

# Assessing the Economic Impact of Competition: Findings from Zambia

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#### **Executive Summary**

The Overseas Development Institute has been conducting research examining:

- how the policy framework (such as the existence of a competition authority, degree of state ownership, openness to trade etc.) affects the degree of competition present in a given product market; and
- how the degree of competition affects market outcomes such as prices, competitiveness, innovation and access to services.

The policy framework and economic performance has been compared in four product markets (sugar, cement, beer and mobile phone services) across five countries (Zambia, Kenya, Ghana, Vietnam and Bangladesh).

This paper summarises the findings from Zambia. A synthesis of the broader findings based on the results from all five countries has been published in an ODI Research Report<sup>1</sup>.

Key findings from Zambia are as follows:

- Zambia had relatively high prices in most markets, which reflects in part the high costs of doing business. However, Zambia was also relatively highly concentrated in most of the product markets examined, with one player often dominating the market, and with competition problems and anti-competitive practices identified in all markets, and this is also likely to have contributed to high prices.
- Zambia has a competition law and authority: the Zambian Competition Commision (ZCC). The ZCC plays a valuable role in monitoring possible anticompetitive practices in the sectors reviewed, identifying and highlighting problems and influencing some government decisions. However, its influence and impact could be greatly strengthened through reform and improved resourcing, as well as greater political will within the government to tackle the competition problems identified;
- Competition has been relatively limited in the cement and beer sectors in Zambia, which are both highly concentrated. The ZCC has been playing a useful role in monitoring the situation in both markets, but it is not clear how effective it has been in tackling competition problems that have arisen.
- However, when competition is introduced prices can fall quickly: the price of cement in Zambia has fallen by almost ten percent since 2008, with the entry of a new player in 2009 to compete with the incumbent cement monopoly. This happened during a period when cement prices rose in all the other countries studied.

<sup>&</sup>lt;sup>1</sup> "Assessing the Economic Impact of Competition", Ellis & Singh (2010) available from: www.odi.org.uk/bdp

- Zambia produces sugar that is very competitive on international markets and stands to gain considerably from future liberalisation which is likely to create jobs and industrial growth.
- Zambia has one of the lowest sugar production costs in the world, at \$169 per ton, compared to the world average for sugar producing nations which is \$263 per ton. Zambia produces over 15 tonnes of sugar per hectare the highest of all countries in this study.
- However, sugar is very expensive within Zambia it is the most expensive of all the case study countries - reflecting at least in part the lack of competition in the domestic market, where there is one very dominant player. The removal of sugar import barriers and new entry would help to improve the competitiveness of the sector. The ZCC has investigated the market, and noted the high domestic sugar price, but it is not clear that the recommendations it made will address the problem or benefit sugar consumers.
- The mobile telephony market in Zambia is not performing very well compared with other countries in Sub-Saharan Africa, or other countries covered in this study. The lack of competitive neutrality between state and private players, and the monopoly on the international gateway by the state owned incumbent may account for some of this poor performance and remains an issue. However, recent regulatory improvements e.g. relating to interconnection tariffs, may help to facilitate increased competition and improved performance going forward.
- The limited scope of the ZCC's response to some of the problems identified in the four product markets raises questions as to the extent to which it is able to effectively tackle problems in sectors where there may be strong vested interests opposing reform. However, there may be scope to mobilise interest groups in favour of reform, to offset these opposing interests – as evidenced by the group of companies (industrial sugar users) which complained to the ZCC about high sugar prices.
- Some cross border competition problems were identified, which go beyond the jurisdiction of national competition authorities. These could, however, be tackled through regional competition frameworks such as the new COMESA competition law and authority, once it is up and running.

Overall, the results of the study showed that markets characterised by more competition, with more players, more dynamic entry and exit, and more intense rivalry for customers (e.g. through price promotions, special offers, and marketing campaigns etc.) tend to deliver better market outcomes. These outcomes include lower prices and better service for consumers, as well as more internationally competitive production, which can generate increased exports, foreign exchange, jobs and industrial growth. It also showed that the introduction of competition – or indeed even the prospect of increased competition - can have a significant and immediate impact on prices.

However, the research has also shown that competition is often constrained, for various reasons. Problems such as market dominance and anti-competitive practices are very common in some markets, including the cement and beer industries. Thus competition

authorities have an important role to play in monitoring, publicising and tackling such behaviour.

However, it is also clear that government policy and state involvement is very important in determining competition and market outcomes, whether it be through regulation and privatisation, state ownership, price controls, subsidisation, import protection, industrial policy or simply self-serving business deals. Although some of these wider policies may reflect other important policy objectives, it also suggests that the potential competition impact of these wider economic policies should be given consideration wherever possible, in order to ensure a good understanding of the overall costs and benefits.

Through comparison with the other countries studied, (which either do not have competition authorities, or have only recently introduced one), it seems the competition authorities in Zambia and Kenya have contributed to the development of a culture of competition, by raising the profile and understanding of competition issues, and by building awareness of the costs of competition problems. This is helping to arm the consumer movement with the evidence it needs to demand improved market outcomes.

Competition authorities have also played an important role in monitoring market behaviour. Simply the existence of a competition authority, and the knowledge that it can monitor and publish details of any problems, can serve to constrain anti-competitive practices or abuse of dominance by firms, who fear the consequences (which may be bad publicity at the very least), if they infringe the law.

Although competition authorities may sometimes suffer from political interference when trying to tackle competition problems involving vested interests opposed to reform, they can still provide an important counterweight in government against vested interests wishing to pursue corrupt or self-serving business policies at the expense of consumers and the wider economy.

Ultimately, competition is fundamental to a well-functioning market economy, and appropriate competition policies and the establishment a competition authority can help to ensure markets work more efficiently and effectively. Competition can help undermine corruption, and facilitates international competitiveness, private sector development, and employment creation, which are in turn crucial for achieving the wider economic growth that is needed to lift developing countries out of poverty.

#### 1. Introduction

The Overseas Development Institute has been conducting a research project investigating the impact of competition in four product markets (sugar, cement, beer and mobile phone services) in five countries (Zambia, Kenya, Ghana, Vietnam and Bangladesh). This paper summarises the findings from Zambia. The findings from all the countries have been synthesised and published in an ODI Research Report<sup>2</sup>.

