



BREAKING DOWN BARRIERS

Unlocking Africa's Potential through
Vigorous Competition Policy



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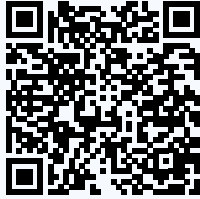
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ABBREVIATIONS

ACF	African Competition Forum	IPC	Import Planning Committee
ADC	Aéroports Du Cameroun (Cameroon Airports Company)	LAN	Limestone Ammonium Nitrate
ADSL	Asymmetric Digital Subscriber Line	LRIC	Long Run Identical Cost
AN	Ammonium Nitrate	MAP	Mono-Ammonium Phosphate
ANS	Ammonium Nitrate Solution	MENA	Middle East and North Africa
BPC	Belarus Potash Company	MHz	Megahertz
CAK	Competition Authority of Kenya	MNO	Mobile Network Operator
CAMSHIP	Catapult Aircraft Merchant ship	MoU	Memorandum of Understanding
CAMTEL	Cameroon Telecommunication	MTA	Million Tons per Annum
CCSA	Competition Commission of South Africa	MTN	Mobile Telephone Network
CEMAC	Central African Economic and Monetary Community	MTR	Mobile Termination Rates
CET	Common External Tariff	MVNO	Mobile Virtual Network Operators
CF	Complex Fertilizers	N/A	Not Applicable
CFTC	Competition and Fair Trading Commission	NBC	Nitrogen Balance Committee
CIMENCAM	Les Cimenteries du Cameroun	NPC	Natal Portland Cement
COMESA	Common Market for Eastern and Southern Africa	NPK	Nitrogen Phosphorus Potassium
CPP	Calling Party Pays	OCI	Oriental Chemical Industries
DAP	Diammonium Phosphate	OCP	Office Cherifien des Phosphate
DFID	Department For International Development.	OECD	Organization for Economic Cooperation and Development
DRC	Democratic Republic of Congo	OPC	Ordinary Portland Cement
EAC	East African Community	OTT	Over The Top
EAP	East Asia Pacific	PPC	Pretoria Portland Cement
ECOWAS	Economic Community of West African States	RIA	Research ICT Africa
EGP	Egyptian Pound	SACU	Southern African Customs Union
ETG	Export Trading Group	SADC	South African Development Community
FAO	The Food Agriculture Organization	SF	Straight Fertilizers
FCC	Fair Competition Commission	SON	Standards Organization of Nigeria
FDI	Foreign Direct Investment	SSA	Sub-Saharan Africa
FIAS	Facility for Investment Climate Advisory Services	UK	United Kingdom
FISP	Farmer Input Support Program	USD	US Dollar
FOB	Free on Board	VANS	Value Added Network Services
FSSA	Fertilizer Society of South Africa	VAT	Value Added Tax
GDP	Gross Domestic Product	VoIP	Voice Over IP
GHz	Gigahertz	VSAT	Very Small Aperture Terminal
GSMA	Global System Mobile Association	WAEMU	West African Economic and Monetary Union
HRS	Heat Recovery Solutions	WBG	World Bank Group
ICT	Information Communication Technology	WEF	World Economic Forum
IGW	International Gateway	ZPPA	Zambia Public Procurement Authority

*All dollar amounts are in U.S. dollars unless otherwise indicated.
Figures without sources are by the authors.*

FOREWORD

In a context of low growth in the global economy, countries are called upon to support the implementation of policies to improve the performance of domestic markets, diversify their economies, harness increasing integration into the global marketplace, and ensure that welfare distribution contributes to shared prosperity. Competition law enforcement and competition policy are effective tools for transforming product input markets, and boosting productivity, innovation, competitiveness, and inclusive growth. They also help the poorest population groups access a wider variety of competitively priced goods. Furthermore, competition in public procurement delivers savings for the government and increases the efficiency of infrastructure and social services provision. Competition authorities play an important role as champions, advocates, and enforcers of competition policy across economies.

We are pleased to present the *“Breaking Down Barriers: Unlocking Africa’s Potential through Vigorous Competition Policy”* study, prepared by the World Bank Group (WBG) in partnership with the African Competition Forum (ACF). This study reviews the status of competition frameworks and implementation in Africa and zooms in on three important sectors for Africa’s competitiveness: cement, fertilizers, and telecommunications. More than 70 percent of African countries rank in the bottom half of countries globally in terms of intensity of local competition and prevalence of fundamental policies for market-based competition.

The ACF is a network of competition authorities in Africa, comprising 29 national authorities and four regional authorities. The ACF was established in 2011 to promote the adoption of competition laws, help build the capacity of new authorities, and assist in advocating for the implementation of competition reforms to the benefit of member countries. The WBG, through the work of the Trade and Competitiveness Global Practice’s Competition Policy Cluster, advises governments on improving the effectiveness of competition enforcement and policy, generates knowledge and analytical products on the importance of competition and the design of stronger procompetition frameworks, and supports global initiatives to place competition policy on the development agenda.

This report has been a collaborative effort between the WBG and members of the ACF, reflecting a shared vision for promoting competition policy and effective competition law enforcement across Africa. Information for this report was gathered through questionnaires, to which 22 jurisdictions responded. This report expands the scope of earlier ACF studies, considering not only the status of competition law enforcement and competition policy in each economy as a whole but also providing an overview of competition dynamics and challenges in selected markets of key sectors.

The ACF and WBG have sought to take a step forward in the application of regionwide analytical tools to understand key risks to competition in vital input sectors, in particular cement, fertilizer, and telecommunications. Competition issues in road freight, air transport, and retail are also explored. The analysis shows that the effects of industry characteristics, regulations, and trade policies shape the competitive dynamics of these sectors and often span borders. There is scope, therefore, for national and regional competition authorities to increase their impact by taking

a regional perspective when assessing cases within their jurisdictions. This report brings home the importance of strong cooperation between agencies involved in implementing competition policy. The study's findings on the range of competition policy frameworks in place across Africa—and the richness of experience in enforcing those frameworks—highlights the great potential for peer-to-peer learning, both within the region and across regions.

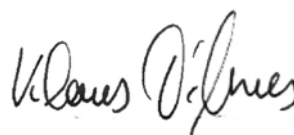
The evidence presented in this report shows how competition policy helps African countries boost inclusive growth and sustainable development. The report finds that eliminating competition constraints in food markets could lift families out of poverty. For example, a 10 percent reduction in the prices of principal food staples is estimated to have the effect of lifting approximately 500,000 people out of poverty in three countries. Fundamental market reforms to increase competition in key input services would also boost economic growth. For example, reforming professional services markets would deliver an additional 0.16–0.43 percent of additional annual growth in gross domestic product. While the benefits of competition are clearly observable in Africa, there is still considerable effort required to ensure effective implementation of competition laws and policies across the continent. This study provides an overview of factors to be considered in pursuing that effort.

We hope this analysis will raise awareness of the achievements made in Africa, stimulate debate on how to address the remaining challenges, and reinforce the case for implementing competition policy and strengthening enforcement of competition laws across the region. This report is a resource that can be used to expand the understanding of markets and competition dynamics across governments and to influence public policies more broadly for the benefit of consumers and businesses in Africa. Based on report findings, we also encourage collaboration between authorities in developing policy, building capacity, and shaping enforcement activities.



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We would like to acknowledge the assistance of the ACF's members in responding to questionnaires designed for the preparation of this report, including the competition authorities of Algeria, Botswana, Egypt, The Gambia, Guinea, Kenya, Malawi, Mauritius, Morocco, Namibia, the Seychelles, South Africa, Tanzania, Togo, Tunisia, Zambia, Zimbabwe, and the Common Market for Eastern and Southern Africa (COMESA), as well as government entities in charge of competition policy in the Republic of Congo, Uganda, the South African Development Community (SADC), and the East African Community (EAC). Several staff from the WBG, competition authorities, and members of the ACF made valuable contributions to the report. Benedetta Carducci, Guillerme Falco, Sophia Kamarudeen, Jacqueline Mugah, Diana Nyachieo, and Azza Raslan (WBG consultants) prepared background notes based on the authorities' responses to the questionnaires and compiled additional information for the study. Brijesh Pinto (Economist), Tanja Goodwin (Private Sector Development Specialist), and Philana Mugyenyi (Trade Specialist)—all from the WBG—contributed to the preparation of the report. Faith Ighana (WBG consultant) provided assistance to the team. This report was edited by Amanda Green and Christopher Colford provided inputs.

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EXECUTIVE SUMMARY

Competition policy can play a key role in achieving African countries' vision of a prosperous Africa, based on inclusive growth and sustainable development. Competition bolsters economic growth by fostering more productive firms and industries, allowing domestic firms to become more competitive abroad, export more, and generate more value added to the economy. In addition, competition increases household welfare by encouraging firms to deliver the best deals for consumers, protecting households from paying overcharges for essential consumer goods, and facilitating access to a broader set of goods.

Nonetheless, in many African countries, markets are restricted by business practices that undermine competitive dynamics, and by government actions that create barriers to healthy competition. When firms agree to fix prices, empirical evidence reveals that consumers pay 49 percent more on average, and 80 percent more when cartels are stronger (Connor 2014). Economies are still marked by government actions—such as policies, regulations, procedures, programs, and commercial decisions—that reinforce dominance by restricting the number of firms or limiting private investment, increase business risks and facilitate agreements among competitors, and discriminate against certain competitors or affect competitive neutrality. This is shown not only by the Economist Intelligence Unit indicators on factors that increase operational risks, but also in the analysis of cement, fertilizer, and telecommunications sectors included in this report. It is also consistent with findings in World Bank Group (WBG) advisory projects in the region.

Private sector development is at the center of economic transformation in a number of African states' national and regional development strategies, and competition is necessary to ensure that the benefits of private sector participation are passed on to citizens. Increasing private investment in priority sectors is one of the main areas of economic transformation. A growing number of African governments are moving toward reducing state involvement in providing services and products that can be delivered more efficiently by the private sector. Yet the social benefits of private sector participation can only be achieved when markets are competitive. Effective competition policies—those that ensure open markets, an environment with low barriers to entry and low operational risks, and effective rules that prevent anticompetitive business practices, guarantee competitive neutrality, and enhance private sector participation in commercial activities—will, therefore, contribute to achieving the goals of the region's national and regional development strategies. In response to this demand, various countries and regional blocs have adopted competition laws and policy frameworks.

Competition authorities play an important role in encouraging and safeguarding competition in African markets to allow for inclusive growth. Frameworks that enable competition help empower the poorer segments of society, increase their buying power, and give them greater economic opportunity. Empirical evidence shows that greater decision-making autonomy for competition authorities would translate into higher growth in gross domestic product (GDP) through a 17 percentage point reduction in the total factor productivity gap with the United States, on average (Voigt 2009). Competition law enforcement decisions to stop and prevent cartels, abuses by dominant firms, and mergers that are likely to harm competition are among the principal activities of competition authorities in Africa. Another key focus area is advocacy for the elimination of

regulations that restrict competition and facilitate anticompetitive business practices. Authorities may also carry out market assessments to advise the government on regulatory changes that can allow markets to be more competitive, and analysis of proposed regulations and legislation to provide technical guidance for the design of procompetition instruments.

This report aims to highlight Africa’s important progress in creating more effective competition institutions and to outline areas of focus in order to encourage vigorous competition in key markets in the region. The report presents the status of competition policy and competition law enforcement across various countries in Africa, both economy-wide and in selected sectors. The report is based on African Competition Forum (ACF) members’ responses to the 2015 ACF-WBG Competition Policy Questionnaire, additional research on other countries in the region, answers to previous ACF surveys, WBG advisory services in the region, and cross-country comparison of relevant indicators produced by various international organizations. The WBG’s Markets and Competition Policy Tool has been used as framework to assess both competition law enforcement and competition issues in sectors.

Effective competition policies will contribute to achieving the goals
of the region’s national and regional development strategies.

1. Overview of indicators in the region and the potential gains from boosting competition

Most countries in Africa are perceived to have lower levels of competition than other countries around the world. More than 70 percent of African countries rank in the bottom half on the perceived intensity of local competition (WEF 2015) and on the existence of fundamentals for market-based competition (BTI 2016). On average, African countries score 26 percent lower than other countries globally in terms of the existence and enforcement of competition law (BTI 2016). With regard to policy barriers to competition, trade and foreign investment policies in Africa are more restrictive of competition than those in other regions. Business risks generated by prices controls, vested interests, and favoritism are also higher.

The prevalence of monopolies, duopolies, and oligopolies is relatively high in some African economies, even after considering market size. In the manufacturing sector, markets in countries with relatively high GDP per capita have fewer participants than some smaller economies in the region. In the services sector, in more than 40 percent of African countries, a single operator holds over half the market share in telecommunications and transport.

Africa has much to gain by encouraging open and competitive markets, particularly as a means to spur sustainable economic growth. Reducing regulatory restrictiveness in professional services would, other things being equal, boost growth in value added in industries that use professional services intensively by between 0.16–0.42 and percentage points of GDP growth for a sample of nine African countries. The impact would be even larger if fundamental reforms were implemented in other services sectors with higher spillover across the economy, such as electricity, telecommunications, and transport.

A lack of competition in basic goods in African markets harms all households through its effect on prices—but the poorest are hit the hardest. Retail prices of 10 key consumer goods are, on average, at least 24 percent higher in African cities than in other economies around the world, even after controlling for transport costs, geographic variables, and other factors. This result may stem in part from low competition. For example, reducing the prices of main food staples by even a modest 10 percent (far below the average overcharge imposed by cartels around the globe) by tackling anticompetitive behavior in these sectors or improving regulations that shield these markets from competition could lift 270,000 people in Kenya, 200,000 people in South Africa, and 20,000 people in Zambia above the poverty line. Such a policy would save households in these countries over \$700 million (2015 US dollars) a year, with poor households gaining disproportionately more than rich ones.

A lack of competition in basic goods in African markets harms all households through its effect on prices, but the poorest people are hit the hardest.

2. Toward a more effective competition policy framework

There has been important progress in the enactment of competition policy frameworks in Africa. The number of jurisdictions with competition laws has tripled in 15 years. The number of jurisdictions with a competition law grew from 13 in 2000 (12 countries and one regional bloc) to 32 in 2015 (27 countries and five regional blocs). Importantly, competition authorities are now implementing these laws in 25 jurisdictions (including two regional blocs). Looking to the future, there is a need to prioritize resources and use the powers and tools available to competition authorities more effectively in order to continue raising the relevance of competition policy within the broader development agenda.

Functioning African competition authorities face some operational constraints. Competition authorities have been operating for eight years, on average, in countries that have enacted competition laws. On average, they employ 21 technical staff who work on competition, or approximately 32 percent of total staff (as compared to 68 percent in a sample of 35 established competition agencies around the world). Nine authorities have fewer than 10 technical staff handling competition matters. The average annual budget of these agencies has increased by 39 percent in four years, but resources remain limited. Excluding South Africa, the average annual budget is \$1.4 million. Seven authorities operate with an annual budget below \$0.5 million. The average annual budget allocation per technical staff in African authorities is one-third of that in a sample of 33 established competition authorities around the world. Despite these constraints, competition authorities complete, on average,¹ 41 cases on merger control, 1.9 cases on abuse of dominance,² 1.4 cases on horizontal agreements,³ 1.4 sector inquiries, and 6 advisory opinions on laws or regulations each year, but there is significant variation across authorities.

¹ Based on 2013–14 data including 15 jurisdictions.

² Parties may abuse a dominant market position to, *inter alia*, charge customers excessively high prices or foreclose rival firms.

³ Horizontal agreements take place between parties selling products in the same market.

Cartels are the most harmful anticompetitive practice, but anticartel enforcement remains relatively weak in Africa. In 2013–14, 42 horizontal agreement cases were completed by nine authorities; of those, 50 percent were investigated by the Competition Commission of South Africa. Products that have been found to be affected by cartels in Africa include fertilizers, food (including wheat, maize, and bread), pharmaceuticals, construction materials (including cement), and construction services. Research from South Africa sheds some light on the characteristics of these cartels. Overcharges have been estimated at 7–42 percent for wheat products, 25 percent for poultry, 15 percent for pharmaceuticals, and 7.5–9.7 percent in cement. The average duration of nonconstruction cartels in South Africa was eight years. Despite their harm, fines allowed and imposed for cartels in Africa are not high enough to deter their formation. In Kenya, the maximum fine possible is approximately \$100,000, and in the East African Community (EAC) it is \$10,000. Although the maximum fine imposed for cartels in South Africa is \$116 million, on average fines are only 9 percent of excess profits compared to 26 percent in the European Union (Ivaldi, Jenny, and Khimich 2016). Practical implementation of key anticartel enforcement tools needs to be strengthened as well. At least 16 competition authorities have search and seizure powers, but few have carried out raids. Moreover, at least seven countries have a leniency program that allows a cartel member to confess its involvement in a cartel and fully cooperate with the resulting investigation in exchange for reduced sanctions. To date, leniency applications have only been received in South Africa and Mauritius. Challenges to the implementation of effective leniency programs include the low probability of detection and the fact that close collaboration with prosecutors is required for a leniency program to function in jurisdictions with criminal sanctions for cartels. Competition authorities have also addressed abuse of dominance and vertical agreement cases: 70 cases by 15 authorities in 2013–14. Nevertheless, it would be useful to lay out more precise theories of harm to assess exclusionary effects, use tools to increase administrative efficiency such as settlements, and expand advocacy efforts to change government interventions that reinforce dominance and increase the risk of anticompetitive behavior.

The role of competition authorities in assessing mergers has expanded considerably, but there is room to make the system more efficient. Merger control is operational in at least 17 out of 26 jurisdictions. In most jurisdictions, premerger notification is mandatory, and it is therefore important to prioritize cases to avoid preventing investments and transactions that are not likely to harm competition. Six competition authorities use fast-track procedures to prioritize the most important merger cases. Merger notification thresholds have been set in at least 13 jurisdictions to reduce any undue administrative burdens on businesses and on the authority, but at least six jurisdictions with mandatory premerger notification do not have a threshold and thus require all transactions to be notified regardless of size. Over 1,200 merger cases were completed in 2013–14 by 15 jurisdictions with an operational merger control system. On average, each member of the technical staff in African competition authorities handles 3.2 merger notifications per year, compared to 0.8 in 35 established competition agencies around the world. This system constrains the resources available for investigating anticompetitive practices. On average, 10 percent of mergers were blocked or conditionally approved in Africa, compared to 4 percent in a sample of 35 established competition agencies around the world. In 12 African jurisdictions, authorities consider public interest concerns other than competition. Five regional blocs have merger control provisions that aim to prevent changes in market structure that are likely to harm competition and trade among African countries. Currently, premerger notification is mandatory in EAC and the Common Market for Eastern and Southern Africa (COMESA), but only the COMESA system is operational. This demands close coordination with national authorities and other regional authorities with overlapping jurisdiction.

Competition authorities are working with other government bodies to encourage competition. Almost 60 percent of the African competition authorities studied have signed memoranda of understanding with sector regulators—most of which have been in the telecommunications, banking, energy, and transport sectors. Competition authorities often provide opinions on government interventions to minimize restrictions on competition, which in most cases are not mandatory or part of a formal process. Even without binding opinions, however, some competition authorities in the region have succeeded in influencing policies through sound technical analysis and clear strategies that engage key stakeholders to support reforms. Competition authorities are increasingly conducting successful advocacy to open markets to competition. This includes efforts in the areas of banking and public procurement in South Africa, mobile financial services in Zimbabwe, saw milling in Zambia, health care and tea processing in Kenya, cement in Tanzania, sugar in Malawi, and steel in Egypt. Other policies such as state aid and price controls affect the development of competition in markets, but only in a few cases is competition analyzed in granting state aid or setting price controls.

There is room to prioritize resources and use the powers and tools available to competition authorities more effectively in order to continue raising the relevance of competition policy within the broader development agenda in Africa.

3. Market dynamics and competition policy in key sectors

Certain sectors are particularly important in ensuring the competitiveness and growth of African economies, and in boosting the welfare of less well-off households. The cement sector, for example, plays a critical role in the construction of infrastructure and housing. The fertilizer sector affects agricultural productivity, and the transport and telecommunications sectors shape connectivity within countries and with the global economy. These products and services are necessary inputs for businesses and small producers. Their prices, availability, and quality have a direct effect on the competitiveness of African producers in international markets and the extent to which households can harness the benefits of more open markets. These sectors also generate spillover effects across the economy.

This report provides a focused examination of competition in cement, fertilizer, and telecommunications sectors, along with an overview of competition issues in transport. These sectors were selected on the basis of their relevance for African economies and their demonstrated potential for displaying competition issues. Selection of the three core sectors, together with road freight and air transport, takes into account the results of the ACF Needs Assessment 2014 and authorities' previous activities in these sectors. In addition, also based on feedback from ACF members, the report outlines three sectors in which competition authorities have recently become active as a result of the perception that they are problematic for competition—namely, energy, retail, and tourism. Market outcomes in the energy and retail sectors drive a great deal of household consumption and welfare, while retail and tourism sectors are important sources of jobs. Energy is an important input for large and small enterprises alike.

CEMENT: A KEY INPUT FOR INFRASTRUCTURE AND HOUSING

Across African countries, cement production and imports display a number of common characteristics that shape market outcomes. First, the high economies of scale and high capital intensity of cement production and imports act as barriers to entry and, when combined with relatively low demand, mean that markets often cannot efficiently support a large number of players. The bulkiness of the product and high ratio of transport costs to value encourages vertical integration and regional concentration. As a result, suppliers form regional strategies that span borders, with actual and potential competition in a particular jurisdiction depending on the availability of lime (the key primary input for the production of cement) in a specific locality, the size of local demand, and the existence of import restrictions. In these circumstances, sound competition enforcement that prevents anticompetitive behavior may be critical.

Cement markets in Africa tend toward high concentration, and plants owned by nine large panregional firms account for most of the continent's cement capacity. Together, these firms have an average capacity of 18.9 million tons per annum (mta) compared to less than 3 mta for the smaller players that make up the remainder of the market. There is considerable multimarket contact between these firms, both in Africa and internationally, with the two largest meeting in seven countries in Africa. Three of the firms that meet in markets across the region were previously involved in a cement cartel in the Southern Africa Customs Union (SACU), which was uncovered by the Competition Commission of South Africa. Overall, in at least 18 African countries, one supplier holds more than half the market. At least 21 markets have witnessed entry over the last three years, and in at least 15 of them, one or more of the new entrants was one of the major panregional players. Dangote, for example, was a new entrant in 12 of those countries.

Other supply-side factors that shape market structure and competitive dynamics include a country's reliance on imports, state involvement in cement supply chains, and the degree of vertical integration. Many countries rely on imports for their supply of cement, making some markets susceptible to competition challenges in other countries as well as to import barriers. Over 60 percent of the countries studied import more than half of their cement consumption, and at least five of those countries source more than half of their imports from African countries. Vertical integration along the cement supply chain is common, but this only poses a risk of exclusionary behavior if a dominant vertically integrated upstream producer of clinker (the key input for final cement production) is supplying to downstream rivals in cement production. This is the case in Botswana, Mozambique, and Rwanda, each of which has at least three cement producers but one dominant clinker producer. The state is involved in cement markets in just over half of the countries for which information is available. In most of these cases, the state holds less than 50 percent of the market through direct holding in production plants.

Government interventions in the form of policies, rules, and procedures governing the cement sector can hinder competition. In 69 percent of the countries that have limestone reserves, a key factor determining competition in cement markets is firms' access to lime. The award of temporary or geographic exclusivity over limestone reserves beyond the level necessary to attract investment and maintain efficiency may prevent entry of new firms. Import restrictions can also act as a barrier to entry. Of the 22 countries and regional bodies for which information is available, 45 percent have restrictions on cement imports, including absolute import bans and the phasing

out of import licenses (as in Angola, Cameroon, Ethiopia, and Nigeria) and antidumping tariffs (as in Namibia and South Africa). The imposition of product standards that are more restrictive than necessary to maintain quality (as imposed in Nigeria and Liberia) can also prevent entry, raise the costs of competing, and facilitate collusion. Finally, in some countries, the government appears to maintain some degree of control over cement prices (as in Ethiopia, Mozambique, Republic of Congo, and Tunisia).

Competition authorities have been active in investigating potential anticompetitive behavior in the cement sector. In the last three years, competition authorities have investigated three cartel cases, six abuse of dominance cases, and six cases relating to other types of behavior such as price discrimination. At least eight of these cases are still under investigation. Over the same period, sanctions were only imposed in South Africa in the case of the SACU cartel. It is worth noting, though, that Egypt also found and sanctioned a price fixing cartel involving nine producers in 2008. Both the SACU cartel and the Egyptian cartel involved the largest player in the African market.

Cement prices in Africa are far above world prices, but the potential impact of fostering competition in the cement market in Africa is significant. Final cement prices in Africa are 183 percent higher, on average, than world cement prices. Even a modest anticompetitive overcharge on African cement of 9.7 percent (equivalent to that seen in the SACU cartel) would mean that African consumers are overpaying for their cement by \$2.5 billion a year. Gains have already been seen in Africa from tackling some of the competition challenges. Enforcement action to tackle the SACU cartel has saved cement consumers \$79–100 million per year in South Africa. Advocacy action by the Tanzanian competition commission to encourage the removal of a suspended duty on cement imports in Tanzania led to a 26 percent reduction in retail prices. Entry into South African and Zambian cement markets has been followed by a fall in cement prices (of at least 5 percent in real terms in a year).

Small market size, economies of scale, excess capacity, reliance on intraregional trade, and multimarket contact, among other characteristics, shape competitive dynamics in cement markets. Competition law enforcement, removal of nontariff barriers, and procompetition rules to enable entry in limestone-clinker production would save African consumers \$2.5 billion each year.

FERTILIZER: A KEY INPUT FOR AGRICULTURE PRODUCTIVITY

Fertilizer production and imports share many of the characteristics displayed by cement markets, but government participation along the supply chain is more prevalent. Production and imports present high economies of scale and high capital intensity, combined with low local demand and a high ratio of transport costs to value. As with cement, vertical integration is common, but state participation is more prevalent. The state participates through direct stakes in fertilizer producers in 63 percent of the countries studied, and in most of those cases it holds over 50 percent of the market. State participation can be on a commercial basis (as in South Africa) or on a subsidized basis. In the latter case, the size of the state-subsidized channel—and therefore the private sector's ability to participate—varies widely, from 10 percent in Mozambique and 30 percent in Kenya, for

example, to 90 percent in Togo and 100 percent in Ethiopia. There is a high degree of multimarket contact between the major fertilizer firms, and the five firms that appear most frequently in Africa meet each other in five African countries, on average. Three of these firms have previously been involved in fertilizer cartels in Africa.

Two key differences between cement and fertilizer markets affect competitive dynamics: more concentrated use of scarce resources and limited local production capabilities. First, the location and use of the scarce resources used as primary inputs for fertilizer (that is, natural gas for nitrogen (N) fertilizer production, phosphate rock for phosphorous (P) fertilizer, and potassium ore for potassium (K) fertilizer) are more concentrated. In P, for example, all producing countries have a monopoly producer, except Egypt. In N, Sub-Saharan Africa is the only region in the world where all ammonia producers are monopolies. Second, fertilizers are globally traded commodities. Only 28 percent of countries in Africa have the ability to produce their own fertilizers from primary materials. Sixty percent of Sub-Saharan Africa's consumption of N and P fertilizers is imported from outside the region and 100 percent of its K fertilizer consumption. Market outcomes in Africa are shaped by global markets, which are dominated by: (i) two global export cartels in K; and (ii) a global duopoly in P, with one of the two global P producers being Morocco's state monopoly, OCP, which holds an 82 percent market share in the supply of phosphate rock across Africa.

Government interventions in the form of policies, rules, procedures, and farmer support programs in the fertilizer sector can hamper competition. These include long testing periods, unnecessary registration procedures (even where similar products are being used successfully in neighboring countries under similar conditions), a lack of regional harmonization in registration procedures, and the fact that in some countries registration is not a one-off procedure, but requires constant renewal. These interventions act as barriers to entry. Import tariffs and fees imposed contrary to the 2006 Abuja Declaration on fertilizer also increase the costs of market participation. In West Africa, product specifications in national fertilizer regulations can restrict the use of products that would otherwise be natural substitutes for each other. Meanwhile, a lack of competitive tendering in the provision of fertilizer through state channels distorts the level playing field in some countries.

Fertilizer cartels have been detected by competition authorities in Africa. In South Africa, three firms were found to have agreements with each other on prices offered to customers. In a separate case in South Africa, a noncompete agreement was found between two firms in the market for P fertilizer. In Zambia, two firms were found to have divided the market for tendered fertilizer under the government subsidy program.

A lack of competition in fertilizer markets raises prices for the final consumer. Part of this stems from global markets. Global export cartels increase the final price of K fertilizers in Sub-Saharan Africa by 29 percent. Regional factors also play a role. For example, retail prices of N fertilizers are generally well above competitive benchmarks in the Middle East and Black Sea regions. In about 58 percent of the African countries studied, one supplier controls over half the market, and 57 percent of the countries have not seen any entry in the last three years, indicating a potential lack of competitive pressure. However, the potential savings from anticartel enforcement and from improvements in the regulatory environment could be significant. In Zambia, for example, savings from ending the bid-rigging cartel and reforming tender rules that previously favored incumbents were estimated at \$21 million in 2013 alone.

In more than half of African countries, one fertilizer supplier holds more than 50 percent of the market, and less than half have seen entry in import or production in the last three years. It would be beneficial to remove regulatory restrictions that inhibit entry, competitive public procurement, and market intelligence to detect competition issues.

TELECOMMUNICATIONS: A KEY INPUT FOR REAPING DIGITAL DIVIDENDS

Mobile, wireless Internet, and international gateway services are the most important telecommunications (telecom) services in Africa and critical to broadening Internet access on the continent. Procompetitive policies in the telecom sector can help deploy these technologies and benefit consumers with a greater variety of prices and better quality. Nevertheless, as of 2015, Sub-Saharan African countries have the highest final prices for mobile broadband services in the world. The median mobile phone owner in Africa spends nearly 3 percent of monthly income on mobile services. Meanwhile, Internet use is the second-lowest among the regions, after South Asia.

Telecom markets are generally characterized by well-known industry characteristics that make the sector more prone to market concentration and potential anticompetitive practices. These include significant fixed costs and sunk investments, economies of scale and scope, essential facilities and bottlenecks of network industries, and a reliance on scarce resources, including spectrum. Access and interconnection issues arise in the sector given that operators need to interact reciprocally to complete call or data transfers. The ability of operators to set different prices for off-net versus on-net calls exacerbates the network effects in the sector. Club effects enjoyed by the largest operators can make competition more difficult. Furthermore, vertically integrated dominant firms with wholesale infrastructure have incentives to engage in exclusionary behavior. Meanwhile, concentrated markets, high entry barriers, and cost homogeneity can facilitate cartel behavior.

Other factors that shape telecom markets in Africa include state participation, the availability of spectrum, and high termination rates. First, of the countries studied, 70 percent have state-owned providers with more than 50 percent market share in fixed and wireless Internet services. Four of the six countries globally that still have state-run monopolies in mobile services and Internet are in Africa: Comoros, Djibouti, Eritrea, and Ethiopia. Second, the availability of spectrum represents a key barrier to entry. Entry cannot occur if governments do not issue spectrum licenses. Nigeria is the only country in Africa that has conducted auctions for the assignment of spectrum. Most countries have awarded spectrum using a first-come, first-served method, which can lead to inefficient outcomes. In Kenya, the incumbent operator had access to spectrum in the 4G band, generating a first-mover advantage. Finally, although African countries have embarked on regulatory interventions that reduce mobile termination rates⁴ toward the cost of an efficient operator, high mobile termination rates are still common in Africa. For example, Rwanda's mobile termination rates are exceptionally high in comparison with others in the region, at more than 200 percent those of Tanzania and more than 330 percent those of Kenya.

⁴ Mobile termination rates are the fees that mobile phone operators charge to other carriers to terminate calls on their networks. These represent a significant input cost in providing telecom services.

Given the features of the telecom sector, government interventions in the form of regulation and competition policy are needed to tackle potential anticompetitive issues, but in some cases government policies can be improved to guarantee competitive neutrality. In Rwanda, for example, a partial government operator was granted spectrum for providing superior and more efficient 4G technologies on an exclusive basis and with a right of first refusal for additional spectrum available for new technologies. In Kenya, operators have to seek tariff approval regarding all telecom services, even those subject to competition, which raises the costs of competing.

Partly as a result of these characteristics, African mobile and wireless markets display high concentration, and there is significant multimarket contact between the five largest mobile network operators. Out of 57 mobile and wireless markets in Africa, 27 have one player with more than 50 percent market share. Monopolies are present in key telecom services. There are 11 monopolies in international gateway services in Africa and six in wireless Internet services. In the 42 countries where at least one of the five large panregional economic groups participates, 25 countries have at least two of these groups competing for the market. In 88 percent of the countries in which two of these panregional economic groups participate, these companies jointly control more than 70 percent of the market.

Competition authorities across Africa have been active in pursuing investigations in the telecom sector. Tunisia launched the highest number of investigations in the past three years, totaling 12, of which eight resulted in sanctions. Egypt is currently investigating a price fixing case against three large operators, which is in the prosecution phase. In South Africa, the dominant upstream fixed-line operator was found to have abused its dominance upstream to exclude competitors to its downstream retail division in the Internet segment. Investigations have also been carried out in Kenya, Malawi, and Mauritius.

Opening mobile, wireless, and international calling markets to more competition could have an important impact on growth and competitiveness. Previous research has found that, in a sample of 40 African countries, the entry of an additional operator led to a 57 percent increase in mobile subscriptions (Gebreab 2002). A 10 percent increase in mobile penetration in developing countries has been shown to lead to a productivity increase of 4.2 percent (Deloitte 2012). Finally, opening up international calling services to competition was found to reduce prices by 90 percent and increase call volumes by 32 to 104 percent (GSMA 2012).

African mobile and wireless markets display high concentration. In 27 countries, one player has more than 50 percent market share. Monopolies are still present in Africa: 11 in international gateway services and six in wireless Internet services. Fostering nondistortive state participation, competitive allocation of spectrum, and proper regulation of termination rates will be important for the region.

OTHER KEY SERVICES WITH SPILLOVER EFFECTS ACROSS AFRICAN ECONOMIES

Regulatory actions to encourage open and contestable markets will be essential for the African air transport market to reach its potential. Growth-constraining factors, including high fares and lower quality of service in the region, may result from a lack of competition. Different economic and regulatory features define the nature of competition in the air transport sector. In international routes, market concentration on a number of routes remains high. Over one-quarter of the air routes in Africa continue to be served by only one carrier (AfDB 2013), but entry has been observed in some routes. Domestic routes remain concentrated, but some markets such as Kenya and South Africa have seen entry by low-cost carriers. Regional efforts to open markets started over 15 years ago, with 44 countries in Africa signing the 1999 Yamoussoukro Decision, but only a few countries have observed its principles—despite some positive results in Kenya, South Africa, and the SADC on passenger volumes and fares on routes that were opened up in recent years.

Competition law can play a role in the assessment of mergers, abuse of dominance, or agreements among competitors in the air transport sector. At least four competition authorities have handled cases related to the air transport industry. Most of these cases focused on abuse of dominance in air transport services and ancillary services such as fueling. Alliances between airlines have also been analyzed. In Cameroon and South Africa, competition authorities have penalized infringements of the competition law in this sector.

High road freight rates in Africa and limited quality in terms of timeliness might be explained in part by competition problems in transport and logistics. Given that various actors intervene in the supply chain for end-to-end cargo transportation, sector prices, service quality, and performance depend on the functioning of various interlinked markets, including trucking, freight forwarding, brokerage, warehousing, cargo consolidation, and others. Traditionally, trucking services have been more heavily regulated. Effective competition depends on factors that affect not only trucking, but the entire transport and logistics value chain. Road cargo transport markets in Africa generally consist of various operators, but some restrictions exist on entry to operations in the domestic market. Based on responses to the 2015 ACF-WBG survey, prices are generally unregulated, although in some cases (Malawi, Cameroon, and others in West Africa) governments or associations still issue guidance on price levels. In some countries, freight allocation schemes that sustain market-sharing agreements are present as well. For international freight, bilateral agreements usually restrict the number of vehicles that are allowed to provide services between two countries. Other examples of anticompetitive regulations in use in Africa include regulations that limit which truckers can be used by shippers and bans on third-country trucking and cabotage, which are common in West Africa. By contrast, southern Africa has no quotas or queues, which allows direct contracting between shippers and transporters. Competition authorities have not reported cases in road cargo transportation in the last two years, but the Competition and Fair Trading Commission of Malawi is conducting an analysis of regulatory restrictions and competition issues in the road transport sector.

Because of the retail sector's direct impact on consumer welfare, it is an important sector for competition authorities to monitor. In the 2015 ACF-WBG survey, both Botswana and South Africa pointed out significant competition concerns in the retail sector. Kenya, Mauritius, Morocco, Namibia, Tanzania, and Zambia indicated moderate competition concerns. A number of competition authorities have been investigating anticompetitive practices in the retail sector. In

South Africa, an investigation found exclusive clauses in lease agreements between mall landlords and the three biggest retail chains, although the competition commission was unable to show an anticompetitive effect. A case on exclusivity clauses in lease agreements was also evaluated in Zambia. In Kenya, the competition authority fined two retail stores for agreeing to eliminate price competition between them. In addition to investigations, some competition authorities have advised the government on policy making to foster competition in the sector. The Namibian competition authority, for instance, conducted a study that supported the government's initiative of developing a retail charter to help strengthen the Namibian retail sector. South Africa is now pursuing an advocacy approach in response to the findings on exclusive clauses in mall lease agreements and has opened an inquiry in the sector.

With energy use rising in Sub-Saharan Africa, many governments are intensifying their efforts to increase investment in the energy sector by tackling regulatory and political barriers. Around 30 African countries have established independent electricity regulators. Given the continued prevalence of state-owned energy utilities in Africa, however, competition issues often arise in relation to a lack of competitive neutrality. In some cases, state-owned enterprises or the entire sector fall outside the competition law. In other cases, there is a need to guarantee both tax and regulatory neutrality toward state-owned energy operators. Provisions that allow for independent power producers, as well as conditions to allow large consumers to select their power provider, are not prevalent in Africa. From an enforcement angle, upstream concentration in gas markets has led to investigations of abuse of dominance in South Africa and Zambia. In addition, a number of mergers have been reviewed by competition authorities in the energy sector.

The growing role of tourism in country development strategies may indicate that competition authorities will begin to focus more on this sector. No significant competition issues have been reported by respondents to the 2015 ACF-WBG survey. Some countries did, however, report moderate concerns such as restrictive concession agreements for the provision of hospitality services, restrictive requirements to obtain licenses and permits, and restrictions on providers of tourist road transfers. Botswana, the Seychelles, and Tunisia have carried out investigations in the tourism sector, with Tunisia imposing one sanction. In 2013–14, 20 mergers were investigated in the sector. Competition problems can arise in markets connected to tourism value chains, for example in passenger air transportation, tourism transport, and travel agencies.

Competition issues have been identified in important sectors
such as air transport, road freight, retail, and energy.

4. The way forward

The study shows that governments could focus on a few key areas to encourage competition in markets and harness private sector participation for maximum impact. Areas of focus include competition law enforcement and advocacy for procompetition regulatory frameworks. The ACF has a role to play in supporting regulatory changes, sharing information, and building capacity to help strengthen competition authorities and increase the effectiveness of competition policy.

The ACF could support the convergence of principles for effective implementation of competition law enforcement. Such support could be particularly useful in: (i) efficient merger control to reduce any undue administrative burden and refocus resources on transactions that are more likely to raise competition concerns, including adequate merger notification thresholds, two-phase procedures, transparent and clear guidelines on public interest considerations where mandated, and mechanisms for coordination between national and regional bodies; and (ii) effective anticartel enforcement to deter harmful practices through coordination and regional analysis of detected practices that might affect more than one country, rationalization of the use of exemptions for anticompetitive practices, improvements in the fining system and maximum fine values, and adoption of policies to facilitate prioritization of case work and increase the efficiency of enforcement.

Given the challenges present in African markets, authorities will benefit from prioritizing the allocation of resources with a view to preventing the most harmful anticompetitive practices and using available powers and tools more effectively. In some cases, there is a need to revise fines to ensure adequate deterrence and to assess administrative procedures that could be increasing the administrative burden on firms and authorities.

As shown by the analysis of the three core sectors, governments can take action to mitigate the risks of potential anticompetitive behavior in sectors. The interaction of industry characteristics, the degree of vertical integration, and the regulatory restrictions that apply to supply chains yield different dynamics in markets. Certain features can incentivize particular behaviors, such as collusion in cement and fertilizer markets and foreclosure in the telecom sector. Rules that make markets more open and contestable—by facilitating imports, supporting entry in production or operation, and giving all firms an opportunity to compete on common ground—would reduce concentration and dominance, and therefore the likelihood of anticompetitive practices. Based on the characteristics of certain markets and the past behavior of firms operating in the sector within the region, competition authorities can closely monitor certain markets.

The ACF could enhance its support to its members' advocacy efforts to adjust policies and regulations that unnecessarily limit competition and facilitate anticompetitive practices. This could be achieved by creating smaller, more cohesive subgroups of competition authorities for countries with economic linkages, and by extending outreach to a broader group of stakeholders such as sectoral regulators, the business community, academia, and civil society. It would be important to continue carrying out research on competition analysis in domestic markets for related countries; to expand the analysis of trade and competition to capture the regional angle, given that market players make regional business decisions; and to prepare a strategy to support the implementation of key report recommendations. Countries with an incipient competition culture would benefit from drawing on examples from other countries to show that competition matters for government policies to be more effective, and the ACF can be a forum for exchanging this information.

The ACF can help support regulatory changes, share market intelligence, build capacity to strengthen competition authorities, and increase policy makers' ability to incorporate competition policy principles into other public policies.

RÉSUMÉ EXÉCUTIF

La politique de concurrence peut jouer un rôle clé dans l'atteinte de la vision d'une Afrique prospère, basée sur une croissance inclusive et un développement durable, et promue par les pays africains. La concurrence stimule la croissance en augmentant la productivité des entreprises et des industries, en permettant aux entreprises nationales de devenir plus compétitives à l'étranger, d'augmenter leurs exportations, et de générer une plus grande valeur ajoutée pour l'économie. En outre, la concurrence augmente le bien-être des ménages en encourageant les entreprises à offrir de meilleures offres aux consommateurs, en protégeant les ménages contre le paiement de surcoûts pour les biens de consommation essentiels, et en facilitant l'accès à une gamme plus étendue de biens.

Cependant, dans de nombreux pays africains, les marchés sont restreints par des pratiques qui fragilisent la dynamique de la concurrence, et par des actions gouvernementales qui créent des barrières à une concurrence saine. Lorsque des entreprises fixent des prix, sur la base de preuves empiriques, il apparaît que les consommateurs paient 49% de plus en moyenne, et 80 % de plus lorsqu'il existe des cartels forts (Connor 2014). Les économies nationales sont encore caractérisées par des actions gouvernementales – telles que des politiques, la réglementation, les procédures, les programmes et les décisions commerciales – qui renforcent la domination au travers de la restriction du nombre d'entreprises ou de la limitation de l'investissement privé, qui accroissent les risques des affaires et facilitent les accords entre concurrents, et qui créent de la discrimination à l'encontre de certains concurrents ou influe sur la neutralité concurrentielle. Ceci est démontré non seulement par les indicateurs de la Cellule Economist Intelligence Unit sur les facteurs qui augmentent les risques opérationnels, mais également dans l'analyse des secteurs du ciment, des engrais et des télécommunications couverts dans ce rapport. Ce constat correspond aux conclusions des projets d'assistance technique du Groupe de la Banque mondiale dans la région.

Le développement du secteur privé est au centre de la transformation économique d'un nombre de stratégies de développement nationales et régionales des pays africains, et la concurrence permet de s'assurer que les bénéfices de la participation au secteur privé sont transmis aux citoyens. Augmenter l'investissement privé dans les secteurs prioritaires est l'un des principaux leviers de la transformation économique. Un nombre croissant de gouvernements africains s'orientent vers la réduction de l'implication de l'État dans la fourniture de services et produits qui peuvent être offerts avec une plus grande efficacité par le secteur privé. Cependant, les avantages sociaux de la participation au secteur privé ne peuvent être atteints qu'en présence de la concurrence. Des politiques de concurrence efficaces – celles qui favorisent des marchés ouverts, un environnement caractérisé par de faibles barrières à l'entrée et des risques opérationnels faibles, des règles efficaces qui empêchent des pratiques anticoncurrentielles, garantissent la neutralité concurrentielle et améliorent la participation du secteur privé aux activités commerciales – contribueront, par conséquent, à atteindre les objectifs poursuivis par les stratégies de développement nationales et régionales de l'Afrique. Pour répondre à cette demande, nombre de pays et blocs régionaux ont adopté des législations sur la concurrence et des politiques de concurrence.

Pour favoriser une croissance inclusive, les autorités de concurrence ont un rôle important à jouer dans la promotion et la protection de la concurrence sur les marchés africains. Des cadres qui favorisent la concurrence permettent d'autonomiser les segments les plus pauvres de la société, d'accroître leur pouvoir d'achat et de leur offrir de plus grandes opportunités économiques. Selon les données empiriques, une plus grande autonomie dans la prise de décisions des autorités de concurrence se traduirait par une augmentation du produit intérieur brut (PIB) grâce à une réduction, en moyenne, de 17 points de pourcentage dans l'écart total du facteur de productivité comparativement aux États-Unis (Voigt 2009). Les décisions liées à la mise en application de la politique de concurrence, dans l'optique de contrecarrer et d'empêcher les cartels, les abus par les entreprises dominantes et des fusions qui pourront éventuellement nuire à la concurrence sont parmi les principales activités des autorités de concurrence en Afrique. Un autre domaine d'intérêt clé est le plaidoyer en faveur de l'élimination de la réglementation qui limite la concurrence et facilite les pratiques d'affaires anti-concurrentielles. Ces autorités peuvent également mener des évaluations de marché en vue de conseiller le gouvernement sur les orientations réglementaires qui peuvent renforcer la concurrence des marchés, et des analyses de la réglementation et de la législation proposées en vue de formuler des orientations techniques visant l'élaboration d'instruments pro-concurrentiels.

Le présent rapport vise à souligner l'importance des progrès en Afrique en matière de création d'institutions plus concurrentielles et efficaces et à mettre en exergue les domaines d'intérêt dans l'optique d'encourager une concurrence robuste sur les marchés clés de la région. Le rapport présente la situation de la politique de concurrence et la mise en application de la législation de concurrence dans divers pays africain, à la fois dans l'ensemble de l'économie et dans des secteurs spécifiques. Le rapport se fonde sur les réponses des membres du Forum africain de la concurrence (FAC) obtenues dans le cadre du Questionnaire sur la politique de concurrence FAC-GBM, sur la recherche supplémentaire sur d'autres pays de la région, sur les réponses aux précédentes enquêtes FAC, sur les services consultatifs du GBM dans la région et sur la comparaison, entre pays, d'indicateurs pertinents formulés par diverses organisations internationales. L'Outil de la politique de concurrence et des marchés du Groupe de la Banque mondiale (GBM) est utilisé comme cadre d'évaluation, à la fois, de la mise en application des dispositions législatives et des questions de concurrence dans différents secteurs.

Des politiques de concurrence efficaces contribueront à la réalisation des objectifs des stratégies de développement nationales et régionales de l'Afrique.

1. Présentation des indicateurs et gains potentiels liés à la stimulation de la concurrence

Il apparaît que la plupart des pays africains présentent des conditions de concurrence moins favorables aux autres pays du monde. Plus de 70 % des pays africains sont classés dans la deuxième moitié du rapport sur la perception d'intensité de la concurrence locale (WEF 2015) et de l'existence des éléments fondamentaux basés sur les principes du marché concurrentiel commerciale (BTI 2016). En moyenne, les pays africains affichent une note de 26 % inférieure aux autres pays du monde, notamment en ce qui concerne l'existence et la mise en application de la législation sur la concurrence (BTI 2016). Au regard des obstacles contraintes réglementaires, les

politiques liées aux échanges commerciaux et à l'investissement étranger sont plus restrictives en Afrique en matière de concurrence que dans d'autres régions. Les risques d'affaires liés aux contrôles des prix, aux intérêts directs et au favoritisme sont également plus élevés.

La prévalence des monopoles, duopoles et des oligopoles est relativement élevée dans certaines économies africaines, même après la prise en compte de la taille des marchés. Dans le secteur de la manufacture, les marchés des pays ayant un PIB par habitant relativement élevé ont un nombre de participants inférieur à des économies plus petites dans la région. Dans le secteur des services, dans plus de 40% des pays africains un seul opérateur règne sur la moitié des parts du marché des télécommunications et du transport.

Il y va de l'intérêt de l'Afrique d'encourager des marchés ouverts et concurrentiels, notamment en tant qu'instrument de stimulation d'une croissance économique durable. La réduction des restrictions réglementaires dans les services professionnels permettraient, toutes autres choses restant égales, de stimuler la croissance des industries à valeur ajoutée qui utilisent les services professionnels intensivement, dans l'ordre de 0,16 à 0,42 points de pourcentage du PIB, dans un échantillon de neuf pays africains. L'impact serait plus grand si des réformes fondamentales étaient mises en œuvre dans d'autres secteurs de services ayant un effet élevé sur l'ensemble de l'économie, tels que l'électricité, les télécommunications et le transport.

L'absence de concurrence en matière de biens essentiels sur les marchés africains nuit aux ménages à cause de l'effet sur les prix – et les pauvres sont les plus affectés. Les prix de détails sur dix biens de consommation clés sont, en moyenne, au moins 24% supérieurs dans les villes par rapport à d'autres économies à travers le monde, même après la maîtrise des coûts de transport, des variables géographiques et d'autres facteurs. Une telle situation pourrait certainement découler, en partie, de la faiblesse de la concurrence. Par exemple, réduire les prix des principaux produits alimentaires, même d'une marge aussi modeste que 10% (bien en dessous de la surfacturation moyenne imposée par les cartels à travers le monde) en rectifiant le comportement anticoncurrentiel dans ces secteurs ou améliorer la réglementation qui protège ces marchés contre la concurrence pourrait permettre à 270 000 personnes au Kenya, à 200 000 personnes en Afrique du Sud et à 20 000 personnes en Zambie d'échapper de la pauvreté. Une telle politique pourrait permettre aux ménages dans ces pays d'épargner plus de 700 millions de dollars (valeur du dollar américain en 2015) par an, où les ménages pauvres gagneront de manière disproportionnée plus que les riches.

