as the level of spending on advertising (Church and Ware, 2000).

A series of studies in South Africa assessed entry barriers in practice through examining the experience of entrants in a number of selected markets. These markets are telecommunications, agro-processing, supermarkets, banking, renewable energy supply, airlines, fuel distribution, beer and mobile money.⁹ The markets were selected based on their

⁹ The studies are Makhaya et al. (2015); Hawthorne et al. (2016); das Nair and Dube (2015); Matumba and Mondliwa (2015); Montmasson-Clair, G. and das Nair, R. (2015); Ncube et al (2016); Paelo et al. (2014).

importance in the economy as well as those where there had been entry.¹⁰ The main types of barriers to entry identified are as follows.

Routes to market, consumer behaviour, and switching costs

The experiences of firms highlighted the importance of being able to reach consumers – physically as well as importantly ensuring the profile and positioning which induces consumers to switch. Behavioural economics has identified the many ways and reasons for consumer inertia (see Mehta, 2013). This follows earlier literature on the justifications for advertising which can be a very large and sunk cost (Church and Ware, 2000). Related to consumer behaviour and advertising are the costs associated with packaging, promotions and display.

Retail and distribution arrangements are obviously important for consumer goods, where they quite literally shape the routes to market for products. For producers of consumer goods such as food products, the costs of packaging, advertising and display and the ability to access the major supermarkets is an important consideration (Ncube et al, 2016). There are a number of practices which make it difficult for smaller brands to establish a presence, including category management practices of supermarkets where the organisation of a set of products in the supermarket is handed over to a lead supplier.

The example of beer, as a consumer product, highlighted the advertising and promotional costs required to establish a brand and the scale economies associated with advertising expenditure which does not necessarily increase proportionate to sales but is necessary at low sales to establish the product in the market (Matumba and Mondliwa, 2015). Beer also has to be in fridges/coolers in taverns and bars, on draught (on the bar top), for consumers to buy it. The same applies to other products, such as cool drinks, as well as more broadly to display space in outlets. Exclusive arrangements typically in place mean that small rivals are shut-out from a large number of outlets. In some countries competition enforcement has addressed this, however, the South African Act requires demonstrating a *substantial* lessening or prevention of competition which has been interpreted as showing that there would have been lower prices and higher quantity supplied in the market in the absence of the conduct. Small rivals can often not prove their product would be cheaper and there would be more supply to the market as a whole, while large firms claim their conduct aids the efficiency and lowers costs in their own supply chain.

For supermarkets themselves there are also questions of entry barriers. The study of supermarkets (Das Nair and Dube, 2015) highlighted the importance of location in appealing to consumers. Transport costs and time can be reinforced by habit and convenience which means consumers gravitate to shopping malls. In South Africa exclusive leases have blocked rival supermarkets as well as grocers, bakeries and butcheries from shopping malls. Such leases are a straightforward block to entrants in accessing potential markets and mean they have to look at alternative and inferior locations. The justification for exclusive leases is that they support investment in shopping malls as they ensure an anchor tenant. This applies in some locations and for a period, but not to support the ubiquitous practice for durations that last decades. It is also not clear that it justifies outright exclusivity as opposed to long-term leases for prime space in a given mall.

In many important services, as well as some goods, network effects mean there are natural first-mover advantages as consumers value the number of members a network has. This is reinforced where investment is required in the extension of network infrastructure such as ATMs and branches in banking and mobile phone masts in telecommunications. Regulation to ensure inter-operability and the terms on which this happens is critical for there to be effective competition in such industries.

¹⁰ See <http://www.competition.org.za/barriers-to-entry/>

Banking services require people being able to obtain cash and make payments and the study of Capitec's entry (Makhaya et al. 2015) found branches and an ATM network remain critical in South Africa. However, allowing cash back at point-of-sale (supermarket tills), as has been possible for a number of years, means an ATM network can be by-passed while mobile payments opens up opportunities to use more cost-effective solutions and points the way to substantially cheaper 'branchless banking' models. Switching costs are also significant and consumers do not readily switch to rivals even where they may be offering cheaper prices and better products and services. Consumers find it difficult to compare bank charges and services across banks, and banks spend large amounts on advertising their brand simply to establish and maintain their reputation.

The entrant, Capitec bank, first attracted customers to micro-loans, while customers retained their own bank account if they were already banked. Customers were only converted to also use banking services once becoming familiar with Capitec through the loans. It took over ten years for Capitec to be an effective rival and, in many respects, it appears to be the exception that proves the rule. It had a banking licence from its parent, it benefitted from the reputation of its main owner and it had a base of micro-loan clients. Even with all of these advantages it struggled for a long time to gain a foothold.

There are also substantial network effects and switching obstacles in telecommunications. This is reinforced by large promotions and advertising expenditures which arguably obscure rather than assist in understanding the range of options of offer. Customer inertia can be compounded in mobile telecommunications by network operators which can make the switching process difficult and inconvenient even while number portability has been enforced. This has been compounded by a range of strategies such as on-net discounts which firms can use to lock-in the network effects which operate in telecoms (Hawthorne et al., 2016).