The paper first provides a brief overview of the competition policy framework, then discusses the key competition issues that were identified in relation to each of the 4 product markets, and draws some comparisons with the findings from other countries – it does not provide comprehensive analysis of each of the markets.

Where limited published or independent information is available, the findings are based largely on interviews which were undertaken during a field mission that took place in September. The paper has subsequently been updated to discuss any major developments that have taken place in the markets since then.

<sup>&</sup>lt;sup>2</sup> Ellis & Singh (2010)

#### 2. Competition law framework in Zambia

In 1994, Zambia adopted the Competition and Fair Trading Act, and Zambia's competition authority (ZCC) was created in 1997. ZCC has the power to investigate anticompetitive behaviour, request information and carry out market studies. It can start an investigation following a complaint or on its own initiative. Many interviewed stakeholders, both business and non-business, stated that ZCC had an important role to play and were generally supportive of it.

However, most stakeholders perceived ZCC as weak. Under the Act, ZCC can impose fines up to 10 million Kwacha or seek imprisonment of up to five years for those breaking the law, but it would appear that in practice ZCC rarely uses these statutory powers, which may contribute to this perception. We also heard that ZCC suffers from chronic under-resourcing, unfilled positions and a very high turnover of staff. Low salaries were often mentioned as the main reason for the high staff turnover. At the time of the mission, ZCC did not have an in-house lawyer, all legal tasks being subcontracted. Specialist training for staff would also increase the capacity of the ZCC.

The Competition and Fair Trading Act also needs to be revised to bring it more into line with the international best practice that has emerged since it was introduced. We understand that ZCC and the Ministry of Commerce are currently working on a new competition bill that may be brought into law by 2010.

It would also help if the ZCC's objectives were clarified; currently the 'public interest' stands alongside promoting competition as ZCC's objective. However, this can complicate matters, as the public interest can encompass a whole range of other, potentially conflicting objectives. International best practice suggests that a competition authority should focus single-mindedly on achieving competition, leaving it to policymakers to consider and weigh up the other aspects of public interest. If public interest is an objective alongside competition for a competition authority, it is best if it is confined to specific and well defined cases and it has clearly established criteria.

Despite the resource constraints discussed above, the ZCC is involved in monitoring and investigating an impressive number of competition cases. Its interventions in the sectors we studied are discussed below.

### 3. The Sugar Market

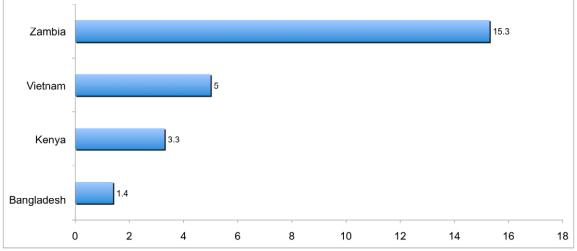
Country	No. of firms 2008	State ownership	Market shares of leading firm	Imports as % domestic consumption
Kenya	7	Yes, the State owns nearly all mills	54% (firm with most private sector participation)	15%
Zambia	3	No	93%	0%
Ghana	0	N/A	N/A	100%
Vietnam	40	Yes, high degree of state ownership	9%	4%
Bangladesh	16 SOE mills & 4 private refiners	Yes, State owns nearly all mills	47%	10%

Table 1: Sugar market structure across the 5 case study countries

Sugar production in Zambia is highly efficient. Independent statistics show that Zambia has one of the lowest sugar production costs in the world, at \$169 per ton, compared to the world average for sugar producing nations which is \$263 per ton<sup>3</sup>. Chart 1 below shows average tonnes of sugar produced per hectare under cultivation in the 5 countries we studied<sup>4</sup>, and shows that Zambia performs best by a long way. It is particularly interesting to note how well it compares with Kenya, its nearest geographical neighbour out of the five countries, which suffers from a high degree of state involvement in the market. Kenya's average sugar production cost is much higher, at \$415 / ton.

<sup>&</sup>lt;sup>3</sup> LMC International Ltd 2005

<sup>&</sup>lt;sup>4</sup> Ghana does not have a domestic sugar industry.





Source: ODI, various sources

Because Zambian sugar production is internationally competitive, it is able to export a significant amount – over 60% of total sugar produced was exported in 2007. Most of Zambia's sugar exports goes to the EU market. The EU is an attractive market for many efficient ACP sugar producing countries such as Zambia because the EU price is significantly higher than their production costs. Thus sugar represents an important source of income and foreign exchange in Zambia. Although production costs are low, and Zambian sugar exports are internationally competitive, Zambia still has very high domestic sugar prices when compared to many other sugar producing nations in Africa and the rest of the developing world (see chart 2), which impacts directly on Zambian consumers.

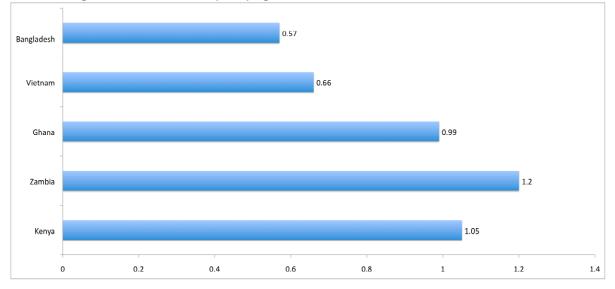


Chart 2: Sugar Retail Price 2008 (USD)/kg

Source: ODI Research

While many country-specific factors will of course affect prices, and while there are high costs to be borne within Zambia (e.g. high transport costs, and high costs associated with the fortification of sugar with Vitamin A – see below), the observation that a relatively low production cost translates into such a high retail price in Zambia is unusual, and may be because within the domestic market for sugar in Zambia, there is relatively little competition. Despite some market entry in the last decade, one firm dominates the production of sugar in Zambia, with a 93% market share.