L'absence de concurrence en matière de biens essentiels sur les marchés africains nuit aux ménages à cause de l'effet sur les prix, mais les personnes pauvres sont les plus affectés.

2. Vers un cadre stratégique efficace en matière de concurrence

En Afrique, il y a des progrès importants en matière de mise en application des politiques de concurrence. Le nombre de juridictions ayant une législation en matière de concurrence a triplé en 15 ans. Le nombre de juridictions disposant d'une loi sur la concurrence est passé de 13 en 2000 (12 pays et un bloc régional) à 32 en 2015 (27 pays et 5 blocs régionaux). Encore plus important est le fait que les autorités en charge de la concurrence mettent désormais en application ces législations dans 25 juridictions (y compris 2 blocs régionaux). Au regard de l'avenir, il est nécessaire que les autorités en charge de la concurrence hiérarchisent les ressources et utilisent plus efficacement la législation et les outils dont elles disposent pour continuer à augmenter la pertinence de la politique de concurrence par rapport à l'agenda global de développement.

Les autorités de concurrence en Afrique font face à des contraintes opérationnelles. Les autorités de concurrence fonctionnent depuis huit ans, en moyenne, dans les pays qui ont adopté des législations en la matière. En moyenne, elles sont dotées d'un personnel de 12 membres techniques qui s'occupent de la concurrence, ou 32% environ du personnel total (comparé à 68% dans un échantillon mondial de 35 agences chargées de la concurrence). Neuf autorités disposent de moins de dix employés chargés des questions de concurrence. Le budget annuel moyen de ces agences a augmenté de 39% en quatre ans, bien que les ressources restent faibles. À l'exclusion de l'Afrique du Sud, le budget annuel moyen est 1,4 million de dollars. Sept autorités fonctionnent avec un budget annuel inférieur à 0,5 million de dollars. En moyenne, les enveloppes budgétaires annuelles par employé technique au sein des autorités africaines représentent un tiers de celles allouées au sein de 33 autorités échantillonnées à travers le monde. En dépit de ces contraintes, les autorités de concurrence traitent, en moyenne,¹ 41 dossiers de contrôle de fusion, 1,9 dossier sur les abus de position dominante,² 1,4 dossier sur les accords horizontaux,³ 1,4 dossier sur les enquêtes sectorielles et émettent 6 avis consultatifs en matière de législation et de réglementation, mais il existe une grande variabilité entre les autorités.

Les cartels constituent la pratique la plus nuisible en matière de concurrence, cependant, la lutte anti-cartel demeure relativement faible en Afrique. En 2013-2014, 42 affaires portant sur des accords horizontaux ont été traitées par neuf autorités ; parmi lesquelles 50% ont fait l'objet d'une enquête de la Commission sud-africaine de la concurrence. Il a été relevé que les produits affectés par les cartels en Afrique sont, entre autres, les engrais, les aliments (y compris blé, maïs et pain), les produits pharmaceutiques, les matériaux de construction (y compris le ciment) et les services de construction. Les recherches menées en Afrique du Sud mettent en lumière certaines caractéristiques de ces cartels. Les surfacturations ont été estimées à 7-42% pour les produits de blé, 25% pour le poulailler, 15% pour les produits pharmaceutiques et 7,5-9,7% pour le ciment. La durée moyenne des cartels hors secteur de la construction, en Afrique du Sud, était de huit ans. Malgré leur nuisance, les amendes prévues et imposées aux cartels en Afrique ne sont assez élevées pour dissuader leur formation. Au Kenya, le montant maximum d'une amende est de 100 000\$ environ ; et au sein de la communauté de l'Afrique de l'Est, il est de 10 000\$. Bien que le montant maximum des amendes imposées aux cartels en Afrique du Sud soit de 116 millions de dollars ; en moyenne, les amendes ne représentent que 9% des profits excessifs en comparaison à 26% au sein de l'Union européenne (Ivaldi, Jenny et Khimich 2016). La mise en application pratique des

¹ Sur la base des données de 2013-2014 portant sur 15 juridictions.

² Les parties peuvent abuser de leur position dominante sur le marché pour, entre autres, facturer excessivement les clients provoquant la faillite des entreprises rivales.

³ Les accords horizontaux interviennent des parties vendant des produits sur le même marché.

outils réglementaires anti-entente clés doivent également être renforcées. Au moins, 16 autorités de concurrence disposent de pouvoirs de recherche et de saisie, mais très peu font des descentes. En outre, au moins sept pays ont mis en place un programme de clémence qui permet aux cartels de reconnaître leur implication dans une telle organisation et de coopérer pleinement avec l'enquête qui en résulte, en échange de sanctions réduites. À ce jour, les demandes en clémence n'ont été reçues qu'en Afrique du Sud et en Île Maurice. Les défis liés à la mise en application de programmes de pardon efficaces sont, entre autres, la faible probabilité de détection et le fait que l'étroite collaboration des procureurs est requise pour le fonctionnement d'un programme de pardon dans des juridictions prévoyant des sanctions pénales pour les cartels. Les autorités de concurrence ont également traité des affaires d'abus de position dominante et d'accord vertical. 70 affaires 15 autorités pendant 2013–14. Cependant, il est possible de fournir des efforts visant à élaborer des théories de nuisance plus précises en vue d'évaluer les effets d'exclusion, d'utiliser des outils permettant d'augmenter l'efficacité administrative, tels que les règlements, et d'élargir les efforts de plaidoyer en vue de modifier les interventions gouvernementales qui renforcent les abus de position dominante et augmentent le risque de comportements anticoncurrentiels.

Le rôle des autorités de la concurrence dans l'évaluation des fusions a considérablement augmenté, mais le système nécessite des améliorations. Le contrôle des fusions est opérationnel dans au moins 17 juridictions sur 26. Dans la plupart des juridictions, la notification de pré-fusion est obligatoire et il est par conséquent important d'hiérarchiser les affaires en vue de s'éviter d'empêcher l'investissement et les transactions qui ne sont pas susceptibles de nuire à la concurrence. Six autorités utilisent des procédures accélérées en vue de mettre la priorité sur les affaires de fusion les plus importantes. Des seuils de notification des fusions ont été fixés dans 13 juridictions au moins en vue de réduire des lourdeurs administratives indues sur les entreprises et sur l'autorité, mais 6 juridictions, au moins, prévoyant des notifications de pré-fusion obligatoires ne disposent pas d'un seuil et exigent, par conséquent, que toutes les transactions lui soient notifiées indépendamment de leur taille. Plus de 1200 affaires de fusion ont été traitées en 2013-2014 par 15 juridictions disposant d'un système opérationnel de contrôle des fusions. En moyenne, chaque membre du personnel technique des autorités africaines chargées de la concurrence a la gestion de 3,2 notifications par an, comparé à 0,8 dans 35 autorités existantes à travers le monde. Ce système met des contraintes sur les ressources disponibles pour enquêter les pratiques anti-concurrentielles. En moyenne, 10% des fusions ont été bloquées ou approuvées sous condition en Afrique, en comparaison à 4% dans un échantillon de 35 agences de concurrence à travers le monde. Dans 12 juridictions africaines, les autorités tiennent compte des préoccupations d'intérêts publics autres que la concurrence. Cinq blocs régionaux disposent de clauses de contrôle des fusions qui visent à prévenir des changements de structure des marchés qui sont susceptibles de nuire à la concurrence et au commerce entre les pays africains. Actuellement, la notification de pré-fusion est obligatoire au sein de la Communauté économique de l'Afrique de l'Est et de la Communauté économique de l'Afrique australe (COMESA), mais seul le système de la COMESA est fonctionnel. Ceci exige une coordination étroite entre les autorités nationales et les autres autorités régionales ayant des juridictions qui se superposent.

Les autorités de concurrence collaborent avec les autres organismes gouvernementaux pour stimuler la concurrence. Près de 60% des autorités africaines examinées ont signé des protocoles d'entente avec les régulateurs sectoriels – la plupart de ces protocoles interviennent dans les secteurs des télécommunications, de la banque, de l'énergie et du transport. Les autorités en

charge de la concurrence formulent souvent des avis sur les interventions gouvernementales en vue de réduire les restrictions sur la concurrence, qui dans la plupart des cas, ne sont pas obligatoires et ne font pas partie d'un processus formel. Même en l'absence d'avis contraignants, certaines autorités de concurrence de la région ont réussi à influencer les politiques au travers d'une analyse technique sérieuse et des stratégies claires qui encouragent les acteurs clés à soutenir les réformes. Les autorités de concurrence permettent de plus en plus d'ouvrir les marchés à la concurrence grâce au succès de leur plaidoyer. Ce plaidoyer comprend des efforts dans le domaine de la banque et les marchés publics en Afrique du Sud, les services financiers mobiles au Zimbabwe, les scieries en Zambie, les soins de santé et la transformation du thé au Kenya, le ciment en Tanzanie, le sucre au Malawi et l'acier en Égypte. Les autres politiques, tels que les subventions gouvernementales et le contrôle des prix, affectent le développement de la concurrence sur les marchés ; cependant, ce n'est que dans quelque cas où la concurrence est perçue sous le prisme des subventions étatiques et le contrôle des prix.

Il y a des possibilités pour les autorités en charge de la concurrence de prioriser les ressources et utiliser plus efficacement la législation et les outils dont elles disposent pour continuer à augmenter la pertinence de la politique de concurrence par rapport à l'agenda global de développement en Afrique.

3. Dynamique des marchés et politique de concurrence dans les secteurs clés

Certains secteurs sont particulièrement importants pour assurer la compétitivité et la croissance des économies africaines et pour renforcer le bien-être des ménages moins riches. Le secteur du ciment, par exemple, joue un rôle essentiel dans la construction des infrastructures et du logement. Le secteur des engrais affecte la productivité agricole, et les secteurs du transport et des télécommunications affectent la connectivité à l'intérieur des pays et avec l'économie mondiale. Ces produits et services sont des intrants nécessaires pour les entreprises et les petits producteurs. Leurs prix, disponibilité et qualité ont un impact direct sur la compétitivité des producteurs africains sur les marchés internationaux et dans la possibilité des ménages à tirer avantage des bénéfices de marchés plus ouverts. Ces secteurs génèrent également des retombées à travers l'économie.

Le présent rapport met l'accent sur l'analyse de la concurrence dans les secteurs du ciment, des engrais et des télécommunications, ainsi qu'une vue générale des questions de concurrence dans le secteur des transports. Ces secteurs ont été sélectionnés sur la base de leur pertinence par rapport aux économies africaines et leur potentiel avéré à mettre en exergue les questions de concurrence. La sélection de ces trois principaux secteurs, au côté du fret routier et du transport aérien, tient compte des résultats de l'Évaluation des besoins du FAC 2014 et des précédentes activités des autorités dans ces secteurs. En outre, également sur la base des réactions des membres du FAC, le rapport met en exergue trois secteurs dans lesquels les autorités de concurrence sont devenues récemment actives, à la suite du constat qu'ils constituent une source de problèmes pour la concurrence – notamment l'énergie, le commerce de détail et le tourisme. Les retombées économiques des secteurs de l'énergie et du commerce de détail stimulent de manière significative la consommation et le bien-être des ménages, alors que les secteurs du commerce de détail et du tourisme sont des sources importantes d'emplois. L'énergie est un intrant essentiel pour les grandes et petites entreprises.

CIMENT : UN INTRANT CLÉ DANS LES SECTEURS DES INFRASTRUCTURES ET DU LOGEMENT

À travers les pays africains, la production et l'importation du ciment mettent en exergue un certain nombre de caractéristiques communes qui influencent les pratiques sur les marchés. Premièrement, le niveau élevé des économies d'échelle et l'intensité élevée de l'usage des capitaux dans la production et les importations de ciment constituent déjà des obstacles à l'entrée et, lorsqu'associés à une demande relativement faible, cela signifie que les marchés ne peuvent efficacement supporter un grand nombre d'acteurs. Le caractère volumineux du produit et le taux élevé des coûts de transport par rapport à la valeur encouragent l'intégration verticale et la concentration régionale. Par conséquent, les fournisseurs forment des stratégies régionales qui dépassent les frontières, avec la concurrence réelle et potentielle dans une juridiction spécifique dépendant de la disponibilité de la chaux (la principale matière première pour la production du ciment) dans une localité spécifique, de la taille de la demande locale et de l'existence des restrictions à l'importation. Dans de telles circonstances, une mise en application efficace de la concurrence qui empêche des comportements anticoncurrentiels peut jouer un rôle essentiel.

Les marchés de ciment africains ont tendance à une forte concentration et les usines possédées par neuf grandes entreprises pan-régionales constituent la majorité de la capacité de production. Ensemble, ces entreprises ont une capacité moyenne de 18,9 millions de tonnes par an (MTA), comparé à moins de 3 mta pour les petits acteurs qui constituent le reste du marché. Il existe un contact multi-marché important entre ces entreprises, à la fois en Afrique et sur le plan international, où les deux grandes entreprises ont des contacts dans sept pays en Afrique. Trois de ces entreprises qui ont des contacts dans des marchés à travers la région ont été précédemment impliquées dans un cartel de ciment de l'Union douanière d'Afrique australe (SACU, acronyme anglais) qui a été décelé par la Commission de concurrence de l'Afrique du Sud. De manière globale, dans 18 pays africains au moins, un fournisseur détient plus de la moitié des parts du marché. Au cours des trois dernières années, on assisté à de nouvelles entrées sur 21 marchés au moins, et sur 15 d'entre eux au moins, un ou plusieurs nouveaux arrivants était l'un des principaux acteurs pan-régionaux. Dangote, par exemple, est un nouvel arrivant dans 12 de ces pays.

D'autres facteurs liés à la fourniture qui affectent la structure du marché et la dynamique de la concurrence sont, entre autres, une dépendance du pays aux importations, l'implication étatique dans les chaînes d'approvisionnement du ciment et le degré d'intégration verticale. Nombre de pays dépendent des importations pour leur approvisionnement en ciment, exposant éventuellement certains marchés aux défis de concurrence d'autres pays, ainsi qu'aux barrières à l'importation. Plus de 60% des pays étudiés importent plus de la moitié de leur consommation de ciment, et au moins cinq de ces pays importent plus de la moitié de leurs approvisionnements auprès d'autres pays africains. L'intégration verticale le long de la chaîne d'approvisionnement est courante, mais ceci pose uniquement un risque de comportement exclusif si un producteur de clinker intégré verticalement en amont (le principal intrant à la production finale du ciment) est le fournisseur de ses rivaux en production de ciment en aval. Ceci est le cas au Botswana, en Mozambique et au Rwanda, chacun de ces pays a trois producteurs de ciment, au moins, mais un seul producteur de clinker dominant. L'État intervient sur les marchés de ciment dans juste plus de la moitié des pays pour lesquelles il existe des données. Dans la plupart de ces cas, l'État est détenteur de moins de 50% du marché au travers de participation directe dans des usines de production.

Les interventions gouvernementales, sous forme de politiques, réglementations et procédures régissant le secteur du ciment, peuvent entraver la concurrence. Dans 69% des pays qui ont des réserves de calcaire, un facteur clé déterminant dans la concurrence des marchés de ciment est l'accès des entreprises à la chaux. L'octroi de l'exclusivité temporaire ou géographique sur les réserves de calcaire au-delà du niveau nécessaire à l'attrait des investissements et au maintien de l'efficacité peut empêcher l'arrivée de nouvelles entreprises. Les restrictions à l'importation peuvent également agir comme obstacles à l'entrée. Sur les 22 pays et les organismes régionaux pour lesquels des données sont disponibles, 45% disposent de restrictions aux importations de ciment, y compris l'interdiction absolue d'importer et la suppression progressive des licences d'importation (tels qu'en Angola, au Cameroun, en Éthiopie et au Nigeria) et des droits de douane antidumping (comme en Namibie et en Afrique du Sud). L'imposition de normes de qualité qui sont plus restrictives que nécessaires pour maintenir la qualité (tel qu'imposé au Nigeria et au Libéria) peut également empêcher l'entrée, augmenter les coûts de la concurrence et faciliter l'entente. Enfin, dans certains pays, il apparaît que le gouvernement maintient un certain degré de contrôle des prix du ciment (tels qu'en Éthiopie, au Mozambique, en République du Congo et en Tunisie).

Les autorités de concurrence ont effectué des enquêtes sur les comportements potentiels anticoncurrentiels dans le secteur du ciment. Au cours des trois dernières années, les autorités de concurrence ont enquêté sur trois affaires de cartel, six affaires d'abus de position dominante, et six affaires portant sur d'autres types de comportements, tels que la discrimination tarifaire. Huit de ces affaires, au moins, sont toujours font encore l'objet d'enquête. Au cours de la même période, des sanctions ont été imposées uniquement en Afrique du Sud dans l'affaire du cartel SACU. Il convient de relever, cependant, que l'Égypte a également identifié et sanctionné un cartel de fixation des prix impliquant neuf producteurs en 2008. Le cartel SACU et le cartel égyptien font intervenir le plus grand acteur du marché africain.

Les prix du ciment en Afrique sont bien au-dessus des prix mondiaux, mais l'impact potentiel de stimuler la concurrence sur le marché du ciment en Afrique est important. Les prix du ciment à la consommation en Afrique sont 183% plus élevé, en moyenne, que les prix du ciment à travers le monde. Même une surfacturation anticoncurrentielle modeste sur le ciment africain de 9,7% (équivalent à celui constaté dans le cartel SACU) signifierait que les consommateurs africains paient leur ciment avec un surplus de 2,5 milliards de dollars par an. On a déjà obtenu des gains en Afrique à l'issue de l'élimination de certains des défis de concurrence. Des mesures coercitives visant à lutter contre le cartel SACU ont permis aux consommateurs de ciment d'épargner 79-100 millions de dollars par an en Afrique du Sud. L'action de plaidoyer de la Commission tanzanienne de la concurrence, en vue d'encourager la suppression des droits suspendus sur les importations de ciment en Tanzanie, a conduit à une réduction de 26% des prix de détail. L'entrée sur les marchés sud-africain et zambien du ciment est caractérisée par une chute des prix du ciment (5% par an au moins, en termes réels).

La petite taille des marchés, les économies d'échelle, la surcapacité, la dépendance sur le commerce intrarégional et les contacts multimarché, entre autres, influencent la dynamique concurrentielle des marchés du ciment. La mise en application de la législation régissant la concurrence, l'élimination des barrières non douanières et la mise en place de règles favorables à la concurrence et permettant l'entrée dans la production du clinker et du calcaire permettront aux consommateurs africains d'épargner 2,5 milliards de dollars par an.

ENGRAIS : UN ÉLÉMENT CLÉ DE LA PRODUCTIVITÉ AGRICOLE

La production et l'importation d'engrais partagent nombre de caractéristiques observées sur les marchés du ciment, mais la participation du gouvernement le long de la chaîne logistique est plus prévalente. La production et les importations présentent un niveau élevé des économies d'échelle et une intensité élevée de l'usage des capitaux, associés à une faible demande locale et à un ratio élevé des coûts de transport par rapport à la valeur. À l'instar du ciment, l'intégration verticale est courante, mais la participation de l'État est plus dispersée. L'État participe par le biais des participations directes chez les producteurs d'engrais dans 63% des pays étudiés, et dans la plupart de ces cas, il représente plus de 50% du marché. L'État peut participer sur une base commerciale (comme en Afrique du Sud) ou sur la base de subventions. Dans ce dernier cas, la taille du mécanisme de subvention gouvernemental – et par conséquent du secteur privé à participer – varie considérablement, de 10% au Mozambique et 30% au Kenya, par exemple, à 90% au Togo et 100% en Éthiopie. Il existe un niveau élevé de contact multimarché entre les principales entreprises d'engrais, et les cinq entreprises qui interviennent le plus souvent en Afrique sont en contact dans cinq pays africains, en moyenne. Trois de ces entreprises ont déjà été impliquées dans des cartels d'engrais en Afrique.

Deux différences clés entre les marchés du ciment et des engrais influencent la dynamique concurrentielle: utilisation plus renforcée de ressources rares et faiblesse des capacités de production locale. Premièrement, l'emplacement et l'utilisation des ressources rares utilisées comme intrants primaires pour les engrais (à savoir, le gaz naturel pour la production d'engrais N, le minerai de phosphate pour l'engrais P, et le minerai de potassium pour les engrais K) sont plus concentrés. Pour les engrais P, par exemple, il existe un producteur en situation de monopole dans tous les pays producteurs à l'exception de l'Égypte. Pour les engrais N, l'Afrique subsaharienne est la seule région du monde où tous les producteurs d'ammoniac sont des monopoles. Deuxièmement, les engrais sont des produits négociés à l'échelle mondiale. Seulement 28% des pays africains ont la capacité de produire leurs propres engrais à partir de matières premières. L'Afrique subsaharienne importe 60% de sa consommation d'engrais N et P de l'extérieur de la région et 100% de sa consommation d'engrais K. Les pratiques commerciales en Afrique sont façonnées par les marchés mondiaux, qui sont dominés par : (i) deux cartels mondiaux d'exportation des engrais K ; et (ii) un duopole mondial pour les engrais P, avec l'un des deux producteurs mondiaux d'engrais P étant un monopole de l'État marocain, OCP, qui détient 82% des parts de marché de l'approvisionnement en phosphate à travers l'Afrique.

Les interventions gouvernementales, sous forme de politiques, réglementations, procédures et programmes d'assistance aux paysans dans le secteur des engrais, peuvent entraver la concurrence. Celles-ci comprennent de longues périodes d'essai, des procédures d'enregistrement inutiles (même lorsque des produits similaires sont utilisés avec succès dans les pays voisins dans des conditions similaires), un manque d'harmonisation régionale dans les procédures d'enregistrement et le fait que, dans certains pays, l'enregistrement n'est pas une procédure ponctuelle, mais exige un renouvellement constant. Ces interventions agissent comme obstacles à l'entrée. Les droits de douane et les frais d'importation, imposées en contradiction à la Déclaration d'Abuja de 2006 sur les engrais, augmentent également les coûts de participation au marché. En Afrique de l'Ouest, les spécifications de qualité dans la réglementation nationale sur les engrais peuvent limiter l'utilisation de produits qui seraient, en principe, réciproquement des substituts naturels. Pendant ce temps, l'absence d'appels d'offres concurrentiels en matière d'approvisionnement d'engrais, au travers de mécanismes étatiques, rend le jeu inégalitaire dans certains pays.

Les cartels d'engrais ont été détectés par les autorités de concurrence en Afrique. En Afrique du Sud, il s'est avéré que trois entreprises disposaient d'accords entre elles sur les prix offerts aux clients. Dans une autre affaire en Afrique du Sud, il a été constaté l'existence d'un accord de non-concurrence entre les deux entreprises intervenant sur le marché des engrais P. En Zambie, il a été constaté que deux entreprises avaient divisé le marché des appels d'offre d'engrais lancés par le programme de subvention gouvernemental.

L'absence de concurrence sur les marchés des engrais augmente les prix pour le consommateur final. Une partie découle des marchés mondiaux. Les cartels d'exportation mondiaux augmentent le prix final des engrais K en Afrique subsaharienne de 29%. Les facteurs régionaux jouent également un rôle. Par exemple, les prix de détail des engrais N sont généralement bien au-dessus des repères concurrentiels dans les régions du Moyen-Orient et de la mer Noire. Dans 58% environ des pays africains analysés, un fournisseur contrôle plus de la moitié du marché, et 57% des pays n'ont pas vu de nouvelles entrées au cours des trois dernières années, ce qui indique un manque de potentiel de la pression concurrentielle. Cependant, il est possible que les gains potentiels découlant d'une mise en application du contrôle anticartel et de l'amélioration de l'environnement réglementaire soient importants. En Zambie, par exemple, les économies liées à l'élimination de la fraude des cartels dans les appels d'offre et à la réforme des règles d'appel d'offres qui, précédemment, privilégiaient les acteurs présents ont été estimées à 21 millions de dollars en 2013 seulement.

Dans plus de la moitié des pays africains, un seul fournisseur d'engrais détient plus de 50% du marché, et moins de la moitié ont vu un nouvel arrivant dans l'importation ou la production des engrais au cours des trois dernières années. Il serait profitable de supprimer les restrictions réglementaires qui empêchent l'entrée, de disposer d'un système d'appels d'offres concurrentiel et d'effectuer une intelligence des marchés en vue de détecter des problèmes de concurrence.

TÉLÉCOMMUNICATIONS : UN ATOUT CLÉ POUR BÉNÉFICIER DES RETOMBÉES NUMÉRIQUES

Les services de téléphonie mobiles, d'Internet sans fil et de passerelle internationale sont les services de télécommunications les plus importants services (télécom) en Afrique et sont essentiels à l'élargissement de l'accès à Internet sur le continent. Des politiques favorables à la concurrence dans le secteur des télécommunications peuvent permettre de déployer ces technologies et de faire profiter les consommateurs de services ayant une plus grande variété de prix et une meilleure qualité. Néanmoins, au cours de l'année 2015, les pays d'Afrique subsaharienne ont les prix finaux les plus élevés pour les services mobiles à large bande passante dans le monde. Le propriétaire médian d'un téléphone mobile en Afrique dépense près de 3% de son revenu mensuel sur les services mobiles. Pendant ce temps, l'utilisation d'Internet est le deuxième taux le plus bas entre toutes les régions, après l'Asie du Sud.

Les marchés de télécommunications sont généralement caractérisés par des facteurs bien connus au sein de cette industrie et qui rendent le secteur plus susceptible à la concentration et à des pratiques anticoncurrentielles éventuelles. Ceux-ci comprennent des coûts fixes importants et des investissements irrécupérables, des économies d'échelle et d'ampleur, les installations essentielles et les goulots d'étranglement des industries de réseau, et une dépendance sur des ressources limitées, y compris le spectre. Les problèmes d'accès et d'interconnexion se posent dans ce secteur, étant donné que les opérateurs ont besoin d'interagir réciproquement pour l'interconnexion des appels ou pour le transfert de données. La capacité des opérateurs à fixer des prix différents pour les appels hors Internet et pour les appels exacerbe les effets de réseau dans ce secteur. Les effets de club dont bénéficient les plus grands opérateurs peuvent rendre la concurrence plus difficile. En outre, les entreprises dominantes et verticalement intégrées à l'infrastructure du service en gros sont incitées à adopter un comportement d'exclusion. Pendant ce temps, des marchés concentrés, des barrières à l'entrée et l'homogénéité des coûts peuvent faciliter le comportement de cartel.

D'autres facteurs qui façonnent les marchés des télécommunications en Afrique sont la participation de l'État, la disponibilité du spectre et les tarifs d'interconnexion élevés. Premièrement, sur les pays étudiés, 70% ont des fournisseurs appartenant à l'État avec plus de 50% des parts de marché dans les services Internet fixes et sans fil. Quatre des six pays dans le monde qui ont toujours des monopoles d'État dans les services de téléphonie mobile et Internet se trouvent en Afrique : Comores, Djibouti, Érythrée et Éthiopie. Deuxièmement, la disponibilité du spectre représente un obstacle majeur à l'entrée. Il n'y a pas d'entrée si les gouvernements ne délivrent pas de licences de spectre. Le Nigeria est le seul pays d'Afrique qui a attribué son spectre par vente aux enchères publiques. La plupart des pays ont attribué le spectre sur la base de la méthode Premier arrivé, premier servi, qui peut conduire à des résultats inefficaces. Au Kenya, l'opérateur historique a eu accès au spectre de la bande 4G, générant un avantage de premier opérateur. En dernier lieu, bien que les pays africains se soient engagés dans des interventions réglementaires qui réduisent les taux⁴ de terminaison mobile vers le coût d'un opérateur efficace, des tarifs de terminaison mobiles élevés sont encore courants en Afrique. Par exemple, les taux de terminaison mobile du Rwanda sont exceptionnellement élevés par rapport aux autres pays de la région, à plus de 200% comparés à la Tanzanie et plus de 330% comparés au Kenya.

⁴ Les tarifs d'interconnexion sont les frais que les opérateurs de téléphonie mobile facturent aux autres opérateurs pour écouler des appels sur leurs réseaux. Ceci représente un coût de facteurs de production important pour la fourniture des services de télécommunications.

Compte tenu des caractéristiques du secteur des télécommunications, les interventions gouvernementales sous forme de réglementation et de politique de concurrence sont nécessaires pour éliminer les problèmes anticoncurrentiels éventuels, mais dans certains cas, il est possible d'améliorer les politiques gouvernementales en vue de garantir la neutralité concurrentielle. Au Rwanda, par exemple, un opérateur para-étatique a reçu une bande de spectre pour la fourniture de technologies 4G supérieures et plus efficaces sur une base exclusive et avec un droit de premier refus pour le spectre supplémentaire disponible pour les nouvelles technologies. Au Kenya, les opérateurs doivent obtenir l'approbation tarifaire concernant tous les services de télécommunications, même ceux qui sont soumis à la concurrence ; ce qui augmente les coûts de la concurrence.

Partiellement liée à ces caractéristiques, les marchés de téléphonie mobile et sans fil africains présentent une forte concentration, et il y a un contact multimarché important entre les cinq plus grands opérateurs de réseaux mobiles. Sur les 57 marchés de téléphonie mobile et sans fil en Afrique, 27 ont un acteur qui contrôle plus de 50% des parts de marché. Il existe des monopoles dans les services de télécommunication clés. Il y a 11 monopoles dans les services internationaux de passerelle en Afrique et six monopoles dans les services Internet sans fil. Sur les 42 pays où l'on retrouve, au moins, l'un des cinq grands groupes économiques panregionaux, 25 pays ont au moins deux de ces groupes en compétition sur leur marché. Dans 88% des pays où l'on retrouve deux de ces groupes économiques panregionaux, ces sociétés contrôlent conjointement plus de 70% du marché.

Les autorités de concurrence à travers l'Afrique ont été actives dans la conduite d'enquêtes dans le secteur des télécommunications. La Tunisie a lancé le plus grand nombre d'enquêtes au cours des trois dernières années, soit un total de 12, dont huit ont donné lieu à des sanctions. L'Égypte enquête actuellement une affaire de fixation des prix contre les trois grands opérateurs, qui fait maintenant l'objet de poursuites judiciaires. En Afrique du Sud, l'opérateur de téléphonie fixe dominant en amont a été reconnu coupable d'avoir abusé de sa position dominante en amont pour exclure en aval les concurrents de sa division de vente au détail dans le segment Internet. Des enquêtes ont également été menées au Kenya, au Malawi et en Île Maurice.

L'ouverture des marchés de téléphonie mobile, du sans fil et des appels internationaux à la concurrence pourrait avoir un impact significatif sur la croissance et la compétitivité. Des recherches antérieures ont montré que, dans un échantillon de 40 pays africains, l'entrée d'un opérateur supplémentaire a conduit à une augmentation d'abonnements de téléphonie mobile dans l'ordre de 57% (Gebreab 2002). Pendant ce temps, il s'est avéré qu'une augmentation de la pénétration de téléphonie mobile de 10% dans les pays en développement a donné lieu à une augmentation de la productivité de 4,2% (Deloitte 2012). Pendant ce temps, il a été attribué à l'ouverture des services d'appels internationaux à la concurrence une réduction des prix de 90% et une augmentation du volume d'appels de 32 à 104% (GSMA 2012).

Les marchés africains de téléphonie mobile et des services sans fil présentent une forte concentration. Dans 27 pays, un acteur détient plus de 50% des parts de marché. Les monopoles existent toujours en Afrique: 11 dans les services de passerelle internationale et 6 dans les services d'Internet sans fil. Favoriser une participation étatique qui n'entraîne pas de distorsions, l'attribution concurrentielle du spectre et une bonne régulation du tarif de terminaison d'appels sera important pour la région.

AUTRES SERVICES CLÉS AYANT DES RETOMBÉES À TRAVERS LES ÉCONOMIES AFRICAINES

Les mesures réglementaires visant à renforcer l'ouverture et la concurrence des marchés jouent un rôle essentiel dans le développement du potentiel du marché du transport aérien en Afrique. Les facteurs de restriction de la croissance, tels que des tarifs élevés et une mauvaise qualité de service dans la région, peuvent donner lieu à une absence de concurrence. Plusieurs paramètres économiques et réglementaires définissent la nature de la concurrence dans le secteur du transport aérien. Pour les liaisons internationales, la concentration du marché sur un certain nombre de liaisons reste élevée. En Afrique, plus d'un quart des voies aériennes continuent d'être desservies par un seul transporteur (BAD 2013), mais on a observée l'entrée de nouveaux opérateurs sur certaines liaisons. Les liaisons nationales restent concentrées, mais certains marchés, tels que le Kenya et l'Afrique du Sud, ont vu l'entrée de transporteurs à bas prix. Les efforts régionaux d'ouverture des marchés ont commencé depuis plus de 15 ans, avec 44 pays africains qui ont signé la Décision de Yamoussoukro de 1999, mais seuls quelques pays respectent ses principes en dépit des résultats positifs au Kenya, en Afrique du Sud et au sein de la SADC sur le nombre de passagers et les tarifs sur les liaisons qui ont été ouvertes à la concurrence au cours des dernières années.

Dans le secteur du transport aérien, la législation en matière de concurrence peut jouer un rôle dans l'évaluation des fusions, des abus de position dominante ou des accords entre concurrents.

Au moins quatre autorités de concurrence ont traité des affaires liées au secteur du transport aérien. La plupart de ces affaires étaient liées à l'abus de position dominante dans les services de transport aérien et les services connexes, tels que le ravitaillement en carburant. Les alliances entre compagnies aériennes ont également été analysées. Au Cameroun et en Afrique du Sud, les autorités de concurrence ont qualifié au pénal les infractions au droit de la concurrence dans ce secteur.

Des tarifs de fret routier élevés en Afrique et la faible qualité en termes de ponctualité pourraient être expliquée en partie par des questions de concurrence dans les secteurs du transport et la logistique. Étant donné que différents acteurs interviennent dans la chaîne logistique du transport bout en bout du fret, les prix appliqués dans le secteur, la qualité du service et le rendement dépendent du fonctionnement de différents marchés interdépendants, y compris le camionnage, l'expédition de fret, le courtage, l'entreposage, le groupage des cargaisons et autres. De manière traditionnelle, les services de camionnage ont été plus lourdement réglementés. Une concurrence efficace dépend de facteurs qui affectent non seulement le camionnage, mais la chaîne de valeur de l'ensemble du transport et de la logistique. Les marchés de transport de marchandises par route en Afrique sont généralement constitués de différents opérateurs, mais il existe certaines restrictions à l'entrée d'opérateurs sur le marché intérieur. Sur la base des réponses à l'enquête FAC-GBM de 2015, les prix sont généralement non réglementés, bien que dans certains cas (Malawi, Cameroun et d'autres pays en Afrique de l'Ouest) des gouvernements ou des regroupements émettent encore des orientations sur le niveau des prix. Dans certains pays, il existe également des systèmes de répartition de fret qui sous-tendent les accords de partage des parts de marché. En ce qui concerne le fret international, les accords bilatéraux limitent généralement le nombre de véhicules autorisés à fournir des services entre deux pays. D'autres exemples de réglementations anticoncurrentielles appliquées en Afrique comprennent les réglementations qui limitent les

compagnies logistiques que peuvent utiliser des expéditeurs et les interdictions de camionnage par des pays tiers et le cabotage qui sont communes en Afrique de l'Ouest. En revanche, l'Afrique du Sud n'a pas de quotas ou de files d'attente, ce qui permet des contrats directs entre les expéditeurs et les transporteurs. Les autorités de concurrence n'ont pas signalé de cas dans le transport routier de marchandises au cours des deux dernières années, mais la Commission de la concurrence et du commerce équitable du Malawi effectue actuellement une analyse des restrictions réglementaires et des questions de concurrence dans le secteur du transport routier.

En raison de l'impact direct du secteur du commerce de détail sur le bien-être des consommateurs, il s'agit d'un secteur important que doivent surveiller les autorités de concurrence. Dans l'enquête FAC-GBM de 2015, le Botswana et l'Afrique du Sud ont souligné les problèmes de concurrence importants dans ce secteur. Le Kenya, le Maroc, l'Île Maurice, la Namibie, la Tanzanie et la Zambie ont signalé des problèmes de concurrence d'ampleur modérée. Un certain nombre d'autorités de concurrence ont mené des enquêtes sur les pratiques anticoncurrentielles dans ce secteur. En Afrique du Sud, une enquête a révélé des clauses exclusives dans les contrats de location entre les propriétaires de centres commerciaux et les trois plus grandes chaînes de distribution, bien que la Commission de concurrence n'ait pu prouver l'effet anticoncurrentiel. Une affaire relative aux clauses d'exclusivité dans les contrats de location a également été examinée en Zambie. Au Kenya, l'autorité de concurrence a condamné à une sanction pécuniaire deux magasins de distribution pour s'être mis d'accord d'éliminer la concurrence sur leurs prix. En plus des enquêtes, certaines autorités de concurrence ont conseillé leur gouvernement sur l'élaboration des politiques visant à augmenter la concurrence dans ce secteur. L'autorité de concurrence de la Namibie, par exemple, a mené une étude qui a soutenu l'initiative du gouvernement en matière d'élaboration d'une charte sur le commerce de détail en vue de soutenir le renforcement du secteur namibien de la distribution de détail. Actuellement, l'Afrique du Sud poursuit une approche de plaidoyer en réponse aux constats sur les clauses exclusives dans les contrats de location de centres commerciaux et a ouvert une enquête dans ce secteur.

Avec l'augmentation de l'utilisation de l'énergie en Afrique subsaharienne, de nombreux gouvernements intensifient leurs efforts d'accroissement des investissements dans le secteur de l'énergie en éliminant les obstacles réglementaires et politiques. Environ 30 pays africains ont mis en place des régulateurs d'électricité indépendants. Compte tenu de la prévalence continue en Afrique des sociétés d'électricité étatiques, les problèmes de concurrence se posent souvent en termes d'absence de neutralité concurrentielle. Dans certains cas, les entreprises publiques ou le secteur tout entier n'est pas par la législation sur la concurrence. En outre, il est nécessaire de garantir à la fois la neutralité de la fiscalité et de la réglementation vis-à-vis des opérateurs étatiques du secteur de l'énergie. Les dispositions qui autorisent des producteurs d'électricité indépendants, ainsi que les modalités permettant aux gros consommateurs de choisir leur fournisseur d'énergie, ne sont pas très répandues en Afrique. Du point de vue de l'application de la loi, la concentration en amont dans les marchés du gaz a conduit à des enquêtes sur des abus de position dominante en Afrique du Sud et en Zambie. En outre, plusieurs fusions ont été examinées par les autorités de concurrence dans le secteur de l'énergie.

Le rôle croissant du tourisme dans les stratégies de développement des pays peut indiquer que les autorités de concurrence commenceront bientôt à mettre davantage d'accent sur ce secteur. Aucun problème de concurrence important n'a été signalé par les pays participants à l'enquête FAC-GBM de 2015. Certains ont, toutefois, signalé des préoccupations de moindre importance, telles que les accords de concession restrictives pour la fourniture de services d'accueil, des exigences restrictives en matière d'obtention des autorisations et des permis et des restrictions sur les fournisseurs de transferts des circuits touristiques. Le Botswana, les Seychelles et la Tunisie ont mené des enquêtes dans le secteur du tourisme. La Tunisie a imposé une sanction. Pendant la période 2013-2014, 20 fusions ont fait l'objet d'enquête dans ce secteur. Les problèmes de concurrence peuvent survenir sur des marchés connectés à des chaînes de valeur touristiques, par exemple, dans le transport aérien des passagers, le transport de plaisance et les agences de voyages.

Des problèmes de concurrence ont été identifiés dans des secteurs importants, tels que le transport aérien, le fret routier, le commerce de détail et l'énergie.

4. L'agenda futur

L'étude montre que les gouvernements pourraient mettre l'accent sur quelques domaines clés pour encourager la concurrence sur les marchés et exploiter la participation du secteur privé en vue d'un impact maximum. Les domaines d'intérêt sont : la mise en application de la législation en la matière et le plaidoyer en faveur de cadres réglementaires favorables à la concurrence. Le FAC a un rôle à jouer dans le soutien des changements réglementaires, le partage d'informations et le renforcement des capacités dans l'optique de soutenir le renforcement des autorités de concurrence et d'accroître l'effectivité de la politique de concurrence.

Le FAC pourrait soutenir la convergence des principes régissant l'application efficace de la législation en matière de concurrence. Un tel soutien pourrait être particulièrement utile pour : (i) *un contrôle efficace des fusions* en vue de réduire la lourdeur administrative excessive et de réorienter les ressources sur les transactions qui sont plus susceptibles de soulever des problèmes de concurrence, y compris des seuils de notification adéquats des fusions, des procédures à double phase, des lignes directrices claires et transparentes sur la prise en compte de l'intérêt public en tant que de besoin, et des mécanismes de coordination entre les organismes nationaux et régionaux ; et (ii) *l'application effective de la législation anti-entente* dans l'optique de décourager les pratiques nuisibles au travers de la coordination et de l'analyse régionales des pratiques détectées qui pourraient affecter plus d'un pays, de la rationalisation de l'utilisation des dérogations favorisant les pratiques anticoncurrentielles, de l'amélioration du système de sanctions pécuniaires et des valeurs d'amendes maximales, et de l'adoption de politiques visant à faciliter la hiérarchisation des traitement des affaires et à accroître l'efficacité de la mise en application.

Compte tenu des défis existant sur les marchés africains, les autorités tireront avantage à tenir compte des priorités pour la répartition des ressources en vue de prévenir les pratiques anticoncurrentielles les plus nuisibles et d'utiliser plus efficacement les pouvoirs et les outils disponibles. Dans certains cas, il est nécessaire de réviser les amendes en vue de parvenir à une dissuasion adéquate et d'évaluer les procédures administratives qui pourraient augmenter les lourdeurs administratives sur les entreprises et les autorités.

Comme le démontre l'analyse des trois principaux secteurs, les gouvernements peuvent prendre des mesures visant à atténuer les risques éventuels de comportements anticoncurrentiels dans différents secteurs. L'interaction entre les paramètres sectoriels, le degré d'intégration verticale et les restrictions réglementaires applicables aux chaînes logistiques créent des dynamiques différentes sur les marchés. Certains paramètres peuvent encourager des comportements particuliers, tels que l'entente sur les marchés du ciment et des engrais et la forclusion dans le secteur des télécommunications. Les règles qui rendent les marchés plus ouverts et concurrentiels — en facilitant les importations, en soutenant l'entrée dans la production ou l'exploitation, et en offrant l'opportunité à toutes les entreprises de compétir selon les mêmes règles — faciliteront la réduction de la concentration et de la domination, et donc la probabilité des pratiques anticoncurrentielles. Sur la base des caractéristiques de certains marchés et du comportement antérieur des entreprises opérant dans le secteur dans la région, les autorités de concurrence peuvent surveiller étroitement certains marchés.

Le FAC pourrait renforcer le soutien qu'il offre aux efforts de plaidoyer de ses membres dans leur optique d'ajuster les politiques et la réglementation qui restreignent inutilement la concurrence et facilitent les pratiques anticoncurrentielles. Il est possible d'atteindre cet objectif en créant des sous-groupes plus petits, plus soudés, constitués des autorités de concurrence des pays ayant des liens économiques, et en élargissant la sensibilisation en direction d'un groupe de parties prenantes plus large, telles que les régulateurs sectoriels, le milieu des affaires, le milieu universitaire et la société civile. Il serait important de continuer à mener des recherches sur l'analyse de la concurrence sur les marchés intérieurs des pays concernés ; à élargir l'analyse du commerce et de la concurrence pour intégrer l'aspect régional, étant donné que les acteurs du marché prennent des décisions d'affaires au niveau régional ; et à préparer une stratégie permettant de soutenir la mise en œuvre des principales recommandations du rapport. Les pays ayant une culture de concurrence embryonnaire bénéficieraient à s'inspirer des exemples d'autres pays pour montrer que la concurrence influence le renforcement de l'efficacité des politiques gouvernementales, et le FAC peut devenir un forum d'échange de ces informations.

Le FAC peut aider à soutenir les modifications réglementaires, à partager l'intelligence économique, à renforcer les capacités des autorités de concurrence et à accroître la capacité des décideurs à intégrer les principes de la politique de concurrence dans d'autres politiques publiques nationales.

INTRODUCTION

Competition policy is a tool through which African countries can achieve their aspirations of prosperity based on inclusive growth and sustainable development (AUC 2014). Competition fosters more productive firms and industries (Kitzmuller and Licetti 2012; Goodwin and Pierola 2015), while encouraging firms to deliver the best deals for consumers, to protect poorer households from paying more for consumer goods, and to facilitate access to a broader set of goods (Begazo and Nyman 2016). Competition authorities can play an important role in encouraging and safeguarding competition in African markets, both by enforcing rules against cartelization, abuses by dominant firms, and mergers that are likely to harm competition, and through advocacy for the amendment of policies and regulations that restrict competition and facilitate anticompetitive business practices.

Nevertheless, in many African countries competition is restricted by businesses practices that undermine competitive dynamics and by government interventions and regulations that create obstacles to healthy competition.⁵ Many economies are still marked by entry restrictions, by limitations on private investment, by rules that increase business risks and facilitate agreements among competitors, and by rules that discriminate against certain competitors or affect competitive neutrality.

This report reviews competition policy and competition law enforcement across various countries in Africa, highlighting the important progress made and identifying areas for further development.

- **Section A** provides an introduction to competition policy, its importance for Africa, and the benefits of promoting competition in the region, such as poverty alleviation and higher economic growth.
- **Section B** reviews the status of competition law and competition policy in Africa, including the interaction between competition law and other government policies. This section also compiles country submissions on the status and challenges of competition and competition law at the country or regional level, based on contributions from 22 competition authorities and regional bodies that have mandates to promote competition.
- **Section C** reviews competition issues in key sectors in Africa, describing general market structure characteristics, commonly observed anticompetitive behaviors, and sector-specific government interventions and regulations that can distort how markets function and facilitate anticompetitive practices. Based on the strategy of the African Competition Forum (ACF), this report focuses on cement, fertilizer, and telecommunications—all key inputs to economic activity and relevant for citizens. It also summarizes emerging issues in air and road transport, energy, retail, and tourism sectors, as reported by competition authorities.
- **Section D** provides recommendations for building on the findings of the study and embarking on initiatives to boost effective enforcement of competition law and policy.

⁵ Government interventions include government policies, regulations, rules, procedures, and actions of government officials that affect decisions made by market players regarding economic matters.

This report is based primarily on the contributions of ACF members and research conducted by the World Bank Group (WBG). Building on WBG-designed instruments used in other regions, the WBG and ACF developed questionnaires to collect information on the characteristics of competition law and policy across the economy and in selected sectors. These questionnaires were administered to national and regional competition authorities and entities in charge of promoting competition. Survey responses were received from 19 national competition authorities and three regional bodies.⁶ The information collected in the questionnaires was complemented by reports prepared by the ACF during the period 2010–14 (ACF 2011; Mbongwe *et al.* 2014; ACF 2013), by competition authorities' reports on antitrust cases and advocacy actions for procompetition reforms, and by desk research carried out by the WBG. The WBG's Market and Competition Policy Assessment Tool was used to analyze competition law enforcement and competition in selected sectors.

⁶ Competition authorities of Algeria, Botswana, Egypt, The Gambia, Guinea, Kenya, Malawi, Mauritius, Morocco, Namibia, the Seychelles, South Africa, Tanzania, Togo, Tunisia, Zambia, Zimbabwe, and the Common Market for Eastern and Southern Africa (COMESA), as well as government entities in charge of competition policy in the Republic of Congo, Uganda, the South African Development Community (SADC), and the East African Community (EAC).



A. THE IMPORTANCE OF COMPETITION POLICY FOR AFRICA

1. The benefits of removing barriers to competition

Private sector development is at the center of economic transformation in a number of African states' national and regional development strategies, and competition is necessary to ensure benefits for citizens. A growing number of African governments are moving toward reducing their involvement in providing services and products that can be delivered more efficiently by the private sector. The social benefits of private sector participation can only be achieved when markets are competitive, however. Competition policy—competition law enforcement against anticompetitive business practices, together with market policies, regulations, and other government interventions enabling all firms to compete on a level playing field—is therefore essential. Nonetheless, the magnitude of the benefits that competition can deliver depends on institutional conditions such as good governance within the private sector, public sector, and civil society.

Encouraging open and competitive markets is a means to increase productivity and spur sustainable economic growth in Africa. Competition does this through two key mechanisms: it shifts market share toward more efficient producers and induces the exit of inefficient ones, and it incentivizes firms to become more efficient. This process drives firms to offer competitive prices, higher quality, and new and more varied goods and services. Competition in domestic markets in turn affects the international competitiveness of domestic firms.⁷ The economic benefits from competition are well documented,⁸ but empirical research for African countries is limited. This report aims to motivate the development of additional studies.

Competition policy reforms can deliver benefits for the poorest households and improve income distribution. Frameworks that enable competition help empower the poorer segments of society, increase their buying power, and give them greater economic opportunity. Uncompetitive consumer product markets harm families, especially the poorest ones, while more open markets benefit low-income households (Urzua 2013; Creedy and Dixon 1998, 2000; Argent and Begazo 2015).⁹ A lack of competition in food markets hurts the poorest households the most, as will be seen in subsection 3 of this chapter. Consumers pay artificially high prices for goods and services due to cartels (Connor and Lande 2010, 2012; Mncube 2013), and restrictive and burdensome product market regulations hold back job creation (Bertrand and Kramarz 2001; Blanchard and Giavazzi 2003; Nicoletti and Scarpetta 2005; Schiffbauer *et al.* 2015). Empirical literature also shows that competition in input markets and between buyers helps farmers and small businesses (Begazo and Nyman 2016).

⁷ For a literature review on competition and export competitiveness, see Goodwin and Pierola (2015).

⁸ For a literature review on this area see, for example, Kitzmuller and Licetti (2012).

⁹ For a literature review on competition and distributional effects, see Begazo and Nyman (2016) and World Bank and OECD (forthcoming in 2016).