In electricity supply, access to market has been an important obstacle for renewable energy independent power producers who require access to the grid to be able to sell the power generated (Montmasson-Clair and das Nair, 2015). There have been concerns around Eskom's incentives to undermine independent generators which led independent power producers to seek guarantees from National Treasury. These concerns appear to have been born out over time.

Scale economies, vertical integration, learning effects and access to patient finance

Economies of scale and scope may not be entry barriers as a firm can enter at a size which reaches minimum efficient scale if it can raise the finance to do so. However, financial market imperfections handicap entrants who are potentially efficient competitors with a strong proposed offering, not yet proven, and yet little finance of their own. Scale and scope effects further mean that strategies can be employed by incumbents to undermine the rival's access to segments of market demand such as to ensure the rival operates at below installed capacity, so raising its average costs. Larger rivals, such as multinationals, are better placed than smaller local firms.

Economies of scale were highlighted as important across the studies. The effects are obviously very large in mobile telecommunications and retail banking. In supermarkets there are large scale effects in distribution, in particular, the investment in distribution centres. In manufacturing activities such as dairy, poultry and beer, there are economies of scale in processing and packaging facilities. In poultry these effects are greatest in breeding and abattoirs which means independent broiler producers may be subject to market power at different levels of the value chain. In dairy production, the processing of value-added products necessary to diversify away from being reliant only on commodity milk production requires larger scale investments (in powdered milk, yoghurts and cheese).

It is important to appreciate that building competitive capabilities is more than simply attaining minimum efficient scale and also involves a learning-by-doing process. This refers to the range of internal practices and knowledge which need to be developed to operate efficiently. It is also necessary to take into account the building of external relationships for supply. These are not necessarily barriers in their own right but reinforce existing advantages of incumbents and provide opportunities for them to undermine entrants.

For example, in poultry, the systems and flow of production (from breeding stock at great-grandparent, grandparent and parent levels, through to broilers) means it takes three years or more to become competitive. This is reflected in the experience of an entrant which was already vertically integrated into the production of the main components of feed. The incremental building of capabilities by Soweto Gold highlights a similar need for 'patient' finance to support the growth of brewing, packaging and distribution over a number of years. Industrial policies and long-term development finance are required to support the development of productive capabilities. Across the studies the duration required to build-up the business was a feature.

Supplier and customer relationships come up against the vertical integration of incumbents emphasised in a number of the case studies. An entrant at just one level of the supply chain is reliant on their integrated rivals for key inputs and/or key markets. Again, this provides incumbents with a potential lever over entrants and smaller rivals to undermine them. Alternatively, the rival has to enter simultaneously at the different levels as a vertically integrated operator, significantly increasing the entry costs.

In telecommunications, the failure to implement local loop unbundling mean rivals to Telkom in delivering fixed line services, such as 'value-added network services' (VANS), have been dependent on the incumbent and main rival (Hawthorne et al., 2016). The slow-moving former state-owned fixed line company has undermined entrepreneurial activity across a range of these services. Long-running competition cases have slowly unlocked parts of these activities. Similarly, the integration from generation through transmission and distribution of the state-owned supplier has proved a major obstacle to independent power producers. While there may be good arguments in theory for integration, in practice, it has undermined investment in alternative sources of generation. A separated state-owned transmission and distribution system could act in the public interest to support upstream investment in generation of renewable energy.

The existence of critical infrastructure and facilities, along with network effects, are rationales for regulation to ensure competition. Regulation can, however, itself can be a barrier, such as where onerous licencing conditions block entry. For example, banking regulations in South Africa have prevented the growth of mobile money transfer by mobile network operators. Ineffective regulation has also played an important part such as where network access should be opened up through regulation.

The way the economy works in terms of microeconomic outcomes is the product of many small decisions and some big ones. There are also 'non-decisions', where the established trajectory continues because no decisions are taken to change its direction. The studies of barriers to entry to the economy highlight the range of often mutually reinforcing microeconomic factors which stack-up to block greater participation in the economy by people as entrepreneurs/producers. For example, finance is often highlighted as the main block to new businesses and, indeed, the sunk investments required to get a commercially viable enterprises off the ground means finance obviously matters. But, providing development finance without addressing the other barriers to effective entry is likely to be a waste of money.

The studies also point to the importance of entry by outsiders and indicate what is at stake if entrants are blocked or undermined. Several studies considered where incumbents have substantial unilateral market power while others have found that entry barriers have shielded

a small group of 'insiders' from competition who can tacitly coordinate. The studies suggest similar orders of magnitude to cartel mark-up calculations (of 15%-25%, Connor, 2014). In services (banking, telecoms) which are at the core of economic activity the mark-ups imply very wide-ranging effects on economic participation. While changes to bring more competition have brought improvements, the point is that the magnitude involved could have been achieved earlier and point in the direction in which much wider impacts can be realised.