The market is also protected from external competition by non-tariff import barriers. The requirement for potential sugar importers to obtain import permits through a bureaucratic and non-transparent process was cited by some as one kind of barrier (with the Ministry of Agriculture, the Ministry of Health and the Ministry of Commerce all having to clear the import of sugar). Another barrier cited is the government requirement that all sugar being sold in Zambia must be fortified with vitamin A.

This is an unusual requirement, which few if any other countries have imposed. The government argues that a large part of the Zambian population suffers from vitamin A deficiency, and since sugar is a staple commodity, it is a good medium through which to provide vitamin A to the people. However, many stakeholders outside the Government and the sugar industry consider fortification to be a mechanism for protecting the Zambian sugar market from foreign competition. They expressed the view that there were certain shared interests between Zambian sugar industry players and the Government, favouring continued protection from import competition, and allowing prices and profits to remain high.

The sugar industry contributes considerable tax revenue to government, contributing 30,306 million ZMK (approximately US\$7.9 million) in corporate tax on profits in 2007<sup>5</sup>.. In addition, it has been reported that the dominant sugar company undertakes a number of social initiatives in the country, which may help meet Government objectives, and this may be part of the reason why sugar prices are so high in the country (i.e. the company transfers the costs incurred for these social initiatives upon the consumer). The company's ongoing projects are diverse in nexist in a particular market, and their negative impacts for consumers.

In 2006 the Zambian Competition Commission (ZCC) investigated the sugar industry, following a complaint made by the large industrial sugar users, and published a report<sup>6</sup>. The companies had complained about the high prices of sugar in Zambia and asked ZCC to bring prices down to world market levels plus a 10% surcharge to cover local conditions. If this were impossible, the companies asked ZCC to facilitate sugar imports. One of the complainants presented evidence that Zambian sugar prices were approximately three times higher than the prices in neighbouring countries.

The ZCC found that the domestic sugar price was indeed very high and that this had a negative impact on downstream markets. It recommended that administrative barriers to imports should be dismantled, that a new "Sugar Desk" should be created to establish and run an import quota regime, and that this should be managed by representatives of

<sup>&</sup>lt;sup>5</sup> Zambia Sugar, Annual Report 2009

<sup>&</sup>lt;sup>6</sup> Intergovernmental Group of Experts on Competition Law and Policy (July 2007)

the Government, sugar producers and sugar users. However, it stated that the import quota should be set in order to prevent "excesses arising from import competition".

It is not clear that creating import quotas and empowering the industry itself to be part of the decision-making body that grants these quotas would solve the competition problems in the market, or benefit Zambian sugar consumers. In any case, it does not seem that these recommendations have been implemented. The ZCC currently says that they are lobbying government to introduce a streamlined import licensing process to encourage competition.

The limited scope of the ZCC's response to these problems raises questions as to the extent to which the ZCC is able to effectively tackle problems in sectors where there may be strong vested interests opposing reform. Nevertheless, it shows that competition authorities can still play an important role in investigating and publicising evidence about competition problems that may exist in a particular market, and their negative impacts for consumers.

The Zambia sugar case shows that it may be possible to mobilise existing businesses to agitate for pro-competition reform, (as confectionery and brewery companies lobbied against a lack of competition in sugar production). If these groups can be mobilised to lobby effectively for reform, this can help to offset the political pressure to maintain the status quo. Competition authorities can play an important role here, in coordinating such groups, publicising and investigating the issue and providing evidence of the benefits of reform.

At the time of the ODI mission to Zambia, the country was subject to an import quota in the EU market. However, as of 1 October 2009, all EBA signatories ("Everything But Arms" agreement which includes Zambia) saw their quota removed, which will increase Zambia's access to the EU market. The change in the EU import regime, together with strong demand and high prices on the world sugar market, has apparently spurred a significant capacity expansion by the incumbent sugar producer, and has also attracted potential new entrants (both domestic and foreign) into the Zambian sugar industry. Thus in the future, the domestic sugar market in Zambia may become more competitive, and domestic sugar prices may fall.

It is understood that a large domestic firm from the Zambian meat industry acquired a large sugar cane plantation estate in Zambia in mid-2008 with a view to enter the sugar industry as a producer. The estate has historically been one of the largest growers of sugar cane supplying the incumbent sugar firm. However, after buying the farm land, the company decided to divest<sup>7</sup>. There is speculation that the firm may have divested because it envisaged tough competition from the incumbent, and because it wanted to focus on other business ventures. However, it is interesting to note that the plantation estate was sold to the dominant sugar firm for almost twice the price that the new entrant had originally bought it for. It is understood that the Zambia Competition Commission (ZCC) had originally authorised the acquisition of the farm land by the firm from the meat industry in the hope that this would eventually create competition in the sugar industry.

<sup>&</sup>lt;sup>7</sup> http://www.times.co.zm/news/viewnews.cgi?category=12&id=1248328303

The privately managed Zambian sugar sector appears to compete very successfully on world markets, and represents a source of considerable investment and growth, comparing very favourably with the Kenyan sugar sector, for example, which has a high degree of state involvement. However, the fact that domestic prices in Zambia remain very high points to the lack of competition in the domestic market, which is of considerable detriment to consumers.

#### 4. The Cement Market

The cement sector is one that is often highly concentrated, and thus suffers from limited competition and has been a source of concern for competition authorities in many countries across the world. However, the five countries in our study have very different market structures, as shown in Table 2 below, which facilitates some interesting comparisons:

Country	No. of firms 2008	State Ownership	Estimated market shares of leading firm	Head of population (millions) per cement company <sup>8</sup>
Kenya	3, but with joint ownership	1 SOE	65%	13.6
Zambia	2	No	85%	4.42
Ghana	2	No	64%	12.2
Vietnam	90	33 SOEs	40%	0.99
Bangladesh	34	1 SOE	12%	4.8

Source: ODI, United Nations Population Division

The retail cement price across the 5 countries is shown in chart 3 below. While other country-specific factors will also of course affect prices, such as input costs, and the costs of doing business, it is interesting that prices are highest in the most concentrated markets, and lowest in the least concentrated markets. Zambia - which has a near monopoly with 85% market share held by the leading firm as shown in Table 1 - has the highest price, while Vietnam - which has 90 cement producers - has the lowest price.