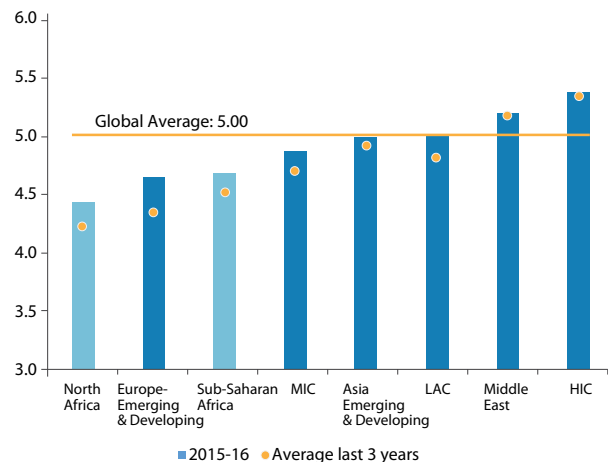
Lack of competition, on the other hand, dampens economic growth and welfare distribution. According to Dutt (1984), policies that reduce monopoly power can have positive effects on growth and income distribution. Furthermore, competition is an important factor in ensuring that trade liberalization has a positive distributional impact (Sexton *et al.* 2007; Borjas and Ramey 1995).

Competition policy aims to foster economic welfare by ensuring that all businesses can interact on a level playing field and by facilitating entry to markets while penalizing and preventing anticompetitive behavior. The competition policy framework includes the set of policies and laws that ensure that competition in the marketplace is not restricted in such a way as to reduce economic welfare (Motta 2004). It encompasses measures designed to reduce or eliminate obstacles to well-functioning markets. These obstacles can arise as a result of business practices (such as cartel agreements, abuses by dominant firms, and anticompetitive mergers) or public policies that have unintended negative effects on competition (such as statutory monopolies, discriminatory treatment of firms, and regulations that facilitate agreements among competitors). An effective competition policy includes economy-wide enforcement of antitrust rules designed to deter anticompetitive practices and mergers, together with sectoral regulations and government interventions that actively encourage competition or minimize the negative effects of other government policies on competition. This report covers both aspects of competition policy.

2. An overview of indicators related to competition in Africa

Indicators suggest that Africa has much to gain from increasing competition.¹⁰ According to the *Global Competitiveness Report 2015–2016* (WEF 2015), 78 percent of African countries rank in the bottom half of countries globally in terms of the intensity of local competition. Both North Africa and Sub-Saharan Africa fall below the global average (Figure A-1), although their average scores did not worsen during 2015–16. A positive correlation can generally be seen between the perceived intensity of local competition and gross domestic product (GDP) per capita, but many African countries (at least fifteen) seem to be below their potential given the size of their economies (Figure A-2). Results are similar when evaluating the extent of market dominance.

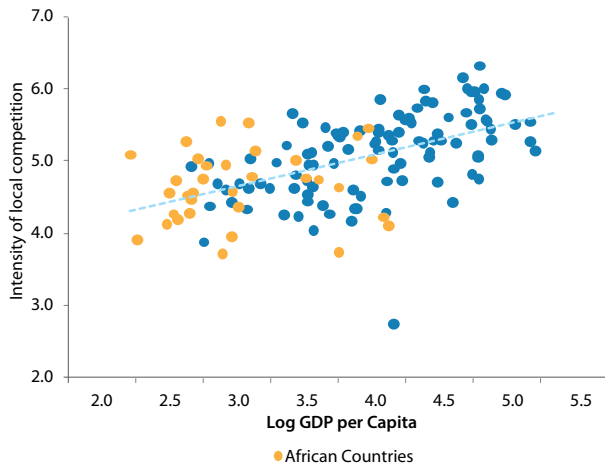
Figure A-1
Intensity of local competition by country group



NOTE: Measured on a scale of 1 to 7, with 7 representing more intensity of local competition.
SOURCE: WEF GCI, 2015–16

¹⁰ This section draws on perception-based indicators from the World Economic Forum's Global Competitiveness Index (WEF GCI), which ranks countries in terms of the components that constitute their global competitiveness based on a survey of a representative sample of business leaders in their respective countries as well as public data sources.

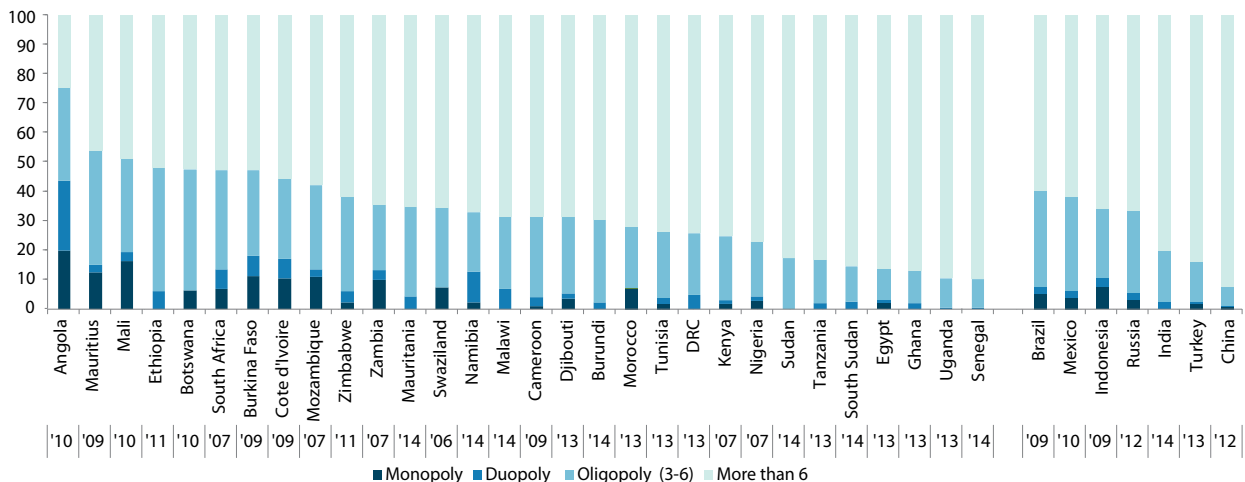
Figure A-2
Intensity of local competition vs. log GDP per capita, all countries



NOTE: Orange circles represent African countries; GDP per capita data for 2014–15.
SOURCE: WEF GCI, 2015–16.

There is a high degree of heterogeneity in the structure of manufacturing markets in Africa, whereas many services sector markets are characterized by monopolies or concentrated structures. In the manufacturing sector,¹¹ Senegal, Uganda, and Ghana display the highest proportion of multiplayer markets. Angola, Botswana, and South Africa—countries with relatively high GDP per capita—are among the countries with a higher prevalence of monopolies, duopolies, and oligopolies in manufacturing (Figure A-3). In the services sector,¹² countries in Sub-Saharan and North Africa present monopolies in 19 percent and 27 percent, respectively, of 15 services subsectors in which the operation of more than one firm is generally feasible,¹³ compared to 7

Figure A-3
Manufacturing sector market structures (in ascending order of the number of market players), Africa and selected peers



NOTE: Figures for China do not include SOEs.
SOURCE: World Bank Group, Enterprise Surveys (various years as indicated).

¹¹ Firm-level information is collected through the World Bank’s Enterprise Surveys, administered to a representative sample of firms in the manufacturing sector.

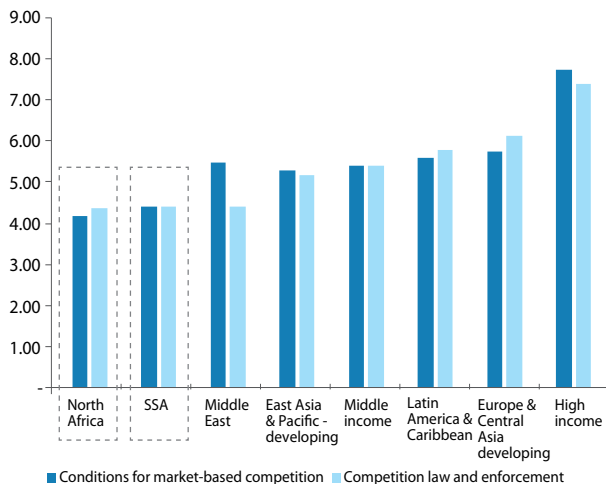
¹² The World Bank’s Investing Across Borders (IAB) Database surveys 33 subsectors across 86 countries, including 21 in Sub-Saharan Africa and three in North Africa.

¹³ Retail banking, health/life insurance, construction of residential real estate, short-term accommodation in hotels, oil and gas exploitation, retail in medium and large stores, fixed line services, mobile services, mobile infrastructure, fixed infrastructure for voice or data, railway freight transport using their own rolling stock, domestic passenger air transportation, international passenger air transportation, operation of container terminals at main commercial ports, and waste management and recycling.

percent in East Asia and the Pacific (EAP) and 10 percent in South Asia. Monopolies are reported for certain subsectors in telecommunications, domestic air transport, and waste management and recycling. Furthermore, more than 40 percent of African countries have providers who hold more than 50 percent of market share in transport and telecommunications (ACF-WBG 2015).

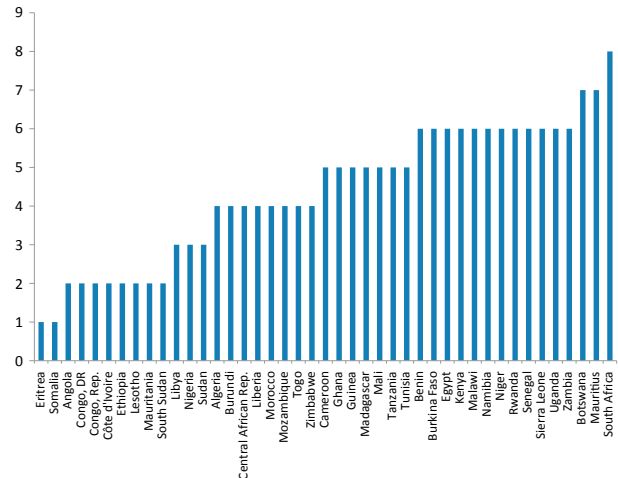
North Africa and Sub-Saharan Africa have space to enhance the effectiveness of competition policies. African countries rank lowest on the following two indicators: (i) the extent to which rules prevent the development of economic monopolies and cartels; and (ii) the extent to which the fundamentals of market-based competition have developed (Figure A-4).¹⁴ For both indicators, there is substantial variation across countries. In the case of competition policy and enforcement—according to Bertelsmann Stiftung’s Transformation Index (BTI), which is derived on the basis of expert assessments—Eritrea and Somalia do not take legal or political measures to prevent anticompetitive practices and mergers that are likely to harm competition, while South Africa has appropriate laws that are enforced to a significant extent (Figure A-5).

Figure A-4
Market-based competition and competition policy enforcement by country group



NOTE: Measured on a scale of 1 to 10, where 10 denotes the best conditions for market-based competition and the existence of comprehensive competition laws that are strictly enforced, respectively. SOURCE: Bertelsmann Stiftung 2016b.

Figure A-5
Competition policy enforcement in Africa by country

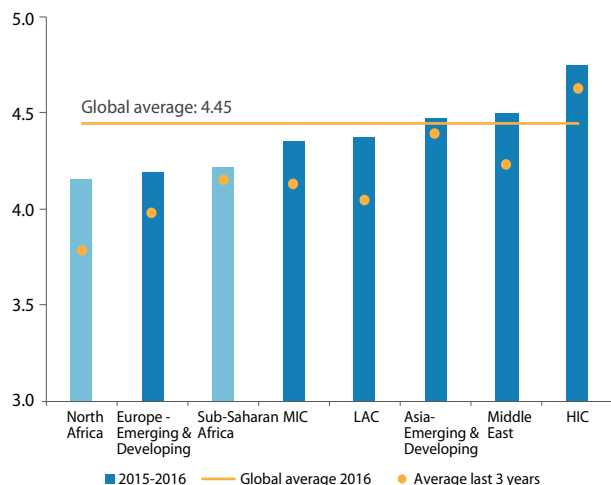


NOTE: Measured on a scale of 1 to 10, where 1 denotes the existence of comprehensive competition laws that are strictly enforced. SOURCE: Bertelsmann Stiftung 2016b.

Policy and regulatory barriers to competition affect how markets function; for example, rules that restrict foreign investment can induce concentration of economic activities among a limited number of domestic investors. Rules on foreign direct investment (FDI) are perceived to be less favorable in Africa than in other regions (Figure A-6), and restrictions on foreign equity ownership could limit entry in certain markets. Policies and rules on FDI are perceived most positively in Rwanda and Mauritius and most negatively in Zimbabwe. Some countries impose caps on foreign

¹⁴ These indicators of the Bertelsmann Stiftung’s Transformation Index (BTI) answer the following questions based on expert judgment: (i) to what extent do safeguards exist to prevent the development of economic monopolies and cartels, and to what extent are they enforced (including the existence of antitrust or competition laws and enforcement)?; and (ii) to what level have the fundamentals of market-based competition developed (including the low importance of administered pricing, currency convertibility, no significant entry and exit barriers in product and factor markets, freedom to launch and withdraw investments, and no discrimination based on ownership (state/private, foreign/local) and size. See Bertelsmann Stiftung (2016a).

Figure A-6
Extent to which rules and regulations encourage FDI, by country group



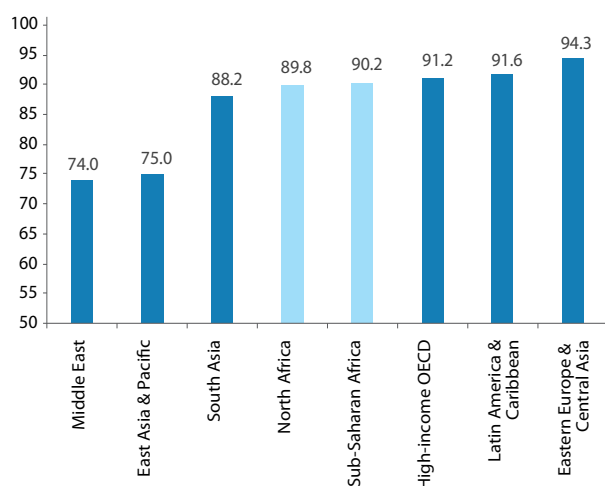
NOTE: Measured on a scale of 1 to 7, with 7 indicating that rules and regulations strongly encourage FDI.
SOURCE: WEF GCI 2015–16.

ownership; African countries rank in the middle of the foreign equity ownership index (Figure A-7). Such restrictions could particularly affect sectors that need high levels of investment, thus limiting the potential for technology transfer to increase firm productivity or restricting potential competition. The most protected sectors in Sub-Saharan Africa, on average, are media and telecommunications; in North Africa, they are electricity and transport.

Relatively high barriers to trade in North Africa and Sub-Saharan Africa (Figure A-8) can reduce competitive pressure in domestic tradeable goods markets. Morocco is the only North African country that outperforms the African average

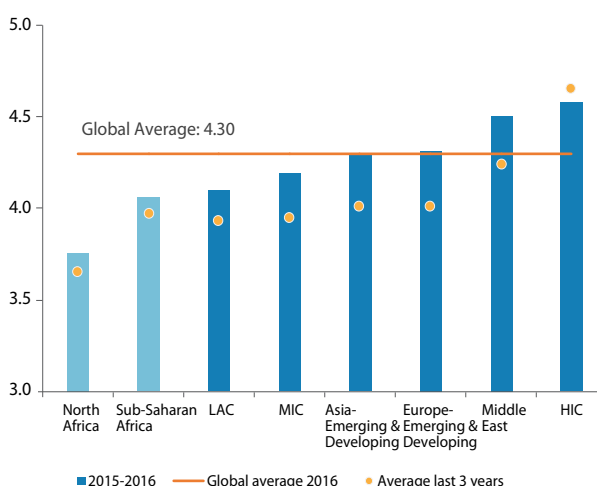
on limiting barriers to trade.¹⁵ In Sub-Saharan Africa, Malawi and South Africa had the lowest perceived barriers to trade in 2015–16 and 2014–15 respectively, and Mali and Mauritania the highest. These barriers to trade could reinforce the dominance of players in domestic markets and create conditions that facilitate anticompetitive practices. As will be seen in sections C1 and C2, non-tariff barriers to imports affect the functioning of key input markets (cement and fertilizers).

Figure A-7
Foreign equity ownership index by region



NOTE: 100 = full foreign ownership allowed.
SOURCE: World Bank, IAB, 2012 (available online).

Figure A-8
Extent to which non-tariff barriers do not limit the ability of imported goods to compete in the domestic market by country group

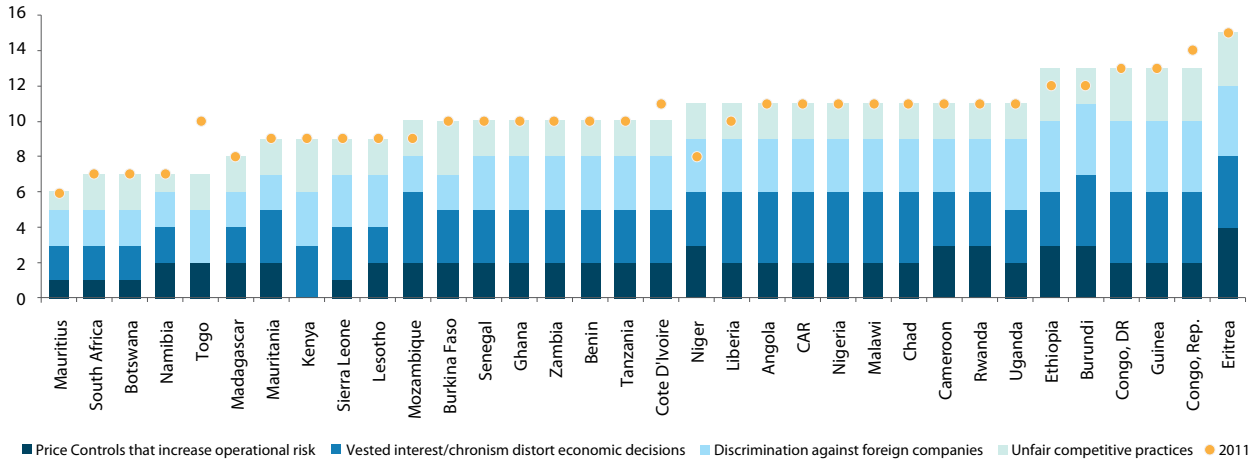


NOTE: Scores based on responses to the following question: “to what extent do non-tariff barriers (e.g., health and product standards, technical and labeling requirements, etc.) limit the ability of imported goods to compete in the domestic market?” Measured on a scale of 1 (strongly limit) to 7 (do not limit at all), where 7 represents the lowest prevalence of barriers to trade.
SOURCE: WEF GCI, 2014–15.

¹⁵ In addition to the WEF-GCI data shown in Figure A-8, a similar result is found using the BTI trade liberalization indicator.

Firms' ability to compete can also be impaired by government rules and practices that increase business risks and affect competition based on merit. Eritrea faces the highest level of operational business risk due to weak competition policies, while Mauritius has the lowest level (Figure A-9).¹⁶ Côte d'Ivoire, Togo, and the Republic of Congo have improved since 2011, while scores for Mozambique, Niger, Liberia, Ethiopia, and Burundi have worsened.

Figure A-9
Operational business risks related to weak competition policies by component



NOTE: 16 = highest risk.
SOURCE: EIU, May 2015.

3. Potential gains from boosting competition in Africa

Addressing weaknesses in Africa's competition policy would help strengthen the region's competitiveness. Sub-Saharan and North African countries rank fairly low, on average, on indicators of innovation, technology adoption, and competitiveness. Based on available data, indicators of innovation present a clear positive correlation with both the effectiveness of antimonopoly policy and the intensity of local competition. Similarly, firm-level technology absorption shows a relatively strong positive association with the effectiveness of antimonopoly policy and the intensity of competition at both regional and global levels. Further analysis is needed to clarify the contribution of competition to export competitiveness and productivity growth in Africa.¹⁷

Consumer welfare could be enhanced by more competitive markets—for example, through lower prices. Available retail price data provide preliminary evidence that retail prices are higher in Africa than in the rest of the world, potentially reflecting weak competition, among other factors. Even when controlling for GDP per capita and transport costs,¹⁸ prices of 10 consumer goods are,

¹⁶ Economist Intelligence Unit (EIU) indicators capture operational business risks that are generated by weak competition policies and prevent firms from competing freely on a level playing field. The four factors include a lack of freedom to set prices, unfair competitive practices, vested interests, and discriminatory treatment of foreign firms.

¹⁷ A review of the literature indicates that, in general, competition contributes to export competitiveness (Goodwin and Pierola 2015).

¹⁸ Transport costs are proxied by distance to the nearest coastline or navigable river.

on average, at least 24 percent higher than in other economies around the world.¹⁹ This result could stem in part from a lack of competition within the value chain. Moreover, a handful of African cities were consistently in the highest price decile for five of the 13 commodities examined over the period 2005–14 (Table A-1).

Africa has a lot to gain from removing policy and regulatory restrictions and strengthening the effectiveness of its competition law and policy framework, including in terms of economic growth. A simulated scenario in which several African countries reduce regulatory restrictiveness in professional services suggests that growth in value added in industries that use professional services intensively would, other things being equal, yield an additional 0.16–0.42 percentage points of GDP growth (Figure A-10). The impact would be even larger if fundamental reforms were implemented in other services sectors with higher spillover across the economy, such as electricity, telecommunications, and transport.

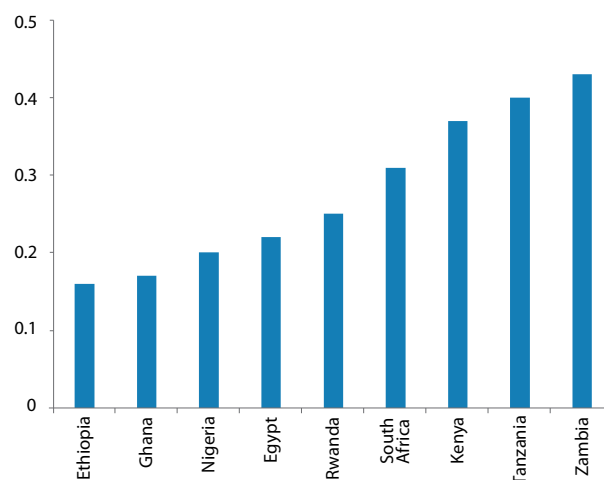
Boosting competition in food staple markets is expected to have a positive effect on poor people. Staple foods constitute a relatively high share of households’ food and total budgets, particularly among those in the bottom 40 percent in terms of consumption expenditure. Across the range of products analyzed, Kenya recorded the highest expenditure share and South Africa the lowest (Figure A-11). A 10 percent reduction in prices would yield greater gains among poor people, with the greatest impact achieved for the bottom 10 percent in South Africa (who would gain 15 times more), followed by Kenya (6 times more) and then Zambia (3 times more).²⁰ Furthermore, the average income of Kenyans, South Africans, and Zambians would be expected to rise by 1.05, 0.89, and 0.87 percent, respectively. The equivalent increase in disposable income of more than \$700 million (2015 dollars) a year would lift people above the poverty line—approximately 270,000 in Kenya, 200,000 in South Africa, and 20,000 in Zambia.

Table A-1
Goods for which prices in African cities fall within the most expensive decile across the sample

Commodity	African cities with prices in the highest decile
White rice	Abidjan (Côte d’Ivoire)
	Lagos (Nigeria)
White flour	Lagos (Nigeria)
Butter	Lagos (Nigeria)
Milk	Abidjan (Côte d’Ivoire)
	Douala (Cameroon)
Coca-Cola	Lagos (Nigeria)
	Lusaka (Zambia)

SOURCE: EIU price data 2005–14.

Figure A-10
Simulated economic impact of reduction in regulatory restrictiveness in professional services on GDP growth (percentage points)

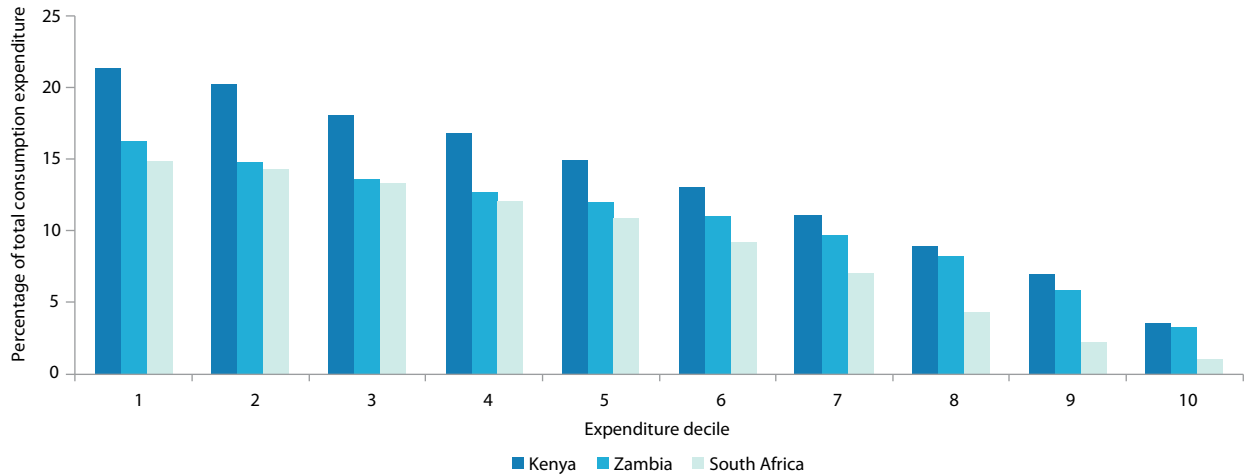


SOURCE: Estimations using WBG simulation methodology based on the latest Input-Output tables obtained from IFPRI and national statistics agencies.

¹⁹ Prices in Africa are higher, on average, for white rice, white sugar, frozen chicken, bread, butter, flour, milk, potatoes, eggs, and Coca-Cola. Econometric estimation based on EIU data for 140 cities around the world (including 14 in Africa) between 1990 and 2014.

²⁰ A similar pattern is demonstrated in the distribution of gains among the bottom 40 percent in comparison to the top 40 percent.

Figure A-11
Expenditure pattern of selected staple food in Kenya, South Africa and Zambia across expenditure deciles



NOTE: Selected food staples consist of maize and sugar in Kenya and Zambia, and maize, wheat, and poultry in South Africa.
 SOURCE: Computation from household surveys (KIHBS 2005/06, Zambia LCMS 2010, and SA-IES 2010/11).

Governments have two tools for boosting competition in markets and obtaining major gains in growth and shared prosperity:

- Enforcing competition law and policy
- Implementing market regulations and foster procompetition government interventions that give firms the right incentives to compete vigorously

B. TOWARD A MORE EFFECTIVE COMPETITION POLICY FRAMEWORK

The basic purpose of competition laws and policies is to allow markets to work more efficiently for the benefit of consumers and to drive sustainable economic growth (Kitzmuller and Licetti 2012). Effective competition policy has a positive impact on total factor productivity growth (Bucchirossi *et al.* 2013) and competitiveness (Goodwin and Pierola 2015). In addition, competition law enforcement can prevent overcharges (of as much as 49 percent) that may result from anticompetitive conduct, such as cartel behavior.²¹ Competition authorities enforce these laws and respond to market developments such as mergers and business behavior that can harm competition, thus protecting African citizens and businesses. As of October 2015, competition laws have been enacted in 27 African countries and five regional communities, and two regional agreements include commitments to cooperate in the implementation of competition laws.²² At least six countries are discussing the adoption of competition laws.²³

Effective implementation of competition law and policy depends on several elements (Figure B-1). It is not enough to have in place a primary legal and policy framework (A). It is also important to have an adequate institutional structure and resources (B). More specific rules and skills are

Figure B-1
Elements of effective implementation of competition law and policy

A. Legal and policy framework	B. Operational framework	C. Competition law enforcement	D. Integration of competition principles
Competition policy	Structure of the authority	Regulatory framework: competition regulations and guidelines	Collaboration with regulators and ministries within the government
Competition law	Staffing and financial resources for the authority	Case handling: analysis of anticompetitive practices and merger review	Opinions on relevant laws/regulations that are likely to harm competition
Law that creates the competition agency	Selection of board members and/or head of the agency	Implementation of the authority's powers	Market studies in sectors with competition concerns
Other relevant laws with competition mandates (such as sectoral frameworks and public procurement)	Strategic planning	Administrative efficiency, procedural fairness, and due process in case handling	Awareness raising/capacity building for private sector, civil society, journalists, academia, public sector

SOURCE: World Bank (forthcoming in 2016).

²¹ A meta-analysis of studies of cartel overcharges, performed by Connor and Bolotova (2006), reports overcharges in the range 31–49 percent.

²² Under Article 40 of the South African Customs Union (SACU) agreement, each member state agrees to have a competition policy and to commit to cooperate on enforcement matters. Article 42 further stipulates that parties to the agreement may formulate annexes to “facilitate the implementation of the SACU Agreement” which will be considered as part of the agreement. In addition, SADC members signed a Declaration on Regional Cooperation in Competition and Consumer Policies in 2008.

²³ Djibouti, Ghana, Liberia, Nigeria, Republic of the Congo, and Uganda.

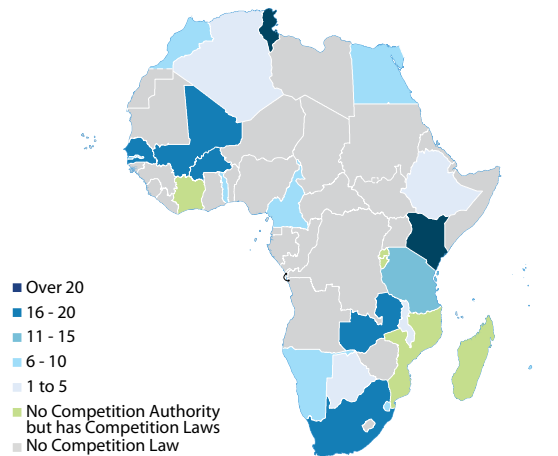
needed to enforce the law and use its powers and mechanisms to investigate, stop, and prevent anticompetitive practices and mergers (C). Finally, in order to encourage competition across the economy, authorities collaborate with other government bodies and inform government interventions based on fact-based market studies and advisory opinions (D). This chapter analyzes the major features of these elements in African jurisdictions.

1. Legal and policy framework: increasing adoption and implementation of competition laws

The number of jurisdictions with competition laws has almost tripled in 15 years. In 2000, 13 jurisdictions had adopted competition laws. By 2015, this number had increased to 32 jurisdictions. Competition authorities²⁴ have been operating in 23 countries and two regional communities for an average of 10 years (Figure B-2).²⁵

Competition authorities start operating four years, on average, after the law is passed, but in some cases there has been a considerable delay. Algeria and Cameroon, for example, established their competition authorities 18 and 10 years, respectively, after the laws providing for their establishment were passed. Madagascar and the Central African Economic and Monetary Community (CEMAC) have not yet operationalized the framework after more than 10 and 16 years, respectively. Tunisia’s Competition Council, in operation since 1992, is one of the oldest competition authorities in Africa; the Monopolies and Prices Department under Kenya’s National Treasury began implementing an early version of that country’s competition law in 1989.

Figure B-2
Number of years with an operational competition authority



NOTES:

1. In Côte d'Ivoire, the authority is functional but its mandate is limited.
 2. The number of years equals the difference between 2015 and the year when the authority started operations.
 3. The COMESA Competition Commission has been operational since January 2014, and the WAEMU commission has been operational since 2003. CEMAC, EAC, and ECOWAS do not have functional competition authorities.
- SOURCE: ACF-WBG 2015.

The number of jurisdictions with competition laws has almost tripled in 15 years to 32 jurisdictions; 25 jurisdictions have operational competition authorities (including two regional communities).

²⁴ “Competition authorities” refers to government bodies in charge of enforcing competition law, including an independent authority, a commission, a council, or a department within a ministry.

²⁵ Calculated on the basis of the year when the authority started operations, as of 2015. Does not include the following countries and regional bodies with competition laws because their competition authorities are not yet functional: Burundi, Madagascar, Mozambique, Rwanda, CEMAC, EAC, and ECOWAS. On average, competition authorities have been operating for eight years in jurisdictions that have enacted competition laws.

Competition laws in African jurisdictions are similar in scope. Most competition laws cover restrictive trade practices (anticompetitive horizontal and vertical agreements and abuse of dominance), merger control, and competition advocacy.²⁶ In some cases, such as Algeria and Botswana, the law covers anticompetitive actions of state and public bodies and actions of public officials that facilitate anticompetitive agreements.

The competition frameworks share similar goals. The three most common objectives are to ensure an effective competitive process, promote consumer welfare, and enhance efficiency. Some jurisdictions include other goals, such as those related to equity. For example, South Africa seeks to promote a greater spread of ownership, in particular to increase the ownership stakes of historically disadvantaged persons, and to promote employment and advance the social and economic welfare of South Africans. In Botswana and Cameroon, citizen empowerment is also included as an objective.

Recent reform of existing legal frameworks and the establishment of new competition frameworks and authorities in some countries are steps toward increasing the effectiveness of competition policy in Africa. Since 2009, Kenya, Zambia, Morocco, Egypt, Ethiopia, South Africa, and Tunisia have reformed their competition frameworks. These reforms have provided the competition authorities in Morocco and Egypt with greater independence, and those in Kenya and Zambia with mechanisms to strengthen deterrence. Amendment of the competition law bolstered the power of the Competition Commission of South Africa (CCSA) to carry out market inquiries as part of its advocacy mandate. Box B-1 describes further examples of reform.

Most African countries have consumer protection frameworks, and some of these are implemented by competition authorities. In some countries, the consumer protection framework has been combined with competition regulation, while in others the two are separate and, in some cases, enforced by different bodies. Countries where the competition law has been combined with consumer protection regulation include Ethiopia, Kenya, Rwanda, Tanzania, Zambia, and Zimbabwe. In The Gambia and Malawi, consumer protection and competition frameworks are distinct but implemented by the same authority. Combining competition law with consumer protection has been helpful in advocating for the enactment of competition laws and increasing the visibility of authorities, but it requires a careful balance in the allocation of resources across the two functions.

²⁶ Competition advocacy is the role that competition authorities play in informing the formulation of national or regional economic policies, regulations, procedures, and other government interventions with the aim of promoting measures to safeguard and enable firm entry and rivalry in different markets across the economy.

Box B-1**Reform of existing legal frameworks and the establishment of new competition frameworks**

Kenya: The enactment of the Competition Act 2010, which came into effect in August 2011, established the Competition Authority of Kenya (CAK) as an independent body, replacing the Monopolies and Prices Commission (which fell under the National Treasury). Notably, price regulation provisions were eliminated. More recently, amendments to the Competition Act through the enactment of the Finance Act 2014 went some way toward addressing some outstanding issues. Among these amendments were provisions to allow for a leniency program, whereby firms could be incentivized to disclose cartel behavior or to cooperate with an investigation by the authority in exchange for reduced fines. The amendments also mandated that all professional associations apply for exemptions to horizontal agreements in case their rules could amount to a restrictive trade practice.

Morocco: The adoption of the Freedom of Prices and Competition Law (Law No. 104-12) and Law No. 20-13 on the Competition Council substantially modified antitrust and merger control regimes in Morocco. The laws have not yet entered into force, however, as they are awaiting adoption of the decrees necessary for their implementation. Before this reform, the original 1999 competition law granted the Competition Council only consultative powers and limited its responsibilities to issuing advice, guidance, and recommendations. The prime minister was regarded as the administrative authority responsible for competition policy and had the exclusive power to decide whether or not to follow up on the Council's recommendations (Bertelsmann Stiftung 2014), while also having the power to designate members of the Competition Council (see Merghadi n.d.).

Tunisia: Tunisia amended its competition law in 2015, after almost two years of intense discussions. The new law strengthens: (i) the mandate of the Competition Council; (ii) the transparency of the decision making of the Competition Council and the Ministry of Commerce; (iii) the redefinition of exemption criteria; (iv) the possibility to engage in targeted economic analysis to motivate decision-making; (v) leniency for cartel cases; and (vi) provisions on sanctions that are more severe than in the previous regime, among others.

2. Operational framework: institutional independence and additional resources

Most agencies responsible for the administration of competition policy are structured as independent bodies, according to survey responses (ACF 2013; ACF-WBG 2015). Of 28 authorities surveyed, 64 percent identify themselves as structurally independent bodies. Under at least 10 regimes in the region, however, the competition authority is embedded in a ministry as a government department (or is under the strict supervision of the prime minister). In these cases, the competition authority remains budget-dependent or administratively dependent on government ministries under different forms of accountability. It is widely recognized that competition authorities require a substantial degree of independence to conduct their activities in a professional, technical, nonpartisan, competent, and effective manner.

Having access to enough budgetary resources is essential for competition authorities to be able to effectively implement competition law and policy. Government budget allocations are common and usually carried out by the parent ministry (usually the trade ministry). Other mechanisms are parliamentary allocations, self-financing by charging fees for merger review, or a combination of the two. Provision of a competition agency's budget by the ministry in which the agency is housed is generally considered to be suboptimal, since it creates financial dependency that can damage

the agency's perceived independence and political neutrality. Kenya, Malawi, and Tanzania are examples of countries whose authorities are partially self-financing. In the ACF 2013 survey, Kenya and Malawi stated that 10 percent of their total funding came from fees, whereas Tanzania reported this figure to be 21 percent. Among countries that reported 2013 allocations, competition agency budgets ranged from *de minimis* fractions of GDP for some (such as Cameroon and Tunisia) to 0.04 percent and 0.03 percent of GDP, respectively, for The Gambia and Namibia.

The annual budget of competition authorities has increased, pointing to their greater importance and more significant government support. The average annual budget of competition authorities in Africa grew by at least 39 percent between 2009 and 2014.²⁷ The average annual budget amounts to approximately \$3 million, but falls to \$1.4 million when South Africa is excluded. Seven authorities hold an annual budget below \$0.5 million. Among African competition authorities, the average annual budget allocation per technical staff member is one-third of that in established competition authorities around the world.²⁸

The average annual budget of African competition authorities increased by at least 39 percent between 2009 and 2014.

Heads of governments and ministries in Africa appear to play a key role in appointing competition authority members (such as commissioners, chairpersons, or directors), which may hamper their independence. In none of the countries that responded to the 2015 survey were members appointed by parliament, although in Kenya members were vetted by parliament. It was most common for members to be appointed by the president or the prime minister; this procedure was reported in Algeria, Malawi, Mauritius, Morocco, Rwanda, Senegal, and Tunisia. Next most frequent was appointment by a single minister, such as the trade minister (in Botswana, Burkina Faso, Egypt, Mali, Namibia, Zambia, and Zimbabwe), the national treasury minister (in Kenya), and the economic development minister (in South Africa). In a few cases, appointments were made by the president or prime minister in conjunction with a minister; usually the competent minister would propose the candidate, and the president or prime minister would make the appointment (as in the Seychelles, Tanzania, and Togo). For COMESA, the members of the board and the board director are appointed by the COMESA Council of Ministers upon nomination by the secretary general.

It is a positive finding for independence, however, that for 15 of the authorities surveyed in 2015, the government cannot veto the authority's decisions. The government (usually the minister or the prime minister) holds this type of veto power in only a few cases. In Morocco, for example, the minister can overturn a decision to prohibit a merger on public interest grounds. Similarly, in Namibia, the Competition Act allows the minister of trade and industry to review commission decisions on mergers. In the EAC, the Council of Ministers may, upon appeal, approve a merger objected by the authority.

²⁷ Includes 18 jurisdictions that provided information for the 2009 ACF Needs Assessment and 19 jurisdictions that provided information for either 2013 or 2014. The growth rate is conservative, since 2013 budget figures were considered for eight jurisdictions.

²⁸ Compared to 33 non-African authorities with available information on the Global Competition Review database.

Staffing is an important determinant of a competition authority's operational capability. Authorities in Africa employ, on average, 21 technical staff who handle competition matters. There is a great deal of variation, however, with 132 staff in South Africa compared to fewer than 10 staff in nine out of 23 authorities. In a number of cases, survey respondents identified limited human resources as one of the main factors undermining their efficiency and their power to detect and sanction anticompetitive conduct effectively. These limitations include both overall staff numbers and the economic or legal skills of staff members. Authorities citing such issues include Egypt, Malawi, Mauritius, Senegal, the Seychelles, Togo, and Tunisia. Since 2009, however, the situation appears to have improved for a number of authorities. Of note are Botswana, Ethiopia, the Seychelles, and Swaziland—all of which had fewer than 10 staff members in total in 2009 and increased steadily to over 10 staff members by 2013 in most cases (ACF 2014). Furthermore, the proportion of staff working on competition in African authorities is approximately 32 percent of total staff, less than half the average of 68 percent in a sample of 34 established non-African competition authorities.

3. Competition law enforcement: the role of competition agencies in fighting anticompetitive conduct

In most African countries that have enacted a competition law, the law covers two main areas—restrictive trade practices and merger control—but many frameworks provide for exclusions from the law's application. Restrictive trade practices (or restrictive business practices, in some jurisdictions) consist of agreements, further distinguished as horizontal (between competitors in a market) or vertical (between firms along the supply chain), and abuse of dominant position. Based on responses to the 2015 ACF-WBG survey,²⁹ competition laws cover restrictive trade practices in all jurisdictions and merger control in 90 percent of jurisdictions. Authorities have been active in conducting investigations in all areas; in two years, they completed 112 cases on restrictive trade practices and 1,216 merger reviews (Table B-1).³⁰ Competition law applies to all economic sectors, products, and types of organizations carrying out commercial activities in at least five

Table B-1
Overview of competition policy relating to anticompetitive conduct and mergers in Africa

	Scope of competition law*	Cases completed in 2013–14 **
Cartels/horizontal agreements	100%	42
Abuse of dominance	100%	58
Vertical agreements	100%	12
Mergers	90%	1,216

NOTES:

*Based on 20 jurisdictions that responded to questions on the scope of the law.

** Based on 15 jurisdictions that provided information on the number of cases handled; in the case of South Africa, this includes cartel investigations referred by the Competition Commission to the Tribunal.

SOURCE: ACF-WBG 2015.

²⁹ Respondents on this issue included Algeria, Botswana, Cameroon, Egypt, Ethiopia, Kenya, Malawi, Mauritius, Morocco, Namibia, Rwanda, Senegal, Seychelles, South Africa, Tanzania, Togo, Tunisia, Zambia, COMESA, and EAC.

³⁰ It is worth noting that these statistics reflect information provided by the authorities and any analysis of the quality of the decisions to derive conclusions on the extent to which enforcement is rational and meaningful is beyond the scope of this report.

countries: Cameroon, Kenya, Senegal, the Seychelles, and Togo. In some jurisdictions, certain sectors or products as well as state-owned enterprises can be excluded from the application of the law if another legal instrument provides for that. Conduct that is required or authorized by other government authorities falls outside the scope of the competition law in at least nine jurisdictions.

Each year, competition authorities in Africa complete, on average,³¹ 41 cases on merger control, 1.9 cases on abuse of dominance,³² 1.4 cases on horizontal agreements,³³ and 1.4 sector inquiries, but there is significant variation across authorities.

CARTELS AND OTHER HORIZONTAL AGREEMENTS

Given their potential to significantly reduce competition and consumer welfare, restrictive agreements between competitors in a market are an enforcement priority in many jurisdictions. Examples of these harmful agreements include those in which competitors coordinate to fix prices at a higher level or total quantity at a lower level than would be sustained under competition. Alternatively, they may agree not to compete by dividing or sharing markets, thus reducing consumer welfare.

Cartels in Africa have reduced consumer welfare and affected value chains. A South African cartel in precast concrete products rendered an overcharge in the range of 17–28 percent in Gauteng, and 51–57 percent in KwaZulu-Natal (Khumalo *et al.* 2014), exerting a downstream effect on the construction industry. Furthermore, studies show that in South Africa, for example, a cartel between major bread manufacturers from 1996 to 2007 overcharged independent bakeries by 7–42 percent on the price of wheat flour (Mncube 2013), which harmed not only bakeries but also consumers of bread. A recent WBG study finds a significant reduction in poverty—0.4 percentage points, or over 200,000 individuals—from simultaneously tackling cartels in wheat products, maize flour, poultry, and pharmaceuticals in South Africa (World Bank 2016a). In Zambia, an alleged cartel in fertilizer for the national input support program (currently under investigation) would have cost the government \$21 million (Box B-2). Cartels can also involve more than one country; the Southern African Customs Union (SACU) cement cartel included market division agreements involving markets in South Africa, Namibia, and Botswana.³⁴

Most jurisdictions in Africa consider hard core cartels to be illegal.³⁵ A hard core cartel is defined as “an anticompetitive agreement, anticompetitive concerted practice, or anticompetitive arrangement by competitors to fix prices, make rigged bids (collusive tenders), establish output restrictions or quotas, or share or divide markets by allocating customers, suppliers, territories, or lines of commerce” (ICN 2005). In most regimes, *per se* prohibited practices include fixing the sale prices of goods and services; dividing markets by allocating customers or territories; colluding on

³¹ Based on 2013–14 data covering 15 jurisdictions.

³² Parties may abuse a dominant market position to, *inter alia*, charge customers excessively high prices or foreclose rival firms.

³³ Horizontal agreements take place between parties selling products in the same market.

³⁴ For further examples of cartels in cement and fertilizers, see Section C of this report.

³⁵ This is also the case in the United States and the European Union.

Box B-2 Examples of African cartels

Zambian fertilizer cartel: In 2012, Zambia's Competition and Consumer Protection Commission received a complaint in relation to the Farmer Input Support Programme (FISP). Nyiombo Investments Limited and Omnia Fertiliser Zambia Limited had been supplying fertilizer under the FISP for 10 years. The complainant alleged that Nyiombo and Omnia were dividing the market for tendered fertilizer under the FISP. Based on documents seized from the two parties, the Commission established that there was an agreement between them and imposed a fine of \$20 million. The parties appealed the matter to the Competition and Consumer Protection Tribunal, which ruled in their favor. The Commission then appealed to the High Court, which also ruled in favor of the parties. The Commission has further appealed the matter to the Supreme Court against the judgment of the High Court, and the matter is currently pending. Vilakazi (2015) estimates that savings from ending the cartel would have been around \$21 million.

SACU cement cartel: In 2008, the CCSA initiated investigations against the country's four main cement producers: PPC, Lafarge, AfriSam, and NPC (Cimpor), raiding their offices in 2009. The investigation was sparked by research findings that cement prices had doubled since 2001 and, despite fluctuations in demand and input costs, producers' prices for cement had increased in tandem every six months—by a much greater degree than the producer price index, the leading indicator of overall costs in the economy (Madiba 2009). Subsequently, PPC applied for leniency and confirmed the existence of a cartel among the four cement producers. AfriSam also admitted that it had entered into agreements with PPC, Lafarge, and NPC to divide markets and indirectly fix the price of cement.

According to the CCSA, there was a strong regional dimension to this cartel. Part of the collusion was an agreement that PPC would not compete with Lafarge in the northern South African market of Kwa Zulu-Natal in exchange for Lafarge not competing with PPC in the Botswana market. Moreover, the cartel had agreed that PPC would supply the Botswana cement market, while AfriSam would supply Namibia. The companies were able to monitor the collusive agreement in part by sharing monthly sales data through the Concrete and Cement Institute of South Africa.

PPC received leniency in exchange for a complete and truthful disclosure of all cartel activities between itself and its competitors. Meanwhile, Lafarge and AfriSam settled with the CCSA and agreed to pay penalties of 6 percent and 3 percent, respectively, of their yearly turnover for cement sales in the SACU region in 2010. The CCSA referred the case against NPC to the Competition Tribunal for prosecution.

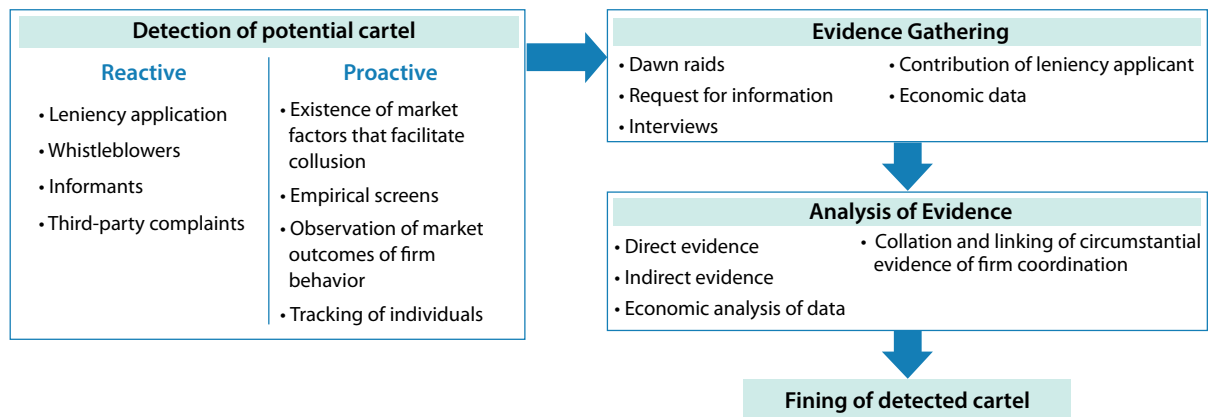
Govinda, Khumalo, and Mkhwanazi (2014) estimate that the CCSA's intervention resulted in a total savings of \$424.5–547.1 million during 2010–13.

tender offers; and collectively limiting production, market outlets or access, technical development, or investment. Cameroon and Morocco do not consider hard core cartels to be illegal *per se*. In some laws, hard core cartels cannot be exempted (Zambia), but in others it is possible to exempt any agreement—including hard core cartels (Ethiopia, Kenya).

Seven competition authorities detected and punished cartels during 2013–14, the most active of which has been South Africa's CCSA. Three other jurisdictions report having concluded investigations on horizontal agreements during the same period. Five out of 15 operational competition authorities did not report any horizontal agreement case completed in that time, which could be explained by limited resources, tools, and strategies to carry out investigations and detect cartels.

Cartel activity can be discouraged through measures to reduce incentives for firms to join cartels or engage in collusive behavior, to increase incentives for firms to deviate from a cartel agreement, and to increase the probability of detection when a cartel exists. These measures include: (i) using effective tools to detect cartels (such as leniency programs and dawn raids) and investigate them; (ii) deterring cartel activity through sufficiently high penalties; and (iii) fostering market conditions and regulatory frameworks that render cartelization unstable, such as sectoral regulations that allow for contestability and enable competition in markets. Figure B-3 describes the steps involved in investigating a potential cartel. Each step requires two resources: the appropriate legal powers, and staff with adequate experience and training.