An agenda to foster competitive markets

A productive and inclusive economy which rewards effort, innovation and creativity requires a constructive approach to competition. It can be understood in terms of fairness, as has been part of the mandate of the Korean Fair Trade Commission (Fox 2003a; KFTC, 2011). The approach adopted is explained by Kyu-Uck Lee (1997, as cited in Fox, 2002), who observed the following regarding competition law and policy in Korea at the time:

'Competition is the basic rule of the game in the economy. Nevertheless, if the outcome of competition is to be accepted by the society at large, the process of competition itself must not only be free but also conform to a social norm, explicit or implicit. In other words, it must also be fair. Otherwise, the freedom to compete loses its intrinsic value. Fair competition must go in tandem with free competition. These two concepts embody one and the same value.'

The intrinsic value of the freedom to compete implies evaluating the competitive market mechanism in terms of its accomplishments in promoting individual freedoms (to produce, develop productive capabilities, and make autonomous choices), as opposed to the conventional welfarist framework of assessment (Sen, 1993). In the context of African development this means opportunities for the citizens of the countries. The identity of the market participants matters. As noted by Fox (2012) this approach is, however, outside the antitrust mainstream and means that consumers may bear the costs of support for participation by local producers, at least when looked at in the partial terms of individual products and markets rather than holistically.

The qualification is critical. While apparent market distortions may undermine static allocative efficiency in terms of consumers decisions, they may well be required to improve the direction of resources to investments for the development of productive capabilities (such as in the presence of technology spill-overs, or learning-by-doing effects). In other words, following Khan (2012), we are concerned not simply with the governance framework for markets, but what the markets generate, namely whether they foster growth-promoting competition. It is not about 'getting prices right' but about building dynamic comparative advantages (Amsden, 1989). In the context of African countries, this is about the incentives and opportunities for investments in improved production capabilities to achieve technological catching-up (Khan, 2012).

The three areas examined in this paper indicate that there is a number of key considerations in an agenda to foster such competition in developing countries, such as the African economies in which the case studies examined here are located.

First, it is very difficult for developing countries to enforce against international cartels due the difficulties in obtaining information (see also Fox 2003b). And, even when cartel conduct is identified, more competitive outcomes do not necessarily result. The coordinated arrangements can effectively be maintained through trade and industrial policies shaped by lobbying by individual firms to protect their rents and/or by tacit arrangements.

Second, there can be substantial gains from the entry of new producers who are 'outsiders'. The entry of Dangote and others into cement production in countries across Africa has dramatically reduced prices. A narrow enforcement agenda against cartelisation in cement

could not achieve this outcome but instead appears to have stimulated increasingly sophisticated ways of coordinating through information exchange. The gains from entry indicate that industrial policies which support investments at scale by new suppliers of products such as cement and fertilizer need to be distinguished from those that protect incumbents.

Third, the mobile money experience demonstrates how the balance can be struck by regulators and competition authorities to ensure innovative new markets evolve. In particular, the Tanzanian experience illustrates a ‘test and learn’ approach where expectations and principles are communicated to the lead firms, including the importance of ensuring markets will be open to new participants in future. Complex issues such as network effects can be addressed and rules evolved to ensure dynamic rivalry. Rather than the common criticism that institutions are weak and so governments should not intervene, there is instead institutional ‘learning-by-doing’ underway from the interventions.

Fourth, the different and mutually reinforcing nature of barriers to entry needs to be understood. For example, addressing market failures in access to finance is unlikely to support effective competitors while other obstacles such as with routes to market and obstacles to consumer switching remain unaddressed. A critical insight is that interventions need to be on a number of fronts. Just as the barriers have a combined effect, so addressing one area in isolation will make little difference.

Fifth, while regulation perhaps naturally favours incumbents given the information asymmetries in their favour, vertically integrated incumbents also can effectively regulate their sector. As these incumbents have shaped the way the markets operate they can readily argue for the benefits from coordination and internalization of transactions costs. Potential rivals cannot plausibly show the costs of their exclusion. Competition policy therefore needs to imagine alternatives. One source of this is through international comparisons in order to learn from other countries’ experiences. Government policies are important in opening up sectors to wider participation including through assistance enabling new firms to compete with incumbents who have often inherited advantageous positions (Budzinski and Beigi, 2015).

There are a number of rules which determine how markets work. These can tip the balance in favour of one side or the other. In this paper I have argued that a proactive policy to generate competition is needed. We should ask ourselves whether the competition law regime is ‘fit for purpose’, with reference in particular to nurturing performance-based competition through investment in productive capabilities. In some cases, regulations blocking entry can be removed, in others, proactive regulation *for* competition may be required given market failures and intrinsic obstacles. It is also critical to distinguish between industrial policies that result from lobbying for protection of incumbents (often local subsidiaries of multinational corporations) industrial policies which support new rivals, the adoption and adaptation of improved technologies, and spur productivity improvements. Simplistic arguments which pit industrial policy against competition policy miss the fact that the embedded economic structures of countries reflect earlier favouring of some interests over others.

The comparative analysis the importance of learning, in incremental and iterative processes, and maintaining an openness to different ideas and contributions. Advice and technical support can be a valuable part of this process, but not a ‘cookbook’ or ideal-type models being transplanted.

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