The high costs of doing business in Zambia, which is landlocked, compared to coastal Vietnam, which has abundant clinker deposits, should be recognised. However, it seems likely that market structure and competition are important determinants of price. A large new privately-owned plant commenced production in Zambia in late 2009/10, breaking up the previous monopoly, and Chart 4 shows that prices have dropped by almost ten percent since 2007, while prices in other countries have risen.

<sup>&</sup>lt;sup>8</sup> Population data from United Nations Population Division: http://esa.un.org/unpp/index.asp

<sup>&</sup>lt;sup>9</sup> http://www.laurencepaul.com/index.php?option=com\_content&view=article&id=177:zambezi-portland-cement-begins-operations&catid=1:Latest%20News&Itemid=54

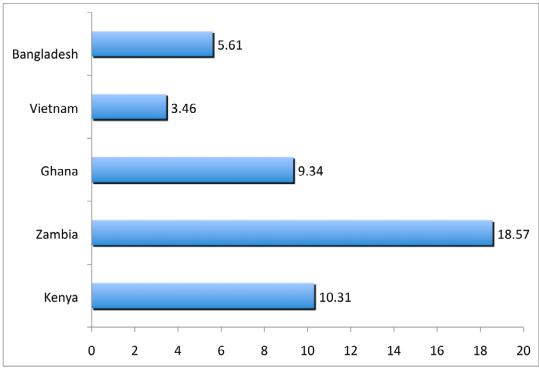


Chart 3: Retail Cement Price Per 50kg Bag 2007/08 (USD)

Source: ODI research

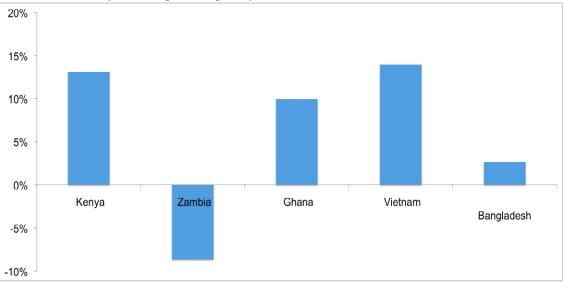


Chart 4: Cement: percentage change in price between 2007 and 2010

In relation to the other countries studied, the most interesting comparison to make is perhaps with the Bangladesh market, which is the least concentrated and probably the most competitive of the five cement markets we studied. (Although Vietnam has more firms, many of them are state owned, and the largest player has a higher market share). In comparison with all the other countries, there appeared to be a much greater degree of both price & non-price competition in Bangladesh, with cement firms trying to attract

Source: ODI research

customers by offering credit, technical support and various promotions. While Bangladesh has a larger market size than Zambia, the scope to export cement means that domestic market size should not necessarily constrain the number of cement firms that can viably operate within a country - indeed Zambia already exports significant volumes of cement.

Zambian cement production started with the founding of a state owned cement company in 1949, which was privatized in 1957, renationalized in 1973, and was then re-privatized in 1994<sup>10</sup>, at which point the UK Government's Development Finance Institution (CDC) bought the controlling stake. In 2001, a multinational cement company bought a 51% controlling stake in this company. The competition authority (ZCC) had concerns over the takeover, and applied some undertakings that the company should not<sup>11</sup>:

- Reduce production
- Fix prices
- Refuse to supply
- Make use of regional cross subsidies

It is not clear how well these undertakings are monitored, but some argued that simply the knowledge that the competition authority was monitoring the situation and may publish criticism of market players in the media if it sees a problem, itself constrains pricing behaviour. If this is the case, then it is evidence of the benefits of having a competition authority – though it also shows how difficult it is to observe and quantify such effects.

When multinationals own companies which are operating in several countries in a region, they sometimes manage their operations regionally, so as to prevent direct competition between their own plants within any one country – i.e. they allocate the market in a country to a specific plant, and impose a 'restrictive territorial strategy' so as to prevent other plants that they own from exporting to that country. There is no law preventing this kind of cross-border arrangement, and many multinationals compete on a regional basis in this way, though it may not be optimal in economic terms for the countries affected.

Where this results in reduced competition in individual countries, this may be detrimental to that country, but it is not within the power of a national competition authority to examine cross-border activities for any possible competition concerns. However, regional competition laws and authorities, such as the new COMESA competition authority, may have the power to examine and intervene into these kinds of arrangements. Thus regional competition authorities can complement national competition authorities and play a very important role in policing the activities of multinationals that operate across borders, and ensuring consumers' interests are protected.

Between 2002 and 2003, concerns arose that the cement firm was engaged in activities that appeared to be preventing, restricting and distorting the production and marketing of cement from Zambia to the traditional export markets for Zambian cement in the Democratic Republic of the Congo (DRC), Burundi and Rwanda, and that its production

<sup>&</sup>lt;sup>10</sup> http://www.mbendi.com/orgs/canc.htm

<sup>&</sup>lt;sup>11</sup> Zambia Competition Commission (August 2003)

and pricing strategies were making Zambian cement less competitive compared with a plant located in Tanzania<sup>12</sup>. An UNCTAD report based on information gathered from the ZCC found that the Zambian cement exports were being targeted at the Democratic Republic of Congo, while the Burundi and Rwandan markets were to be supplied from the same company's Tanzanian plant. The report suggested that such conduct was likely to make the Zambian plant less competitive by restricting its production capacity, and that the export pricing strategy also appeared to make the landed price of Zambian cement higher than cement produced elsewhere.

In 2003, during a major national shortage of cement, the ZCC received allegations against the dominant cement firm for constraining supply of cement in the market as well as high prices of cement. After being formally instructed to do so by the Zambian Parliament and Ministry of Commerce and Trade and Industry, the ZCC undertook an investigation into the nation's biggest cement firm<sup>13</sup>.

The ZCC's investigative report found that the dominant cement firm had been playing a role in reducing the domestic availability of cement by curtailing all local sales when orders were received from abroad and this was also having the effect of raising domestic prices. The report said that further investigations had revealed a possible cartel of distributors who were alleged to be hoarding the product and thus creating an artificial shortage in the Zambian marketplace, leading to higher prices. This was also compounded by higher unofficial exports of cement to Malawi and the DRC (including smuggling).