Figure B-3
Key steps in the investigation of potential cartels



SOURCE: World Bank (forthcoming in 2016), adapted from ICN 2008–15.

Most jurisdictions have the power to conduct investigations, but implementation has been limited. At least 16 authorities have broad powers of search and seizure through dawn raids for the gathering of evidence. In some jurisdictions, such as Botswana and Togo, the power to conduct dawn raids is not clearly and adequately provided for in the competition law. Although many authorities have search and seizure powers, few have carried out raids. This reduces the probability of detection and hinders the effectiveness of leniency policies. While authorities work to increase their capacity to plan and execute dawn raids, they could also proactively identify and monitor markets where collusion is more likely. Some authorities have teams dedicated to market intelligence.

The possibility of a hefty sanction can be a significant deterrent against cartel activity, but fines imposed in African jurisdictions are relatively low. In most jurisdictions the fines for hard core cartels and anticompetitive practices as stated in the law are in line with international practice

(10 percent of turnover). In some jurisdictions, however, the maximum fine for hardcore cartels is low.³⁶ The value of fines imposed by the CCSA is the highest in the region; companies involved in the construction cartel paid \$116 million in fines in 2013 alone. In Mauritius, total fines imposed in the brewery cartel in 2014 were \$748,000. In Kenya, the Association of Kenyan Reinsurers was fined \$7,000 in 2015 for colluding on reinsurance rates, while two retailers were fined a total of \$51,200 for price fixing. As shown by Ivaldi, Jenny and Khimich. (2016), even in the case of South Africa, fines are only 9 percent of excess profits, (on average, considering four cases), compared to 26 percent in the European Union.

Leniency programs can be effective in detecting and proving the existence of cartels, but these programs are not common in African jurisdictions. A leniency program typically allows a cartel member to confess to its involvement in a cartel and cooperate fully with a cartel investigation by providing evidence that will aid in proceedings against other cartel members. In exchange, the cooperating cartel member receives full or partial immunity from penalties that would otherwise have been imposed. Leniency programs can help to detect cartels and obtain the evidence required to successfully prosecute them, particularly when competition authorities have proven that they have the power and resources to detect and punish cartels. Leniency can also deter cartel formation, given the risk that cartel members will cooperate with the competition authority. At least seven jurisdictions in Africa have a leniency policy in place, and at least 10 have provisions that allow for reduced fines for those who cooperate with investigations and that could be used to develop a leniency program. Some authorities, such as the CAK and COMESA Competition Commission, are in the process of launching a leniency program. South Africa has received 514 applications for leniency since the inception of its leniency program in 2004; Mauritius has received two, and the other jurisdictions have received none thus far. In countries where there are criminal and administrative sanctions, collaboration with the prosecutor's office has not been easy; in South Africa, the implementation of a 2009 amendment to the competition law to criminalize cartels has been delayed until May 2016.

In 2013–14, while nine authorities handled 42 horizontal-agreement cases (50 percent of which were in South Africa), five operational authorities did not complete any cases on horizontal agreements. In the same period, only seven authorities set sanctions for at least one horizontal agreement.

ABUSE OF DOMINANCE

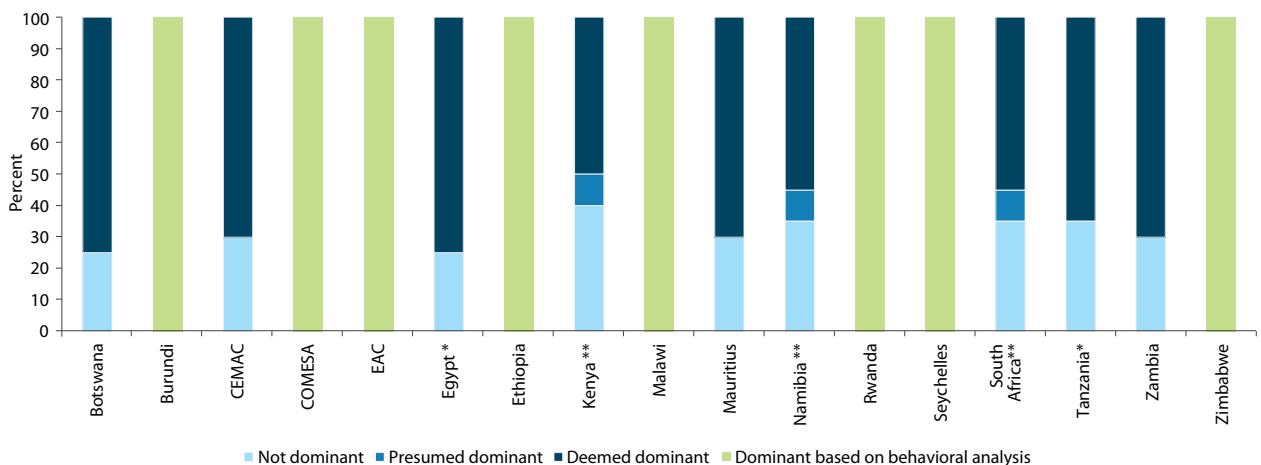
Firms with sufficiently high market power may abuse their position of dominance by engaging in anticompetitive conduct to maintain or enhance their market power. This kind of conduct is more likely when markets are relatively small and present a long history of high concentration in an environment where market regulations limit entry, reinforce dominance, or favor incumbents. Abuse of dominance is typically a two-element offense, proof of which requires establishing

³⁶ The maximum fine that the competition authority can impose for hardcore cartels is \$98,893 in Kenya, approximately \$964 (MWK 500,000) or financial gain generated by the offence in Malawi, approximately \$5,000 in Zimbabwe, and \$10,000 in the EAC.

the existence of dominance (the dominance element) and that the dominance was perpetuated through abusive conduct (the conduct offense),³⁷ with the result that competition is prevented or lessened substantially (effects analysis).

African competition regimes define dominance in similar ways, often involving only market share criteria and without considering potential competition or other market factors. Dominance is usually assessed by defining a relevant product and geographic market and proving the existence of “market power” through economic analysis, including market share over time, buyer power, entry barriers, and strength of rivals, among others. Although market share alone is an imperfect approximation of market power, market share thresholds are applied across a number of jurisdictions in Africa for the analysis of dominance. Certain jurisdictions with market share thresholds for dominance, such as Kenya, Namibia, and South Africa, distinguish between a threshold of “presumed dominance” in which further evidence is required to establish dominance, and one of “deemed dominance” in which the market share is large enough that it constitutes sufficient evidence of dominance. The threshold for deeming a firm dominant is static and relatively low: between 45 and 50 percent of market share in three countries, and between 25 and 30 percent in three countries and one regional bloc. Figure B-4 shows individual dominance thresholds for selected jurisdictions. There are, however, jurisdictions that use a behavioral definition of dominance. In at least eight jurisdictions, there are no thresholds for deemed or presumed dominance, and two jurisdictions have thresholds for presumed dominance only. In Egypt and Tanzania, other factors are considered in addition to market share.

Figure B-4
Individual dominance thresholds across selected competition regimes in Africa



NOTES:

* A market share above 25 percent is a prerequisite in Egypt, but other factors are also considered. In Tanzania, a market share above 35 percent is required in addition to having the capacity to profitably and materially restrain or reduce competition for a significant period of time.

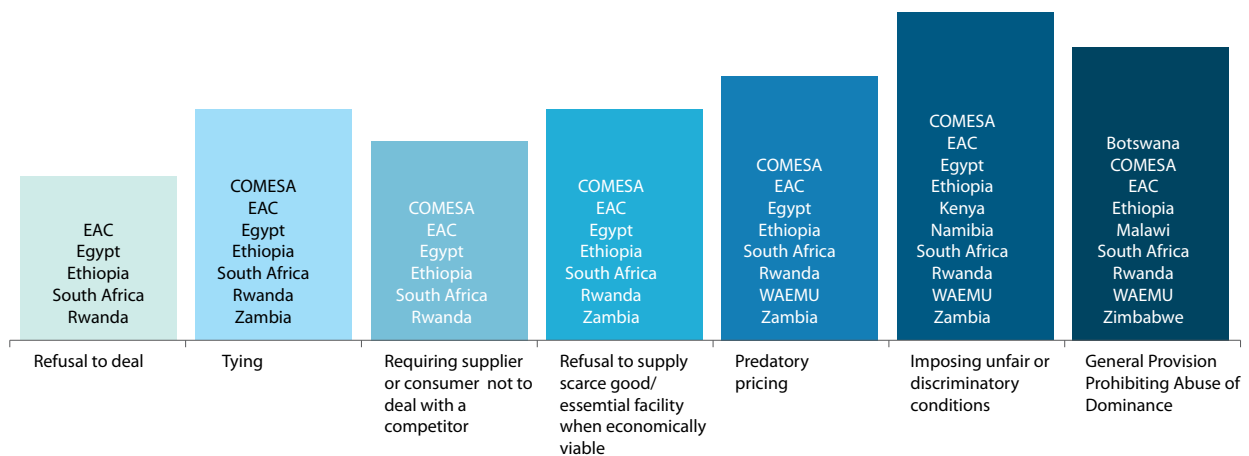
** Firms below the “not dominant” threshold that have market power will be considered dominant. Firms in the “presumed dominant” range are presumed dominant unless they can show that they do not have market power.

SOURCE: ACF-WBG 2015 and laws of different jurisdictions.

³⁷ See *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71, 86 S.Ct. 1698, 16 L.Ed.2d 778 (1966): “The offense of monopoly under § 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.”

Two types of abusive conduct are commonly defined—exploitative abuses and exclusionary abuses—although, in practice, authorities focus on exclusionary abuses. The former refers to cases in which firms charge excessively high prices to their customers, pay low prices to suppliers, or discriminate among consumers. The latter refers to cases in which behavior by a dominant firm excludes or weakens competitors (for example, by refusing to deal with certain players, engaging in predatory pricing, or raising rivals’ entry costs through the tying of products), thus allowing the firm to create or strengthen a dominant position. In Africa, jurisdictions largely follow the provisions of the European Union’s competition law (Article 102 of the Treaty on the Functioning of the European Union). Most African jurisdictions include exploitative practices as abuse of dominance. Of the 19 responses to the relevant section of the 2015 ACF-WBG survey, exploitative practices were prohibited in 18 cases, with Egypt being the only exception. Competition regimes across jurisdictions differ with regard to stipulated provisions relating to exclusionary practices, as shown in Figure B-5.

Figure B-5
Sample of African countries with stipulated exclusionary conduct provisions in their competition law



SOURCE: ACF-WBG 2015.

The prosecution of abuse of dominance cases relies on the ability to obtain sound qualitative and quantitative empirical evidence and to rigorously analyze whether economic data are consistent with the exclusionary effects of the conduct at issue. This process can be cumbersome, particularly because of the burden of proof that the competition authority must satisfy (Heimler and Mehta 2014). When deciding on these cases, the authorities have to consider the effects on consumers, the dominant firm, and competitors, and understand the trade-offs that their decisions imply. An “effects-based approach” was used successfully by the Competition Tribunal of South Africa to determine that the travel agent commission scheme implemented by South African Airways between October 1999 and May 2001 was abusive (Federico 2013). Using both qualitative and quantitative evidence and detailed empirical analysis, the tribunal determined that South African Airways incentivized travel agents to divert passenger traffic away from rival firms (Federico 2013).

According to the results of the 2015 ACF-WBG survey, the competition authorities of Botswana, Namibia, and Algeria have been the most active in completing cases of abuse of dominance. During 2013–14, Botswana handled the most cases (15), followed by Namibia (9) and Algeria (8). In the same period, Botswana and Tunisia sanctioned the highest number of abuse of dominance practices, with five cases each, followed by Egypt, Mauritius, and the Seychelles, with two cases each. Box B-3 shows examples of abuse of dominance cases in Africa. Cases span various sectors, including manufacturing and telecommunications.

Box B-3

Examples of abuse of dominance cases in Africa

Botswana: The 2014 Annual Report of the Competition Authority of Botswana noted an increase in the handling of abuse of dominance cases. During 2013–14, investigations were ongoing in sectors such as banking, Internet services, and distribution of liquefied petroleum gas.

Egypt: The Egyptian Competition Authority recently ruled that a carpet manufacturer abused its dominant position by enforcing exclusivity clauses in some distributors' contracts, thereby foreclosing competitors.³⁷ Moreover, during 2013–14, the Egyptian Court of Appeal of the Economic Court convicted the country's largest steel manufacturer for abusing its dominant position in the steel market, imposing a fine of EGP 200 million (\$25.6 million) (OECD 2014a). The fine was set at EGP 20.5 million (\$2.3 million) by the Cassation Court in 2016.

South Africa: During 2013–14, abuse of dominance cases were investigated in the financial services sector (exclusive contracts), steel products (excessive pricing), and the pulp and paper industry (excessive pricing). In 2013, South African telecommunications company Telkom agreed to an R200 million (\$15.4 million) settlement with the CCSA over abusing its dominant position in the internet services market.

VERTICAL AGREEMENTS

Vertical agreements take place between firms operating at different levels of the supply chain. These agreements can incentivize optimal investment in relationship-specific assets by reducing opportunistic behavior and can increase investment in presale services downstream by reducing free riding by downstream firms, and are therefore generally procompetitive. As long as the parties face sufficient competition, the efficiency-enhancing effects of vertical restraints typically outweigh any anticompetitive effect. A significant degree of market power held by any of the parties can shift this balance, however. Table B-2 shows several examples of vertical agreements and their anticompetitive and procompetitive effects, highlighting the importance of weighing the two against each other in assessing the net competitive effect of a vertical agreement.

³⁷ A final decision is not expected for at least two years.

Table B-2
Examples of vertical restraints and their effects

Vertical agreement	Potential anti-competitive effects	Potential pro-competitive effects
Single branding	Buyer and/seller foreclosure Decrease in inter-brand competition Facilitate collusion	Eliminate the buyer free-rider problem Eliminate investment hold-up problem
Exclusive distribution	Decrease in inter-brand competition Buyer foreclosure Aids collusion	Savings in transport and distribution costs
Selective distribution	Buyer foreclosure Decrease in inter-brand competition Facilitate collusion	Prevents buyer free -riding
Exclusive supply	Buyer foreclosure Decrease in inter-brand competition	Solves investment hold-up problem
Tying	Tied market foreclosure Tied product price greater than the competitive level	Cost reduction
Resale price maintenance	Facilitate collusion Retail price higher than the competitive level	Avoids double marginalization (in the case of maximum resale prices) Induces distribution to stimulate demand

SOURCE: Slaughter and May 2012.

Although many vertical agreements may have procompetitive justifications and may not harm competition, some effects-based scrutiny remains appropriate in certain contexts. In the United States, all vertical restraints (both price and nonprice) are currently subject to a “rule of reason” approach rather than illegality *per se*. The European Union provides a block exemption regulation for vertical restraints as long as none of the parties has more than 30 percent market share and the agreement does not contain certain types of severe restrictions of competition.

Many competition laws in Africa cover vertical restraints, either implicitly or explicitly, and without the requirement that one of the parties possess significant market power. Competition laws cover, for example, exclusive contracts and resale price maintenance. There is room, however, to strengthen the analysis of these agreements to better distinguish anticompetitive agreements from harmless ones. For example, a number of Africa’s competition laws treat resale price maintenance as illegal *per se* (even for firms that may have a negligible position in the upstream market), despite the fact that resale price maintenance can yield efficiencies such as overcoming welfare losses from double marginalization. Resale price maintenance is prohibited *per se* in Botswana, Burundi, Kenya, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Swaziland, and Zambia. In Madagascar, resale price maintenance is prohibited *per se* unless certain criteria are met, such as the good being at risk of rapid deterioration or the product’s selling price being in line with the price of a trader conducting on business in the same area. In Malawi, an enterprise may apply to the competition authority for authorization to engage in resale price maintenance as long as the conduct will not: (i) limit access to markets; (ii) unduly restrain competition; or (iii) have an adverse effect on trade or the economy in general.

Competition authorities in Africa have begun to investigate restrictive vertical agreements more actively. According to the results of the 2015 ACF-WBG survey and complementary information, the most active authorities in this regard during 2013–14 were the Seychelles, with four completed cases, followed by Algeria with two and South Africa with two. Anticompetitive effects were not found in all cases. Cases in Kenya and Malawi illustrate examples of vertical agreements by firms with significant market power that had negative effects on competition and were therefore punished (Box B-4).

Box B-4

Examples of investigations of exclusive agreements by African competition authorities

Cameroon: In 2011, CIMENCAM, a cement producer, was fined FCFA 505 million (\$1 million) for a vertical agreement that excluded CAMSHIP, a transportation company, from the transport of clinker and gypsum. In the same year, the Competition Council mandated the elimination of the exclusivity clause between the airport corporation (ADC) and Pool HRS (a group of fuel companies including Total, Oil Libya, and others) to allow TRADEX to provide aviation refueling services at Garoua International Airport, operated by ADC.

Kenya: Safaricom is the leading player in Kenya’s mobile financial services market, with a market share of 77 percent in terms of subscriptions and 69 percent in terms of the number of agents affiliated with the network as of December 2014. Its main competitor, Airtel Kenya, has a corresponding market share of 12 percent and 9 percent, respectively. Following a complaint lodged by Airtel Kenya against Safaricom, the CAK found that Safaricom had abused its dominant position in the market by entering into exclusive contracts with M-PESA mobile money transfer agents and prohibiting them from: (i) selling, displaying, or promoting the products and services of any entity in indirect or direct competition with M-PESA; and (ii) displaying Safaricom’s branding alongside that of competitors. The CAK entered into a settlement agreement with Safaricom, with the latter undertaking to open up M-PESA agents to all market players. Safaricom commenced the amendment of the agreements immediately. Assuming, in line with international practice, that termination of this abuse of dominance by Safaricom were to lead to a 10 percent decline in prices for consumers due to increased competition between mobile financial service providers, the potential annual savings to consumers from the CAK’s intervention can be estimated at KSH 3.3 billion (\$33.2 million).

Malawi: Malawi’s Competition and Fair Trading Commission (CFTC) uncovered restrictive business practices by companies contracted to transport processed sugar from the country’s sole sugar producer to designated distribution centers, where the transporters also managed the warehousing of the product. First, the CFTC enforced its findings by issuing a cease and desist order to the principal transport/warehouse management company involved. Facing the risk of public pushback, of a successful appeal against the order, or simply of noncompliance with it, the CFTC conducted a competition advocacy campaign aimed at giving sugar industry participants and potentially affected parties a full understanding of competition laws and stimulating compliance. Coordination throughout the process with the ministry of industry and trade was crucial and the campaign achieved considerable success, opening up the sugar distribution system and indirectly bringing about other measures that are working to liberalize the sugar market more generally.

JUSTIFICATIONS OR EXEMPTIONS FOR OTHERWISE PROHIBITED PRACTICES

In certain jurisdictions, specific justifications or ex post exemptions can be taken into account for practices that would otherwise be prohibited. These provisions permit some of the practices discussed so far on the basis that their benefits in terms of efficiency or other interests outweigh their harmful anticompetitive effects. In most cases, the mechanism for recognizing the potential

procompetitive effects of an agreement would be through an exemption, whereas for behavior that would otherwise be an abuse of dominance, efficiency defenses would be used to show that the behavior is actually procompetitive on a net basis. In some jurisdictions, however, justifications for exemptions go beyond economic efficiency.

At least 18 jurisdictions in Africa contain a framework for exemptions to restrictive practices. In Botswana, Burundi, and Tunisia, the exemptions framework allows the analysis of economic efficiency factors for abuse of dominance and vertical agreements. In Botswana, Namibia, and South Africa, for example, justifications for exemptions also reflect broader public policy objectives such as effects on exports and employment, citizen empowerment, competitiveness of small and medium-sized enterprises, and stability of an industry. In Malawi, the law allows the commission to authorize any behavior or agreement that is not illegal unless abused—for example, vertical restraints.³⁸

When considering exemption applications, a few jurisdictions do not differentiate between horizontal agreements that constitute hard core cartel conduct and those that do not. Best practice indicates that exemptions should be available only to agreements that do not restrict competition as an objective. For example, laws enacted in Kenya and Namibia do not provide this distinction and allow for any agreement among competitors to be evaluated for an exemption. In Egypt and Tunisia, an efficiency defense can be used for horizontal agreements. Countries where hard core agreements are not prohibited *per se*, and where exemptions are allowed for any agreement, will benefit from strengthening their implementing regulations, guidelines, and practices to interpret the law in light of its objectives and avoid setting precedents to exempt cartels.

Conversely, exemptions may provide an effective regulatory tool for addressing vertical restraints. Adopting well-designed block exemptions regulations for vertical restraints has proven effective in minimizing the workload of competition authorities and providing markets with certainty. For example, South Africa's CCSA may grant an exemption for a category of agreements or practices. Kenya's CAK was recently granted the right to issue block exemptions, but for any category of decisions, practices, or agreements between firms. In countries such as Mauritius and Zambia, agreements that are not prohibited *per se* (or that are not collusive agreements in the case of Mauritius) and that meet specific market share thresholds are subject to review by the competition authority (mandatory review for authorization in the case of Zambia and an optional review in the case of Mauritius).

MERGERS AND MERGER CONTROL

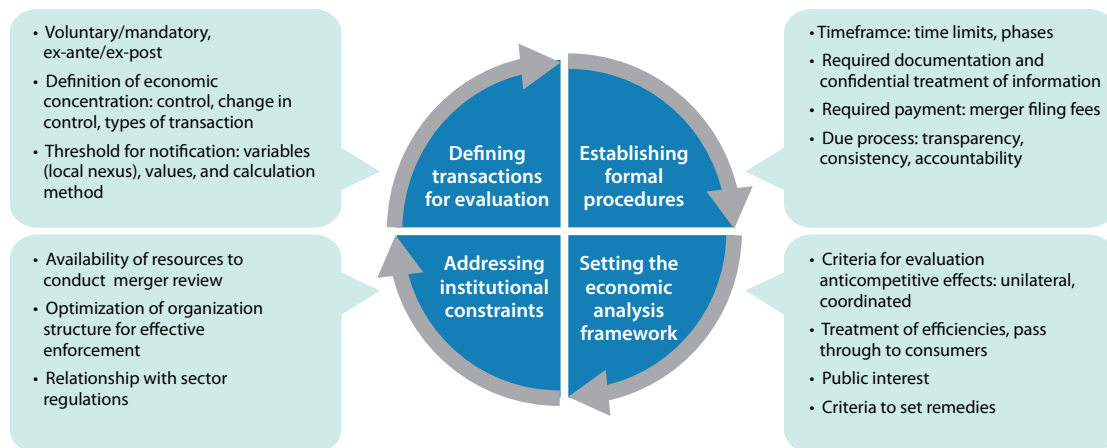
Merger control aims to prevent mergers that have a high probability of generating a significant, harmful impact on competition and consumers. Merger control is a policy tool that seeks to complement the enforcement of behavior regulations and to identify situations in which a change in market structure would be likely to affect market outcomes and harm consumers. Mergers arise

³⁸ Except for horizontal trade agreements, abuse of market power, and unfair trade practices, the commission may authorize any act, agreement, or understanding that is not prohibited outright by the law—that is, one that is not necessarily illegal unless abused—if it is consistent with the objectives of the act and the commission considers that, on balance, the advantages to the country outweigh the disadvantages.

through a transaction between two enterprises in which one entity assumes control over another and two independent economic entities cease to exist. Most mergers benefit consumers and the economy by encouraging innovation and allowing companies to become more efficient. With some mergers, however, there is a serious prospect of an increase in market power and resulting drop in competition and consumer welfare. Postema, Goppelsroeder, and Bergeijk (2006) show that merger control in the Netherlands led to net benefits of about €100 million per year (\$130 million). In the United States, the Department of Justice reported consumer savings of about \$1 billion in fiscal year 2009 through merger control review.

More than 25 African jurisdictions have a merger control system in place, although not all are yet being enforced. At least 15 countries and two regional communities have an enforceable merger control system. An effective merger control framework consists of four main elements: (i) appropriate and clear definition of which transactions are subject to review; (ii) clear and efficient procedures for review; (iii) a robust and technical economic analysis framework; and (iv) enough human resources and a solid institutional setup (Figure B-6). Most mergers are procompetitive or neutral to competition, and they facilitate investment and business decisions. Therefore, competition frameworks provide for instruments to prioritize authorities' resources and focus on those mergers that are more likely to have a significant impact on the economy. This approach minimizes any undue regulatory burden on merging firms and the competition authority. One option is to establish a system without mandatory notification such as those in Mauritius or the West African Economic and Monetary Union (WAEMU). In mandatory notification regimes, the existence of notification thresholds at an appropriate level is essential for an efficient system.

Figure B-6
Key elements for effective merger policy



SOURCE: Adapted from World Bank (forthcoming in 2016).

In systems where notification is mandatory, merger notification thresholds are the norm in most jurisdictions, but the level of thresholds varies widely. At least 13 authorities have thresholds in place for merger notification, while at least six do not (ACF-WBG 2015). The thresholds are objective in most cases, but in some they still depend on market shares (for example, in Cameroon). In Ethiopia, Kenya, Malawi, Swaziland, and the EAC, for example, all mergers (regardless of size) that meet the stipulated definition in the respective laws are notifiable to the authorities. In many cases, however, laws are passed but thresholds are either not set or are too low. Merger thresholds were increased in South Africa in 2009 in response to an increased merger review workload, accompanied by an increase in filing fees. The COMESA Competition Commission revised its thresholds, previously set at zero, and reduced filing fees in 2015. In jurisdictions where all mergers must be notified, authorities have set thresholds to clear automatically mergers that fall below those values. Kenya has implemented this approach, and Ethiopia is in the process of implementing a similar one. There is considerable variation in threshold levels across jurisdictions: for COMESA and South Africa, collective thresholds are above \$50 million, whereas the collective threshold in Tanzania is below \$500,000, and collective thresholds in Botswana, Zimbabwe, and Zambia are between \$1 and \$1.5 million.

Survey results suggest that two-phase procedures for more effective merger review are still not common in Africa. Of the 19 responses to the 2015 ACF-WBG survey, only six countries had adopted two-phase procedures. COMESA, for example, has adopted a clear two-phase procedure. There is widespread recognition globally that conducting two-phase merger reviews can speed up the review process and prevent imposition of an undue burden on the private sector. The first phase of review is intended to filter out the mergers that are unlikely to prevent or lessen competition in the relevant market. The second phase is reserved for mergers that are judged to be potentially harmful to competition and therefore merit deeper analysis. Filtering merger investigations in this way significantly reduces unnecessary administrative costs for the merging enterprises and for competition authorities.

The role of competition authorities in assessing and clearing mergers has expanded considerably, and this has been their most active area by far. South Africa accounts for over half of the 1,216 merger cases completed by 15 authorities in 2013–14. Botswana, COMESA, Ethiopia, Tanzania, and Zambia handled approximately 50 mergers in that period, while Namibia and Kenya handled more than 100. The number of merger cases in each jurisdiction reflects not only the size of the economy and level of merger activity, but also the triggers for notification and the clarity of merger definition, as well as the level of compliance.

In general, the proportion of mergers that move forward with conditions or are prohibited due to competition concerns is limited. On average, 10 percent of mergers are blocked or approved with conditions, compared to 4 percent in a sample of 35 established agencies outside Africa. As a proportion of completed cases, the number of mergers that were prohibited or accepted with remedies is highest in Botswana (39 out of 55) and in South Africa (60 out of 640). In South Africa, only one out of 60 of the mergers was prohibited; the remainder were accepted with

conditions. In Ethiopia, Kenya, Zambia, and COMESA, most notified mergers have been cleared without conditions to address competition concerns. For each jurisdiction, it would be important to analyze whether there is a need to adjust the conditions that trigger mandatory notification and the internal procedures that allow authorities to screen for mergers that are likely to affect competition, in order to concentrate efforts on analyzing the most problematic mergers and designing effective remedies.

Technical staff handle, on average, 3.2 merger notifications per year, compared to 0.8 in established non-African competition authorities.

Many jurisdictions in Africa have adopted some form of public interest test in their review of mergers, but few have issue guidelines to facilitate implementation and increase predictability. Of the 19 respondents to the relevant section of the 2015 ACF-WBG survey, 13 authorities stated that an anticompetitive merger or acquisition could be allowed on noncompetition grounds (such as public interest) in their jurisdiction. In South Africa, for example, the CCSA and the Competition Tribunal found that, while the proposed Walmart-Massmart merger did not raise any competition concerns, it raised public interest concerns related to employment and the potential displacement of small businesses in markets underserved by large retailers. The merger was approved subject to conditions addressing these public interest concerns. The first challenge in adopting a public interest test as part of the merger review process is setting parameters to determine when a certain public interest is to be addressed (Raslan, forthcoming in 2016). Although some jurisdictions provide a list of factors that comprise the primary criteria used to evaluate public interest considerations, these lists are usually not exhaustive.³⁹ Some jurisdictions do not define public interest issues explicitly, but instead adopt a broad objective in relation to the well-being of the economy,⁴⁰ socioeconomic concerns,⁴¹ or a national development program.⁴² In addition, it is important to set clear boundaries and criteria for the application of a public interest test by competition authorities. For example, South Africa requires that a public interest consideration be merger-specific and substantial. Botswana,⁴³ Kenya, Zambia, and South Africa are some of the countries that have developed or are in the course of drafting guidelines on the assessment of public interest considerations.

DUE PROCESS AND PROCEDURAL FAIRNESS

Due process is an important factor for effective and sound competition law enforcement that strengthens the reputation of the competition authority. All of the authorities surveyed in 2015 believed that their competition law provided fair and transparent procedures for the parties involved in antitrust proceedings. The instruments through which African competition legislation

³⁹ Examples include Botswana, Kenya, and Namibia.

⁴⁰ Examples include Burundi and Cameroon.

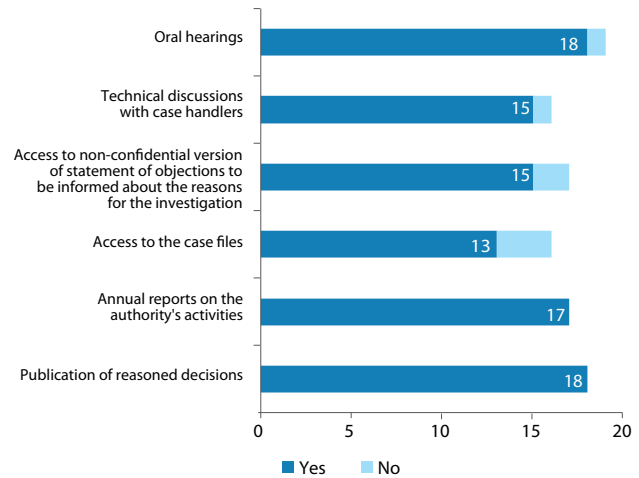
⁴¹ Zambia, for example. See the Competition and Consumer Protection Act, No 24 of 2010, section 31.

⁴² The Gambia, for example, which aims to enhance the effectiveness of the government's program for the development of the economy of The Gambia. See the Competition Act, 2007, sections 35 and 52.

⁴³ See Raslan 2016, Kolasky and Dick 2003.

provides for the establishment of fair and transparent processes include, broadly: oral hearings, technical discussions with case handlers, access to statements of objections and to case files, publication of annual reports, and publication of decisions issued (Figure B-7). Egypt's law does not provide for oral hearings in front of the Board, while a few authorities such as those in Algeria, Egypt, and Namibia do not allow access to a statement of objections. Kenya, Namibia, and Zambia do not allow access to case files. Confidentiality of information is generally guaranteed; only the Seychelles pointed out a lack of protections for ensuring that confidential or privileged business information would not be disclosed to third parties.

Figure B-7
Prevalence of instruments to ensure due process



SOURCE: ACF-WBG 2015.

Other tools, such as rules regarding conflicts of interest and separation of functions in handling a case, are also present in Africa. Most authorities surveyed in 2015 said that there were clear rules to avoid conflicts of interest among case handlers and members of the decision body (15 out of 19), and most also guarantee the independence of different teams involved in cases by separating the three functions of opening an investigation, prosecuting, and reaching a decision (12 out of 19). Usually the team or body that investigates does not have the power to make decisions or to impose orders and fines.⁴⁴ According to survey results, however, the functions of investigator, prosecutor, and adjudicator are not separated in Algeria, Cameroon, Egypt, Tanzania, or the EAC.

4. Integration of competition principles: embedding key concepts into government policy

Government policies, regulations, procedures, and actions affect the level of competition in markets and can make markets more prone to anticompetitive practices; therefore, competition authorities have an important role as advocates for competition within the government. Competition advocacy is the role that competition authorities play in formulating national or regional economic policies with the aim of promoting measures to safeguard and enable firm entry and rivalry. It entails policies and actions that aim to: (i) ease market entry barriers and guarantee equal business opportunities to market participants; (ii) inject market principles into the operations of state-owned or state-controlled enterprises; (iii) play the role of a competition advocate in order to ensure that sectoral policies follow market principles; and (iv) develop a culture of competition by instilling a competition mindset into market players.

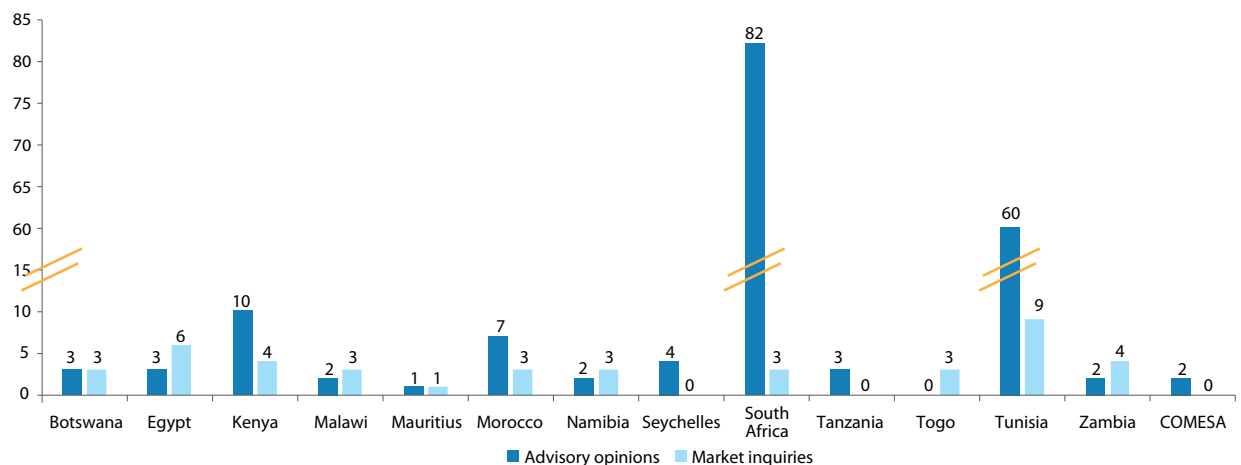
⁴⁴ For example, in Tunisia, ex I.64/91, the General Directorate of Competition and Economic Investigations under the umbrella of the Ministry of Trade is the body of investigation on competition matters and does not have the power to make decisions or impose sanctions. Decisions are made by the Competition Council. In Senegal, national authorities investigate while supranational authorities investigate and decide.

There are a number of reasons why governments adopt rules and regulations to intervene in the market. Governments often play a role in correcting market failures, setting the framework within which natural monopolies operate (as in the case of ex ante regulation), or ensuring that firms have incentives to compete and that they can do so on a level playing field (as in the case of competition policy). Governments also intervene in order to achieve social objectives like poverty reduction.

In some cases, however, regulatory tools and government interventions adopted to achieve policy objectives may also hinder competition. Regulatory obstacles to competition include interventions that, in practice: (i) alter entry conditions in a market and reinforce dominance;(ii) limit businesses’ strategy options, increase costs to compete in the market, or are conducive to collusive outcomes; and (iii) create discriminatory conditions among players, distort the level playing field, and protect vested interests. This includes policies, regulations, procedures, and decisions that affect the whole economy, as well as those that affect specific sectors.

Typically, a competition authority engages in advocacy by providing opinions and statements on policy and legal reforms, or by conducting sectoral studies and making recommendations to other government bodies. African competition authorities issued a number of opinions on laws, regulations, and other government decisions (181 by 13 authorities) and conducted several sector inquiries (41 by 11 authorities) during 2013–14. South Africa, Tunisia, Kenya, Morocco, and Egypt have been more active in contributing to the formulation of economic policies through inquiries or advisory opinions (Figure B-8), while the Seychelles, Tanzania, and COMESA did not carry out any market inquiries but did issue opinions. Market inquiries covered sectors such as food processing, agriculture, health, telecommunications, and financial services.

Figure B-8
Competition advocacy activity in African jurisdictions



SOURCE: ACF-WBG 2015.

In most jurisdictions, there are laws in place that specifically authorize or require the competition authority to study and comment on legislation or regulations that are being proposed. Almost every regime provides that their opinions are not binding, but competition authorities have been able to influence the government with technical arguments and to adjust legal frameworks to make them more procompetitive. In only a few countries (Burkina Faso, Rwanda, and the Seychelles), advocacy powers are not explicitly provided for by the law. Many examples of successful advocacy can be cited (Box B-5), including those that have been recognized by the Competition Advocacy Contest organized by the WBG in collaboration with the International Competition Network (Goodwin and Licetti 2016; World Bank 2014b).⁴⁵ Successful advocacy spans sectors such as banking, mobile financial services, health care, agroprocessing, steel, cement, and public procurement.

Each year, a competition authority in Africa completes 1.4 sector inquiries and issues 6 advisory opinions on laws, regulations, or government interventions in markets.

Box B-5

Examples of competition advocacy in Africa

Kenya: The Tea Board of Kenya is mandated with regulating the tea sector and issuing licenses to investors. In order to be issued a license for a new tea factory, an investor is required to obtain a “no objection” from existing factories. In 2012, Njeru Industries lodged a complaint with the CAK that the Kenya Tea Development Agency (the leading management agency for the small-scale tea subsector), Michimikuru Tea Factory, Kiegoi Tea Factory, and Igembe Tea Factory were jointly restricting its entry into the market by opposing its request to the Tea Board for a license to construct a specialty tea factory. In response, the CAK provided an advisory opinion to the Tea Board indicating that the tea market was contestable and that it was therefore possible to license more investors. As a result, Njeru Industries was granted a license and has been processing specialty purple tea (80 percent of production), oolong tea, and orthodox black tea in its new factory since early 2014. This has not only facilitated investment in the sector, but also allowed farmers to receive higher farm-gate prices.

South Africa: The CCSA contributed to a procompetitive mineral resources policy by providing opinions on the competition issues arising in the Mineral and Petroleum Resources Development Bill 201292. The CCSA’s comments, relating to the definition of market dominance and information exchange, were taken into consideration by the mineral resources department in drafting the legislation. The CCSA also holds an annual Public Sector Forum that serves as a platform for debating key competition concerns and addressing issues such as bid rigging in procurement spending. As a result of the engagement on this topic, the National Treasury amended the procurement policy to include bid rigging detection and state-run service providers and enterprises (ESKOM, TRANSNET and DENEL) committed to using a Certificate of Independent Bid Determination as part of their standard bid documentation. There has also been an observable increase in the referral of bid rigging cases from the public sector to the Commission for investigations.

Zimbabwe: The Competition and Tariff Commission worked with the Telecommunications Regulator and the Central Bank of Zimbabwe to address regulatory barriers in the telecommunications sector in order to ensure financial inclusion. This initiative resulted in a significant reduction in mobile money transfer transaction costs, thereby increasing access to mobile payment systems in rural and remote areas.

⁴⁵ Awards announced in 2016 available at <http://www.worldbank.org/en/events/2015/10/30/the-2015---2016-competition-advocacy-contest-how-to-build-a-culture-of-competition-for-private-sector-development-and-economic-growth>.

PROMOTING COMPETITION IN REGULATED SECTORS

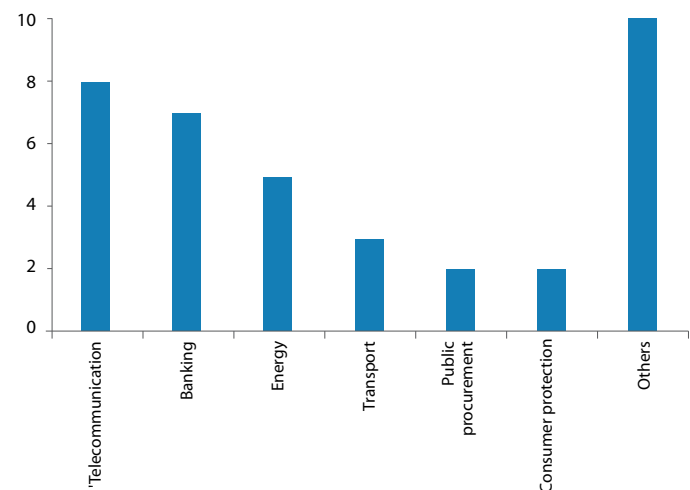
Competition law is generally applicable across economic sectors and is a useful complement to ex ante sector regulation in boosting competition. The roles of competition authorities and sectoral regulators are essentially complementary. However, when national regulatory authorities hold competition enforcement powers alongside competition authorities, this generates issues of concurrent jurisdictions. These issues are present in some countries in Africa. In addition, sector regulators are in charge of designing the regulatory framework, and competition authorities play a role in offering advice to integrate competition principles and take advantage of competition forces to achieve sectoral goals such as expanding access to regulated goods and services.

In Africa, in addition to competition authorities, sector regulators have specific mandates on competition issues. Fifteen authorities agree that sector regulators have a competition law mandate in at least one sector of the economy (ACF-WBG 2015). In Kenya, for example, the Communications Authority and the Kenya Civil Aviation Authority have antitrust mandates. In Tanzania, although the competition law applies to all sectors, sectoral laws in energy and water, transport, communications, and civil aviation state that sector regulators shall deal with all competition issues in the sectors but the Competition Commission can report to the minister if it is of the opinion that any conduct required, authorized, or approved by the regulators would be in breach of the Competition Act.

Collaboration between competition authorities and sector regulators is key to enhancing the effectiveness and efficiency of their actions to the benefit of consumers. A lack of coordination

may generate risks in terms of jurisdictional conflicts between authorities, double jeopardy for regulated firms, and forum shopping. Having a common understanding of the market and competition instruments, and recognizing the value that each authority brings to the table, are essential for collaboration. In some countries, the law states the need for collaboration, while in others authorities have signed Memoranda of Understanding (MoUs) to encourage greater collaboration. In Africa, at least 10 authorities have signed MoUs in sectors such as banking, telecommunications, and energy.⁴⁶ Figure B-9 shows the number of government bodies with which competition authorities have signed protocols or MoUs.

Figure B-9
Number of government bodies (regulators or agencies) with which competition authorities have signed protocols or MoUs



NOTES: 10 competition authorities with signed MoUs out of 17 respondents. 'Others' includes one count for each type of government body such as antidumping authority, anticorruption authority, and postal regulator.
SOURCE: ACF-WBG 2015.

⁴⁶ Botswana, Egypt, Kenya, Malawi, Mauritius, Namibia, South Africa, Tanzania, Tunisia, and Zambia.

GOVERNMENT SUPPORT TO FIRMS: STATE AID AND INVESTMENT INCENTIVES

Governments provide economic incentives and state aid to businesses to achieve development goals, but they can negatively affect competition. State aid can be defined as a transfer of state resources that provides an economic advantage to certain private or state-owned firms that carry out economic activities. Investment incentives are an example of state aid. State aid encompasses tax exemptions, loan guarantees, grants, government resources (such as land, spectrum, or water) provided at prices below market level, subsidies, cash transfers, accelerated depreciation allowances, and capital injections, among others. State aid provided to select firms can: (i) facilitate anticompetitive behavior by protecting or creating dominant players; and (ii) generate market inefficiencies by discouraging efficiency and productivity gains of aid recipients.

Investment incentives and state aid frameworks that provide economic advantages should minimize distortions to competition. It is critical, therefore, to have a consistent legal framework for regulating the granting of economic advantages to firms. From a competition perspective, the effectiveness of an incentive framework can be evaluated according to four key criteria. First, incentives should have a clear and measurable objective that aims at address market failure. Second, incentives should be awarded on the basis of transparent criteria applied consistently across economic activities and firms. Third, incentives should be designed to minimize distortions to competition. Fourth, incentives should be granted to broad segments of the economy under equal conditions, rather than on an individual-firm basis.

Most authorities that responded to the 2015 ACF-WBG survey did not report a specific framework or procedure for public bodies to follow in granting state aid. Only three authorities indicated that criteria to grant state aid included an assessment on market competition (Algeria, Senegal, and Togo). Regional trade blocs, such as WAEMU, also have specific supranational state aid control rules. The EAC's Competition Act provides for control of subsidies, but the provisions have not yet been implemented. Of the nine authorities that responded to the question on which sectors were most frequently the subject of state aid, the most frequently mentioned sector was agriculture/agribusiness (mentioned by five countries), followed by small and medium enterprises and transport (mentioned twice). In the context of various government initiatives to update investment frameworks and to create special economic zones to grant investment incentives, as well as the operation of state-owned enterprises that access government funds, understanding the effects of state aid on markets and effective competition would be key to conduct a cost-benefit analysis.

PRICE CONTROLS

Price control rules are among the regulatory tools instituted by governments, often with the aim of protecting consumers from excessively high prices or protecting the incomes of small producers. While regulating prices in traditional monopoly sectors such as utilities might be warranted, price controls in markets where there are many potential suppliers may have adverse effects. Economic theory suggests, however, that in most cases the negative effects of such policies on competition and innovation outweigh the benefits. Figure B-10 describes the economic circumstances under which price controls may be justified.

Figure B-10
Economic considerations to minimize negative effects of price controls

Situations in which price controls may be warranted	Guidelines for setting and reviewing prices controls
<ul style="list-style-type: none"> • Natural monopolies • Short-term issues in which competition cannot be relied on to determine market price (such as supply shocks) 	<ul style="list-style-type: none"> • Set independently of producers • Analyze alternatives: targeted subsidies and analysis of potential restrictions to competition • Time bounded: price controls should not be indefinite • Review periodically to determine whether levels are optimal • Analyze impacts on non-price competition

SOURCE: WBG 2016 (forthcoming).

In Africa, it is fairly common to have laws and regulations that explicitly allow for price controls, and these are implemented across a range of sectors. Of the 19 ACF-WBG survey respondents on this topic, 12 responded that such regulations existed. The application of price controls was most common in gasoline and other fuels, pharmaceuticals, and basic staple foods. In Africa, we also find institutions that are in charge of both implementing competition law and setting price controls, mainly in response to concerns about high prices—for example, the National Directorate for Commerce and Competition in Mali and the Ministry of Trade in Cameroon.

Some competition authorities are consulted in the process of deciding on setting prices controls. Of the 12 entities that reported having regulations that explicitly allow for price controls, in only four does the competition authority issue an opinion before the price control enters into force (Botswana, Mauritius, Morocco, and Senegal). This is a useful tool that allows authorities to assess where competition conditions do not exist and where price regulation is needed at a particular moment in time. Six respondents indicated that the competition authority does not issue such an opinion. Moreover, in six of the 12, price controls are not typically time-bound. It is important to carefully assess the competitive effect of regulations on prices, with consideration given to alternative means of meeting policy objectives.

REGIONAL FRAMEWORKS TO PROMOTE COMPETITION: REGIONAL INTEGRATION AGREEMENTS AND REGIONAL NETWORKS

Regional integration can deliver important benefits for African countries, particularly if barriers to competition are removed in domestic markets. Barriers to competition can stem from policies and regulations established by member states, but also from anticompetitive business practices that restrain trade and competition across borders. In this context, supranational competition law frameworks are necessary to help realize the benefits of integration.

At both regional and national levels, considerable work has been done in recent years to establish basic rules, institutions, and procedures for competition law enforcement. The role of supranational organizations is becoming increasingly important, especially in dealing with cross-border business activities. Africa is seeing the emergence of regional competition rules and organizations that require economic players to use a pan-African approach to assessing risks and compliance to competition law. The emergence of a pan-African competition regime for COMESA, the 2006 EAC Competition Act, the signing of the South African Development Community (SADC) Declaration on Regional Cooperation in Competition and Consumer Policies in 2009, the entry into force of WAEMU competition enforcement in 2003, the CEMAC Community Competition Law of 1999,⁴⁷ and the Economic Community of West African States' (ECOWAS) Community Competition Policy of 2007⁴⁸ and Competition Act of 2008⁴⁹ are indicative of the inclination toward the enforcement of regional competition frameworks. There is, nonetheless, a significant amount of overlap in the membership of regional blocs in Africa, and many members lack national competition frameworks. This poses additional implementation challenges (Table B-3).

Table B-3
Regional blocs with supranational mandates on competition

Agreement	Countries
Economic and Monetary Community of Central Africa (CEMAC)	Cameroon , Central African Republic, Chad, Republic of Congo, Equatorial Guinea, and Gabon
West African Economic and Monetary Union (WAEMU)	Benin, Burkina Faso , Côte d'Ivoire, Guinea-Bissau, Mali , Niger, Senegal , Togo
The Common Market of Eastern and Southern Africa (COMESA)	Burundi , Comoros, Democratic Republic of Congo, Djibouti, Egypt , Eritrea, Ethiopia , Kenya , Libya, Madagascar , Malawi , Mauritius , Rwanda , Seychelles , Sudan, Swaziland , Uganda, Zambia , Zimbabwe
East African Community (EAC)	Burundi , Kenya , Rwanda , Tanzania , Uganda
Economic Community of West African States (ECOWAS)	Benin, Burkina Faso , Cabo Verde, Côte d'Ivoire, The Gambia , Ghana, Guinea, Guinea-Bissau, Liberia, Mali , Niger, Nigeria, Senegal , Sierra Leone, Togo

NOTES: Countries in bold are those that have adopted competition laws. This table does not include SADC and SACU, which have established mechanisms for collaborating on enforcement but do not contain a supranational competition law framework.

A key strength of supranational authorities is that they have a broad mandate to legislate and detect anticompetitive practices and mergers within their region that have a cross-border impact, without being limited by national boundaries. Their greater extraterritorial reach could help them address cross-border practices that go beyond the powers of national authorities. It is necessary, however, to clarify the boundaries of supranational jurisdictions, especially on merger control, to give businesses and national authorities legal certainty. Moreover, under their advocacy mandate, regional competition authorities might be able to exert a more independent influence

⁴⁷ Article 28, paragraph 5 of the Treaty establishing the Customs Union Economic and Africa advocates monitoring units looking for ways that are likely to lead to the phasing out between the Member States of restrictive business practices. <http://www.droit-afrique.com/upload/doc/cemac/CEMAC-Reglement-1999-01-pratiques-commerciales-anticoncurrentielles.pdf>

⁴⁸ See the Article 50 and 60 of the ECOWAS Treaty.

⁴⁹ The Supplementary Community Competition Rules and the modalities of their application within ECOWAS; and Establishment, Functions, and Operation of the Regional Competition Authority for ECOWAS.

in giving general advice on competition matters to national competition authorities and member states, and in sharing competition knowledge and best practices. Some national authorities have begun to sign MoUs with supranational authorities such as COMESA's Competition Commission.

With the emergence of new competition agencies in Africa, cooperation among national and regional competition authorities is crucial to counter the asymmetric development of competition law regimes in neighboring countries. Eleven authorities reported having cooperated with another ACF member in the last three years. Furthermore, some countries have entered into bilateral "Agency-to-Agency Agreements." This kind of cooperation helps to realize the benefits of cooperation between competition agencies, without imposing additional commitments or requiring cooperating agencies to synchronize their laws (Table B-4).

Table B-4
Examples of bilateral cooperation between ACF members in the last three years

	Bilateral cooperation activities
Botswana	Informal sharing of information on investigative processes, reports, and sector-specific data with South Africa and Zambia. Cooperation has taken place outside the ACF framework.
COMESA	The COMESA Competition Commission has cooperated with COMESA member states (most of whom are members of the ACF) on an ongoing basis to conduct investigations and carry out advocacy and capacity building initiatives in the Common Market.
Kenya	Information sharing regarding specific cases with South Africa, Tanzania, and Zambia.
Malawi	Bilateral cooperation with Zambia and Tanzania has included the signing of MoUs, exchange of information, and study visits in the sugar sector and automotive industry. This cooperation has been facilitated bilaterally, outside the ACF framework.
Mauritius	Cooperation with South Africa and the Seychelles through data sharing, training, and knowledge sharing in investigations. This was facilitated through networking built through the ACF.
Seychelles	Information request made to Mauritius. Officers from South Africa conducted a workshop in the Seychelles on Fighting Bid Rigging in Public Procurement in 2014.
Tanzania	Finalizing a MoU with Malawi, with a focus on consumer protection; engaged in bilateral training programs with other national authorities, including Kenya, South Africa, and Zambia.

SOURCE: ACF-WBG 2015.

Several projects have been developed among ACF member countries. These projects have aimed to support the evolution of key institutions of economic governance in participating countries and to develop an understanding of the importance of regional integration and of competition matters. These projects include, among others, workshops, capacity building initiatives, training of staff members from fellow ACF member countries, research, and enforcement cooperation. One key project was the research program on Competition Dynamics and Regional Trade Flows that focused on understanding competition issues from a regional perspective. Research projects were conducted on three key industries: (i) cement (Botswana, Kenya, Namibia, South Africa, Tanzania, and Zambia); (ii) sugar (Kenya, Tanzania, South Africa, and Zambia); and (iii) poultry (Botswana, Namibia, South Africa, and Zambia). Training workshops covered topics such as agency effectiveness, bid rigging in public procurement, and investigative skills.

A number of authorities participating in the ACF-WBG survey suggested ways in which cooperation among authorities could be strengthened through the ACF framework. Among the suggestions was the design of a cooperation mechanism framework that would promote sharing of information and technical assistance in investigations in specialized areas, as a means to build a pool of professionals for the Africa region who can move from one agency to the other to support investigations and other missions. A number of authorities mentioned that the development of MoUs would help strengthen cooperation among ACF members. One related suggestion was to have a specific standard or joint Memorandum of Information Sharing and Cooperation signed by all ACF countries to harmonize cooperation efforts in the region and avoid the need to sign individual MoUs. It was also suggested that the ACF could increase support for the capacity building needs of emerging competition agencies and take a greater lead in sector studies and competition assessments to guide the enforcement work of its members.

5. Achievements, challenges, and priority objectives among ACF members

Competition enforcement in the region has advanced steadily, but there are challenges with regard to achieving priority objectives in the broader economic agenda. This subsection presents the views of competition authorities or ministries in charge of competition policy on their achievements in recent years, critical challenges faced in implementing their mandate, and goals for the future. Submissions were provided by 19 countries (Algeria, Botswana, the Republic of the Congo, Gambia, Guinea, Kenya, Malawi, Mauritius, Namibia, Seychelles, South Africa, Tanzania, Uganda, Zambia, Zimbabwe, Egypt, Tunisia, Morocco, and Togo) and three regional bodies (COMESA, EAC, and SADC).

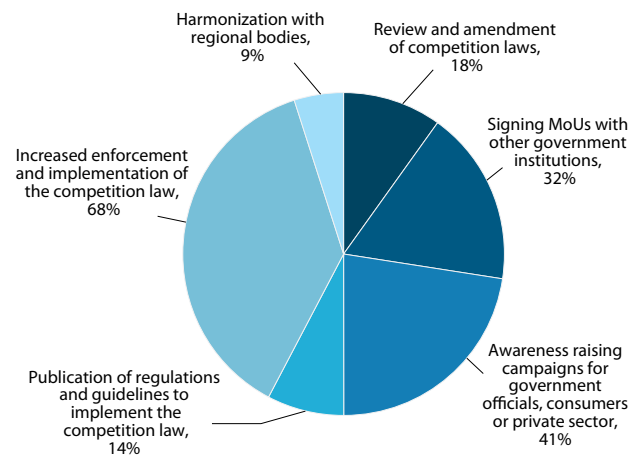
Several countries stepped up enforcement and implementation of the competition law. Authorities noted progress on combating anticompetitive practices. Kenya handled two landmark cases, one involving an uncompetitive agreement between two supermarkets and one covering issues of vertical restraint between a dominant mobile telecommunications operator and its money transfer agents. Zimbabwe's commission ordered a medical aid society to cease its refusal to deal with other private dialysis centers. The commission also took out a cartel in cotton production, encouraging cotton merchants to compete and pay higher producer prices to farmers. Authorities highlighted their role in reviewing mergers. Botswana's authority rejected two merger transactions in the security sector that could have caused competition issues in the market. Kenya's competition authority has handled over 170 merger cases in the last two years using a fast-track procedure that allowed them to focus on mergers that would be more likely to generate anticompetitive effects. In South Africa, a merger between Walmart Stores Inc. and Massmart Holdings Ltd. was approved with conditions, although unions challenged the decision. According to the competition authorities' analyses, the merger did not raise competition concerns *per se*, but rules on public interest concerns were implemented employing a technical approach.

Other countries took steps to support the adoption and implementation of a competition law. A draft competition law has been prepared in the Republic of the Congo and is awaiting consideration by the Council of Ministers. Although Uganda does not yet have a competition authority, a draft competition policy and bill have been developed. The East African Community Competition Act, 2006, is in force after its gazettal in 2014, and the EAC’s competition body is expected to start functioning in 2016.

Awareness-raising campaigns on the importance of competition and collaboration with government institutions were highlighted by the responding authorities. These campaigns focused on government officials, consumers, or the private sector. Several competition authorities signed an MoU with other government institutions, paving the way for advocacy initiatives to enhance competition in sectors of common interest and for collaboration in enforcement. This achievement was reported by authorities in Botswana, Malawi, Mauritius, Namibia, Seychelles, and Tunisia, in sectors such as telecommunications, banking, civil aviation, and nonbanking financial sectors.

Several countries reviewed and amended their competition law to empower competition authorities. Morocco empowered its competition authority with decision-making powers of inquiry and self-referral. In Botswana, by contrast, the competition authority’s investigative and adjudicative powers present challenges for the implementation of the Competition Act. In response, the Act is being revised to separate the investigative and adjudicative powers by establishing a competition tribunal that is solely responsible for adjudication of cases. The competition law was also amended in Tunisia and in Kenya, strengthening the tools authorities can use to combat anticompetitive practices.

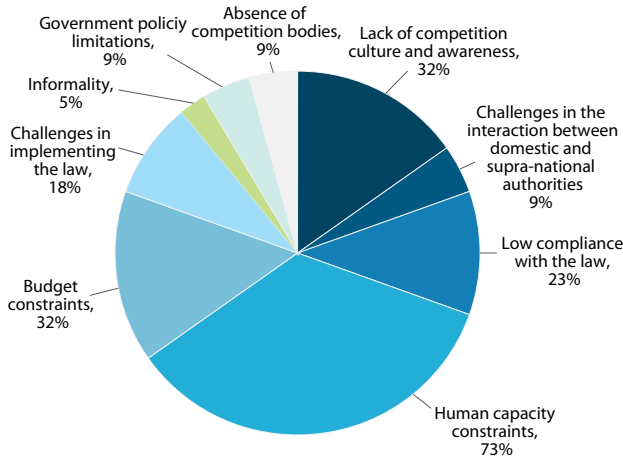
Figure B-11
Competition authorities’ achievements in the last five years



SOURCE: ACF-WBG 2015. Based on all responses of 22 jurisdictions.

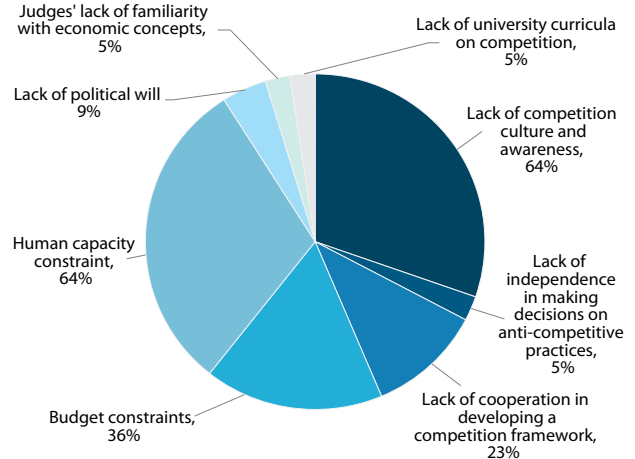
Although competition authorities face a wide range of challenges, survey results pointed to a few recurrent themes (Figures B-12 and B-13). Human capacity constraints figured as a key issue with regard to the training of officials. More than half of the countries cited challenges resulting from a limited culture of competition and lack of awareness of the benefits of promoting competition and combating anticompetitive practices. Most countries identified budget constraints as a key challenge in competition enforcement and advocacy. Lack of political will and limitation by government policies were also observed as challenges in these countries. Lack of competition curricula in academic institutions also came up as a challenge in Egypt.

Figure B-12
Main challenges in competition enforcement



SOURCE: ACF-WBG 2015. Based on all responses of 22 jurisdictions.

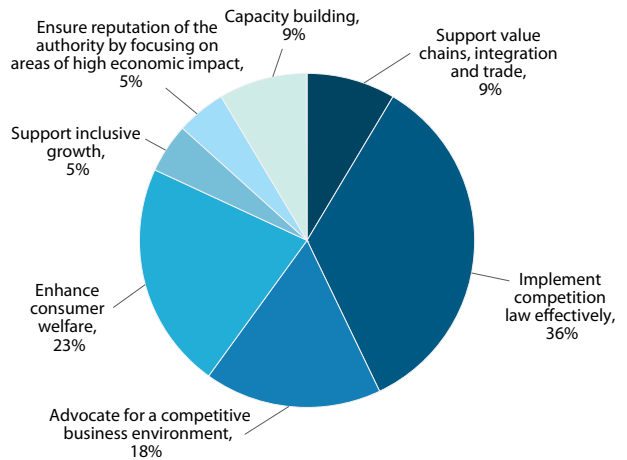
Figure B-13
Main challenges in advocating for competition



SOURCE: ACF-WBG 2015. Based on all responses of 22 jurisdictions.

Finally, competition authorities vary in their vision for the next three years (Figure B-14). Authorities in Namibia and Zimbabwe are focused on supporting economic development. Those in Kenya, the Seychelles, Tanzania, and Zambia aim to improve consumer welfare. Other goals include driving economic growth through inclusivity, creating an enabling environment to integrate local businesses into the value chain, and ensuring the enforcement and implementation of competition laws.

Figure B-14
Key objectives over the next three years



SOURCE: ACF-WBG 2015. Based on all responses of 22 jurisdictions.

C. BOOSTING COMPETITION IN KEY SECTORS IN AFRICA

Some sectors are particularly important for ensuring the competitiveness and growth of African economies, and for boosting the welfare of less well-off households. This is the case for cement, given its importance for the construction of infrastructure and housing; for fertilizers, which affect agricultural productivity; and for transport and telecommunications, which affect connectivity within countries and with the global economy. Such products and services are necessary inputs for businesses and small producers. Their prices, availability, and quality have a direct effect on the competitiveness of African producers in international markets and the extent to which households can harness the benefits of more open markets. These sectors also generate spillover effects across the economy.

This section of the report provides a focused analysis of cement, fertilizer, and telecommunications markets, along with a brief overview of competition issues in transport, retail, energy, and tourism. These sectors were selected based on their relevance for African economies and their demonstrated potential for displaying competition issues. The selection of the three core sectors, road freight, and air transport takes into account the results of the ACF Needs Assessment 2014 and previous activities of authorities in these sectors. In addition, and also based on feedback from ACF members, areas that competition authorities perceive as problematic for competition in energy, retail, and tourism are outlined, as these are areas where competition authorities have recently started to become active. Market outcomes in energy and retail are key drivers of household consumption and welfare, while retail and tourism are important sources of jobs. Energy is an important input for large and small enterprises alike.

This section aims to assess the market dynamics and government interventions that pose a risk to competition in key sectors in Africa, and to estimate the impact of tackling these risks. The analysis here follows an application of the WBG's Markets and Competition Policy Assessment Tool (MCPAT). The MCPAT provides practical guidance and an adaptable framework that policy makers can apply to any sector to assess "red flags" for competition and identify potential mitigating actions against these "red flags." Following this framework, this section seeks to identify key segments and relevant markets of the supply chain in the report's focus sectors, understand the competition dynamics created by market features, identify regulatory and policy barriers to competition, and evaluate the likelihood of specific anticompetitive behavior in these sectors. This report considers that government interventions and regulatory barriers to competition can take several forms, including legal provisions that: (i) alter entry conditions in a market, impede consumer choice and hence reinforce dominance; (ii) limit businesses' strategy options; increase the costs of competing in the market, or are conducive to collusive outcomes; or (iii) create discriminatory conditions among players, distort the level playing field, and protect vested interests. The report also seeks to collect evidence on the costs of a lack of competition and the potential benefits of promoting competition in these sectors.

The sector assessment reveals some key commonalities between sectors and highlights where knowledge of competition issues in one sector can be leveraged across sectors with similar characteristics. For example, the interaction of high economies of scale and relatively low market demand in Africa clearly has an impact on the degree of concentration across cement, fertilizer, and telecommunications sectors. All three sectors are characterized by the presence of a few large panregional players that engage in significant multimarket contact. And competition in all three sectors is shaped by access to scarce resources and the degree of vertical integration. Understanding these common factors can help understand the risks and efficiencies associated with certain market structures, and can provide for synergies in reform and advocacy efforts across sectors. Many of the arguments required to advocate for competitive award and antihoarding measures for spectrum, for example, could equally be applied to the potassium or limestone resources required for fertilizer and cement production, respectively. Having said this, it is equally important to understand what the unique characteristics of each sector (and each segment of each subsector) mean for competition.

In telecommunications, for example, network effects give rise to specific anticompetitive incentives for firms. In the fertilizer sector, competitive dynamics are shaped by whether different fertilizers are viewed as substitutes for each other, which in turn relies on the level of education of end users and specifications in national regulations. In the cement sector, market outcomes are shaped by the clustering of firms around limestone reserves and by import restrictions. Fertilizer imports are even more important given the high global concentration in fertilizer production.

MARKET OUTCOMES IN AFRICA

AT LEAST 18 COUNTRIES HAVE >50% OF THE CEMENT MARKET CONTROLLED BY ONE SUPPLIER (67% of 27 countries studied)

AT LEAST 21 MARKETS HAVE WITNESSED ENTRY OVER THE LAST THREE YEARS reflecting availability of lime

IN 15 COUNTRIES THE ENTRANT WAS ONE OF 7 MAJOR PLAYERS and Dangote alone was a new entrant in 12

THE POTENTIAL IMPACT OF FOSTERING COMPETITION IN THE CEMENT MARKET IN AFRICA

OVERCHARGE in prices of bulk cement from the SACU CARTEL in South Africa **SAVINGS OF \$79 -100 MILLION/YEAR** → **UP TO 9.7%**

SOUTH AFRICA SAW ITS FIRST ENTRY IN THE CEMENT MARKET IN 80 YEARS IN 2014 new entrant charges lower retail prices than competitors in 2015

REMOVAL OF SUSPENDED DUTY ON CEMENT IMPORTS IN TANZANIA **LED TO 26%** reduction in retail prices

AFRICA-WIDE IMPACT OF A LACK OF COMPETITION

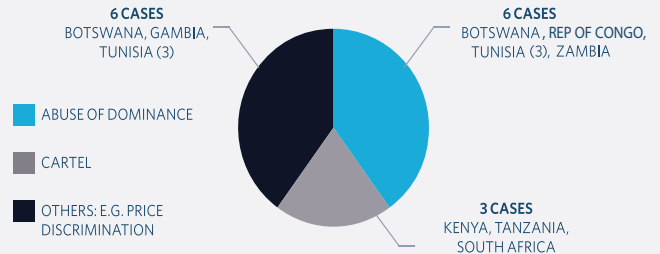
50kg bag of cement **\$9.57** vs **\$3.25**
IN AFRICA vs WORLD PRICE

AFRICA'S PRICES AVERAGE 183% HIGHER

Even a modest **anticompetitive overcharge of 9.7%**, equivalent to that found in the South African cartel across 44 African countries, would mean that **African consumers are over paying for cement by \$2.5 billion per year**

COMPETITION AUTHORITIES HAVE BEEN ACTIVE IN INVESTIGATING ANTICOMPETITIVE BEHAVIOR

A RANGE OF ENFORCEMENT CASES INVESTIGATED IN THE CEMENT SECTOR IN AFRICA IN THE LAST THREE YEARS



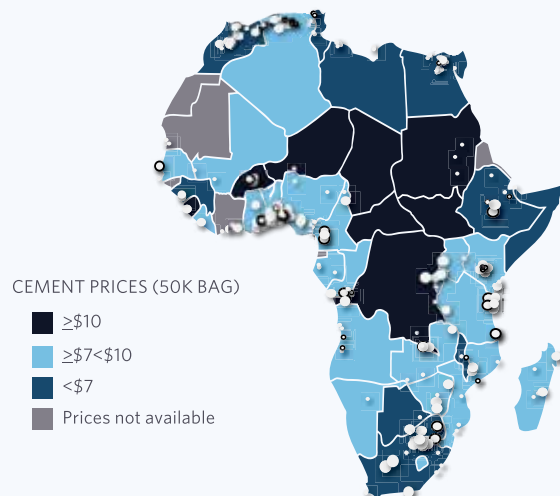
AT LEAST 8 OF THESE INVESTIGATIONS ARE ONGOING

IN THE LAST 3 YEARS SANCTIONS ONLY IMPOSED IN THE CASE OF SOUTH AFRICA'S INVESTIGATION OF THE SACU CARTEL

- Regional market division
- Involved 3 of the major regional players: Lafarge, PPC, Afrisam
- Exchange of information through industry association
- Historic regulation provided a focal point

EGYPT ALSO FOUND AND SANCTIONED A PRICE FIXING CARTEL INVOLVING 9 PRODUCERS INCLUDING LAFARGE IN 2008.

DISTRIBUTION OF CEMENT PRICES IN AFRICA AND LOCATION OF PLANTS, 2015



Small market size, economies of scale, excess capacity, reliance on intraregional trade, and multimarket contact, among other characteristics, shape competitive dynamics in cement markets. Competition law enforcement, removal of nontariff barriers, and procompetition rules to enable entry in limestone-clinker production would save African consumers \$2.5 billion each year.

1. Cement: A key input for infrastructure and housing

Cement is a vital input in the construction industry and is crucial in fulfilling demand for public infrastructure and housing in Africa. Stronger competition in this market and elimination of constraints to entry will not only reduce costs for governments, businesses, and families, but also encourage investment in the cement sector. Nonetheless, given cement's manufacturing process, the characteristics of the product, and the size of demand in Africa, the industry shows features that are conducive to high barriers to entry and potential anticompetitive practices.

The world's cement production industry has indeed been subject to a number of cartel cases, as well as other forms of anticompetitive conduct (Harrington *et al.* 2015). Internationally, cement producers are known to follow set product standards and specifications utilizing similar pricing structures (Zeidan and Resende 2009; Blum 2007; Röller and Steen 2006), and this can facilitate collusion. Two cement cartels have been sanctioned in Africa. One of these cases involved price fixing among nine producers in Egypt. The other, uncovered in South Africa in 2009, was a cartel between four major producers within the SACU.

A. Key elements of the cement supply chain and product market definitions

The structure of the cement supply chain influences the competition conditions in the market for the final product. The cement value chain can be divided into a few key steps before distribution: limestone production, production or import of clinker, and production or import of ordinary and blended cements (Figure C1-1). Given demand and supply factors, two distinct markets can be delineated here: (i) supply of clinker, and (ii) supply of ordinary and blended cements.⁵⁰

The vast majority of cement types used today are Portland Cements or blends of Portland Cement. Ordinary Portland Cement (OPC) is the basic form of cement,⁵¹ and it the most commonly used cement in construction. There are also different varieties of Portland Cement blends, such as a white variety and the less common Portland Pozzolana Cement (PPC) variety.⁵² These cements are typically considered to be substitutable and therefore belong to the same market, although they have slightly different characteristics. Blended products can be made to differ in strength, which has been used in some countries as a point of product differentiation.

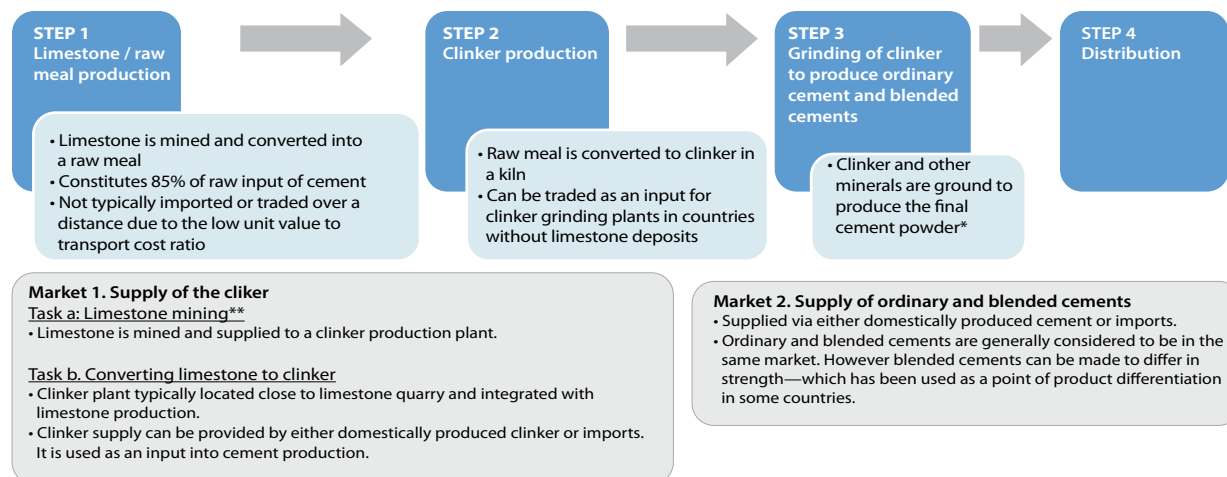
In countries that lack limestone deposits or have an imbalance between domestic production and demand, clinker and cement importers play an important role. They include producers who import clinker for grinding, construction companies that import cement for use in their own projects, and independent commercial importers. Imports have the potential to set a ceiling for the pricing power of local producers. The ability of imports to compete with domestically produced cement depends on a number of factors, including the level of import duties.

⁵⁰ The cement distribution market will not be covered in this report, in part because previous antitrust cases and market inquiries from various countries have tended to identify competition issues occurring most frequently in the production of cement. See, for example, Competition and Markets Authority, United Kingdom, "Aggregates, cement and ready-mix concrete market investigation" at <https://www.gov.uk/cma-cases/aggregates-cement-and-ready-mix-concrete-market-investigation>. In addition, the distribution segment is likely to lend itself to a more case-by-case approach according to the characteristics of the local market, rather than a regional approach.

⁵¹ Made by blending 95 percent clinker and 5 percent gypsum.

⁵² Made by blending clinker with gypsum and flyash.

Figure C1-1
Steps in the cement production chain and market delineation



* This includes producing different blends of cement by grinding clinker with slag or fly ash (extenders) to produce cements of different strengths. Blended cements can either be prepared at a cement plant for sale as a finished blended cement product, or by doing the blending within a concrete mix on a construction site. In some cases firms or construction projects produce their own project specific blends.

**Note that the supply of limestone/raw meal is not considered as a separate market here, since the limestone is typically not traded given its low value compared to transport costs. Limestone mining is usually vertically integrated into the processing phase—in this case, processing to clinker

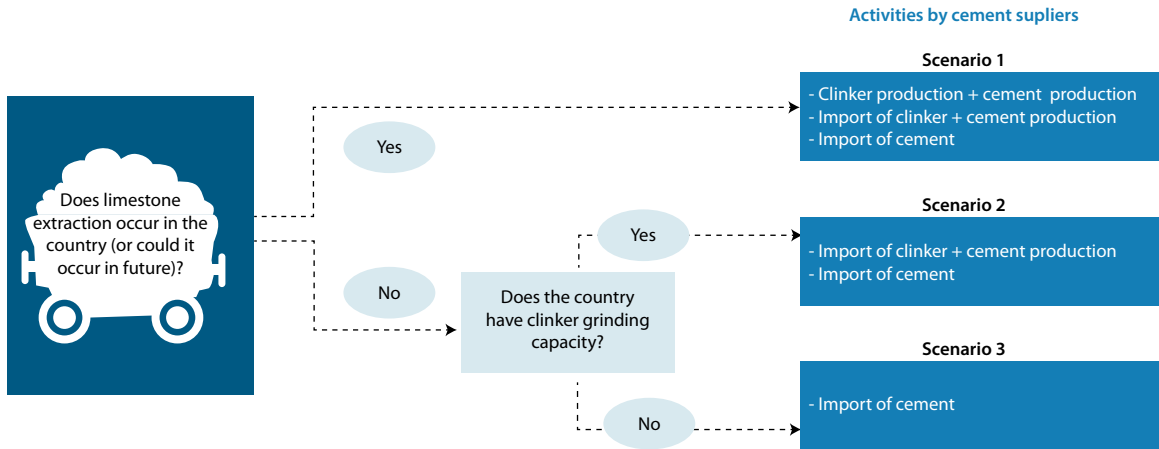
B. How are cement supply chains organized in Africa? Three key market scenarios

Cement supply chains in Africa can be broadly captured by three market scenarios, depending on the availability of limestone resources and clinker grinding capacity, and the level of integration along these activities (Figure C1-2). Scenario 1 (a market with exploited limestone deposits) typically occurs in countries with natural limestone reserves and is the most common market scenario in Africa. In these markets, there are two categories of production plant. Those in the first category have limestone-processing capabilities to produce their own clinker and carry out grinding. Such plants are usually vertically integrated into limestone mining and are located near limestone quarries.⁵³ The second category of production plant includes purely grinding units. They source clinker from external suppliers and simply undertake clinker grinding at their own facilities.⁵⁴ Scenario 2 (a market without exploited limestone deposits or clinker production capacity, but with capacity to grind clinker to cement) has only the second type of plant, which relies on imported clinker. This setup typically occurs in larger cement-consuming countries without limestone. Scenario 3 (a market with no production capacity), where all cement is imported, occurs in smaller countries with relatively low cement demand.

⁵³ A common feature of such cement markets is the utilization of a hub-and-spoke model in which large integrated plants near limestone quarries supply clinker to smaller grinding units that belong to the same supplier, nearer to the output market.

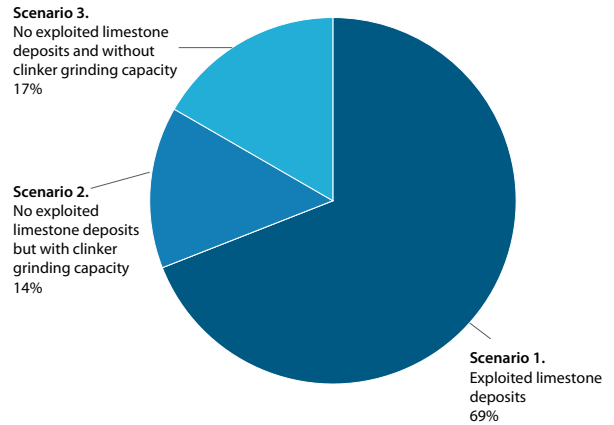
⁵⁴ Suppliers of clinker can either be firms that are dedicated to the marketing of clinker or cement producers with excess clinkering capacity who then sell clinker as a raw material.

Figure C1-2
Cement supply chains in Africa can be characterized by three broad market scenarios



Most African countries hold limestone deposits and operate under Scenario 1 (Figure C1-3). Based on available information, 69 percent of African countries have exploited limestone deposits. The seven countries that operate under Scenario 2 are located mainly in West Africa; they include Burkina Faso, Côte d'Ivoire, Liberia, and Sierra Leone, and they import clinker from countries such as Togo. Countries under Scenario 3 (17 percent) are small, landlocked countries or island economies such as The Gambia, Lesotho, Mauritius, the Seychelles, and Swaziland. These countries do not have cement production capacity and depend entirely on imports.

Figure C1-3
Market scenarios across countries in Africa (where information is available)



SOURCE: Various.

Cement supply chains in Africa can be broadly captured by three market scenarios, depending on the availability of limestone resources and clinker grinding capacity, and the level of integration along these activities.

C. Industry characteristics that shape competition dynamics in African markets

Characteristics of segments along the value chain shape how cement markets function. Relatively small market size and high transportation costs have an impact on market concentration. Reliance on imports makes domestic markets dependent on competition dynamics in exporting countries, and import policies play a more important role in the market. The degree of vertical integration and access to limestone affects the level of competition in the cement market and on the incentives to engage in potential foreclosure practices. Finally, the fact that government holds stakes in firms in the sector could be perceived a source of additional risk for competitors.

FACTOR 1: Small market size combined with high economies of scale means that markets cannot support a large number of players

The production and import of cement display significant economies of scale, high capital intensity, and relatively small demand in many African markets. Median consumption of cement across 48 African countries in 2014 was 0.97 million tons per year. The mean was 4.08 million tons per year. This compares to the minimum efficient cement production plant size of approximately 1 million to 2.5 million tons per year (Mbongwe *et al.* 2014), meaning that, even taking the mean level of consumption, the maximum number of players that could efficiently be supported is four. This is reflected in the typical size of cement plants in Africa. The median plant capacity across 49 African countries was 0.6 million tons per year, while the mean was 1.06 million tons per year.⁵⁵ Given the small national markets, it will be attractive for firms to target broader geographical markets to achieve economies of scale.

FACTOR 2: Markets are relatively concentrated, and a group of panregional firms have an important presence, but entry has been observed

Market characteristics help explain the structure of the regional cement production market. Plants are clustered around limestone resources and coastal areas (Figure C1-4). Moreover, plants with relatively higher capacity are owned by a small group of firms, which are present across the region (Figure C1-5).

Around 54 percent of Sub-Saharan Africa's cement capacity is accounted for by plants owned by nine panregional firms.⁵⁶ This figure is around 49 percent for Africa as a whole. These nine major firms stand out in Africa, with an Africa-wide average capacity per firm of 18.9 mta. The remainder of Africa's capacity is generally made up of a large number of smaller suppliers, each with an Africa-wide average capacity of less than 3 mta.⁵⁷ North Africa has a significant presence of LafargeHolcim plants in Algeria and Egypt, while Dangote's Obajana plant stands out in West Africa. Southeastern Africa appears more balanced, although PPC and LafargeHolcim seem to be most prevalent. These maps capture only production and not competitive pressure from imports, which in some countries can be significant. However, given the high transport costs involved in trading cement and the import restrictions imposed on cement in a number of countries, the

⁵⁵ It is likely that market support for a greater number of players will be even lower at the more local level of the geographical market.

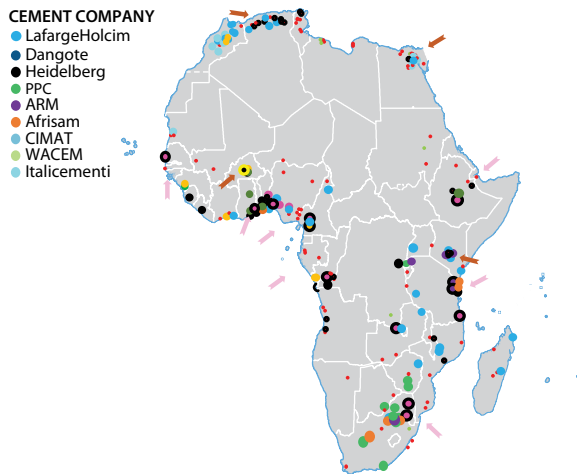
⁵⁶ This includes minority interests. The firms are LafargeHolcim, Dangote, PPC, Afrisam, Heidelberg, WACEM, CIMAT, ARM, and Italcementi.

⁵⁷ Where two players hold a stake in a certain plant, the capacity of that plant is included in the average for both players.

market structure of production is a crucial determinant of the level of competition in the region. Furthermore, given the prevalence of intraregional cement trade, competition issues in exporting countries can be relevant for importing countries.

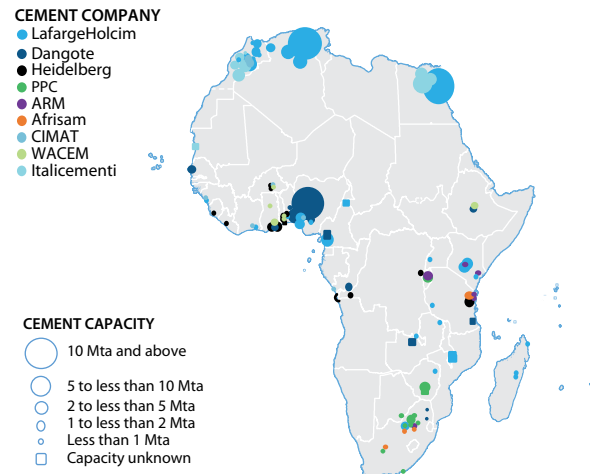
In at least 18 countries in Africa, a single firm holds over half the market for the supply of cement (import or production).

Figure C1-4
Presence of all clinker and cement plants in Africa and locations of entry since 2011 (arrows)



NOTE: Red indicates a plant that does not belong to one of the nine major suppliers. Plants circled in black were commissioned after 2011. Heidelberg is circled in yellow for visibility. Plants in Kabimba (DRC), and Al-Khashaba and El Fatiah (Libya) could not be located. Pink arrows indicate areas with entry from Dangote; red arrows are areas with entry from another player

Figure C1-5
Cement and clinker plants of the nine major clinker and cement suppliers in Africa by capacity



NOTE: Only shows plants belonging to the nine major suppliers. Plants in Kabimba (DRC), and Al-Khashaba and El Fatiah (Libya) could not be located.

In a large proportion of African countries, one supplier holds more than half the cement market. Looking at the supply of cement in terms of both production and import (Market 2 in Figure C1-1), at least 18 African countries have one supplier holding more than 50 percent of the market (Figure C1-6).

On the other hand, at least 21 markets have witnessed entry over the last three years. This pattern may overstate the competitive impact in the market, however. On closer inspection, it is clear that the firms entering markets tend to be among the largest players in the region. In at least 15 of the 21 countries in which there was entry, one or more of the new entrants was one of the nine major regional players. Dangote, for example, was a new entrant in 12 of those countries. Figure C1-4 highlights clinker and cement plants that have entered the market since 2011, which brings to light the success of Dangote in entering new markets.

At least 21 countries in Africa have seen entry into the market for the supply of cement in the last three years, primarily from panregional firms.

Figure C1-6
Does one importer or producer hold more than 50 percent of the market?



* Lafarge holds a stake in Bamburi and EAPC who together hold more than 50 percent.
SOURCE: ACF-WBG 2015.

Figure C1-7
Has a new supplier entered in the last three years?

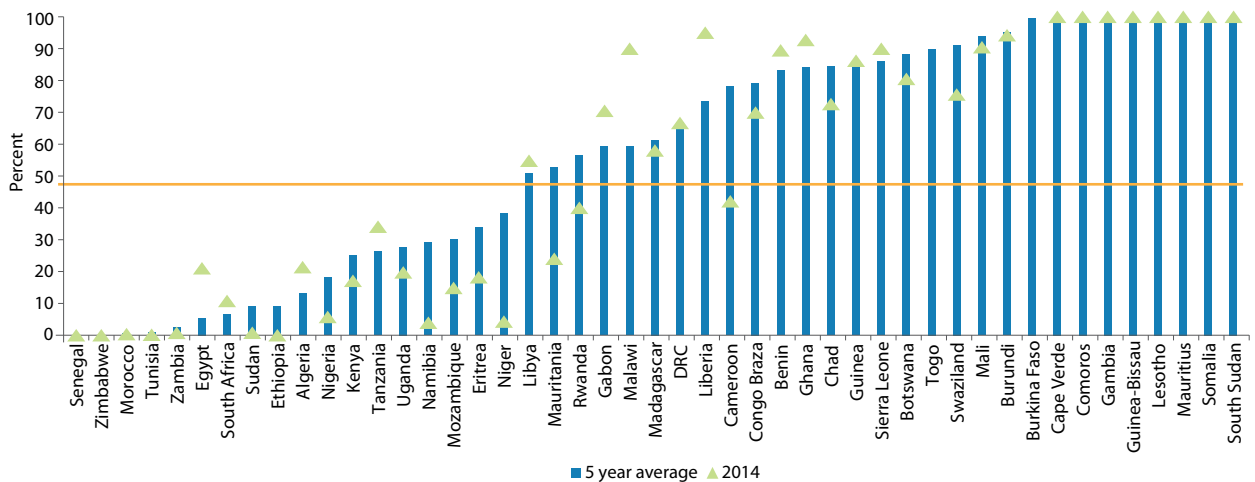


* Countries where one importer or producer holds more than 50 percent of the market.
SOURCE: Cemnet 2014.

FACTOR 3: Significant intraregional trade means that competition issues can be exported throughout the region

Because cement supply is dependent on imports in many countries, prices are linked to competition conditions in exporter countries and import policies in importing countries. Imported clinker and cement are critical components of supply in Africa. Over 60 percent of countries (28 countries) import more than 50 percent of their cement consumption (Figure C1-8), considering

Figure C1-8
Import share of cement consumption in African countries, 2010-14

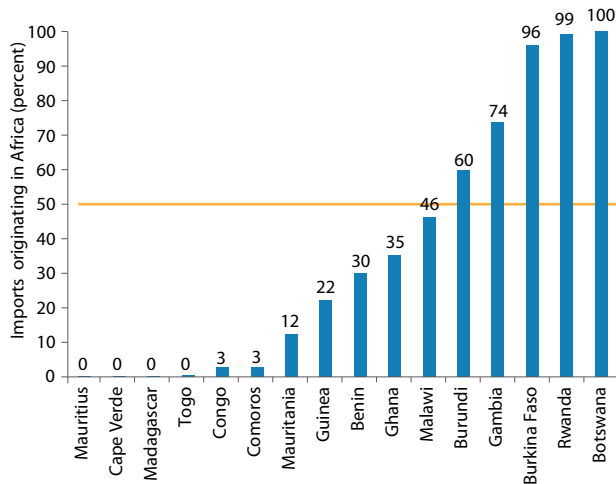


SOURCE: Authors' elaboration based on Cemnet (2014).

the average share of aggregate imports of cement as a proportion of total consumption for the 47 African countries for which data were available over the last five years (Cemnet 2014). Among the countries for which data were available, five countries sourced 50 percent or more of their imports from African countries (Figure C1-9), particularly from Togo, South Africa, and Uganda (Figure C1-10).

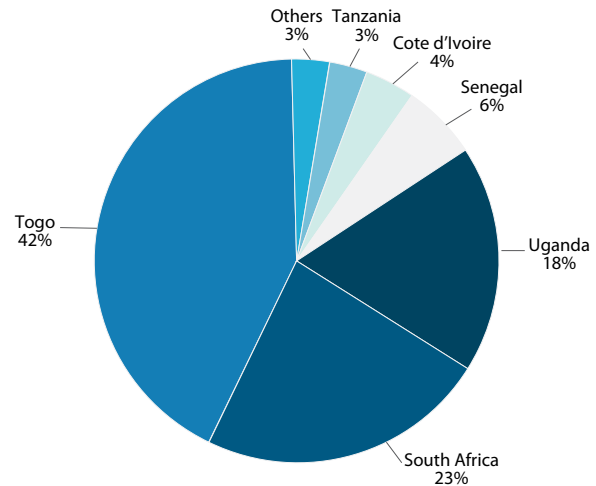
Over 60 percent of African countries (28 countries) import more than 50 percent of their cement consumption.

Figure C1-9
Proportion of imports originating in Africa for countries with over half of consumption consisting of imports, 2013



NOTE: Only countries for which data were available are include in the chart.
SOURCE: UN Comtrade.

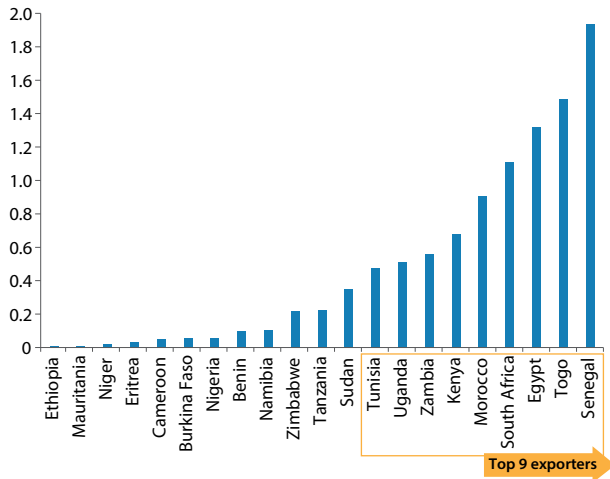
Figure C1-10
Source of cement imports for countries that import over half of their consumption from Africa



NOTE: Only countries for which data were available are include in the chart.
SOURCE: UN Comtrade.

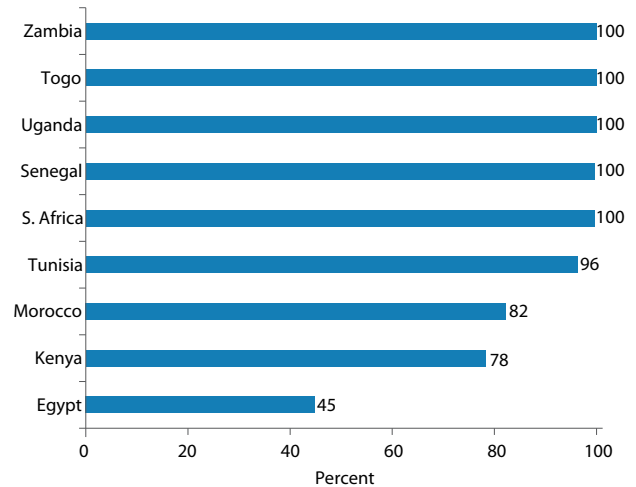
These patterns are reflected in data on Africa's cement-exporting countries. Twenty-one countries in Africa export cement. Over the last five years, their average exports have ranged from almost zero to around 2 million tons per year (Figure C1-12). Of the 10 major African exporters, all had significant exports to other African countries, with six of them sending more than 95 percent of their total exports to other African countries (Figure C1-13). However, although Togo and Uganda appear as major exporters, their export activity is likely to be made up largely of re-exported cement, since both are major importers of cement. In exporting countries' markets, competition is likely to have a particularly significant impact on market outcomes across the region, in a context where pricing strategies cover more than one country.

Figure C1-11
Cement exporting African countries by 5 year average annual exports over 2010-2014, million tons per annum



SOURCE: Cemnet 2014.

Figure C1-12
Proportion of exports destined for African countries for the largest 10 African cement exporters, 2013

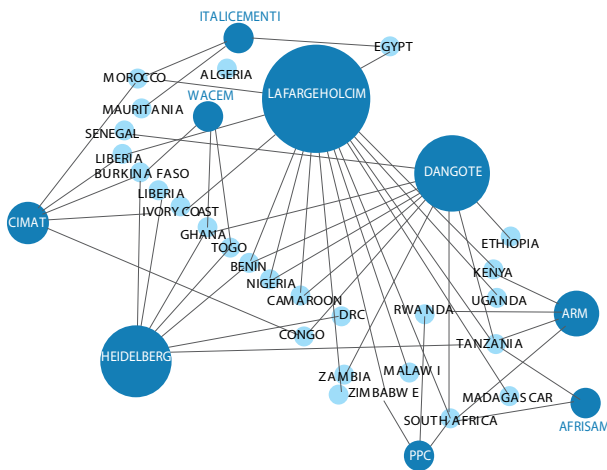


NOTE: Data unavailable for the 10th largest exporter, Sudan. 2013 is the most recent date for which data are available for all other exporters.
SOURCE: UN Comtrade.

FACTOR 4: Multimarket contact between suppliers is common

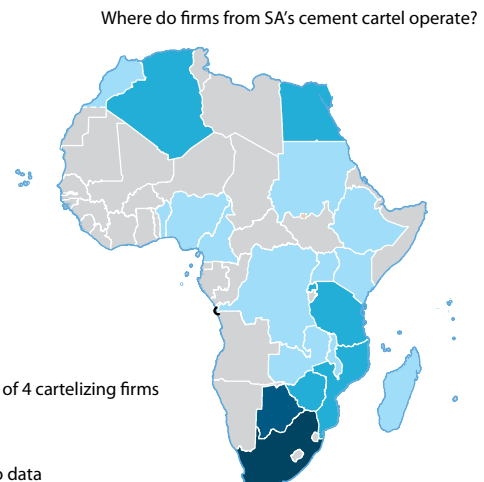
The major regional cement suppliers tend to be present across multiple African countries, leading to multimarket contact among key cement producers in Africa. Figure C1-13 displays the multimarket contact between Africa’s nine largest cement producers. These firms meet not only in multiple markets in Africa but also internationally. This multimarket contact includes contact between the firms that were sanctioned as part of the SACU cement cartel discovered in South Africa involving Lafarge, PPC, Afrisam, and Natal Portland Cement. Two or more of these cement firms are present in eight countries (Figure C1-14).

Figure C1-13
Multimarket contact between firms



NOTE: Firm nodes are weighted by the number of countries in which they are present.

Figure C1-14
Presence across African countries of firms involved in South Africa’s cement cartel



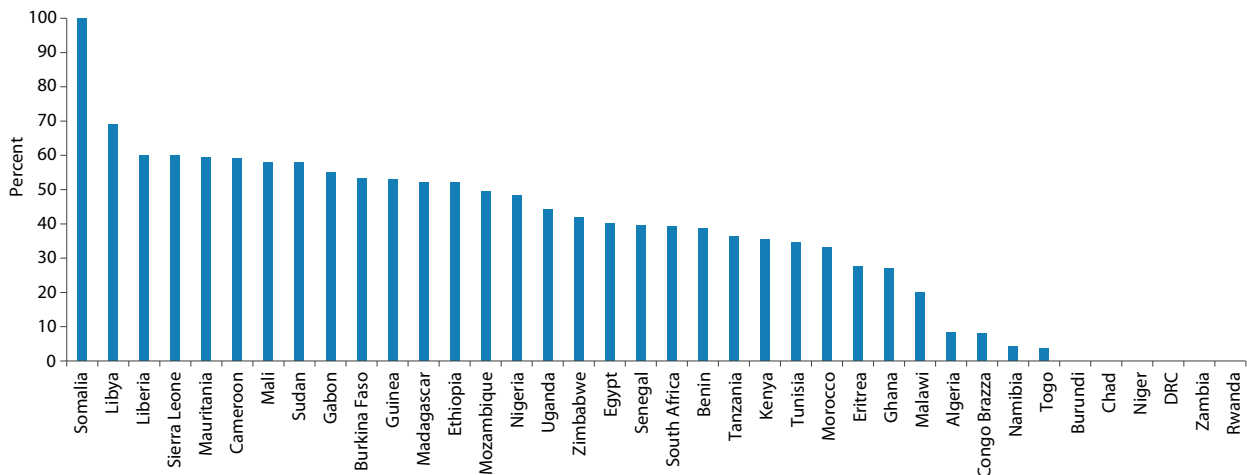
* This takes Lafarge Holcim to be one entity. However, during the duration of the South Africa cement cartel the two operated separately.
NOTE: The South Africa cartel consisted of Lafarge, PPC, Afrisam and Natal Portland Cement.

There is multimarket contact among major cement producers in the region, including between firms that have been sanctioned in the only cement cartel that has been detected and sanctioned in Sub-Saharan Africa.

FACTOR 5: Excess capacity is relatively common in cement-producing countries

Of the 41 African countries for which cement production capacity is available, 29 countries were operating at less than 75 percent of their capacity in 2014. The existence of excess capacity (Figure C1-15) can be used as an entry deterrence mechanism. It lends credibility to threats of punishment for deviations from cartel agreements by allowing firms to engage in predatory behavior or price wars (Dixit 1979; Davidson and Deneckere 1990) and can therefore increase the stability of cartels. Excess capacity is also common globally, with 66 percent of countries outside Africa operating at less than 75 percent of their capacity.

Figure C1-15
Excess production capacity across cement producing countries in Africa, 2014



NOTE: Somalia's plant is not operating. Capacity utilization in Chad, Niger, Democratic Republic of Congo, Zambia, and Rwanda is above 100 percent, according to data. Excess capacity has been truncated to zero percent for the purposes of this graph.

SOURCE: Authors' elaboration based on Cemnet 2014.

Nearly three-quarters (71 percent) of countries were operating at less than 75 percent of their capacity in 2014, a slightly higher percentage than globally (66 percent).