In response to this problem, the ZCC advocated increased imports of cement, and recommended that the Government revisit the tariff structure of cement in order to make the landed price of imported cement more competitive. Furthermore, it was decided that further investigations to test the recommended retail price regime were necessary in order to ensure that appropriate market prices prevailed in the market in Zambia.

This case shows that in the absence of the required legal framework or evidence base needed to prosecute anticompetitive practices, it is also possible to use other government policies to tackle a competition case; in this instance, government import policies were brought into play. This highlights the scope for government policy coordination to grant the competition agency an alternative way of dealing with competition issues. Whether or not such recommended policy changes are actually implemented may not matter if the threat of their implementation is enough to change the behaviour of firms, and stop anti-competitive practices.

There has been significant growth in demand for cement within Zambia in recent years, resulting in an apparent shortage of cement, and some new entry into the Zambian cement industry had taken place, though at the time of the fieldwork, this had not made major inroads into the leading firm's market share. However, a large new privately-owned plant, commenced production in late 2009<sup>14</sup>, so the cement market in Zambia is

<sup>&</sup>lt;sup>12</sup> UNCTAD Secretariat (Antalya, Turkey 14-18 November 2005)

<sup>&</sup>lt;sup>13</sup> Zambia Competition Commission (ZCC) Paper (December 2003)

<sup>&</sup>lt;sup>14</sup> http://www.laurencepaul.com/index.php?option=com\_content&view=article&id=177:zambezi-portland-cement-begins-operations&catid=1:Latest%20News&Itemid=54

likely to become more competitive going forward. Anecdotal evidence suggests that the new entrant is building its market share, and it seems that cement prices have fallen considerably in the country, as discussed above. The recent expansion of production capacity of the incumbent from 800,000 metric tonnes to 1.46 million metric tonnes may also have contributed to this price fall, since greater economies of scale can lead to lower production costs which may be passed on to the consumer. This bodes well for competition in the market, and should allow cheaper construction and infrastructure development, as well as potentially creating more jobs and exports, all of which contribute to growth.

#### 5. The Beer Market

For this study we focused on the market for formally produced clear beers, though there are also local brews of different sorts produced in each of the countries. We considered the local brews to be operating in a separate market, as they are usually purchased and consumed in different ways, and thus do not appear to be close substitutes for clear beer.

In Zambia, the beer market is close to being a monopoly, as one firm holds around 85-90% market share of the clear beer market. One other firm operates in the market, importing beer, but does not produce it domestically.

Table 3 below shows the structure of the beer market in each of the countries we studied<sup>15</sup>. The beer market is often highly concentrated, due in part to economies of scale, and to the importance of brands and marketing which can represent a barrier to entry.

Country	No. of firms 2008	State Ownership	Estimated market shares of leading firm	Imports as % domestic consumption
Kenya	1	No	90-100%	<5% (premium end)
Zambia	1	No	85-90%	4% (premium end)
Ghana	2	No	60%	4% (premium end)
Vietnam	7 (of which, 3 are large with combined market share of 60%)	Yes, majority of firms are SOEs incl. 2 of largest 3	31%	<5%(premium end)

Table 3: Beer market structure across the 5 case study	/ countries

Source: ODI, various sources

Chart 5 provides a comparison of prices. Though other country specific factors will also affect prices, the figures show that prices are highest in the most concentrated markets, as was the case also in the cement market as discussed above. Zambia has the highest price, though this has come down more recently, at least in part due to changes in excise duty.

<sup>&</sup>lt;sup>15</sup> Bangladesh does not produce beer.

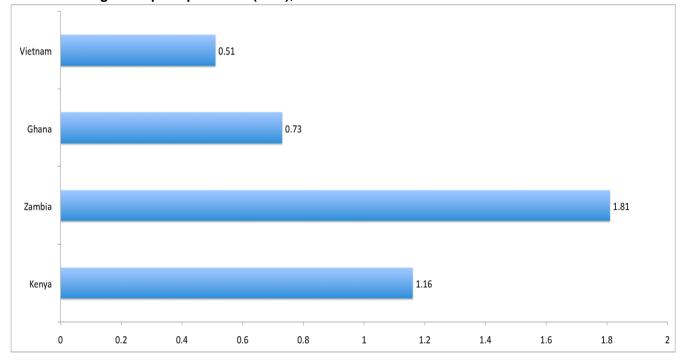


Chart 5: Average beer price per 500ml (USD), 2007/08

Source: ODI, various sources

Of course, many other factors also affect relative prices, such as fuel and transport costs and tax rates. It was also argued by some that the legacy of previously state owned enterprises meant that private players felt pressure to maintain higher numbers of employees than would otherwise have been the case, which if true, may also serve to reduce the competitiveness of Zambia's beer industry.

The Zambian clear beer market was privatised as a duopoly in the mid 1990s, but over time became in effect a monopoly, as one producer acquired the other. There is now only one domestic beer producer, with an 85-90% share of the beer market, though this has waned slightly over time due to increased competition from imported beer brands. However, imported beers tend to fulfil demand in a somewhat different, higher income, market segment.

The Zambian Competition Commission (ZCC) was concerned about the impact on competition of the takeover, and initially declined to authorise it. However, in the end ZCC agreed because it was argued that the firm to be acquired would otherwise fail, with considerable losses for the 500 employees in the economically depressed city of Ndola and many creditors. Additionally, because of operational problems, the Zambia Privatisation Agency (ZPA) could not find a suitable alternative buyer to take over the second firm, other than its competitor.

The acquiring firm was required by the ZCC to give undertakings at that time, for example<sup>16</sup>:

- that the two subsidiaries would have independent separate Boards, management teams and financial records;
- conditions were attached to distribution arrangements;
- both companies were encouraged to penetrate export markets; and
- they must not be seen to discourage entry into the clear beer market by other players or investors.

However, it is not clear how effective these undertakings are, and the current capacity and resources of the ZCC to monitor and enforce them is also unclear.