FACTOR 6: Vertical integration is common in African markets

Vertical integration along the cement supply chain is common, both in Africa and globally. Vertical integration is not a risk to competition *per se* and can in fact hold a number of efficiencies, for example:

- It can encourage investment in distribution networks by cement producers/importers by solving the free-rider problem.
- It can encourage investment in clinker production capacity that is specific to a particular limestone quarry by solving the hold-up problem.
- It can prevent double marginalization between two monopolistic segments, such as limestone production and clinker production.

It is relatively uncommon for firms to establish a cement grinding plant without being integrated upstream—if not in the same country, then at least in another country from which the cost of importing clinker would not be prohibitively high. In this sense, vertical integration may pose a barrier to entry if a potential entrant in cement production could not also access limestone reserves simultaneously. This would be mitigated by ensuring that regulations are set to allow for contestability along the value chain.

This degree of vertical integration would only pose a potential risk of exclusionary behavior if there were a dominant, vertically integrated supplier of clinker upstream who might have an incentive to foreclose downstream non-vertically-integrated cement grinders. Table C1-1 presents a few examples of countries with vertically integrated players that hold significant market share upstream.⁵⁸ The risks associated with vertical integration in these countries depend on the degree to which cement grinders can import clinker, which relies not only on the location of the plants but also on government import regulations (Table C1-2).

Table C1-1
Examples of countries with potentially dominant vertically integrated clinker producer

Rwanda	Rwanda has three cement producers but only one of these—CIMERWA previously owned by the state and now majority owned by PPC—is integrated into limestone production in Rwanda.
Mozambique	There are at least three active producers in Mozambique, but only the dominant firm—Intercement, which has a 70 percent share of the cement market—is integrated into limestone production.
Botswana	Of Botswana's three cement producers, only Matsiloje Portland Cement has access to the country's limited limestone from the Matsiloje Quarry. Other manufacturers source their clinker from neighboring countries. PPC is vertically integrated into clinker across the border in South Africa, making Botsino the only producer without an integrated source of lime.

SOURCE: Firms' webpages, Cemnet Plant Database, 2016.

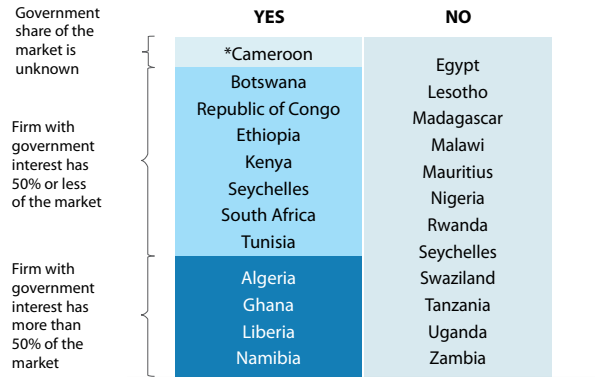
⁵⁸ While not a key focus of this report, other forms of vertical restraint with regard to other key inputs could also be a consideration in assessing competition in the sector. In the case of Botswana, for example, fly ash (an input for blended cements) from the Morupule Coal Mine is provided to PPC on an exclusive contractual basis, which has been reported to have led to difficulties in sourcing for other cement players, potentially putting them at a competitive disadvantage. Botswana Power Corporation Presentation, January 2012.

FACTOR 7: The State is involved in commercial activities in certain countries

The state participates in cement markets in just over half of the countries for which information is available. State involvement in the cement supply chain tends to be through direct holdings in integrated cement plants (Figure C1-16).

The state participates directly in cement markets in just over half of the countries studied.

Figure C1-16
Extent of government participation in cement production



NOTE: *Before 2014, the firm had 100 percent of domestic capacity.
SOURCE: ACF-WBG 2015.

D. Government interventions that may act as obstacles to competition

Competition dynamics along the supply chain are affected by regulations and government interventions that might restrict competition.⁵⁹ In Africa, cement markets display rules that reinforce dominance or limit entry, that may be conducive to collusive outcomes, or that facilitate discrimination against certain players. For instance, certain countries grant temporary or geographic exclusivity over limestone resources—which are relevant for 69 percent of the countries with these types of resources. Import restrictions may in some cases act as an absolute ban on entry and are present in 45 percent of the 22 countries and regional bodies in the sample. Product standards that are more restrictive than necessary to maintain quality and direct price controls are also prevalent; in some circumstances, these characteristics can facilitate collusive outcomes. Lack of standard criteria for or discretionary award of licenses for exploration, production, and import have also been a concern in countries within the region. Rules that restrict competition in the cement sector can be grouped in three categories (Figure C1-17). These rules are more likely to be present in certain segments of the supply chain.⁶⁰

⁵⁹ See Annex 1 for more details.

⁶⁰ For the purposes of the figure, wholesale functions are assumed to be integrated with import, and similar issues will therefore apply.

Figure C1-17
Rules that reinforce dominance, limit entry, facilitate collusion, restrict firms' choice of strategic variables, discriminate, or protect vested interests

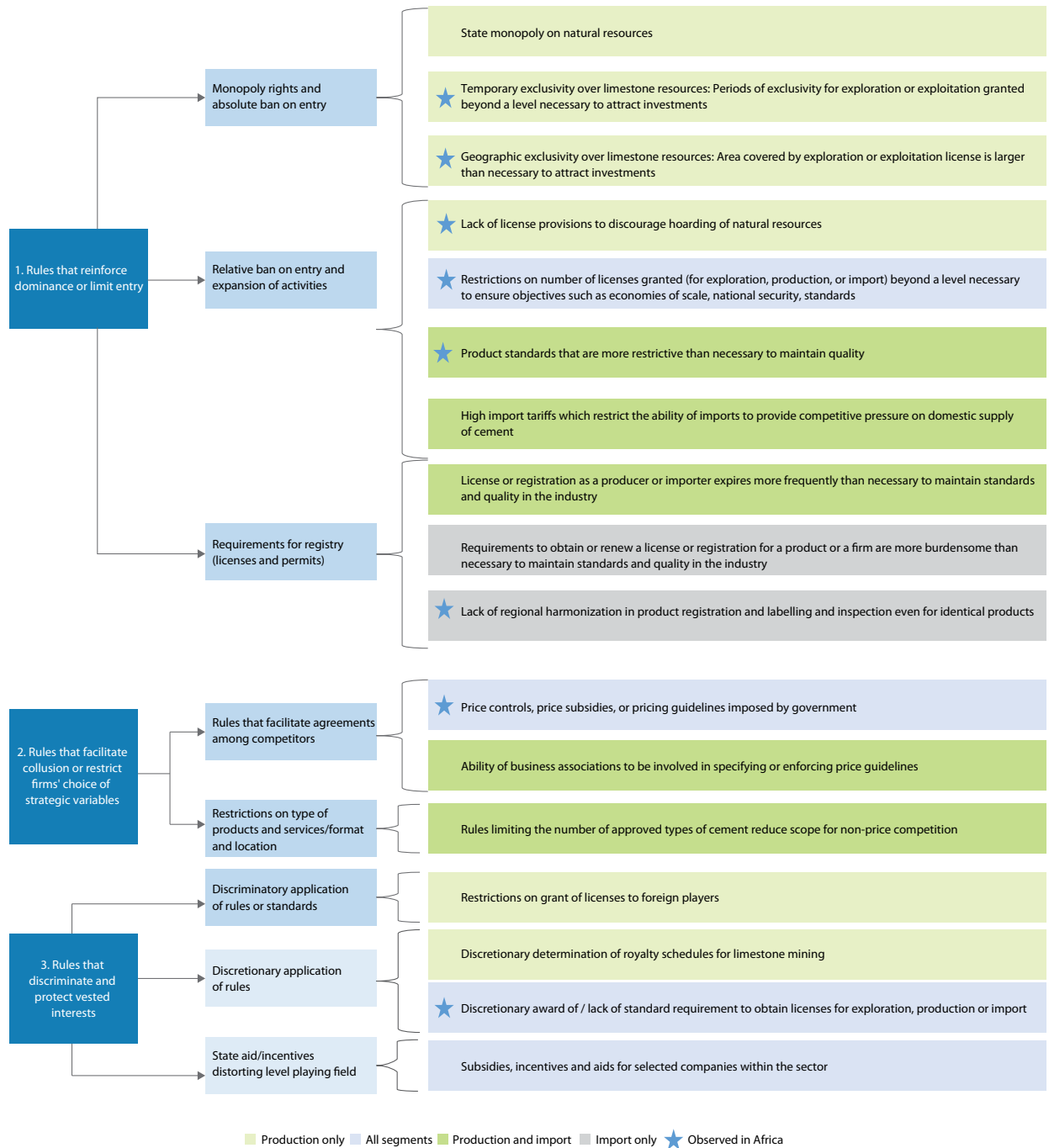


Table C1-2
Types of regulatory obstacles to competition in cement markets and examples from Africa

Rules that reinforce dominance or limit entry		
Category	Rule	Examples from Africa
Monopoly rights and absolute ban on entry	Temporary or geographic exclusivity over limestone resources	Nigeria. Dangote holds the Mining Lease Agreement (MLA) for the limestone quarry feeding Sub-Saharan Africa's largest plant, the Obajana plant, and at least six Exclusive Prospecting Licenses (EPL) for limestone resources. Together, these represent a total of 569 million tons of limestone and 119 million tons of additive materials in the area, which is proposed to last for more than 90 years. This is longer than the cement plant's expected life of 50 years and would indicate that there may be some room to either award a license to more than one firm in the area or to retender the lease agreement and licenses in future (Obajana Cement 2005). Under national regulations, however, the MLA has a duration of 25 years and is renewable for further periods of 20 years provided that the holder has complied with minimum work commitments and that other legal and regulatory requirements have been met (GEUS 2011; KPMG 2013). It is generally acknowledged that the high-capacity limestone with which Dangote has been awarded in Nigeria has helped the firm establish new grinding and import facilities across the region.
		Botswana. Only one firm, Matsiloje Quarry, has been granted the right to access Botswana's domestic lime quarry.
		Kenya. An exclusive mining agreement was signed between a potential entrant and a county council, granting the entrant exclusive mining rights in the Greater Pokot region for a 99-year period and permission to extract limestone in all established limestone areas as well as those that may be identified in future. The competition authority provided an advisory opinion that the exclusivity period was too long and would foreclose the exploitation of limestone deposits by other investors. The authority recommended that any exclusive mining agreement be issued for a shorter period of approximately 25 years but remain open for renewal in line with international best practice. In addition, since the limestone deposits were sufficient to cater for a cement plant with a capacity of 1 million tons for over 550 years, the authority advised that the area would likely accommodate more cement plants, which would ensure greater royalty fees for the council over time.
Relative ban on entry and expansion of activities	Lack of license provisions to discourage hoarding	The majority of competition authorities responding to the WBG-ACF survey stated that they were not aware of antihoarding provisions in their countries' mining licenses. There are some exceptions, however: <ul style="list-style-type: none"> • In Egypt, there are fixed fees associated with mining agreements which act to discourage hoarding. • In South Africa, the 2004 Mining Act contains "use-it-or-lose-it" provisions that require license holders to develop resources in a timely manner. It was the exercise of these provisions that allowed the new entrant, Sephaku Cement, to acquire Anglo American's limestone reserves.
		Product standards that are more restrictive than necessary to maintain quality <ul style="list-style-type: none"> • Liberia. All imported cement must meet the 42.5 grade specification (Ministry of Commerce and Industry of Liberia 2013). Dangote is now the sole importer of cement following its entry in 2013, before which several importers had been active in the country. • Nigeria. The Standards Organisation of Nigeria (SON) adopted a new standard in 2014 that greatly limits the use of widely produced 32.5 grade cement (to plastering only) and imposes 42.5 grade cement as the new standard for general purpose use (including block making). The SON has cited safety reasons for the restriction, despite the fact that 32.5 grade cement is commonly used around the world and has characteristics that are desirable for some uses.⁶⁰ The new standards have particularly affected the Lafarge brands in Nigeria, which produce large quantities of 32.5 grade cement. Consequently, brands that compete against Dangote—Lafarge Africa, Ashaka, and Unicem—have filed a suit against SON challenging the order. Dangote, the main producer of 42.5 grade cement in Nigeria, has supported the new standards (Meristem 2014).
	Import restrictions or import tariffs that hinder the ability of imports to compete effectively	45 percent of the 22 countries and regional bodies for which information was available have restrictions on cement imports in place. For example: <ul style="list-style-type: none"> • Angola. The government imposed an import ban beginning in January 2015.⁶¹ • Cameroon. Import ban imposed in 2015 citing the government's concern to protect local industry and jobs and to reassure foreign investors. • Ethiopia. Import ban imposed in 2012. • Nigeria. The Nigerian government has been phasing out import licenses. None have been granted since 2012, coinciding with Dangote's move into cement production in Nigeria. In addition, the central bank has recently imposed foreign exchange restrictions on certain items, including cement.⁶² • Liberia. A protective tariff of \$2 per 50 kg bag was eliminated in 2013, coinciding with Dangote's entry as an importer. However, all imported cement must meet the grade specification of 42.5R⁶³ (see further discussion on product standards below).

⁶⁰ 32.5 grade is specially designed for block making and precast construction needs, as it has key characteristics such as early setting and early strength.

⁶¹ <http://www.globalcement.com/news/item/3171-angola-bans-cement-imports-from-start-of-2015>

⁶² <http://www.globalcement.com/news/itemlist/tag/Dangote>

⁶³ [http://moci.gov.lr/doc/MoCI.CommodityProfile.2013.v2%20\(Cement\).pdf](http://moci.gov.lr/doc/MoCI.CommodityProfile.2013.v2%20(Cement).pdf)

Category	Rule	Examples from Africa
		<ul style="list-style-type: none"> • Ghana. In 2015, the Ghana Cement Manufacturers Association (consisting of Heidelberg and WACEM) called for the imposition of antidumping duties on imported cement.⁶⁴ • South Africa. Antidumping duties, ranging from 14 to 77 percent, are imposed on cement made in or imported from Pakistan. The duties will last for a period of five years.⁶⁵ • Namibia. Ohorongongo was granted infant industry protection (IIP) in 2012, following reports that its products were being undercut by imports from Brazil, China, and South Africa. The IIP status will last for eight years from 2012. It enabled the government to levy an import duty of 60 percent on imported cement until 2014, decreasing annually to 12 percent in 2018.⁶⁶ • Tanzania. Since 2008, the government has allowed the importation of cement from outside the EAC by removing suspended duty on imported cement. Amid lobbying from manufacturers to reinstate the duty, a study conducted by the Fair Competition Commission of Tanzania found that this removal led retail prices to drop by 26 percent over the following year. The report recommended that the government resist the manufacturers' request and initiate moves at the EAC level to completely abolish tariffs on imported cement as the only economically viable means to lower prices in the cement market. • EAC. EAC countries agreed to set a high Common External Tariff (CET) to allow local cement manufacturers to become internationally competitive. Under the sensitive list of products covered by the EAC Customs Union Protocol, cement imports into the EAC were to face a 55 percent tariff that would be reduced by 5 percent per year from 2005 until it reached its target rate of 35 percent. In March 2015, however, the duty on cement imported into East Africa was lowered from its target rate of 35 percent to 25 percent.⁶⁷ • ECOWAS. A CET of 35 percent came into force in 2015. No duties are applied on locally produced cement between members of the community.
Rules that facilitate collusion or restrict firms' choice of strategic variables		
Category	Rule	Examples from Africa
Rules that facilitate agreements among competitors	Direct or indirect price controls, imposed by government	<p>In some countries, the government appears to maintain a level of control over cement prices:</p> <ul style="list-style-type: none"> • Ethiopia. Price controls have been lifted on the sector, although the government still imports cement at times in order to meet high demand.⁶⁸ • Liberia. The government set a price ceiling for cement until at least 2009 (when it was lowered to \$9.50 per 50 kg).⁶⁹ It appears that prices have now been deregulated, although the government still monitors the price closely. • Mozambique. A government decree in 2011 fixed the maximum profit margin on cement at 12 percent for wholesalers and 25 percent for retailers.⁷⁰ • Republic of Congo. Despite a 2007 decree liberalizing cement prices, it appears that the government still exercises control over the prices of SONOCC, a cement producer in which it is a shareholder. In 2014, for example, SONOCC threatened to stop the flow of product to Brazzaville after the government proposed a decrease in the cement price.⁷¹ • Senegal and Cameroon. Responses to the WBG-ACF Survey 2015 also revealed that there are retail price controls in place on cement in Cameroon and Senegal. • Tunisia. Grey cement is excluded from freedom of pricing laws, and its prices are subject to an administrative pre-authentication system in both the production and distribution phases. Lime prices, meanwhile, are subject to an administrative pre-authentication system only on in the production phase (not distribution). There has been a continuous annual increase (of between 2.5 and 7 percent) in these prices since the second round of privatization in the industry in 1998. The government has stated that it would use its control of 4.5 million tons of annual capacity to control prices following cuts to the subsidies it had been granting cement firms as recently as 2014.

⁶⁴ <http://www.globalcement.com/news/item/3692-ghana-manufacturers-propose-cement-anti-dumping-duties>; <http://www.globalcement.com/news/item/3667-the-ghana-cement-manufacturers-association-gcma-fights-cement-import-tax-evasion>

⁶⁵ <http://www.itac.org.za/news-headlines/itac-in-the-media/south-africa-s-itac-enforces-anti-dumping-duties-on-pakistan-cement>

⁶⁶ <http://country.eiu.com/article.aspx?articleid=499044834&Country=Namibia&topic=Economy&subtopic=Recent+developments&aid=1&id=987869883>.

⁶⁷ <http://www.theeastafrican.co.ke/news/-/2558/2638170/-/4hk8ymz/-/index.html>

<http://www.trademarka.com/news/reduced-duty-on-imported-cement-sparks-furore-among-ea-producers/>

⁶⁸ World Bank Group interviews with Government of Ethiopia, January 2015

⁶⁹ https://www.wikileaks.org/plusd/cables/09MONROVIA119_a.html; <http://www.theigc.org/wp-content/uploads/2014/09/Country-Sierra-Leone-and-Liberia-John-Spray-Presentation.pdf>

⁷⁰ <http://www.globalcement.com/news/item/1202-mozambique-investigate-%E2%80%98dramatic%E2%80%99-rise-in-the-price-of-cement>

⁷¹ <http://www.cemnet.com/News/story/154948/rep-congo-sonocc-threatens-to-cease-brazzaville-supply.html>; <http://www.adiac-congo.com/content/marche-du-ciment-crise-de-cooperation-signalee-entre-la-sonocc-et-le-ministere-du-commerce&prev=search>

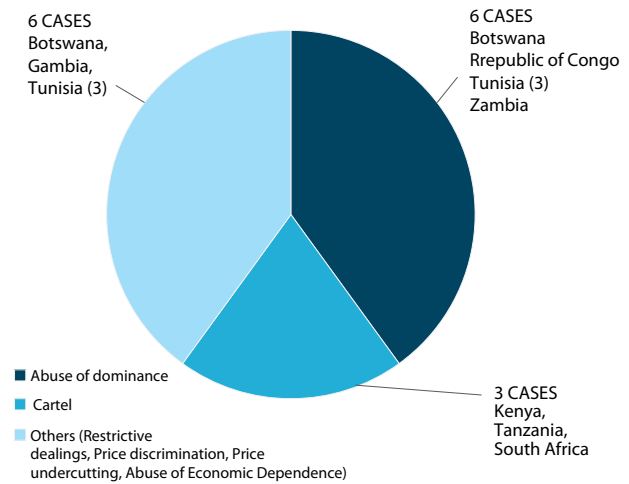
Import restrictions may in some cases act as an absolute ban on entry and are present in 45 percent of the countries and regional bodies studied.

E. Anticompetitive behavior detected and sanctioned in Africa

In the last three years, at least 16 investigations into anticompetitive behavior in the cement industry have been opened in nine countries across the region (Figure C1-18). Sanctions were imposed in South Africa, and Egypt imposed fines for a price-fixing cement cartel in 2008. Tanzania investigated possible collusion between manufacturers and made several recommendations to the government based on findings. At least eight investigations are ongoing. Further details of these are given below in Table C1-3.

Recent investigations related to collusive practices in Africa reveal the presence of certain market factors consistent with other competition cases around the globe. These include market-sharing agreements, the presence of large regional players, exchange of information through an industry association, and historic regulations that have acted as focal points for cartel agreements.

Figure C1-18
Summary of enforcement cases investigated in the cement sector in Africa in the last three years



NOTE: The Seychelles reported one investigation into the cement industry but details on the type of case are not available. 'Others' includes practices as reported by authorities.
SOURCE: ACF-WBG 2015.

Table C1-3
Examples of recent investigations into collusion in the cement market in Africa in which the competition authority has issued a decision or recommendations

Country	Recent investigations into collusion in the cement market	Common factors
South Africa (SACU wide cartel)	In 2008, the CCSA initiated investigations against the four main cement producers, and in 2009 initiated raids on their offices. The investigation had been sparked by research findings that cement prices had doubled since 2001 and, despite fluctuations in demand and input costs, the producers' prices of cement increased in tandem every six months, by a much greater percentage than the producer price index (Madiba 2009). Subsequently, PPC applied for leniency and confirmed the existence of a cartel among the four producers. Afrisam also admitted that it had entered into agreements and arrangements with PPC, Lafarge, and NPC to divide markets and indirectly fix the price of cement between 1996 and 2008.	<ul style="list-style-type: none"> - Involvement of major market players: Lafarge, Afrisam, PPC. - Regional market division. - Exchange of information facilitated through an industry association. - Historic regulation of the cement industry provided a focal point for collusion.

Country	Recent investigations into collusion in the cement market	Common factors
	<p>An official and legal cement cartel operated in the country from the 1940s until its disbandment in 1996. Subsequently, the firms agreed that each firm's market share should be proportional to their production capacities.</p> <p>There was also a strong regional dimension to this cartel. Part of the collusion was an agreement that PPC would not compete with Lafarge in KwaZulu-Natal in exchange for Lafarge not competing with PPC in Botswana. Moreover, the cartel had agreed that PPC would supply the Botswana cement market, while Afrisam would supply Namibia. The companies monitored the collusive agreement partly by sharing monthly sales data through the Concrete and Cement Institute of South Africa.</p> <p>PPC received leniency in exchange for a complete disclosure of all cartel activities. Lafarge and Afrisam settled with the CCSA and agreed to pay a penalty of 6 percent and 3 percent respectively of their annual turnover in cement sales in the SACU region in 2010. The CCSA has respectively referred the case against NPC to the Competition Tribunal for prosecution.</p> <p>Prices and margins have declined steadily since the cartel's breakup. Using price data from cement producers, Govinda <i>et al.</i> (2014) estimate that the price difference between the cartel and noncartel periods, controlling for cost drivers, was 7.5–9.7 percent. They estimate the total savings to South African customers due to the breakup—assuming an overcharge of 9.7 percent—to be in the range of R 1.1–R 1.4 billion a year (\$79–100 million). Apart from the financial benefits, firms have been penetrating regions where they were previously inactive. For example, before intervention, the Western Cape was solely allocated to PPC, but Afrisam has since entered that market. The Northern Cape was split 75 percent and 25 percent between Afrisam and PPC during the cartel years, but Lafarge has since taken market share from them.⁷²</p>	
Tanzania	<p>A Fair Competition Commission (FCC) study of the cement market established that prices were considerably higher in regions close to cement processing plants than in shared markets. A survey conducted in 2010 showed that, while cement plants in the two regions were an average of 600 km away from the Dar as Salaam market, retail cement prices were 7.6 percent and 3.4 percent higher in their local market than in Dar as Salaam price, despite the transportation costs involved.⁷³ In other markets where all three locally manufactured brands were available, retail prices were the same. This observation suggested that there could be a price-fixing arrangement between manufacturers through tacit agreements. Manufacturers were found to record consistently higher margins than dealers.</p> <p>Based on the study's findings, the FCC recommended that, among other actions related to the duty on imported cement, the government could:</p> <ul style="list-style-type: none"> - Open cement supply for its large projects to international tendering to intensify competition in the cement market - Advocate and promote new investments in cement manufacturing and importation businesses through the investment promotion agency - Increase efforts to strengthen the railway transportation network to make cement affordable in distant locations distant from the production source.⁷⁴ 	<ul style="list-style-type: none"> - Involvement of major market players: Lafarge, Afrisam, Heidelberg - Some preliminary evidence of regional market division
Egypt	<p>In 2008, the Egyptian Competition Authority (ECA) uncovered a price-fixing cartel among nine cement producers, which had been in place from 2003 until at least 2006. The ECA Board took a <i>per se</i> approach and based its decision on evidence from witness statements, price-cost correlations (price increase and cost decrease), stable local market shares, and volatile exports market share. The District Court fined each of the firms, including the state-owned National Cement Company (OECD 2013), EGP20 million (\$2.5 million) in total.⁷⁵</p> <p>ECA's Market Monitor Department subsequently conducted two comparative studies on the cement sector to appraise whether its enforcement actions had affected prices. These studies, using structural indicators and assessing market behavior, concluded that market concentration had been reduced in terms of both sales volume and value. This was attributed to both the court sentence against the cartelists and the issuance of new licenses for new cement producers.</p>	<ul style="list-style-type: none"> - Involvement of major players: Lafarge

⁷² Further details can be found in World Bank (2016).

⁷³ TZS 12,800 and TZS 12,300 for MCC and TCC respectively versus TZS 11,900 in Dar as Salaam.

⁷⁴ Source: Fair Competition Commission Tanzania submissions

⁷⁵ Case no. 2900/2008 Misdemeanors of Madinit Nasr Awal (25/8/2008; [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=D/AF/COMP/GF/WD\(2012\)3&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=D/AF/COMP/GF/WD(2012)3&docLanguage=En))

In the last three years, at least 16 investigations into anticompetitive behavior in the cement industry have been opened in nine countries across the region.

F. A summary of potential competition issues for monitoring in the cement supply chain

The interaction of industry characteristics, the degree of vertical integration, and the regulatory restrictions that apply to the cement supply chain lead to different dynamics in markets. Based on the investigations conducted on the ground by competition authorities, two key types of anticompetitive practices stand out for their relatively high potential of arising in the cement supply chain:⁷⁷ (i) collusive horizontal agreements between rivals, and (ii) input foreclosure where a vertically integrated supplier of clinker (either a producer or an importer) refuses to supply inputs to downstream rival cement producers. There are several red flags discussed in previous sections that can incentivize a particular type of anticompetitive behavior.

However, there are also factors that could mitigate the risk that these behaviors will occur, including setting regulations in a procompetitive way.⁷⁸ Table C1-4 summarizes the red flags and mitigating actions to prevent collusion and market foreclosure.

Figure C1-19 summarizes the most pertinent issues in the various segments of the cement supply chain. These are divided among issues that may require enforcement action from authorities and those that could be tackled through advocacy efforts.

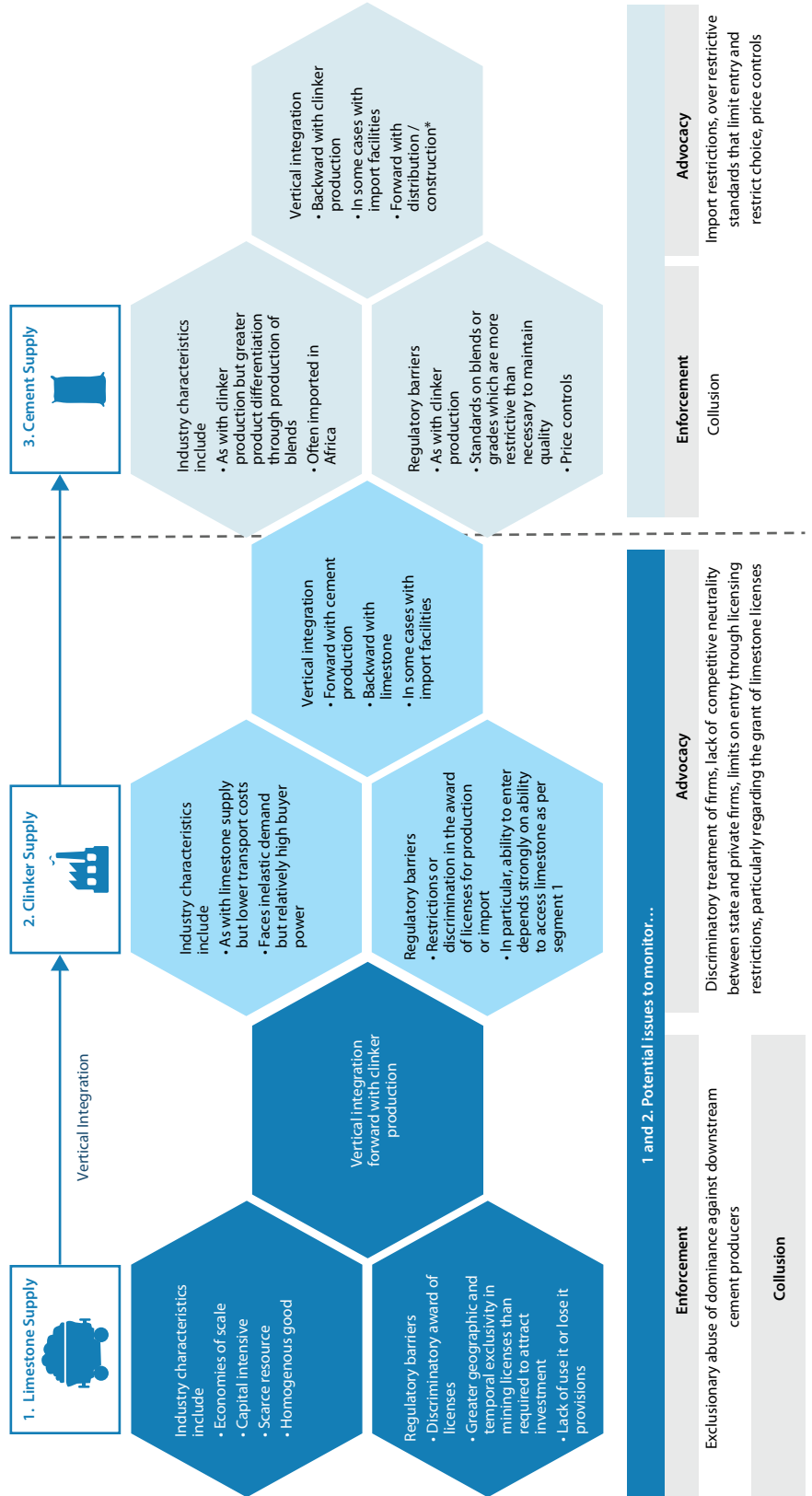
⁷⁷ The types of anticompetitive behavior outlined here are not intended to be exhaustive, but instead summarize the most likely and most harmful types of behavior that might arise.

⁷⁸ Note that, although it is not explicitly included here, exclusion of cement importers by cement importers that are integrated into import facilities could theoretically take place in the case of cement.

Table C1-4
Red flags and mitigating actions to prevent two key practices: collusion and market foreclosure

Risk of collusion between competitors in the supply of clinker and cement	
Red flags	<ul style="list-style-type: none"> • Industry-wide supply-side characteristics that facilitate collusion are common in the supply of limestone for clinker and cement. • Collusion can be facilitated by: excess capacity, multimarket contact, and current or historical price controls that can act as focal points. • Other country-specific supply-side characteristics can be analyzed on a country-by-country basis, including the presence of information exchange mechanisms such as industry associations, symmetric firm size, and frequency of transactions. • Where vertically integrated clinker suppliers provide clinker to their downstream rivals, this may make collusion in downstream cement supply more sustainable due to higher visibility over costs. • Grinding plants hold some buyer power as buyers of clinker to counteract collusion between clinker suppliers given their large size. On the other hand, inelastic demand and high costs of switching due to long-term contracts or high costs of transport may raise the risk of collusion between clinker suppliers.
Mitigating actions	<ul style="list-style-type: none"> ✓ Set regulations for clinker and cement production to avoid restricting entry where viable ✓ Devote resources for market intelligence to check for potential collusive behavior, especially where the above red flags are present ✓ Set import licensing regime to allow for greater competition from imports ✓ Avoid imposing standards restrictions which are more restrictive than necessary to achieve quality objectives
Risk of exclusion of nonintegrated grinding plants by integrated limestone-clinker producers or by clinker producers	
Red flags	<ul style="list-style-type: none"> • Industry characteristics facilitate dominance in upstream clinker supply • Dominant upstream clinker suppliers can be vertically integrated downstream • Higher downstream profits from foreclosure of cement suppliers are likely to be greater than loss in upstream profits in supply of clinker
Mitigating actions	<ul style="list-style-type: none"> ✓ Set regulation to allow entry of efficient competitors upstream in limestone-clinker production <ul style="list-style-type: none"> - Ensure that a number of licenses and quotas for upstream activities are awarded to allow for competition, taking into account natural monopoly characteristics, the need for scale to recover investment costs, and other national security measures - Implement antithoarding measures for limestone production - Award licenses for limestone mining based on clear criteria, including potential efficiency ✓ Set regulations and licensing for import of clinker to mitigate against upstream dominance and to counteract effects of downstream foreclosure

Figure C1-19
A summary of potential competition issues for monitoring in the cement supply chain



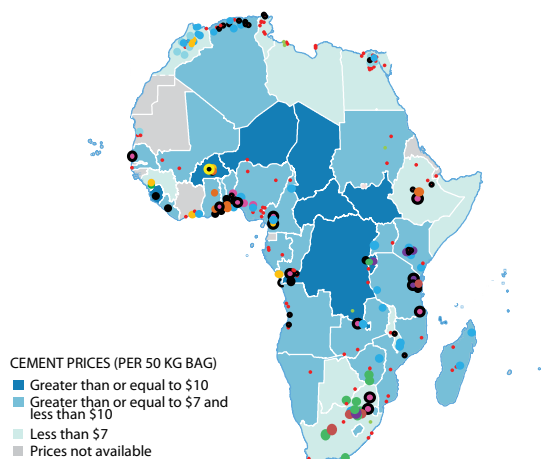
* Not covered in this report

Two key types of anticompetitive practices have the potential to arise in the cement supply chain: (i) collusive horizontal agreements between rivals, and (ii) input foreclosure where a vertically integrated dominant supplier of clinker refuses to supply inputs to downstream rival cement producers.

G. The potential impact of fostering competition in the cement market in Africa

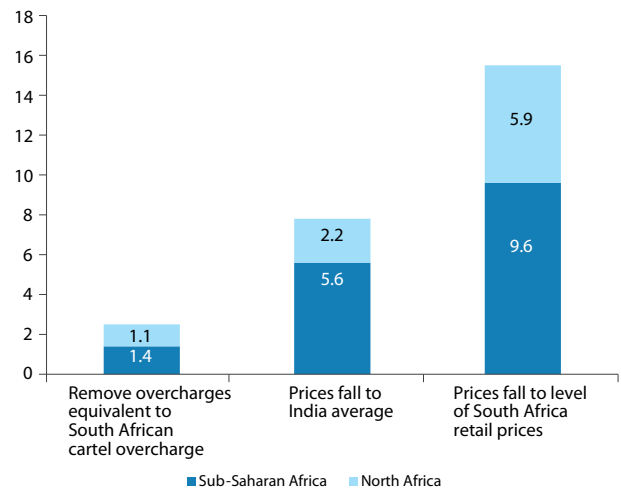
Cement prices in Africa were 183 percent higher, on average, than the world price of cement at the end of 2014.⁷⁹ The average price for a 50 kg bag of cement was around \$9.57 across countries for which information was available. South Africa had the lowest prices, at \$3.25 per 50 kg bag, in line with world free-on-board (FOB) prices. The highest prices were seen in South Sudan, at \$27 per 50 kg bag. In the Democratic Republic of Congo, a 50 kg bag of cement cost \$15 in areas where it is produced or imported but cost up to \$40 per bag in remote areas. Despite Dangote's recent, significant entry in West Africa, prices remain relatively high. In Nigeria, for example, prices have been around \$9 per 50 kg bag. However, Dangote was reported to be charging prices as high as \$10.54 in 2015.⁸⁰ Figure C1-20 highlights the variation in prices across Africa.

Figure C1-20
Distribution of cement prices in Africa and location of plants, 2015



NOTE: An assumption that the equivalent price for a 50 kg bag of cement based on the ex-factory price per ton is not sufficiently different from the retail price of a 50 kg bag cement to move the price into the next bracket based on the price bands used above. Where a price range is given in the source the lower bound has been taken.
SOURCES: Global Cement Report 11th Edition, 2015 verified against the Centre for Affordable Housing Finance in Africa (CAHFA).⁸¹ Exceptions are: Zimbabwe,⁸² Nigeria which has been sourced from Meristem (2014), Cameroon, where the reported price is as January 2014 following a reduction after entry ended a Lafarge monopoly and is verified against CAHFA data,⁸³ Central African Republic and Morocco, where the reported price is as of 2013.

Figure C1-21
Potential annual consumer savings from removing anticompetitive overcharges on cement under different competitive benchmarks, based on 2014 cement consumption (\$ billion)



Source: Authors' calculation based on Cement consumption data for 2014. Various sources for prices.

African cement consumers could be overpaying by more than \$2.5 billion per year due to a lack of competition (Figure C1-21). The potential savings to cement consumers from removing price overcharges was calculated across the 45 African countries for which price information was available, using three benchmarks to proxy the competitive price of cement:

⁷⁹ Estimates find that the upper end of the range of world prices for grey cement is \$3.38 per 50 kg bag. See CW Group 2014.

⁸⁰ Global Cement Magazine 2015. Available at: <http://www.simankhabar.ir/images/Article/CementPrices-Feb-15.pdf>

⁸¹ <http://www.housingfinanceafrica.org/countries>

⁸² Zimbabwe price taken from: "Sino-Zim Slashes

⁸³ <http://www.businessincameroon.com/business/1702-4663-cameroon-moroccan-company-cimaf-ends-lafarge-s-cement-market-monopoly>

1. **Case 1.** Assumes that an anticompetitive overcharge of 9.7 percent, equivalent to that found in the South Africa cartel case, is removed in every country (except South Africa, where it is assumed the overcharge has already been removed).
2. **Case 2.** Takes the average cement prices across four states in India in 2014–15 (\$5.63 per 50 kg bag) as a benchmark.⁸⁴ All prices that are currently above average prices in India are assumed to fall to the average price in India. This affects 40 countries where prices are currently higher than in India. There is no change for the five countries where prices are currently below the average price in India.
3. **Case 3.** Prices in Africa are assumed to fall to the level of retail prices in South Africa, which are the lowest on the continent.

Even if prices in African countries are only around 10 percent higher than a competitive level, this would amount to 1 percent of the infrastructure financing gap that has been identified in Sub-Saharan Africa. In 2010, a World Bank report estimated that around \$93 billion would need to be spent on infrastructure in Sub-Saharan Africa every year over the next decade to close the region's infrastructure gap. It is estimated that the region loses 2 percentage points of GDP growth annually as a result of its infrastructure deficit. Of course, cement is a major input in infrastructure development. Cement price overcharges due to a lack of competition in the region therefore harm the ability of governments and private businesses to invest in the infrastructure necessary to boost growth.

Entry of new players and removal of import restrictions have led to better market outcomes for businesses and consumers in Africa. In South Africa, after observing the entry of a new player in the cement market for the first time in 80 years in 2014, retail prices fell. The removal of a suspended duty on cement imports in Tanzania led to a 26 percent reduction in prices.

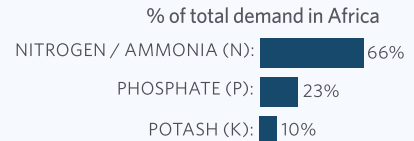
Tackling anticompetitive behavior is critical for better market performance. Because of the SACU cartel, consumers in South Africa were being overcharged by almost 10 percent for bulk cement. This meant that tackling only this cartel could save \$79–100 million per year.

African cement consumers could be overpaying by more than \$2.5 billion a year due to a lack of competition.

⁸⁴ Global Cement Magazine (2015). Available at: <http://www.simankhabar.ir/images/Article/CementPrices-Feb-15.pdf>.

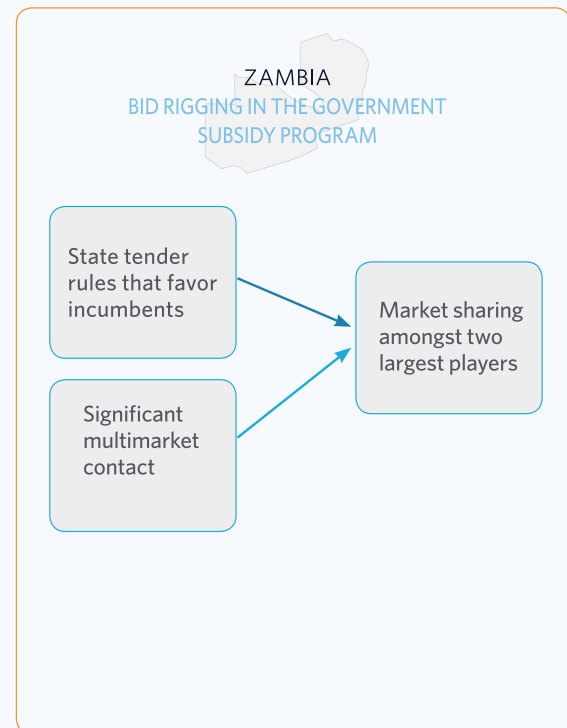
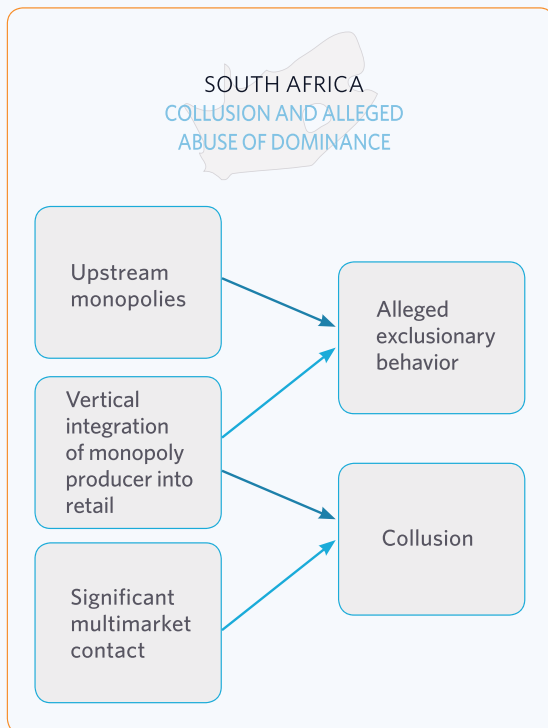
FERTILIZER IN AFRICA: MARKET DYNAMICS AND COMPETITION POLICY

THE FERTILIZER PRODUCTION CHAIN



ONLY **28%** of African countries have capacity to produce their own basic fertilizer

FERTILIZER CARTELS HAVE BEEN DETECTED BY COMPETITION AUTHORITIES IN AFRICA



THE IMPACT OF A LACK OF COMPETITION ON FERTILIZER PRICES IN AFRICA

- 1** GLOBAL EXPORT CARTELS **INCREASE FINAL CONSUMER PRICES** OF K FERTILIZERS IN SSA BY **29%**
- 2** RETAIL PRICES IN AFRICA WELL ABOVE PRICES IN BLACK SEA, MIDDLE EAST REGIONS
- 3** **58%**¹ OF COUNTRIES HAVE **ONE SUPPLIER WITH MORE THAN HALF OF THE MARKET;** **57%** HAVE SEEN **NO ENTRY IN IMPORT/PRODUCTION IN THE LAST 3 YEARS**
- 4** BUT: POTENTIAL **SAVINGS FROM ANTI CARTEL ENFORCEMENT** AND IMPROVEMENTS IN REGULATORY RESTRICTIONS COULD BE SIGNIFICANT: E.G. Savings from ending the Zambian bid rigging cartel: c. \$21 million in 2013.³

¹ Of 19 countries studied

² Of 14 countries studied

³ Vilakazi (2016)

In more than half of African countries, one fertilizer supplier holds more than 50 percent of the market, and less than half have seen entry in import or production in the last three years. It would be beneficial to remove regulatory restrictions that inhibit entry, competitive public procurement, and market intelligence to detect competition issues.

2. Fertilizer: a key input for agricultural productivity

Fertilizer is a key input in all economies with a significant agricultural sector and is critical for productivity in the Africa region. Crop productivity in Sub-Saharan Africa is the lowest in the world and remains a crucial challenge to the development of large-scale agribusiness and to poverty alleviation through food security. Low productivity has been linked to limited use of agricultural technology inputs, and fertilizer in particular (Gregory and Bumb 2006). Indeed, fertilizer use in Sub-Saharan Africa is the lowest in the world (accounting for 3 percent of global fertilizer consumption in 2013, according to statistics produced by the Food and Agriculture Organization), although growth in fertilizer demand in Africa is estimated at 3.8 percent per year, the highest across all regions globally.

A. Key elements of the fertilizer supply chain and product market definitions

Agricultural productivity is dependent on external inputs of three complementary nutrients: nitrogen, phosphorus, and potash.⁸⁵ The three nutrients serve different purposes, and a balance of the three is required to maximize production. This renders the three minerals complementary products and typically delineates them into three distinct value chains.

Nitrogen is the most important nutrient, accounting for around 66 percent of demand in Africa. Potash has the lowest demand, at around 10 percent of total demand, while phosphorous accounts for 23 percent of demand. Unlike nitrogen, which must be applied every year to maintain yield, potash and phosphorus typically require less frequent application.

The production of fertilizers begins with the production of a primary material. This is converted to an intermediate product,⁸⁶ which is in turn converted to useable fertilizers. In the final stages of the value chain, these fertilizers can either be marketed as:

1. Single nutrient fertilizers (herein referred to as “straight fertilizers”) designed to deliver one of the three nutrients; or
2. Combined products, most commonly NPK fertilizers, which are combinations of the three nutrients (“complex fertilizers”). Straight fertilizers are used as an input for complex fertilizers.⁸⁷

The import and wholesale of fertilizers are key components of the supply chain. Imports of either straight or complex fertilizer typically contribute significantly to the supply of fertilizer, both as a blending input and for final application. The next step in the supply chain—wholesale distribution—can be carried out either by the importers or producers themselves or by independent wholesalers. Wholesalers manage: (i) the inland transportation of fertilizers from central distribution points to regional distribution points; and (ii) storage, from where it is sold either directly to large-scale farms and cooperatives or to retailers (agrodealers).⁸⁸

⁸⁵ Magnesium, calcium, and sulphate are also used as secondary nutrients in fertilizers, but they are relatively peripheral markets and are not included in this analysis.

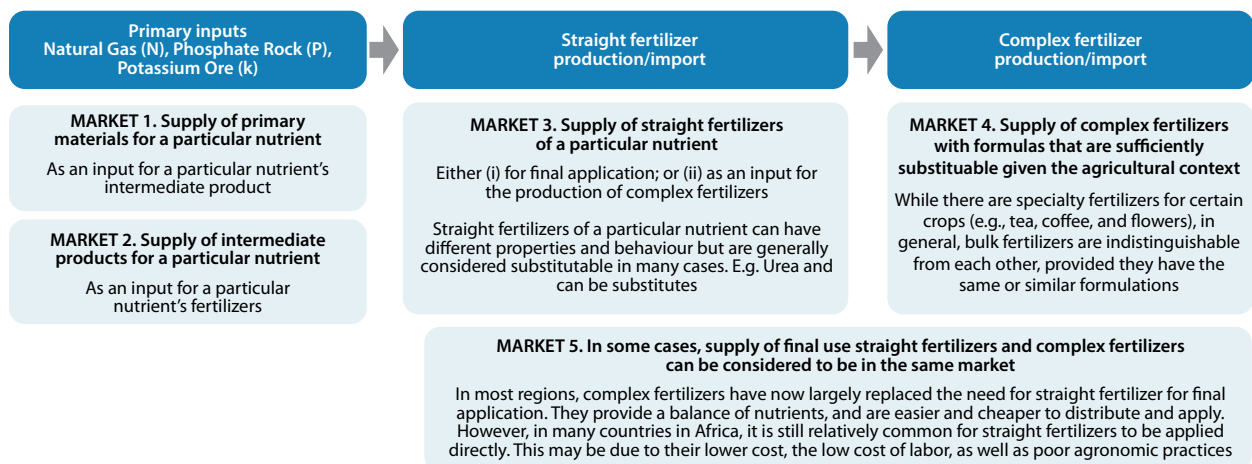
⁸⁶ In the case of nitrogen and phosphorous; potash is used in its raw form.

⁸⁷ A summary of the characteristics of each nutrient’s uses and the various value chain components mentioned above is provided in Annex 2.

⁸⁸ Retail distribution of fertilizers is also relevant for determining competitive conditions but is not covered in this analysis.

Given their distinct uses, different nutrients will be treated as separate markets here. It will be assumed that the competitive pressure they exert on each other is limited.⁸⁹ Thus, this section delineates the markets for each nutrient along the supply chain (Figure C2-1). The emphasis of this section will be on Markets 1-5. The market for wholesale distribution (Market 6) will also be covered. However, since it generally has lower barriers to entry and is often integrated with the import function, it will not be taken as an explicit focus.

Figure C2-1
Steps in the fertilizer production chain and market delineation



NOTE: Wholesale distribution and retail distribution not depicted in the graph for simplification purposes. "CAN" stands for calcium ammonium nitrate.

A precise definition of relevant markets needs to be determined on a case-by-case basis, as this would be important for competition enforcement or market inquiries. This depends on characteristics that determine whether straight and complex fertilizers are substitutes for one another, whether different minerals are considered substitutes, or whether different formulations of complex fertilizer can be considered substitutes. Definition of precise relevant markets would need to take into account the final use of the fertilizer, the agro-climatic conditions, the crop, and prevailing agricultural practices.

The interlinkages between fertilizer types also need to be taken into account. For example, straight fertilizers act as both an input to and a competitor to complex fertilizers. Moreover, there can be interlinkages between types of nutrients. For example, straight phosphate (P) fertilizers, di-ammonium phosphate (DAP), and monoammonium phosphate (MAP) all require ammonia as an input.

⁸⁹ For example, Al Rawashdeh et al. (2016) find that the short- and long-run cross-elasticity between potash and phosphates is close to 0 (about 0.005). In some contexts, largely due to poor agronomic practices, the various nutrients may in practice be substituted for one another. However, we assume that this effect is limited.

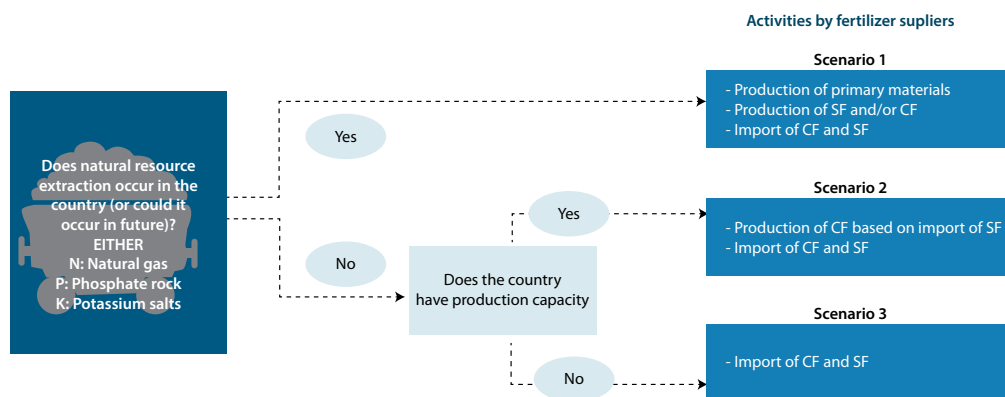
B. How are fertilizer supply chains organized in Africa? Three key market scenarios

Nitrogen (N), Phosphorus (P), and Potassium (K) supply chains in Africa can be broadly captured by three market scenarios, depending on the production capacity of input and final fertilizer (Figure C2-2). In general, Scenario 1 (a market with production of primary materials) occurs in larger countries with natural resources that have been harnessed for fertilizer production. Scenario 2 (a market without production of primary materials, but with capacity to produce complex fertilizers) occurs in larger fertilizer-consuming countries without natural resources. Scenario 3 (market with no production capacity) occurs in smaller countries with relatively low fertilizer demand.

Most countries have their own production plants, but only some of them produce primary materials (Table C2-1). Few countries lack any type of production capacity, and some countries (such as the Democratic Republic of Congo, Ethiopia, Kenya, and Mozambique) are in the process of building domestic plants.

Only 28 percent of African countries have capacity to produce their own basic fertilizer.

Figure C2-2
N, P, and K supply chains in Africa can be characterized by three market scenarios



NOTES: SF =straight fertilizer (based primarily on one mineral, such as urea, MAP, DAP, MOP); CF =complex fertilizer (blend or compound of straight N, P or K).

Table C2-1
Market scenarios for each nutrient across countries in Africa (where information is available)

Country	Scenario 1: Production of primary materials	Scenario 2: No production of primary materials and capacity to produce complex fertilizer	Scenario 3: No production capacity
Egypt	N, P	K	
Algeria	N, P	K	
Morocco	P	K	
Tunisia	P, N	K	
Nigeria	N	P, K	
Libya	N	K	
Zimbabwe	N, P	K	
South Africa	N, P		
Senegal	P	N, K	
Tanzania	P	N, K	
Kenya	P, N under development	N, K	
DRC	K under development		
Ethiopia	K under development	N, P, K	
Mozambique	P under development	N, P, K	
Zambia	N historically but plant is currently not operating	N, P, K currently	
Malawi		N, P, K	
Ghana		N, P, K	
Mali		N, P, K	
Côte d'Ivoire		N, P, K	
Mauritius			Yes
Uganda			Yes
Rwanda			Yes
Togo	Phosphate mining but no processing capacity		Yes

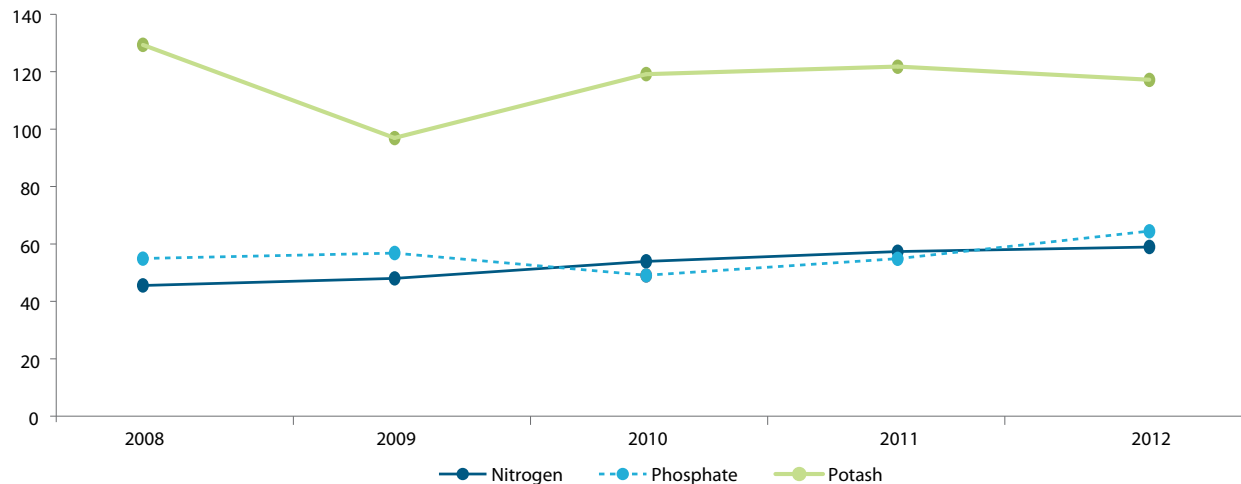
C. Industry characteristics that shape competition dynamics in African markets

As a result of industry supply characteristics, production up to the point of straight fertilizer production is typically conducted at large-scale factories that are strategically located for access to raw materials. Production of nitrogen fertilizer in Africa is therefore concentrated in regions with relatively low natural gas prices. Reserves of phosphate rock used to manufacture phosphorus fertilizer are located primarily in Morocco and the Western Sahara (75 percent).⁹⁰ Annex 2 presents supply and demand characteristics along the supply chain of fertilizer. The combination of various characteristics defines six main factors that influence competition dynamics in African markets.

FACTOR 1: Fertilizer is a globally traded commodity, with final prices of fertilizer in Africa driven largely by international fertilizer prices

Only 28 percent of African countries have the capacity to produce their own basic fertilizer,⁹¹ which makes fertilizer markets dependent on imports. Production of straight fertilizers is concentrated in a few countries in Sub-Saharan Africa, and there is no production of potash fertilizers, so imports play a crucial role in shaping fertilizer supply market outcomes in Africa.⁹² This includes both the supply of final products and provision of inputs for blending. On average, 60 percent of Sub-Saharan Africa's consumption of N and P is imported, while 100 percent of K consumption is imported (Figure C2-3).

Figure C2-3
Imports of fertilizer by share of consumption in Sub-Saharan Africa



NOTE: In some cases, shares are over 100 percent due to potential data aggregation errors in the database when reporting potash consumption and imports.
SOURCE: FAOSTAT online database.

⁹⁰ See Mineral Commodity Summaries, *supra* note 9, at 118-19 (showing OCP controls 70 percent of reserves of phosphate rock).

⁹¹ Of any one of the three key nutrients.

⁹² Nitrogen is imported primarily from CIS countries, the Middle East, and Egypt. P and K imports in Sub-Saharan Africa are mostly in form of NPK fertilizers.

Given the concentrated structure of the global market and the relatively small size of import markets in Africa, in most cases importers are price-takers in the global market. Importers operate by negotiating contracts with large global manufacturers and traders (except where the importer is integrated with a global supplier, as in the case of Yara and Omnia). These global suppliers tend to have control over FOB prices to a large extent. IFDC (2007) find that, for seven African countries examined, the FOB price of fertilizer constitutes on average 65 percent of the final retail price. This means that fertilizer retail prices in Africa will depend heavily on competition in global markets.

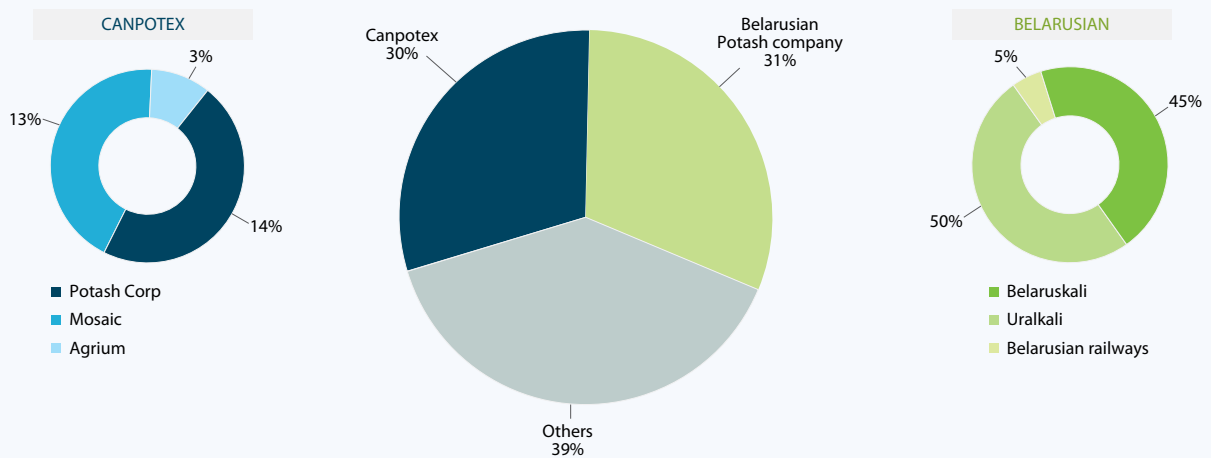
Globally, competition in fertilizer markets is considered to be relatively weak, which affects market outcomes in Africa. In practice, market outcomes in Africa are shaped by global markets, which are dominated by a small group of large producing countries, particularly for P and K. These appear to operate as global duopolies of dominant firms, arranged in export cartels, with fringes of small, high-cost firms. The market for nitrogen-based fertilizer appears relatively less concentrated and more localized in nature, with China, the United States, India, and Russia controlling most of the production capacity of urea (IFDC 2015). Box C2-1 outlines competition in global markets.

Box C2-1
Competition in the global fertilizer market

The global potash industry

The potash industry is dominated by two export marketing groups that act as export cartels: Canpotex and Belarusian Potash Company (BPC). The two groups are acknowledged to have used their dominant position to maintain high prices by keeping production below competitive levels. Canpotex is the marketing organization for the three largest North American potash producers: PotashCorp, Agrium and Mosaic. BPC is a joint venture between the three largest Russian and Belarusian potash producers: Uralkali, Silvinit and Belaruskali. Together, Canpotex and BPC account for approximately two-thirds of global potash sales (Figure C2-4). Reserves are even more concentrated, with Canada and Russia accounting for 80 percent of proven global reserves.

Figure C2-4
Global potash sales volume by company, 2012



SOURCE: K + S 2013.

The global phosphorus industry

The global phosphorus market is comprised of two major players: the United States export cartel, PhosChem (operating with limited antitrust immunity under 1918 Webb-Pomerene) and the Moroccan Office Chérifien des Phosphates (OCP), a government-owned monopoly on phosphate mining. The two members of PhosChem, PotashCorp and Mosaic, are also members of Canpotex.

Over three quarters of global reserves of phosphate rock are located in Morocco and the Western Sahara. OCP's exclusive access to the world's largest phosphate reserves has made it the primary exporter of phosphate, phosphoric acid, and fertilizer in the global market. OCP's global market shares are as follows: 33 percent for phosphate rock, 47 percent for phosphoric acid, and 19 percent for phosphate fertilizer. In its latest annual report, OCP (2012) notes that its market share for phosphate rock in Africa was 82 percent, while its market share for phosphate fertilizers in Africa was 42 percent. These market shares have increased rapidly over the last few years (Figure C2-5).⁹²

The anticompetitive effects of global fertilizer export cartels

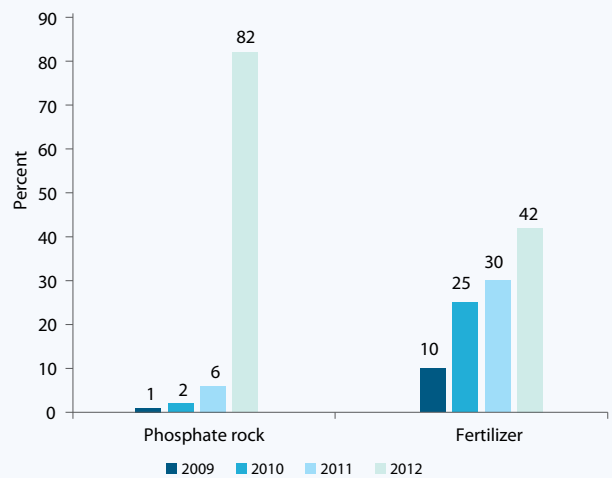
The short-term breakdown in the BPC agreement and other studies give a sense of the overcharges being applied by the cartel. Global prices fell by 20–25 percent after Urakali's exit from BPC, although they have now started to rise again. Meanwhile, Gnutzmann and Spiewanowski (2014) find that the potash cartel was able to impose an average price overcharge of 63 percent during 2008–12. Given estimates of pass-through of fertilizer prices to food costs, they estimate that this would have led to a 26 percent increase in food prices. The potential impact of the resumption of the global potash cartel in 2014 on fertilizer expenditure in Africa is estimated in section C2-F. Jenny (2012) estimates that under a competitive scenario, potash prices would reach CA\$488 per ton by 2020. With the continuing presence of the cartel, however, prices would rise to CA\$734 in 2020, equivalent to a 50 percent overcharge.

Hernandez and Torero (2013) evaluate the impact of concentration in production capacity on urea prices in low-income countries. Based on the top four concentration ratio results, they find that a 10 percent decrease in the concentration of the top four regional producers is associated with an 8.2 percent drop in prices under a conservative scenario and an 11.6 percent drop under an optimistic scenario. In Africa, this increase in competition would be equivalent to building one nitrogen plant in a competitive regional location with annual production capacity of 0.7 million metric tons.

Competition enforcement action against global cartels

Most antitrust authorities have not been active in removing legal protections for coordinated conduct by producers. In the United States, the Federal Trade Commission has not initiated any enforcement action against fertilizer producers involving potentially collusive agreements, or denied annual approval for PhosChem. Some authors have called for a comprehensive reassessment of the antitrust exemption for export associations such as PhosChem and Canpotex under the Webb-Pomerene Act and other provisions that create immunity for fertilizer cartels from competition laws (Taylor and Moss 2013). Despite a lack of government antitrust enforcement, there has been some history of private antitrust litigation in the United States to address the harm to direct and indirect purchasers resulting from collusive behavior by global players.

Figure C2-5
Evolution of OCP's market share in Africa (2009–12)



SOURCE: OCP, 2012.

⁹² <http://www.ocpgroup.ma/sites/default/files/alldocs/OCP-Annual-Report-2012.pdf>

FACTOR 2: The use of scarce resources in Africa is highly concentrated in a few countries and among a few players

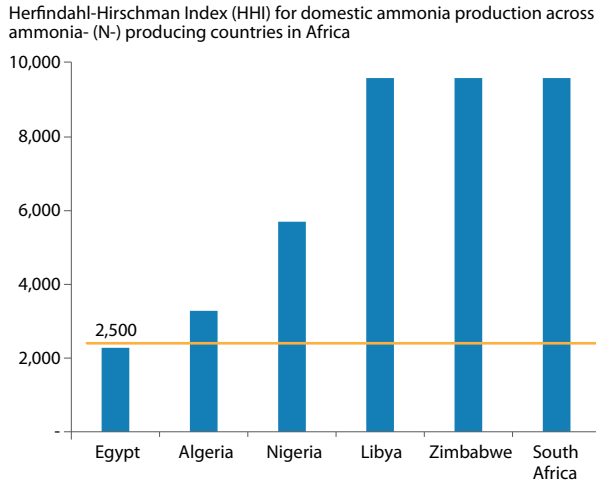
Production of primary materials is concentrated in relatively few countries and market players in Africa (Figure C2-6). Like cement, the structure of fertilizer markets depends on the availability of natural resources. However, the natural resources required for fertilizer are less prevalent and less heavily exploited than the limestone required for cement production and are generally confined to a small number of countries. Due to the location and scarcity of natural resources, production of primary materials is concentrated in a few countries across the region. Within those countries, control over these resources tends to be relatively concentrated:

- *Phosphate production:* Phosphate rock production is concentrated in North Africa, South Africa, and to some extent Tanzania and Senegal. All countries with phosphate production have a monopoly miner of phosphate rock—with the exception of Egypt, which has two.
- *Nitrogen fertilizer production:*
 - Of the Sub-Saharan African countries that are producing ammonium at present, all (South Africa, Zimbabwe, and Nigeria) have monopolies in ammonia production, although in Nigeria an additional plant is under construction and there are another two firms that have signaled they will enter the market. This is despite the fact that ammonium production is generally a contestable market.
 - In North Africa, the production of ammonium appears at first sight to be relatively less concentrated, although in Algeria all three ammonium-producing companies are joint ventures with the state oil and gas producer and, in Egypt, there is a high degree of cross-shareholding, with the state and OCI (Egypt's largest chemical producer) holding stakes across a number of producers.
- *Potash production:* There is no commercial production of potash in Africa at the time of writing. The Democratic Republic of Congo and Ethiopia are the only countries in Sub-Saharan Africa with commercially viable deposits of potash (Wanzala and Groot 2013). There are currently three potash explorations underway in the former and two in the latter.

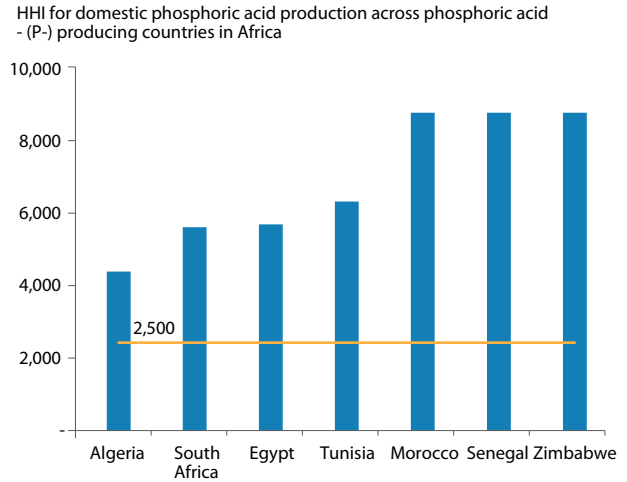
Every country in Africa with phosphate rock production is a monopoly at the national level except Egypt; all ammonia producers (as part of the N fertilizer supply chain) in Sub-Saharan Africa hold monopolies at the national level, despite ammonium being generally thought of as a contestable market.

While concentrated markets are not uncommon globally, Sub-Saharan Africa is particularly striking for the proportion of countries with a monopoly producer. As an example, Figure C2-7 compares the structure of the ammonia market (for plants that are currently operating) in Sub-Saharan Africa with that in other regions. Not only does Sub-Saharan Africa have relatively few producing countries, but it is also the only region where all producers hold monopolies.

Figure C2-6
Concentration in production of intermediary products and final fertilizers across countries in Africa

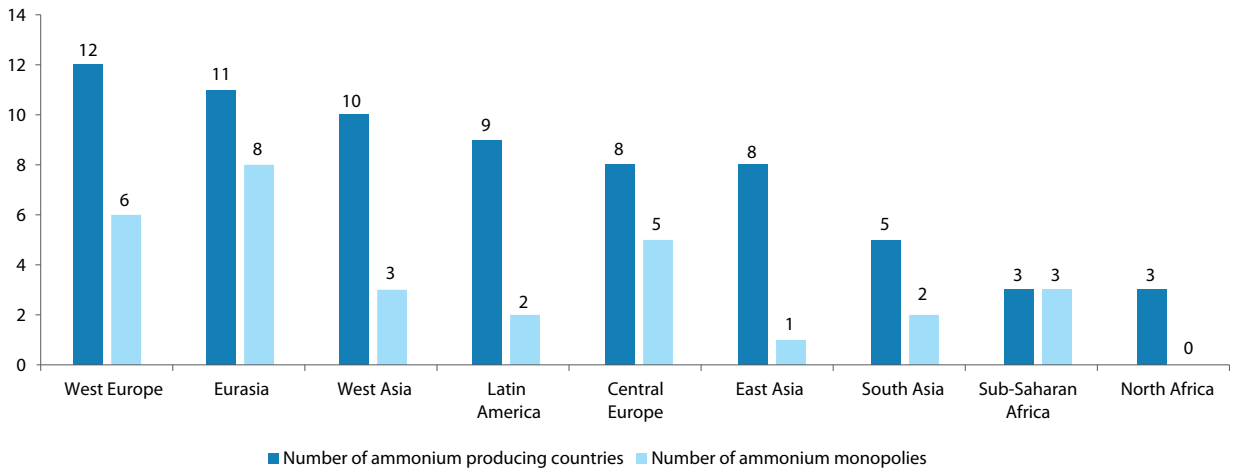


SOURCE: UN Comtrade.



SOURCE: UN Comtrade.

Figure C2-7
Number of ammonia-producing countries and number of those that are monopolies across regions

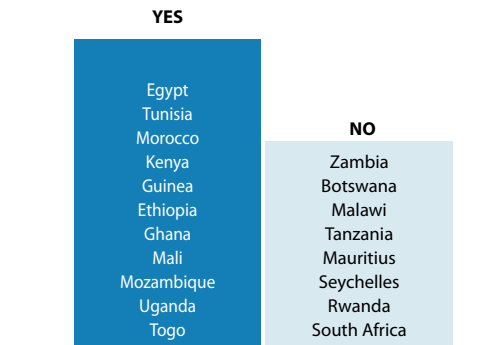


NOTE: Includes a new ammonia/urea plant currently under construction in Nigeria. OCP's joint ventures are taken as being controlled by OCP and have therefore been consolidated.
 SOURCE: IFDC Plant Capacity Listings, March 2015.

The market for the supply of straight and complex fertilizers (Market 5) is less concentrated than the upstream primary production segment. However, there are still a notable number of markets with high concentration and a lack of firm entry.

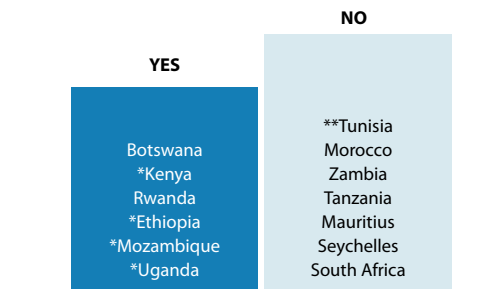
Of 19 countries examined, 58 percent had a single importer or producer holding more than half the market and 57 percent had not seen entry into the market for fertilizer supply in the last three years.

Figure C2-8
Does one importer or producer hold more than 50 percent of the market?



SOURCE: ACF-WBG 2015 and various sources.

Figure C2-9
Has a new supplier entered in the last three years?



*One importer or producer holds more than 50 percent of the market.

**A new firm has entered in the last three years, but it is a joint venture with the incumbent.
SOURCE: ACF-WBG 2015 and various sources.

FACTOR 3: Small market size combined with high economies of scale and high transport costs mean that markets tend toward a small number of vertically integrated players

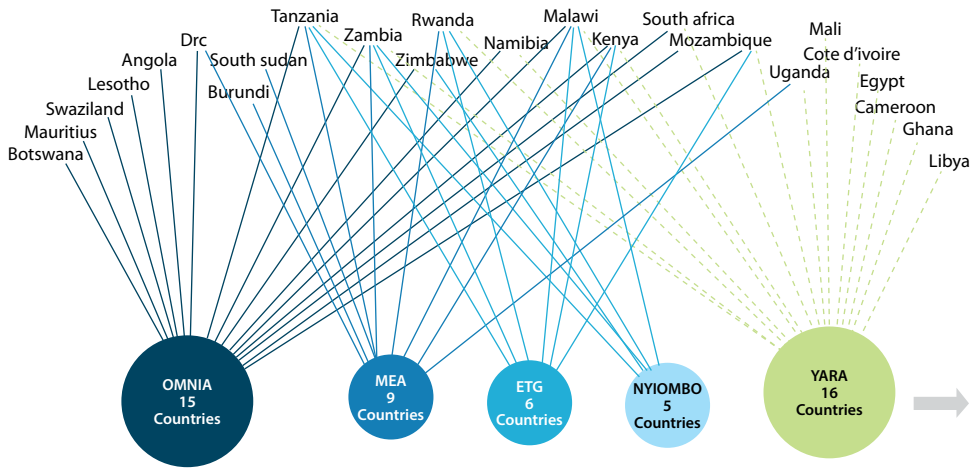
Demand for fertilizer in Africa is the lowest of any region (FAO 2015). As in the case of cement, the presence of economies of scale in production and import and the limited demand across Africa imply that fertilizer markets typically do not efficiently support many players. An example of this is that, in some countries, importers cooperate in buyers’ groups in order to reach large enough orders to benefit from economies of scale (for example, Ghana and Uganda). In Malawi, two significant firms that compete in import markets also jointly own a blending factory. Although such cooperation may be efficient and reduce costs, it could be important to ensure that it does not generate collusive behavior and that the benefits are passed on to consumers.

Moreover, as a bulky product, the ratio of transport cost to value is low along the fertilizer value chain, particularly at the upstream end. It tends to be more efficient to process primary materials and intermediate products in more concentrated locations. This encourages vertical integration. The level of competition in transport also plays a role.

FACTOR 4: Multimarket contact between suppliers

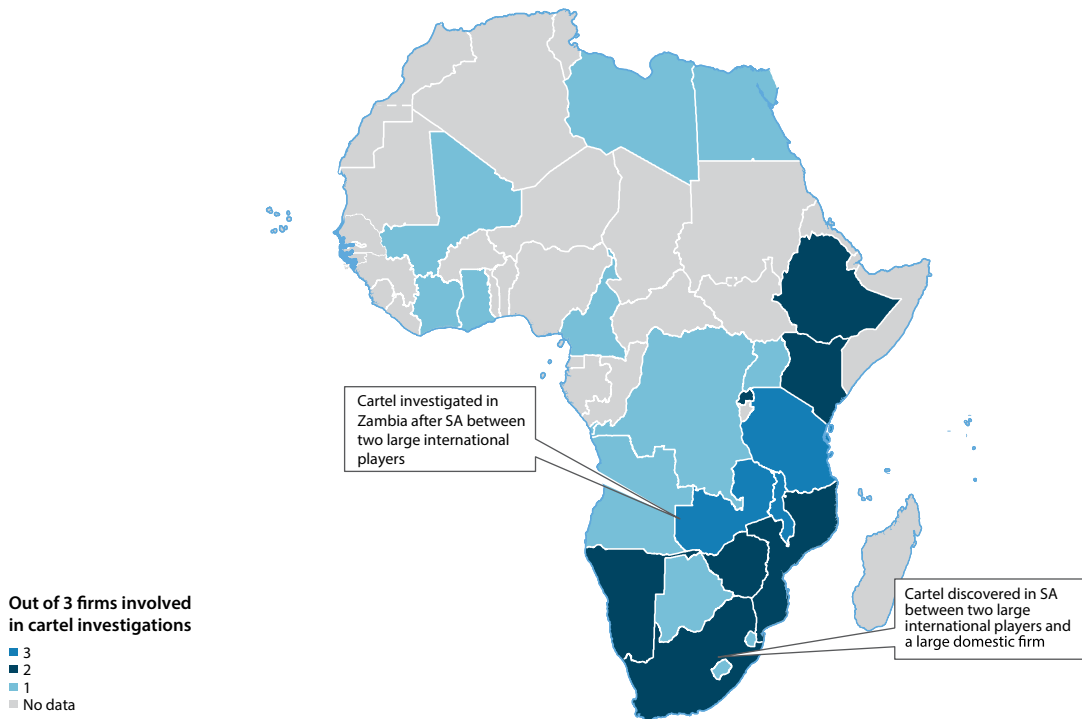
The five firms that appear most frequently in Africa meet each other in five African countries on average. The two firms with the largest presence supply 15 and 16 countries, respectively (Figure C2-10). Three of these firms have been involved in cartels investigated and detected in South Africa and Zambia (Figure C2-11).

Figure C2-10
The five fertilizer suppliers that appear most frequently across Africa, by the number of countries in which they operate



SOURCE: IFDC and various sources.

Figure C2-11
How many of the three firms involved in cartel investigations operate in the rest of Africa



FACTOR 5: State involvement in fertilizer markets is common throughout Africa

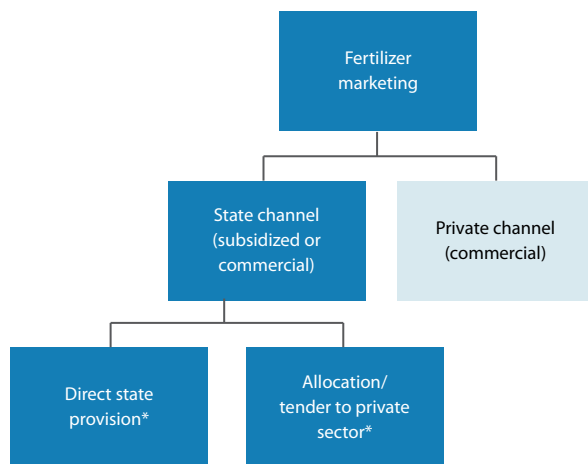
In Africa, the state is involved in the fertilizer supply chain through three key channels:

1. The state provides fertilizer *directly* on a *commercial* basis through ownership of production or distribution facilities.
2. The state provides fertilizer *directly* at *subsidized* rates through ownership of production, import, or distribution facilities.
3. State provides fertilizer *indirectly* at *subsidized* rates through allocation of production, import, or distribution rights to private sector operators.

Channel 1 is present in North African countries, Zimbabwe, and South Africa. In countries with fertilizer subsidy schemes, subsidized fertilizer is marketed through either channel 2 or 3.

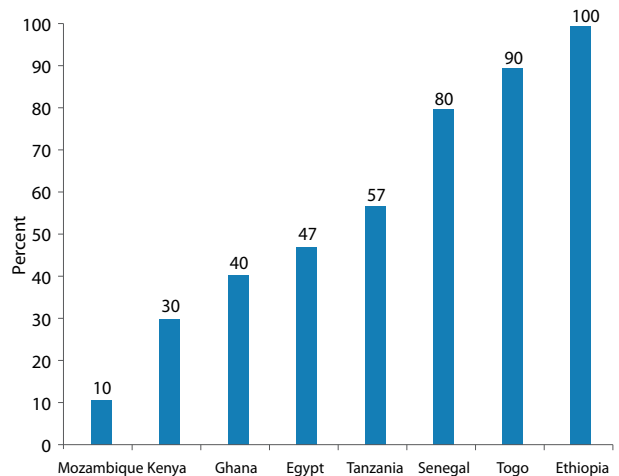
Unlike the case of cement, state-subsidized marketing channels usually exist in parallel with commercial supply (Figure C2-12 and Figure C2-13). One notable exception is Ethiopia. Subsidized supply can distort markets, however, leading to an unlevel playing field and crowding out the private sector.

Figure C2-12
State and private market channels operate in parallel



*In some cases, the state undertakes direct activities alongside allocation to the private sector.

Figure C2-13
Size of the subsidized state channel as a proportion of the total market size varies widely across countries



SOURCE: Various.

The potential for market distortions from subsidy schemes depends on the design and subsequent implementation of the scheme. Fertilizer subsidy schemes can impede competition and strengthen large or incumbent suppliers’ market positions by acting as a barrier to entry due to increased uncertainty for new entrants, and through tender conditions that restrict the participation of some firms or nontransparent tender procedures that favor well-connected firms. In the former case, there is some evidence that firms face greater guaranteed demand but also a number of uncertainties (regarding, for example, the outcomes of tendering processes or

government payments) by engaging in subsidy schemes, and therefore competing suppliers tend to raise their margins (Druilhe and Barreiro-Hurlé 2012). In Zambia, subsidized inputs were more expensive than the private-sector benchmark in four out of five provinces surveyed by the World Bank (2010). In Ghana, Filipski and Taylor (2011) estimate that the subsidy was effectively lowered from 50 percent to 30 percent of the price as a result of this effect, and subsidy costs for the government were raised by an additional \$4.03 million. Another common concern over fertilizer subsidies is whether they crowd out the private sector by making it difficult for commercial providers to compete with subsidized products (Box C2-2).

Box C2-2

Do fertilizer subsidy schemes crowd out commercial supply?

Following a wave of liberalizations in the 1980s and 1990s, fertilizer subsidy schemes have once again become a major pillar of many agricultural development strategies in Africa. Ten African governments spend roughly \$1 billion annually on input subsidy programs, amounting to 28.6 percent of their public expenditures on agriculture (Jayne and Rashid 2013).

Fertilizer subsidies can *crowd in* the private sector—and therefore potentially increase competition—by sensitizing farmers to the benefits of fertilizer, boosting demand for it, and helping commercial players to raise their profitability through economies of scale from importing and distributing a larger volume of fertilizer. On the other hand, fertilizer subsidies can *crowd out* the private sector if the right conditions are not in place.

Those opposed to fertilizer subsidies believe that subsidy schemes, while intended to meet the needs of remote and poor smallholder farmers, undermine the market for private traders more generally and weaken prospects for building a vibrant market-oriented fertilizer distribution system. Under this line of reasoning, one alternative would be to restructure the fertilizer market fully to remove constraints on the private sector and to ensure adequate investment in infrastructure to allow rural and remote communities to be served. Another, less drastic, alternative is the implementation of “smart subsidies” or voucher-based systems that rely on the private sector for the supply and distribution of fertilizer. These schemes have become increasingly popular in an attempt to promote the development of commercial input distribution systems without phasing out subsidies.

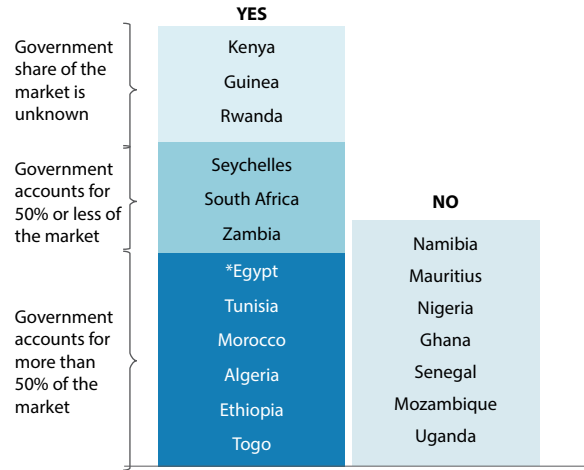
The recent literature on Sub-Saharan Africa generally suggests that fertilizer subsidies have crowded out the commercial fertilizer sector, particularly when subsidy schemes have not been adequately targeted at the poor (Xu *et al.* 2009; Ricker-Gilbert *et al.* 2011). Takeshima and Nkonya (2014) examine how the previous fertilizer subsidy program in Nigeria affected the demand for commercial fertilizer, finding that for every 10 kg of fertilizer distributed, demand for commercial fertilizer fell by 1.9–3.5 kg. Jayne *et al.* (2013), meanwhile, show how earlier estimates of crowding out may have been seriously underestimated by not taking into account the diversion of program fertilizer by authorities.

There is some evidence, however, that a subsidy can stimulate fertilizer demand through improved beneficiary targeting. Liverpool-Tasie (2013) found evidence of crowding-in of commercial fertilizer demand in Nigeria, the success of which appears to be related to the fact that fertilizer vouchers were mainly targeted to areas where private commercial markets were relatively weak and to households that were relatively poor.

Direct market participation by the state is relatively common. Based on available information, direct state participation in fertilizer import or production—in which the state itself carries out these activities⁹³—is significant across Africa. Of the 19 countries studied, 63 percent exhibit some degree of direct state participation in markets (Figure C2-14).

The state participates directly in fertilizer markets in 63 percent of countries studied.

Figure C2-14
Extent of direct government participation in fertilizer production and import markets: Does the government carry out import or production activities directly?



SOURCE: ACF-WBG 2015 and various sources.
NOTE: *More than 50 percent only for nitrogen fertilizers.

FACTOR 6: Vertical integration along the fertilizer supply chain is common in Africa

All countries with blending capacity in Africa have vertically integrated producers or importers. Vertical integration is not a risk to competition *per se* and can in fact hold a number of efficiencies in the fertilizer sector:

- It can encourage investment by fertilizer producers and/or importers in distribution and agro-dealer networks by solving the free-rider problem.
- It can encourage investment in straight fertilizer production capacity, which is specific to a natural resource production site—such as investment in gas pipelines or phosphoric acid plants on the site of phosphate rock mines—by solving the hold-up problem.
- It can prevent double marginalization between two monopolistic segments, such as natural resource production and straight fertilizer production.

There are some situations in which vertical integration may affect competitive outcomes. As in the case of cement, the risk of vertical integration as a potential barrier to entry is limited if a potential entrant can enter various segments of the vertical chain simultaneously. The degree of vertical integration would only pose a potential risk of exclusionary behavior if there were a dominant, vertically integrated supplier of primary materials or straight fertilizers with a possible incentive to foreclose downstream non-vertically-integrated complex fertilizer producers.

⁹³ This does not include countries in which the state tenders out contracts to private sector players to conduct these activities.

D. Government interventions that may act as obstacles to competition

Anticompetitive behavior along the supply chain can be facilitated by regulations that restrict competition. Several rules, regulations, and government actions in Africa may be affecting how fertilizer markets along the value chain perform (Figure C2-15). A star indicates where those factors are present in Africa. Other rules are summarized below in Table C2-2.

Figure C2-15
Rules that reinforce dominance or limit entry in the fertilizer supply chain

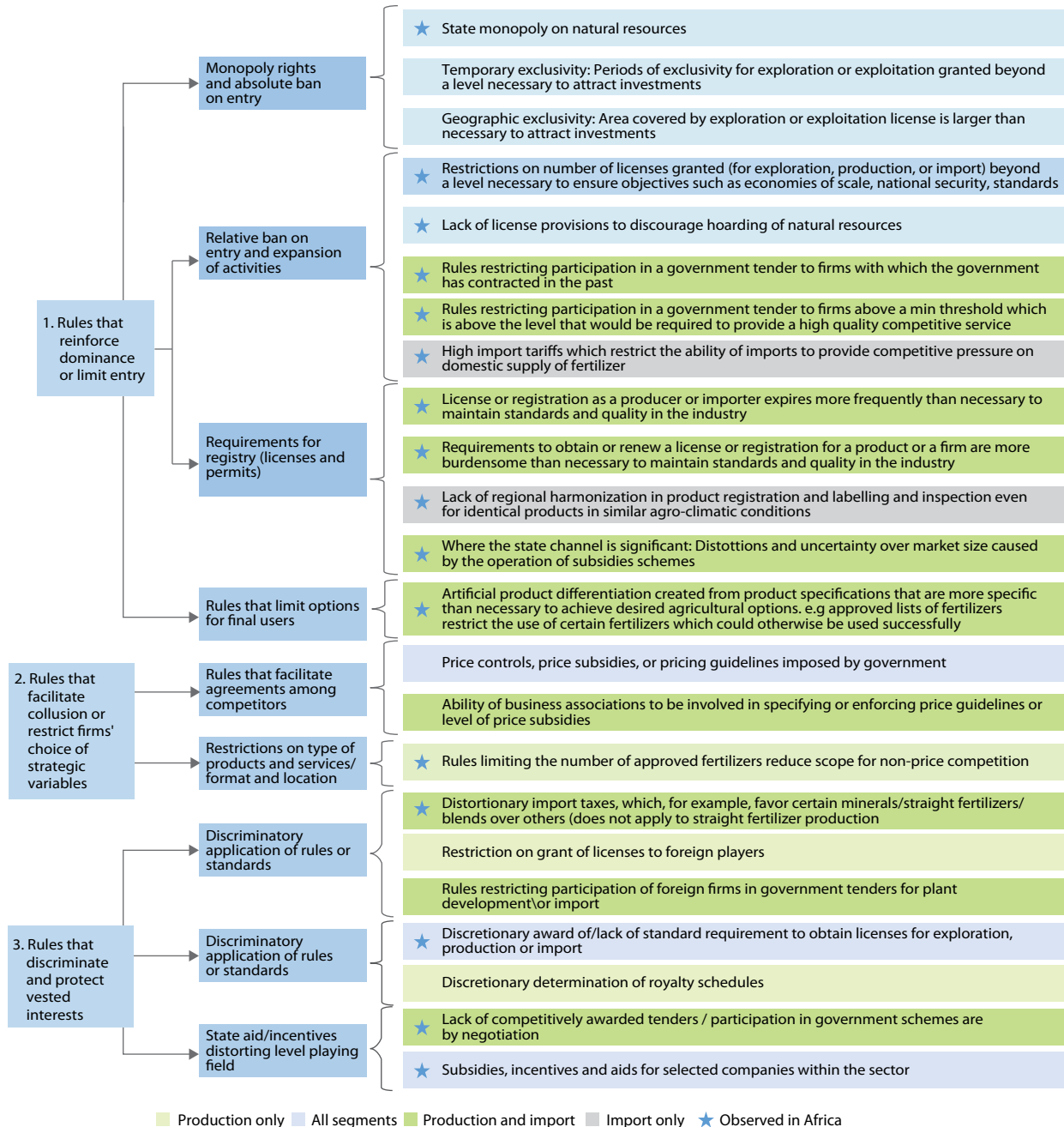


Table C2-2
Types of regulatory obstacles to competition in fertilizers markets and examples from Africa

A. Rules that reinforce dominance or limit entry		
Category	Rule	Examples from Africa
Monopoly rights and absolute ban on entry	<p>State monopoly on natural resources:</p> <ul style="list-style-type: none"> This restriction interacts with a high degree of downwards vertical integration from primary material production to increase the risk of exclusionary behavior. 	<p>All P-producing countries are monopolies* in phosphate rock and phosphoric acid.</p> <p>All N fertilizer producing countries are monopolies in ammonia except Egypt;** all are monopolies in ammonium nitrates except South Africa.</p> <p>Vertically integrated state monopolies in P and N in Zimbabwe.</p> <ul style="list-style-type: none"> These monopolies have joint holding in downstream complex fertilizer production. Downstream producer's dependence on these monopolies is particularly high, given that its processes are designed to utilize Zimbabwean intermediate products.
Relative ban on entry and expansion of activities	Restrictions on number of licenses granted beyond the necessary level.	<p>Given the move towards developing potash reserves in Africa, it will be important to check how exploration and mining concessions are being awarded.</p> <p>In Ethiopia, for example:</p> <ul style="list-style-type: none"> One player has been awarded four potash concessions of over 300 square km in total. Potash concessions were awarded to a Norwegian and an Indian firm in the early 1990s, but neither mined actively until around 2010.
	Lack of license provisions to discourage hoarding.	
	Rules restricting participation in a government tenders to firms with which the government has contracted in the past.	<p>Discriminatory tender rules in Zambia's subsidy program.</p> <ul style="list-style-type: none"> Favoured two incumbents. In 2013, the Ministry of Agriculture amended tender bidding requirements with favorable results for competition.
	Rules restricting participation in a tenders to firms above a minimum size.	
	Import tariffs that restrict the ability of imports to provide competitive pressure on domestic supply of fertilizer.	<p>In the Abuja Declaration 2006, African governments agreed to eliminate tariffs and taxes on fertilizer imports. However, a number of countries continue to impose miscellaneous taxes on fertilizer, such as import declaration fees, levies, duties on micronutrients used in blending, and value-added tax on imported raw materials.</p> <ul style="list-style-type: none"> For example, Mozambique, Burkina Faso, Ghana, and Kenya. In Uganda and Kenya, certain refundable taxes are charged, but refund delays may in fact represent a cost for importers.
Burdensome requirements for registry (licenses and permits)	Requirements for obtaining or renewing a license or registration for a product or a firm are more burdensome than necessary.	<p>Long testing periods for new fertilizers can go beyond the level necessary to ensure equality and can act as a barrier to entry, for example:</p> <ul style="list-style-type: none"> In Ghana it can take up to seven years to approve a new fertilizer compound for cocoa. In Nigeria, fertilizer imports are routinely delayed due to the requirement that all imports undergo laboratory testing. <p>Burdensome registration procedures increase the costs of participation:</p> <ul style="list-style-type: none"> In Uganda, for example, it takes on average over 500 days and 7 procedures to register a fertilizer. In Rwanda and Ethiopia this requires only two procedures.
	License or registration as a producer or importer expires more frequently than necessary.	<p>In some countries, registrations are not one-off but require frequent renewal:</p> <ul style="list-style-type: none"> In Rwanda and Uganda, for example, registration expires every three years, and in Mozambique every five years. By comparison, registration in the European Union and Ethiopia is indefinite.

Category	Rule	Examples from Africa
Burdensome requirements for registry (licenses and permits)	Lack of regional harmonization in product registration, labeling, and inspection—even for identical products in similar agro-climatic conditions	<p>In Malawi and Uganda, entry of fertilizers that are used routinely in neighboring countries is hindered because the product either does not meet national specifications or must undergo a mandatory three years of testing before approval (Uganda).</p> <p>Work is being done at the regional level, but progress has been slow:</p> <ul style="list-style-type: none"> • EAC and SADC: Discussions on common registration schemes are ongoing. The SADC Secretariat is also in the process of developing a simple, harmonized labeling system. • ECOWAS: A regional legal framework to harmonize national fertilizer quality control regulations was enacted formally in 2014. But only 4 out of 15 ECOWAS countries were classified as having made some progress toward implementation. • WAEMU: WAEMU has agreed to follow the regulations set by ECOWAS, but the formal convention for this arrangement has not yet been signed.
Rules that limit options for final users	Artificial product differentiation created from product specifications that are more specific than necessary to achieve desired agricultural outputs	<p>Product specification in national regulations can restrict the entry of substitutable products, for example:</p> <ul style="list-style-type: none"> • In West Africa, specifications for cotton fertilizers differ across countries despite various specifications being substitutable in many cases. • This limits regional trade and raises production costs by reducing the scope for taking advantage of economies of scale. • Such a rule can also fall under the second category of rules that facilitate collusion and raise the cost of competing by restricting firms' choice of strategic variables.
B. Rules that discriminate, distort the level playing field, and protect vested interests		
Category	Rule	Examples from Africa
Discriminatory application of rules or standards	Distortionary import taxes (for example, those that favor certain minerals/straight fertilizers/blends over others)	<p>Domestic blenders could be disadvantaged against international suppliers by relatively higher duties on imports of micronutrients than on final products, for example:</p> <ul style="list-style-type: none"> • Zambia charges a relatively high duty on micronutrients. • In Nigeria there is 0% duty and VAT charged on final fertilizer imports, but 5% VAT for fertilizers that have been blended within the country.
State aid/ incentives distorting level playing field	Lack of competitively awarded tenders / participation in government schemes are by negotiation	<p>A lack of competitive tenders distorts the level playing field, for example:</p> <ul style="list-style-type: none"> • In Egypt, public procurement of fertilizer is conducted through the agricultural development bank by direct order, rather than through a competitive process. • In Burkina Faso and Mali, large cotton companies have a monopoly on the distribution of fertilizer. They procure fertilizer for distribution through a bidding system. However, these cotton companies are part-owned by the large fertilizer producers, which also participate in tenders.
	Subsidies, incentives, and aids for selected companies within the sector	<p>Selective treatment of certain private firms:</p> <ul style="list-style-type: none"> • In Tanzania, a private firm benefited from state assistance that was not provided to other firms, for investment in its own transport infrastructure, warehousing, and bagging facilities. <p>Selective treatment of state-owned enterprises:</p> <ul style="list-style-type: none"> • In Egypt, during natural gas shortages, state firms have received rationed state-controlled gas supplies while private (export-focused) firms have not.

Fertilizer markets register several rules that limit entry and facilitate dominance across the value chain. Some countries grant the state a monopoly over natural resources, which may act as an absolute barrier to entry to other players in fertilizer production. In other cases, there is a lack of licensing provisions to discourage hoarding of these resources. It is also common to impose restrictions on the number of licenses granted that go beyond the level necessary to satisfy standards (for example, in Ethiopia). Similarly, burdensome registration procedures increase the costs of participation, with long testing periods acting as barriers to entry (as in Ghana). In some countries, registrations are not one-off but require frequent renewal (for example, in Rwanda and Uganda). Finally, the absence of a harmonized regional registration framework reduces intraregional trade (as in the case of ECOWAS) and distortive import tariffs, contrary to the Abuja Declaration, are present (for example, in Burkina Faso, Ghana, Kenya, and Mozambique).

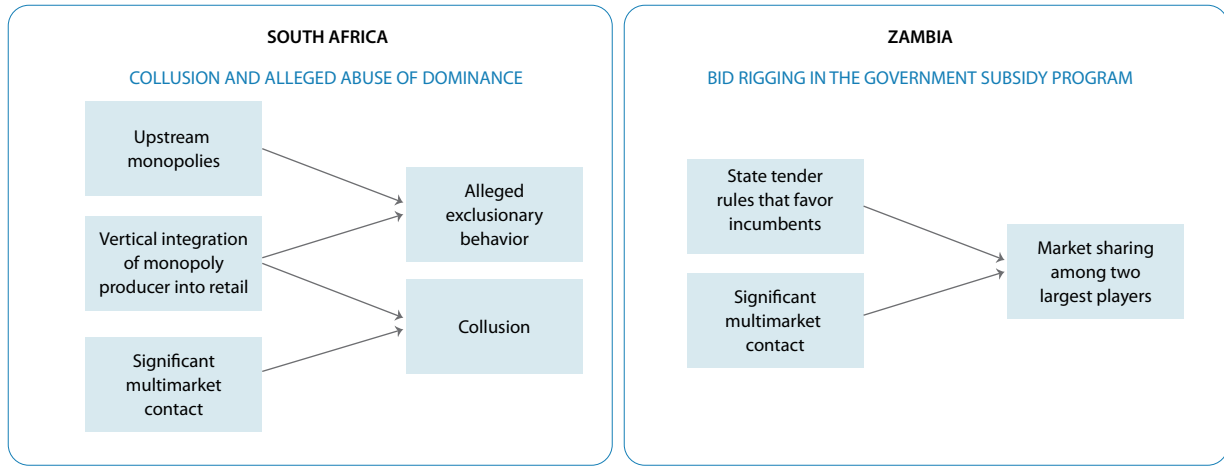
Rules that facilitate collusion or restrict firms' choice of strategic variables have been identified, particularly in production and import. Rules reducing the number of approved fertilizers affect market dynamics. This is the case for product specifications in national regulations that can restrict entry of substitutable products (as in ECOWAS).