According to the ZCC<sup>17</sup>, barriers to entry exist in the beer industry:

- There is evidence of excess capacity which could act as a barrier to entry, and beer has been stockpiled;
- There are no domestically produced glass bottles in the country (all are imported);
- The high cost of doing business, and limited access to capital in Zambia, also contribute to barriers to entry, which may mean that firms, other than multinationals, with deep pockets and access to international capital, may find it hard to survive (sustain operations) and compete.
- Technology and minimum efficient scale: Clear beer needs a much higher initial investment than with opaque beer, with more sophisticated equipment and imported machinery. Given Zambia's small market size it is unlikely that new investors will be attracted and limits the competition that ZBL faces.
- Although there are no legal barriers to import, high import taxes do limit the amount of competition faced. These taxes include an excise duty which stands at 60% for clear beer (down from 75% in April 2008), 25% customs duty, and 16% VAT. We were told this is the highest duty in Southern Africa. Market players believe that smuggled cheap clear beer as result of tax evasion reduces their ability to compete.

In September 2005, the beer producer asked for authorisation to implement a recommended retail price for the distribution of its clear beer. ZCC considered that this behaviour was likely to lessen competition in the clear beer market. ZCC was concerned that the recommended retail price was linked with an offer to supply retailers with free coolers provided that the coolers were only used for that company's beer. ZCC feared that this would foreclose the market. ZCC authorised the conduct subject to undertakings whereby the company would not link the recommended retail price with any cooler offers.

The beer producer notified their exclusive distributorship and cooler usage arrangement with the Commission. ZCC determined that the company was a monopoly, controlling 95% of the clear beer market in Zambia, and that the object of the exclusive arrangements were anti-competitive by foreclosing market access of competing products. The Board observed that certain clauses in the distributorship agreement forbade distributors from carrying competing products. Further it was observed that the

<sup>&</sup>lt;sup>16</sup> "Annual Report 1999," Zambia Competition Commission

<sup>&</sup>lt;sup>17</sup> Based on interview with ZCC

placement of coolers in a retail outlet was on condition that competing brands were not placed in the coolers supplied by the company. The Board declared the exclusive distributorship anticompetitive and placed conditions in the placement of coolers in the retail outlets. These decisions were made part and parcel of undertakings concerning the takeover of the other firm, through the compliance programme mentioned earlier<sup>18</sup>. In sum, the strength of the dominant firm, loyalty to existing brands, the relatively small size of the domestic market, and the high costs of doing business in Zambia do not bode well for potential new entry. Given the lower production costs in other countries in the region, imports seem to be the most likely way to facilitate increased competition in the beer market in Zambia, but this is currently constrained by high import tariffs. Thus it seems that the beer market in Zambia may continue to be relatively uncompetitive going forward, to the detriment of consumers.

<sup>&</sup>lt;sup>18</sup> Zambia Competition Commission (1999) Annual Report

#### 6. The Mobiles Market

Prior to 1994, the telecoms sector in Zambia was fully in the hands of the Zambian Government. In 1994, the Government passed a Telecommunications Act (the Act) which opened the sector to private capital. The Act created a sector regulator, the Communications Authority of Zambia (CAZ).

Mobile telephony commenced in 1995 with the entry of the Government-owned mobile operator. This operator currently has the lowest market share of around 5%<sup>19</sup>. This was followed in 1997 by the second entrant, a foreign, private operator. At the time of the mission this company had an estimated 15% market share. In 1998, the third operator was introduced in the market (also foreign owned) which in 2008 commanded an estimated 80% market share, despite being the most recent entrant into the market. The ranking of these three companies in terms of market share has been the same since 2002 (although actual market share figures have fluctuated)<sup>20</sup>.

The mobiles market is one where liberalisation and the introduction of competition have had clear benefits in terms of falling prices and increasing coverage over time. Zambia is no exception: the introduction of new entrants has coincided significant increases in mobile penetration (see chart 6 below). Table 3 shows how Zambia's market structure and institutional framework compares with the other countries studied.

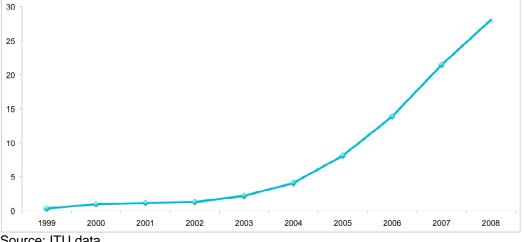


Chart 6: Zambia – mobile subscribers per 100 inhabitants

Source: ITU data

<sup>&</sup>lt;sup>19</sup> Estimates of interviewed business and Government stakeholders in September 2008

<sup>&</sup>lt;sup>20</sup> Based on Zambia Annual Reports provided to the Communications Regulators' Association of Southern Africa (CRASA)

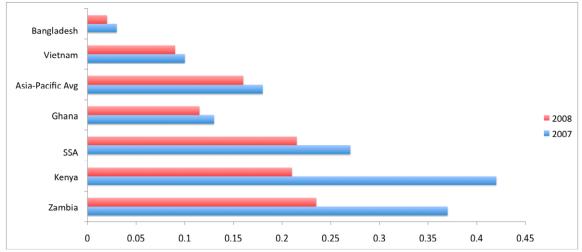
Country	No. of firms 2008	State Ownership	Estimated market shares of leading firm	Imports as % domestic consumption
Kenya	1	No	90-100%	<5% (premium end)
Zambia	1	No	85-90%	4% (premium end)
Ghana	2	No	60%	4% (premium end)
Vietnam	7 (of which, 3 are large with combined market share of 60%)	Yes, majority of firms are SOEs incl. 2 of largest 3	31%	<5%(premium end)

 Table 4: Market structure and regulatory information about the 5 markets

Source: ODI, various sources

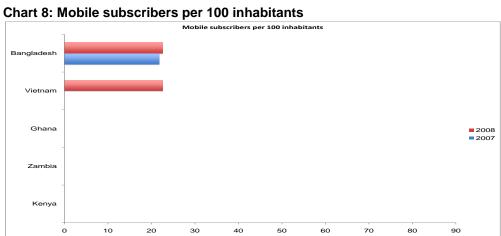
However, Chart 7 shows that in 2007, Zambia's prices were relatively high, as compared with the other countries studied, and the average for Sub-Saharan Africa. However, they had come down dramatically by 2008.

Chart 7: Average per minute mobile tariff (USD)



#### Source: ITU data, ODI Analysis

Zambia has fairly low penetration rates (see chart 8) compared with most other countries studied, though it is better than the average for Sub-Saharan Africa. The relatively low population density of Zambia may make increasing the penetration of mobile services particularly challenging.



Source: ITU data, ODI Analysis

Zambia also had relatively low levels of investment per head of population, as shown in chart 9 below – in contrast to Kenya in particular.

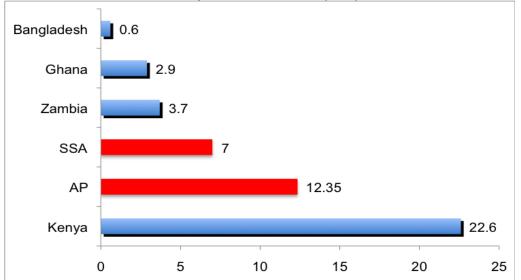


Chart 9: Telecoms investment per inhabitant 2006 (USD)

The sector may be underperforming for a number of reasons. It may be partly because, as noted previously, the relatively low population density of Zambia makes infrastructure development particularly costly. However, there may also be structural problems within the market.

The Government intervenes in the telecoms sector at various levels. At the highest level, the Ministry of Communications and Transport sets out the legal framework and regulatory policy. At the intermediate level, the regulator monitors the activities of all market participants (and is not independent of government). On the ground, the Government directly participates in the market as a mobile operator (although the privatisation of this operator is now planned). This may generate some conflicts of interest.

One specific problem cited relates to the fact that the state owned mobile services provider in Zambia holds a monopoly on the international gateway<sup>21</sup> and charges a high price for its use. This means that the two private firms have to subsidise their international calls to compete with the state incumbent, which may be hindering their investment in infrastructure roll-out. This also in part explains the relatively high cost for mobile services in Zambia.

(By way of comparison, when the Kenyan government liberalised the international gateway in 2004, and licensed the mobile operators to purchase satellite bandwidth on the international market, we were told that this had the effect of decreasing the cost of international calls by 50%. Liberalising the international gateway can remove one of the

Source: ITU data, ODI Analysis

<sup>&</sup>lt;sup>21</sup> An international gateway exchange is a telephone switch that forms the gateway between a national telephone network and one or more other international gateway exchanges, thus providing cross-border connectivity. This switch can be owned by a particular company.

bottlenecks that can choke African businesses as they seek to compete in a global market, and thus can have significant knock-on benefits across the economy.) Although the international gateway (IGW) in Zambia is in principal liberalised, the regulator has set an IGW licence fee of 12 million USD, and to date none of the operators have sought to purchase a licence. It is not clear why this is the case. In Kenya the IGW licence fee was \$25m and yet all the operators have bought it. It could suggest that the regulator has set the rate for the licence too high in Zambia, given the relatively small size of the market, or there could be other reasons.

One factor may be the general concern about the lack of competitive neutrality between state and private players - an issue that has been seen also in other countries in this study. This points to the need for accounting separation between the various parts of state owned telecommunications companies. This allows for better regulation of the market and prevents unfair practices such as cross-subsidisation – taking excess profits from one service (e.g. international gateway revenues) and using them to provide another service (e.g. domestic mobiles services) at below cost. The lack of such separation may be a problem is Zambia. The regulator cannot determine whether the state owned mobile operator is paying the same (relatively high) access fees for the international gateway as the private operators. The requirement for accounting separation has only recently been introduced for all market players, although it was alleged that this had still not been implemented in practice.

In addition, the state incumbent itself does not appear to be rolling out infrastructure or making great efforts to expand penetration, perhaps because it does not enjoy the incentives and managerial capabilities of the private sector. In Kenya, where a single private sector firm has dominated the market for several years, it has used the profits it has generated to invest a great deal in infrastructure rollout, thus entrenching its strong market position, and facilitating much higher penetration.

In the mobile telephony market, the regulatory framework is an important determinant of competition. In Zambia, there is a financially, but not operationally independent<sup>22</sup> regulator, then called the Communications Authority of Zambia (CAZ), but which is now called the Zambia Information and Communications Technology Authority (ZICTA), which undertakes activities such as radio spectrum and quality of service monitoring, runs consumer awareness programmes, and undertakes studies on ICT.

ZICTA regulates telecoms operators partly through their licence agreements. Authority over issues relating to competition is shared with the Zambian Competition Commission (ZCC). ZICTA focuses on ex ante regulation, while ZCC focuses on ex post regulation within the framework of competition abuses, (although ZCC has also been proposing that the international gateway should be liberalized). In the case of mergers, the merging entity first needs an approval by ZICTA under the licence agreement, before applying for approval by ZCC.

<sup>&</sup>lt;sup>22</sup> CAZ is not independent of the Ministry of Communications and Transport. The Ministry appoints the senior management of CAZ and the Ministry's Permanent Secretary provides direct oversight of CAZ. However, CAZ is entirely financially independent of the Ministry. CAZ has three sources of funds: licence fees, spectrum fees and operators contributions.

ZICTA is generally perceived as a relatively strong regulator by both business and non business stakeholders<sup>23</sup>, though its lack of independence from government was highlighted as a concern, and it was alleged that CAZ had not defended its regulatory proposals very strongly when they are opposed by the government.

One important component of the regulatory framework, which affects the degree to which new entrants can gain market share, compete and innovate, is the regulation of interconnection tariffs. In the absence of regulated interconnection tariffs, dominant firms may charge high prices for connecting calls from other networks. Moreover, sometimes dominant operators can refuse or delay interconnection with other operators. This can limit effective competition, as most people will probably be making regular calls to subscribers on the largest network, so if the costs are doing that are very high, they will subscribe to the dominant provider, rather than any small player, or new entrant. Thus unregulated interconnection fees can stifle competition and innovation, keep prices high, hold back penetration and prevent additional investment in the sector.

Until recently, interconnection charges have not been regulated in Zambia. Indeed, according to the ITU (2008), there has been a long term interconnection dispute, between the market leading mobile operator and the Government owned fixed line operator. However, in June, the Supreme Court ruled in the mobile operator's favour, bringing to a close this long standing issue<sup>24</sup>. In Kenya, mobile tariffs fell significantly after termination charges were regulated.

In late 2009, the Communications Authority of Zambia (CAZ) announced the change of its name to the Zambia Information and Communications Technology Authority (ZICTA). This was as a result of the operationalisation of the Information and Communications Technology (ICT) Act, which has replaced the Telecommunications Chapter 469 of the Laws of Zambia. The name change from CAZ to ZICTA is in line with the convergence of technologies in what used to be principally different sectors; namely telecommunications, and Information Technology (Internet). Thus ZICTA has a wider remit than CAZ. In addition, it has more powers to address problems e.g. through clearer penalties and fines.

ZICTA has put in place a new national band plan which involved the re-allocation of the GSM band. It has also made an effort to increase its technical capacity in administering radio frequency spectrum, the authority has installed a monitoring system, which means it is now in a position to detect and prevent illegal use of spectrum. In addition, in 2009, the Zambian government introduced a new law that gives powers to ZICTA to regulate tariffs and agreements on interconnection fees<sup>25</sup>, which should help to address the aforementioned interconnection problems In addition, there are plans to facilitate infrastructure sharing by mobile operators, to reduce unnecessary costs associated with duplication of investment in network infrastructure.

<sup>&</sup>lt;sup>23</sup> Based on interviews conducted by ODI on mission in Zambia

<sup>&</sup>lt;sup>24</sup> www.zm.zain.com/.../Celtel\_Zambia\_Plc\_Interim\_Results\_July\_2008.pdf

 $<sup>^{25} \ {\</sup>rm http://www.computerworld.co.ke/articles/2009/09/30/african-providers-under-pressure-interconnection-charges}$ 

Another important issue is the potential impact of regulation to encourage wider rollout in underserved areas. Some countries introduce Universal Service Funds (e.g. through a levy on mobile phone operators) to subsidise the roll out of telecommunications services in remote and unprofitable areas.

One example of this from our case study countries is the Ghana Investment Fund for Telecommunication development (GIFTEL), which has been running since 2005, and has the aim of improving access to ICT services in non-served and under-served parts of the country. One percent of net earnings of all mobile operators go towards the GIFTEL fund. Funds are used by GIFTEL to construct common telecommunication facilities in underserved areas. GIFTEL pays for full construction of the mast, including site acquisition and fencing. We were told that in the past four years GIFTEL has completed a total of thirty-nine Common Telecom Facilities and enabled telecoms operators to extend their services to about 273 communities. The scheme is becoming increasingly popular with the operators, so this policy appears to be working well in Ghana, which has the best penetration of all the countries we studied.

In Zambia, the regulator launched a rural development fund in September 2008, to be financed through licence fees. However, as far as we are aware, there are currently no mechanisms in place that would allow market participants to make use of this fund.

Interview evidence suggests that the state owned mobile services provider in Zambia believes it has a responsibility to deliver universal service, and that this undermines its ability to compete with other market players, which is why it needs to maintain the monopoly on the international gateway. In combination, it seems like this kind of arrangement may undermine the performance of the mobiles market across the board in Zambia, resulting in higher prices and lower penetration than would be achievable otherwise. Thus a carefully implemented universal service fund might be a more market friendly way of achieving the objective of widening access to mobile services in underserved areas.

However this would also need to be implemented carefully to avoid distortions, with the State inadvertently subsidising service roll out in what could be commercially profitable areas. It can be difficult to identify the threshold where service will be unprofitable without additional incentives or subsidy. Research carried out for the World Bank in 24 sub-Saharan African nations, found that only a very small proportion of the population would likely remain unserved by 2015 given likely market investments over the next few years (World Bank, 2007). Over-regulation, or the imposition of a levy can itself reduce commercial incentives for rollout. So governments must be careful to avoid undermining the market solution, which has delivered significant benefits in many countries so far.

There is strong evidence from across the world of the various development benefits associated with mobile phone services including significant reductions in the cost of doing business, and improvements in connectivity which make it easier for businesses to link up with suppliers, existing customers, and potential new customers. This improves the investment climate, catalyses private sector development, and stimulates growth. Thus a well-performing and competitive mobiles sector can have significant knock-on benefits for the economy as a whole.

#### 7. Conclusion

To summarise, our research suggests that:

- The ZCC plays a valuable role in monitoring possible anti-competitive practices in the sectors reviewed, identifying and highlighting problems and influencing some government decisions. However, its influence and impact could be greatly strengthened through reform and improved resourcing;
- Regional competition frameworks such as the new COMESA competition law can help to tackle cross-border competition issues than go beyond the jurisdiction of national competition authorities;
- Competition has been relatively limited in the cement and beer sectors, as is often the case across the world. The ZCC has been playing a useful role in monitoring the situation in both markets, but it is not clear how effective it has been in tackling competition problems that have arisen.
- Zambia produces sugar that is very competitive on international markets and stands to gain considerably from future liberalisation. However, sugar is very expensive locally in Zambia, reflecting at least in part the lack of competition in the domestic market. The removal of sugar import barriers and new entry would help to improve the competitiveness of the sector. The ZCC has investigated the market, and noted the high domestic sugar price, but it is not clear that the recommendations it made will address the problem or benefit sugar consumers.
- The limited scope of the ZCC's response to some of these problems raises questions as to the extent to which it is able to effectively tackle problems in sectors where there may be strong vested interests opposing reform. However, there may be scope to mobilise interest groups in favour of reform, to offset these opposing interests – as evidenced by the group of companies which complained to the ZCC about high sugar prices.
- The mobile telephony market in Zambia is not performing very well compared with other countries in Sub-Saharan Africa, or other countries covered in this study. The lack of competitive neutrality between state and private players, and the monopoly on the international gateway by the state owned incumbent may account for some of this poor performance and remains an issue. However, recent regulatory improvements e.g. relating to interconnection tariffs, may help to facilitate increased competition and improved performance going forward.

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