Finally, rules that discriminate or protect vested interests are present in some countries. A lack of competitive tendering hinders competition in some countries (such as Burkina Faso, Egypt, and Mali). Selective treatment of certain firms, either state-owned or private, has also been a concern (as in Egypt and Tanzania).

E. Anticompetitive behavior detected and sanctioned in Africa

Investigations into anticompetitive behavior in the fertilizer industry have been opened in Egypt, South Africa, Tunisia, and Zambia in the last two years, according to the WBG-ACF survey. Only in Zambia were sanctions imposed (Box C2-4). However, another noteworthy case in which sanctions were imposed were the complaints launched against Sasol, Yara, and Omnia in South Africa's fertilizer sector relating to collusion and abuse of dominance (although ultimately only the collusion case was sanctioned). Both the Zambian and South African cases displayed factors that may have increased the risk of anticompetitive behavior (Figure C2-16). The South African case is of particular interest given the integral role played by several industry associations in maintaining the cartel. A summary of the cases can be found in Box C2-3 and Box C2-4.

Figure C2-16
Key characteristics of anticompetitive behavior investigated in African fertilizer markets



Box C2-3
Collusion and abuse of dominance in South Africa's fertilizer markets

The 2003 complaint

In 2003, Sasol—South Africa's former state-owned gas and oil company—was the exclusive producer of ammonia in South Africa, which it supplied as an input for the production of ammonium nitrates (ANs) such as limestone ammonium nitrate (LAN) and ammonium nitrate solution (ANS), which are used either as straight fertilizers or an input to the production of complex fertilizer. The AN fertilizers were produced by three firms: Omnia, AEL, and Sasol's own downstream subsidiary. Sasol and Omnia were integrated further downstream into the production of complex fertilizer, while AEL operated under an exclusive contract for supply of AN to Yara (a previous subsidiary of AEL) for production of complex fertilizers. Neither AEL nor Omnia supplied significant amounts of AN to independent producers of complex fertilizer, leaving those independent producers dependent on either imports or urea (an imperfect substitute for ANs) or on Sasol. Sasol, Omnia, and Yara were then also integrated into the retail distribution segment of the value chain.

In November 2003, Nutri-Flo, a small producer and distributor of complex fertilizer, lodged a complaint with the CCSA alleging that Sasol, Yara, and Omnia were engaged in collusion by dividing the markets for various fertilizer products, including LAN, and by fixing prices of LAN and other fertilizer products in both the market for retail and the market for supply of complex fertilizer. Nutri-Flo, as a customer of Sasol, also alleged that Sasol had abused its dominance by engaging in excessive pricing with respect to LAN and ANS, and in exclusionary conduct through an effective margin squeeze. The case was referred to the Competition Tribunal in 2005.

The 2007 complaint

During 2007, the CCSA initiated another complaint, this time against Sasol and Foskor for collusion in the phosphoric acid industry. Foskor, the partly state-owned monopoly phosphate miner in South Africa, had entered into an agreement with Sasol whereby Sasol agreed to manufacture phosphoric acid exclusively for Foskor. According to the investigation, this amounted to collusive conduct, with Sasol effectively agreeing not to compete with Foskor in the phosphoric acid market.

In 2009, a settlement agreement was reached between the CCSA and Sasol in which Sasol admitted that it had agreed with Yara and Omnia on various pricing formulae for, and discounts applicable to, the products that the three firms manufactured and supplied. Having admitted to collusive conduct, the firm agreed to pay a penalty of \$15.7 million, representing 8 percent of its Sasol Nitro division's turnover.

The settlement covered Nutri-Flo's collusion complaint and the CCSA-initiated investigation against Sasol for collusion with Foskor. It did not, however, cover any abuse of dominance issues. In addition to paying a penalty, Sasol undertook to cooperate with CCSA in prosecuting the remaining respondents. Sasol provided the CCSA with additional evidence on cartel conduct among the respondents.⁹⁴

The role of Information exchanges

One of the factors that the CCSA identified as pointing to the possibility of collusion was that the respondents had established and participated in various committees in which detailed information was exchanged on a range of nitrogenous fertilizer products.

Das Nair and Mncube (2014) assess how this information exchange could have allowed the maintenance of collusion in certain fertilizer markets. Information exchange in the fertilizer industry occurred through the following platforms: the Nitrogen Balance Committee (NBC), the Import Planning Committee (IPC), the Export Club, and an industry association, the Fertilizer Society of South Africa (FSSA). The respondents were the main members in each of these forums.

In the NBC, a body established to ensure the security of supply of nitrogen-based fertilizers, individual members shared highly disaggregated information containing forecasts (requirements by regions and planned imports) for a number of key fertilizer products. The detailed nature of the information exchanged created a high level of transparency, allowing each firm to forecast competitors' market shares for the next year.

Through the IPC, data around imported fertilizer product volumes were shared. The claimed purpose of the committee was to coordinate volumes of imports of various products and to share logistics and minimize supply chain costs. The respondents also used information exchanged during these meetings to agree on pricing formulae used to calculate the base price for certain fertilizer products.

Through the Export Club, information on fertilizer sales designated for export markets was shared. The purpose of the club was to coordinate bids for the supply/export of products to the Southern African region through traders. The combination of sharing competitors' future projections of local sales from data exchanged in the NBC, import data from the IPC, and export data from the Export Club left very little uncertainty about competitors' future market shares. Meanwhile, information on past market shares by region was collated by the FSSA, allowing deviations in market shares in each region to be monitored, given that only three players were present in most markets.

Source: CCSA (2009), CCSA (2012).

⁹⁴ Yara and Omnia objected to the CCSA's reliance on the additional evidence provided by Sasol on the basis that this evidence was not covered by the complaint. This gave rise to a legal battle between the CCSA, and Yara and Omnia in the Tribunal, the Competition Appeals Court (CAC), and the Constitutional Court. The CAC found the referral against Yara and Omnia invalid since the complainant had not intended to complain against the anticompetitive behavior submitted by third parties.

Box C2-4 The Zambian fertilizer cartel

Introduction

In 2012, the Competition and Consumer Protection Commission ('the Commission') of Zambia received a complaint in relation to the Farmer Input Support Programme (FISP). Nyiombo and Omnia ('the Parties') had been supplying fertilizer under the FISP for 10 years. The complainant submitted that the tendering and eventual award of the contract by the Zambia Public Procurement Authority (ZPPA) were in contravention of the Competition and Consumer Protection Act. In particular, the complainant alleged that the Parties were dividing the market for tendered fertilizer under the FISP.

It was alleged that the Government of Zambia required companies to submit bids for 10 provinces, but that the two firms divided the markets in such a manner that, where one party was bidding the other agreed not to bid. It was stated that Nyiombo in 2011 was awarded Central, Copperbelt, Luapula, Northern, North Western, and Muchinga provinces, while Omnia was awarded Western, Lusaka, Eastern, and Southern provinces. The complainant also alleged that Nyiombo worked closely with Omnia and that Nyiombo bought fertilizer and later shared its stocks with Omnia.

Historically, Nyiombo and Omnia had dominated supplies to the FISP. Vilakazi (2016) points out that this was likely due in part to tender bidding requirements that favored incumbents and inhibited an open and competitive process. In response, in 2012/13, the permanent secretary of agriculture intervened to remove some restrictive clauses of the tender bidding requirements and open up the market to more bidders.⁹⁵

Action taken by the Commission

The Commission conducted dawn raids at the premises of Nyiombo and Omnia and referred to related studies it had conducted in the past. Various market developments and trends were observed and taken into account. Omnia's conduct in other countries, including South Africa (Box C2-3), was also taken into consideration.

Based on the documents seized from the Parties, the Commission established that there was a collusive agreement between them. The documentation had demonstrated the agreement between the two firms in pursuing a coordinated course of action on the market.

Current status

The Parties appealed the matter to the Competition and Consumer Protection Tribunal, and the Tribunal ruled in favor of the Parties. The Commission thereafter appealed to the High Court, which also ruled in favor of the Parties. The Commission has further appealed the matter to the Supreme Court against the judgement of the High Court, and the matter is pending judgement.

Effects

According to Vilakazi (2016), there is some evidence that the fine imposed on the two firms in 2013 and the government's moves to open up the tender process to other companies have disrupted the existing arrangement between the players. Available information suggests that ETG has been able to grow substantially in Zambia in the past two years. Although ETG and other firms have been in the market for some years, the market became more contestable following the cartel finding, such that ETG has been able to gain share at the expense of Nyiombo in particular, and Omnia to some extent. Savings from ending the cartel would have been around \$21 million in 2013.⁹⁶

⁹⁵ See "Government broadens FISP tender process," April 18, 2012, at http://www.postzambia.com/post-read_article.php?articleId=26958.

⁹⁶ Assumes that the Zambian urea price remained in 2013 around \$119/ton above the Tanzania price as it was in 2010 (after accounting for transport costs).

F. A summary of potential competition issues for monitoring in the fertilizer supply chain

The interaction of industry characteristics, the occurrence of vertical integration, and the regulatory restrictions that apply to the fertilizer supply chain lead to varying market dynamics. In the fertilizer supply chain, this report has identified the two types of anticompetitive practice that are mostly likely to arise,⁹⁷ namely collusive horizontal agreements between rivals and input foreclosure, where a vertically integrated supplier (for example, of primary materials or straight fertilizer) refuses to supply inputs to downstream rivals (in straight fertilizer production or complex fertilizer production). As discussed in previous sections, several red flags can lead to a particular type of anticompetitive behavior. There are also factors, however, that could mitigate the risk that these behaviors will occur, including setting regulations in a procompetitive way. These red flags and potential mitigants are outlined in Table C2-3. Finally, Figure C2-17 summarizes the most pertinent issues in the various segments of the supply chain. These are divided into issues that may require enforcement action from authorities and issues that could be tackled through advocacy efforts.

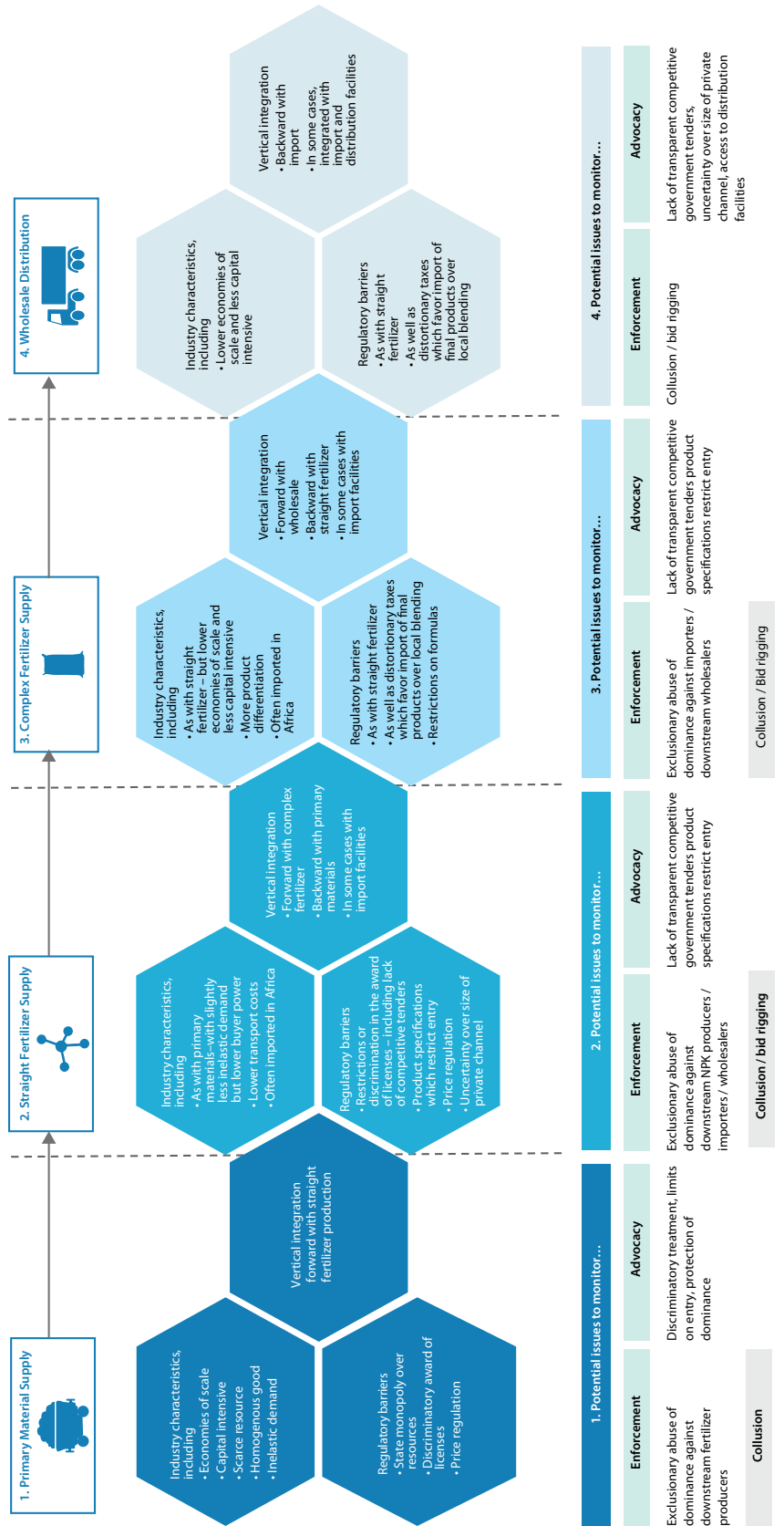
Table C2-3
Red flags and mitigating actions to prevent two key practices in the fertilizer supply chain: collusion and foreclosure of rivals

Risk of collusion in the fertilizer supply chain	
Red flags	<ul style="list-style-type: none"> • Industry-wide supply-side characteristics that facilitate collusion are most common in primary materials, straight fertilizer, and complex fertilizer production. • Other country-specific supply-side characteristics that facilitate collusion can be analyzed, including the presence of information-exchange mechanisms such as industry associations, excess capacity, symmetric firm size, frequency of transactions, multimarket contact, or current or historical price controls, which can act as a focal points. • In a number of countries, supply of straight fertilizer and complex fertilizer through a subsidized government channel makes up a significant part of the market. <ul style="list-style-type: none"> • Unless awarded in a transparent and competitive way, such contracts can lead to bid rigging for government contracts. • Where suppliers of straight fertilizer and complex fertilizer face small retailers or agricultural groups such as cooperatives, as their buyers, buyer power to counteract collusive pricing is likely to be low given the relatively small order size, the relatively disperse structure of the buyers, and the limited scope for backward integration into imports due to a lack of economies of scale. • Wholesale sharing agreements in which a nonintegrated fertilizer producer uses the wholesale capabilities of an upstream rival for the wholesale of its fertilizer are present in some markets. This increases exchange of information on prices of fertilizer and could facilitate collusive agreements.
Mitigating actions	<ul style="list-style-type: none"> √ Set regulations for straight fertilizer and complex fertilizer to allow for entry where viable √ Set the import-licensing regime to allow for greater competition from imports. For example: <ul style="list-style-type: none"> √ Allow for registration of products after testing for a minimum number of seasons in other countries with similar agro-climactic conditions. √ Award tenders through a competitive process rather than through negotiation with firms. <ul style="list-style-type: none"> √ Design tender processes to minimize the chances of facilitating collusion, including, for example, restrictions on information shared during the tender process. Minimize the frequency of transactions to the extent possible. √ Set rules on participation in tenders to allow for foreign competition or permit entry of those who have not participated in tenders before, as long as they meet certain criteria on financial strength.

⁹⁷ The types of anticompetitive behavior outlined here are not intended to be exhaustive, but instead a summary of the most likely and most harmful types of behavior that might arise.

Risk of exclusion of non-integrated fertilizer producers by integrated firms e.g. through refusal to deal or margin squeeze			
Exclusion of (downstream player)...	Straight fertilizer producers	Complex fertilizer producers	Straight or complex fertilizer importers
By (integrated upstream player)	Integrated primary material producers	Integrated straight fertilizer producers or straight fertilizer importers	Straight fertilizer/complex fertilizer importers integrated into import facilities, such as port facilities
Red flags	<ul style="list-style-type: none"> • Upstream industry characteristics facilitate upstream dominance. <ul style="list-style-type: none"> • Indeed, the risks of exclusion of complex fertilizer producers is more likely if there has been foreclosure of straight fertilizer producers as there is greater likelihood of upstream dominance • Presence of a vertically integrated dominant upstream firm. • Assessment is required of whether downstream profits from foreclosure are likely to be greater than the potential loss in upstream profits. 		
Mitigating actions	<ul style="list-style-type: none"> √ Set regulations to allow entry and expansion of efficient competitors upstream or entry of other integrated producers: <ul style="list-style-type: none"> √ Ensure that licenses and quotas for upstream activities are awarded to allow maximum competition, taking into account natural monopoly characteristics, the need for scale to recover investment costs, and other national security measures. √ Implement antihoarding measures for primary material production. √ Award licenses based on clear criteria, including potential efficiency. √ This is particularly important where new licenses for mineral resource extraction are now being awarded, as in the case of potash reserves in the Democratic Republic of Congo and Ethiopia. √ Set regulations and licensing for import of straight fertilizer and complex fertilizer to mitigate against upstream dominance and to counteract effects of downstream foreclosure. √ Ensure nondiscrimination in the type of licenses granted among firms in terms of their ability to vertically integrate into straight or complex fertilizer production. √ Where exclusive rights to operate an import facility are granted to one integrated importer, assess the extent to which this facility constitutes an essential facility and ensure application of access regulations for other importers. 		

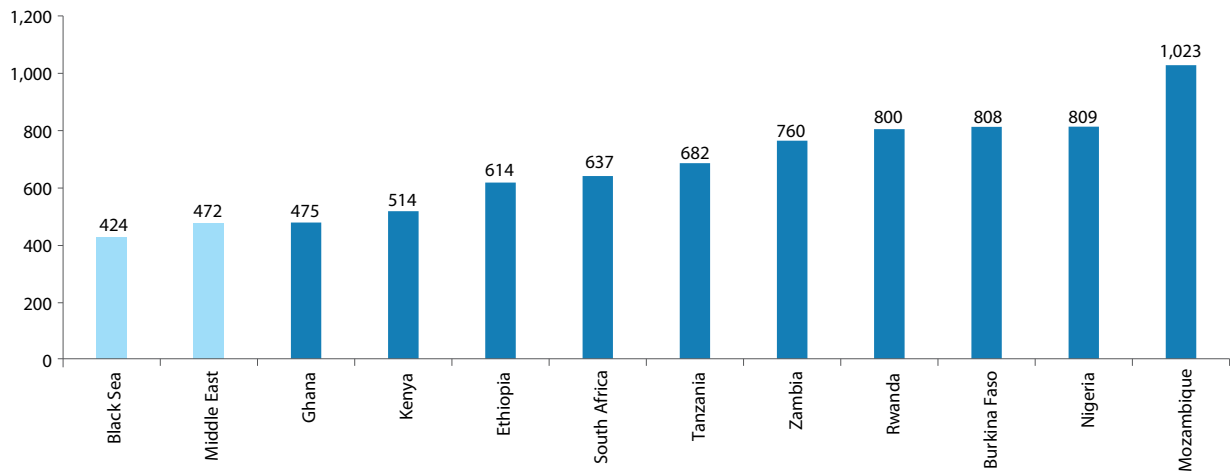
Figure C2-17
A summary of potential competition issues for monitoring in the fertilizer supply chain



G. The impact of a lack of competition on fertilizer prices in Africa

A primary concern of countries in the region is that fertilizer prices are generally higher in African countries than in peer countries in other regions. World Bank (2014a) examines a sample of African countries—including Burkina Faso, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Rwanda, South Africa, Tanzania, and Zambia—and finds urea prices at retail outlets to be well above FOB prices and higher than average retail prices in the Middle East and in the Black Sea region (Figure C2-18). There is also a high degree of variation in prices among the sampled countries, with Ghana and Kenya having the lowest prices, and Mozambique, Nigeria, and Burkina Faso having the highest prices.

Figure C2-18
Average retail price of urea in rural areas (\$/metric ton)

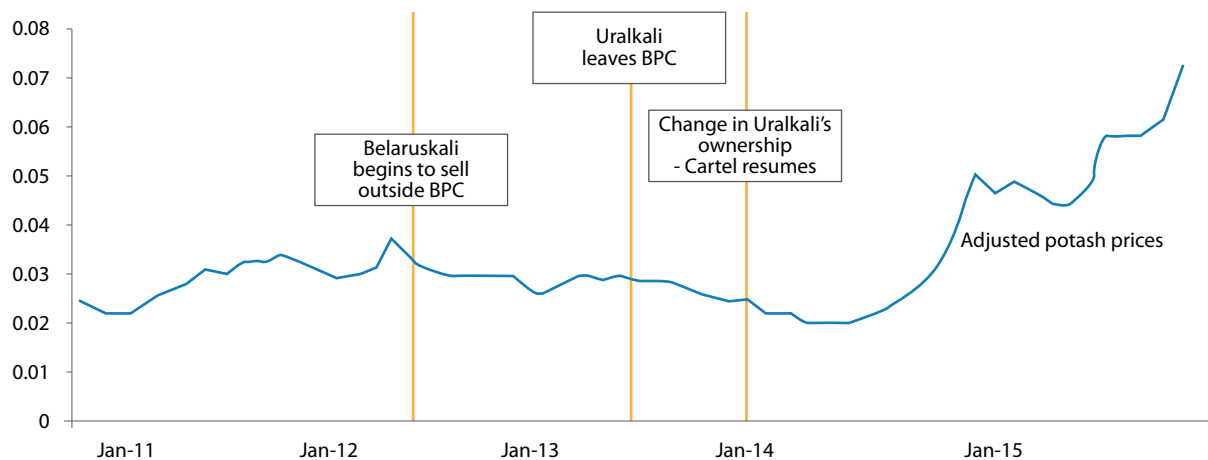


SOURCE: World Bank, Agribusiness Indicators: Synthesis Report, 2014.

The potential savings from boosting competition in fertilizer markets could be significant. Fertilizer markets in Africa have exhibited high and stable levels of concentration, with relatively few entries in the last few years. In 58 percent of African countries, one supplier holds more than half of the market, and 57 percent of African countries have seen no entry in import or production in the last three years. Therefore, removing regulatory restrictions that inhibit entry and closely monitoring markets to detect potential cartels will be beneficial. In the case of cartel enforcement, the direct savings from ending the Zambian bid-rigging cartel were around \$21 million in 2013. Eliminating regulatory restrictions that act as barriers to entry in fertilizer markets can also benefit farmers and businesses by reducing their costs and increasing productivity.

Based on available data, global export cartels such as the Belarus Potash Company export cartel, could increase final consumer prices of certain fertilizers in Sub-Saharan Africa by at least 29 percent. In the case of potash, a conservative estimate suggests that the export cartel's overcharge is 44 percent⁹⁸ (Figure C2-19). Given that global FOB prices tend to make up around 65 percent of the final retail price of fertilizer across a number of African countries (IFDC 2007), this would equate to an increase in fertilizer prices of around 29 percent to the final consumer, assuming a simple pass-through. This is consistent with retail prices in Africa being significantly above prices in the Black Sea and Middle East regions. Based on the consumption of potash in Africa in 2014 and 2015 (FAO 2014), and global prices of potash,⁹⁹ the potential cost to Africa of the resumption of global cartel activities in 2014 and 2015 would be equivalent to an additional expenditure of \$109.8 million over the two years. This estimate is a first-order approximation and does not take into account the demand effect that would arise from a reduction in potash prices. Overall, consumption of potash is very low at present (and below optimal levels), due in part to high prices.

Figure C2-19
Global potash nutrient price index before, during, and after the recent break-up of the BPC export cartel (Jan 2011–Dec 2015), adjusted for the energy price index and agricultural price index



SOURCE: World Bank Commodity Data; <http://belinstitute.eu/en/node/2477>; <http://www.mining.com/the-end-of-a-bad-year-for-potash-producers-a-sprinkle-of-hope-in-the-new-year-47902/>; <https://www.rt.com/business/russia-belarus-potash-cartel-868/>

Global export cartels could be raising final prices for K fertilizer by 29 percent.
On a national level, tackling collusion in Zambia has already led to savings of
\$21 million per year.

⁹⁸ As a conservative approach, the average price during the breakdown of the BPC export cartel is used as an approximation of a competitive price. An energy price index was used to control for cost drivers of the potash price, and the agricultural price level was used to control for underlying demand conditions. Comparing the average price level during the breakdown of the cartel to the average price level following the resumption of the cartel, gives an approximate estimate of the overcharge from the cartel as 44 percent. This is in fact somewhat below a recent estimation of the overcharge from the exercise of market power from the phosphate and potash cartels during the period between 2008 and 2012, estimated at 63 percent (Gnutzmann and Spiewanowski 2013, building on Taylor and Moss 2013). It is also significantly below the differential between potash prices under the Canpotex export cartel versus the potential prices under a hypothetical situation in which PotashCorp left the cartel and ramped up its activity to full production. The estimate was put at 181 percent for 2015 and 141 percent, on average, between 2012 and 2015 in a report prepared for the Canadian government (Conference Board of Canada 2010), as highlighted by Jenny (2012).

⁹⁹ World Bank Commodity Price Database.

TELECOMS IN AFRICA: MARKETS DYNAMICS AND COMPETITION POLICY

MARKET FAILURES AFFECT THE CONNECTIVITY OF THE AFRICA REGION



HIGHEST PRICES OF MOBILE AND INTERNET SERVICES ARE IN AFRICA

Based on data at 2015, SSA countries have the highest final prices for mobile and fixed broadband services **around the world**



AFFORDABILITY OF MOBILE PHONES AND INTERNET KEY ISSUE IN AFRICA

Median mobile phone owner in Africa spends nearly **3% of monthly income** on mobile services



5 AFRICAN COUNTRIES IN TOP 20 WORLD'S LARGEST OFF-LINE POPULATION

Nigeria (111 million), Ethiopia (95 million), Congo DR (68 million), Tanzania (49 million) and Egypt (42 million)

POTENTIAL BENEFITS OF MORE DYNAMIC TELECOM MARKETS IN AFRICA



10% =



4.2%¹

Mobile penetration
In developing countries

Likely productivity
increase



IN MORE THAN
40
AFRICAN
COUNTRIES

the entry
of an
additional
operator



57%²



Mobile
subscriptions



INTERNATIONAL
CALL PRICES

INTERNATIONAL
CALL VOLUMES

Opening up
international
calling
services
markets



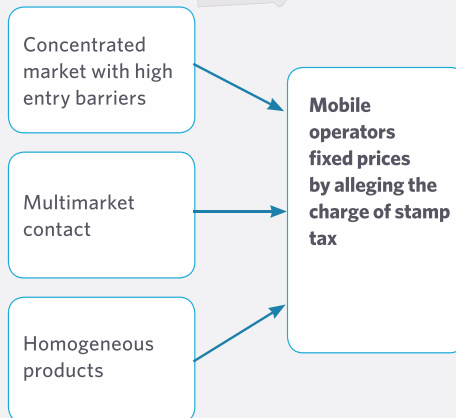
90%



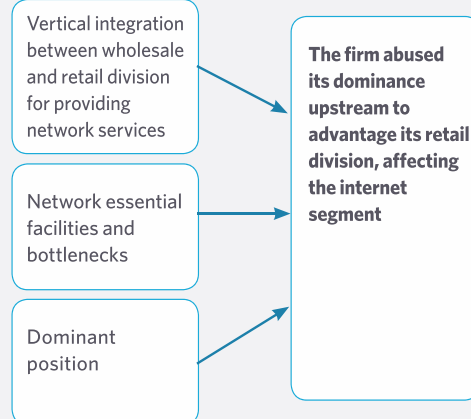
32-104%³

ANTICOMPETITIVE BEHAVIOR HAS BEEN INVESTIGATED BY COMPETITION AUTHORITIES IN AFRICA

EGYPT COLLUSION IN MOBILE MARKETS



SOUTH AFRICA ABUSE OF DOMINANT POSITION



¹ Deloitte (2012)
² Gebreab (2002)
³ GSMA (2012)

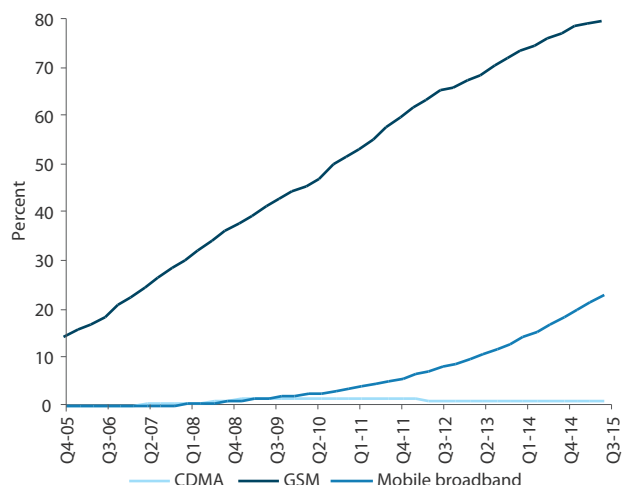
African mobile and wireless markets display high concentration. In 27 countries, one player has more than 50 percent market share. Monopolies are still present in Africa: 11 in international gateway services and six in wireless Internet services. Fostering nondistortive state participation, competitive allocation of spectrum, and proper regulation of termination rates will be important for the region.

3. Telecommunications: a key input for reaping digital dividends¹⁰⁰

The telecommunications sector is key for promoting development, and competition policies are necessary for ensuring that the benefits of the digital economy can be distributed evenly. The *World Development Report 2016: Digital Dividends* (World Bank 2016c) highlights the importance of having “analog complements” to assure that the benefits of digital technologies—mainly Internet and mobile phones—can positively affect development. One of the key policy conditions is a regulatory environment that promotes market competition and encourages private operators to innovate, be more productive, and, as a result, promote universal access to telecommunications services. There is a consensus that strategies for achieving digital development must be broader than information and communication technology (ICT), and create the conditions and incentives for firms to compete and to provide better services (World Bank 2016c).

In the past five years, Africa has seen the fastest growth in telecommunications services worldwide, driven mainly by growth in the number of mobile phone subscribers (Deloitte 2012). The penetration of mobile telecommunications services in the region has increased, exhibiting a positive trend within all available mobile technologies services, although Global System for Mobile Communications (GSM) technology has been the main driver of the significant spread of mobile services across Africa. In Sub-Saharan Africa, revenues from mobile services reached \$35 billion in 2011, or approximately 3 percent of GDP. According to the GSM Association (GSMA), the contribution to regional GDP of mobile markets alone was 5.4 percent in 2013.

Figure C3-1
Mobile market penetration in Africa



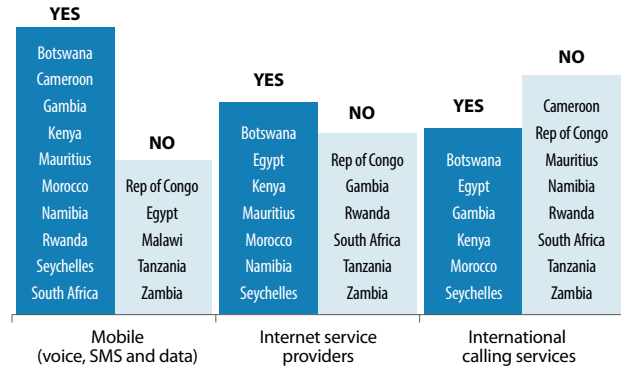
SOURCE: Authors' own elaboration on GSMA Wireless Intelligence data, Q4 2005-15.

The lack of telecommunications infrastructure in Africa makes mobile and broadband wireless technologies the most effective means to broaden Internet access on the continent. Fixed-line penetration across Sub-Saharan Africa was 0.3 percent in 2012—the lowest of any region in the world, and prices for accessing these networks tend to be relatively high. Thus, mobile technologies are best placed to provide connectivity and deliver Internet access to the poorest populations. Given its potential transformational effects on key sectors of the economy, estimations indicate that if Internet access achieved an impact of the same scale as mobile telephony in Africa, it could account for 10 percent of the region's total GDP in 2025 compared to 1 percent in 2013.

¹⁰⁰ This section follows a different structure than the sections on cement and fertilizers, given the different nature and particular features of the services provided: telecommunications services exhibit features of a network industry and special characteristics that determine unique competition dynamics within the industry, such as issues related to spectrum management.

Moreover, while the structure and level of competition in the telecommunications sector in Africa have changed over time, key segments of the industry still exhibit monopolistic structures. Until the 1990s, most telecommunications services in African countries were provided by a state-owned monopoly. During the initial stages of liberalization, state-owned monopolies gave way to private monopolies, which were regulated (Blackman and Srivastava 2011). The next stage saw the entry of service providers (predominantly mobile operators), creating more competitive pressure. However, due to state direct participation in the market or regulatory restrictions to new entry, as well as market features that facilitate anticompetitive conduct, telecommunications markets in several African countries exhibit noncompetitive structures that hinder their potential to provide high-quality and low-cost access to communications. Four of the six countries in the world that still maintain state-run monopolies in mobile services and Internet are in Africa: Comoros, Djibouti, Ethiopia, and Eritrea (World Bank 2016c).

Figure C3-2
Firms with more than 50 percent market share in African telecommunications markets



SOURCE: ACF-WBG 2016c.

This section will focus on mobile and wireless Internet services given their current degree of development in African markets, and their significant spillover effects on economic growth and development. The potential for broadband to become a driver of sustainable economic growth and job creation in Africa is significant. However, mobile services have shown a significant degree of deployment across the continent, and given the lack of fixed line infrastructure, the wireless network will be the most feasible alternative for providing Internet access. Mobile technology is used by 99 percent of Internet subscribers and is considered the main vehicle for expanding Internet penetration in Africa. In addition, these telecommunications services help businesses and consumers directly.¹⁰¹ As such, the report will examine the value chains for wireless Internet services as well as international gateways.¹⁰²

While the structure and level of competition in the telecommunications sector in Africa have evolved over time, key segments of the industry—such as wireless technologies and international gateway services—still exhibit a high degree of state participation in the market, as well as regulatory restrictions.

¹⁰¹ Several studies have shown that growth in mobile voice and Internet services has a positive spillover effect on economic growth and development. A solid telecommunications network allows for the rapid and free flow of information, which increases overall economic efficiency by helping to ensure that businesses can communicate. World Economic Forum 2014.

¹⁰² In the case of international voice services, low-cost, high-quality international communications networks are a prerequisite for the development of high-growth value-added services; while ICT-related services are considered key to the success of national trade facilitation policies and for the development of electronic commerce. Rossotto *et al.* 2004.

A. Overview of the telecommunications industry: main features and competition issues that arise from market structure¹⁰³

Telecommunications markets are characterized by high fixed costs and economies of scale that make the sector more prone to market concentration and anticompetitive practices. Entrants face high fixed costs due to upfront investments in infrastructure, as well as commercial investments in sales and distribution channels. These high initial fixed costs give incumbents a strategic advantage over new entrants, because the latter have fewer clients to spread their fixed costs. Given these features, incumbents are incentivized to price higher and aggressively in order to hinder the entry of new competitors.

As a network industry, telecommunications networks present essential facilities and bottlenecks that lead to market concentration. Market entry in the retail supply of telecommunications services requires access to infrastructure. High infrastructure costs limit the economic viability of replicating some facilities and thus limits the number of entrants. This can lead to the emergence of a dominant wholesale infrastructure supplier or a small number of retail suppliers with their own duplicated infrastructure. Although wireless technology introduced the possibility of increased facilities-based competition, in Africa significant infrastructure bottlenecks remain.

Access issues arise in the sector when operators need to interact reciprocally to complete call or data transfers. This two-way form of access could create—depending on the regulatory system adopted (commonly calling party pays, CPP)—incentives for the terminating operator to exercise its market power through its sole control by charging the receiver high prices for termination. This competition issue can arise in both fixed and mobile networks and provides justification for regulatory intervention to limit the incentives for this anticompetitive behavior.

Given the features of the telecommunications sector, government interventions in the form of regulation and competition policy are necessary to tackle potential anticompetitive behaviors. Fixed networks in particular, but also mobile networks, exhibit characteristics that require regulatory intervention to assure market efficiency and protect consumers and competitors from abuse of market power. The two instruments that governments can use to achieve this goal are competition policy and sector regulation. Although they provide different degrees, and feature at different stages of intervention (ex ante remedies versus ex post intervention), usually both types of instrument converge. Regulatory systems must therefore define sound rules for the application of these instruments to the different competition issues that can arise in telecommunications markets.

The telecommunications sector is characterized by disruptive technology and continues to evolve at a fast pace. Technology changes lead to constant innovation and evolution of services and markets, which creates new rivals and shifts the economic strength of existing rivals. These evolving dynamics make it challenging to define relevant markets, identify barriers to entry, or assess market power.^{104 105}

¹⁰³ The framework for this section is based on Cave et al. (2013), are port prepared for the World Bank–Netherlands Partnership Program; ABA 2005; and World Bank 2016a.

¹⁰⁴ Price regulation may be premature in emerging markets, even if they do not yet appear to be fully competitive. Thus, given that telecommunications markets are subject to continuous technological change, best practice suggests that prices generally not be regulated in competitive or emerging retail and wholesale markets. Market intervention through price regulation should be reserved only for any mature relevant market in which a participant is dominant or there is evidence of collusion.

¹⁰⁵ When network externalities are significant, the biggest network will tend to attract a larger number of new clients. This is known as the bandwagon effect. In the medium term, it could create a situation in which only one enterprise, technology, or standard dominates the industry (a “winner-takes-all structure”) (Kwoka and White 2004).

When the government participates in the market as a competitor with private enterprises, it can distort the level playing field. There is a risk that state-owned enterprises might enjoy preferential treatment. This may include preferential access to public properties that are essential for building network infrastructure. It may also include exemptions from licenses, as well as spectrum and other regulatory fees and taxes. Best practice advises that governments play a subsidiary role in the provision of telecommunications services. State-owned suppliers are also often relatively poor performers, and therefore create a perceived need for political favoritism to overcome their shortcomings.

Figure C3-3
Telecom industry features and competition dynamics⁹²

Industry features	Competition dynamics	Government's procompetitive interventions	Best international practices
Significant fixed costs and sunk investments	Bandwagon effects	Setting obligation of interconnection	Competition as the central tool for regulating prices and service quality
Economies of scale and scope	Operators need to interact reciprocally to complete calls and transfer data	Setting termination rates	Regulation only used to correct market failures, or where competition is not viable
Network's essential facilities and bottlenecks	Operator's refusal or discriminatory practices	Setting access regulation	Market-based pricing in competitive markets and cost-based pricing in noncompetitive markets
Reliance on scarce resources		Using antitrust laws for anticompetitive practices	Subsidiary role of the Government in markets
Disruptive innovation and constant technological change		Setting efficient spectrum policies based on market mechanisms	Less regulatory intervention in emerging markets

Inherent features of telecom networks—such as vertical integration, essential facilities, and dominant position on termination—result in competition dynamics that can create regulatory barriers to entry and that require both ex ante and ex post regulatory intervention to assure market efficiency and protect consumers and competitors from abuse of market power.

B. Mobile telecommunications services

The introduction of mobile networks has radically changed the competitive dynamics of telecommunications markets. By allowing several networks to coexist, the introduction of mobile technology made clear that competition was possible in the sector, as compared with the monopoly in fixed networks.

KEY INDUSTRY CHARACTERISTICS AND HOW THEY AFFECT COMPETITION

Competition in mobile markets occurs at different levels of the value chain. The level of competition in the mobile market depends on the competition dynamics at different levels of the value chain, such as network, devices, and services. Market entry conditions into devices have undergone significant technological changes in the past decade, and markets seem more open to competition. In the case of mobile services, the regulatory framework was developed to enable competition, taking into account factors like infrastructure and spectrum policies (Chetan 2011).

Mobile markets commonly have a small number of networks. Demand and supply factors play an important role in determining the market structure. Mobile networks are significantly easier to replicate than fixed ones. The initial investment costs can be low, with more capacity added as demand increases. Regulation also plays a role in shaping the competition dynamics of the market, through both the license regime and spectrum assignment. As a result of these two factors, mobile markets are often oligopolistic (Cave 2013). Observations of the structure of the mobile industry suggest that, with few exceptions, the number of mobile network operators usually lies between two and five. In addition, there is a global trend toward greater concentration in mobile markets through mergers and acquisitions and, in some cases, the exit of unsuccessful operators.

Input markets

Given that spectrum is an inherently scarce public resource, how it is managed can set the competition dynamics of the market; sector regulators must therefore establish and administer spectrum policy to achieve maximum competitive benefit. Spectrum allocations and assignments should be able to address the following regulatory objectives, among others: competitive entry, innovation, service quality, and customer demand. Regulatory authorities must also ensure the efficient use of spectrum and its reallocation as and when technology and market behavior evolves. It is therefore advised that regulatory authorities not only design an efficient spectrum management policy but also enforce and implement appropriate monitoring mechanisms.

The limited availability of spectrum represents a key barrier to entry. Entry cannot occur if governments or regulatory authorities do not issue spectrum licenses. Furthermore, in markets with dominant operators, competition can be harmed if spectrum caps or other mechanisms are not considered for future assignments to preserve or encourage competition in the market. There is also a risk that market players could adopt foreclosure strategies by limiting the access of actual or potential competitors to available spectrum.

When the available spectrum is insufficient to meet the demand from new entrants, international best practice advises selecting new entrants through a competitive process. In both mobile and wireless markets, there are usually more market players interested than spectrum available for the service. By requiring potential licensees to compete for the license, scarce spectrum can be allocated to the operator that is best placed to maximize the benefit to customers and to succeed in a competitive market. Complementarily, international best practice advises setting, as part of the competitive auctions, spectrum fees for commercial spectrum use that ensure the highest-value use, while at the same time allowing the authorities to achieve other regulatory objectives. Including the possibility of spectrum trading and secondary markets in the regulatory framework can allow for efficient spectrum use over time.

Spectrum is an essential input for mobile services, and it is a natural scarce resource; an efficient spectrum management policy is therefore key to shaping efficient competition dynamics in the mobile sector.

Wholesale level

Regulation of termination charges based on costs is critical to promoting competition in the mobile sector. Each mobile operator's termination is a separate market with a monopoly supplier, since it is a service for which there are no available alternatives. Termination rates are based on the marginal costs of the originating network, and the terminating network operator and customers are not affected by these costs. In this context, operators have an incentive to set these charges at a monopolistic level. Wholesale termination is therefore classified as a noncontestable market, in which each network can impose market power. Considering this, there is a need to impose termination rates in order to limit operators' incentives to indirectly exploit the consumers of the other network. Several regulators and competition authorities around the world have followed this approach (Cave 2013). It is important to consider the existence of two-sided markets in mobile telephony when regulating this service.

Additionally, a pricing issue that arises in mobile services is the "on-net", "off-net" strategy that can exacerbate network effects. This strategy, a modality of price discrimination, consists of imposing higher charges to call subscribers of different mobile networks ("off-net" calls) than to call other subscribers on their own network ("on-net" calls). Differential on-net and off-net pricing could be used by large operators as a foreclosure mechanism against smaller competitors. Indeed, this strategy can lead to large "club effects," advantaging the largest operator, weakening competitors, and increasing "bandwagon effects." Several solutions can be adopted to deal with this issue. Setting low termination rates can help on the regulatory side. On the competition side, this strategy can be seen as a case of margin squeeze or abuse of a dominant position. International best practice has adopted regulatory solutions to address this.

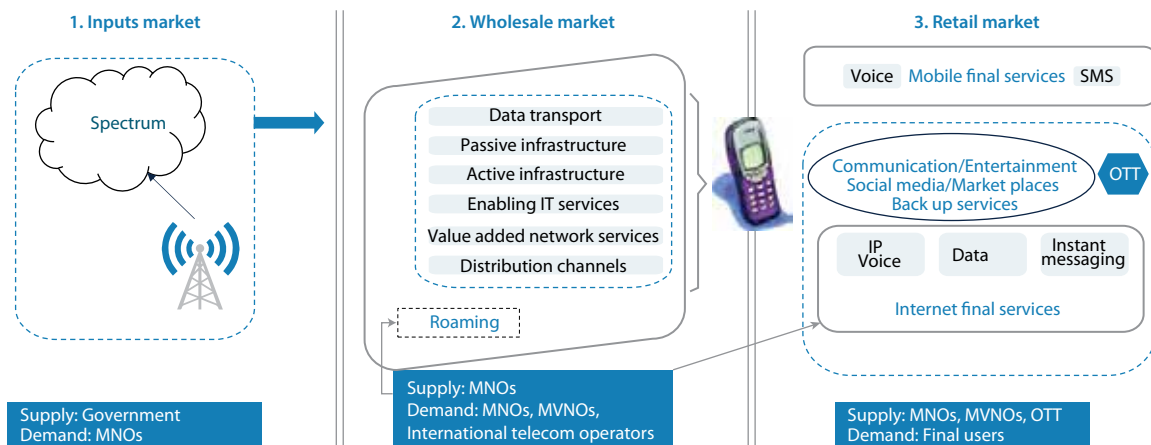
Competition at the wholesale level is possible through mobile virtual network operators (MVNO). Many mobile operators around the world have entered into voluntary agreements with MVNOs, which service their own retail customers by utilizing the facilities of a mobile network operator (MNO). Empirical evidence from other countries shows that customers often benefit from the entrance of MVNOs in the telecommunications market, through lower prices for voice calls and text messages (Kiiski 2006). MVNOs run on the networks of existing operators but provide services independently, including issuing subscriber identification module (SIM) cards, billing, and customer care. Where MNOs refuse to contract with MVNOs, however, the question may arise as to whether a competition authority should consider this to be an anticompetitive act.

On-net, off-net price discrimination is a common strategy in mobile markets and can exacerbate network effects and create competition distortions.

Retail segment

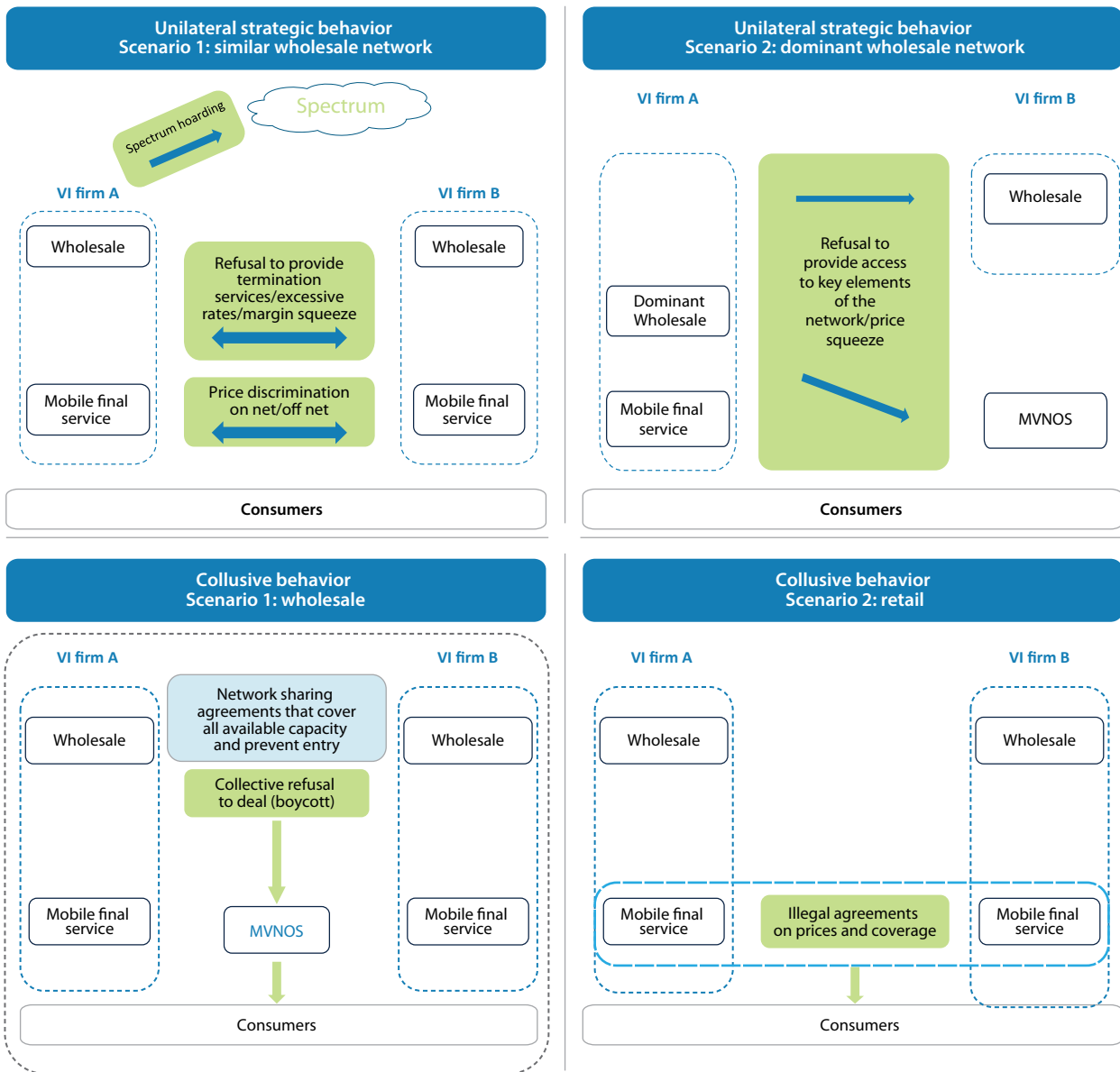
Competition dynamics in retail mobile markets are affected by external competition from over-the-top (OTT) operators. Enterprises like Google, Facebook, Skype, WhatsApp, Microsoft, and Apple are progressively competing with mobile operators in certain markets, and their presence over wireless platforms is redefining the industry. Revenues from external mobile applications (such as apps and downloads) exceed those for the typical offerings of mobile services (such as messaging). This phenomenon is increasing steadily, forcing mobile operators to seek new sources of revenue. Areas such as mobile banking, mobile advertising, and mobile commerce represent an opportunity for current mobile operators to deal with threats from OTTs. Some alliances and collaborative schemes among mobile operators in segments where they do not compete are also expected as a result of this new reality. Areas include devices, customer equipment, and service platforms, among others (Deloitte 2014).

Figure C3-4
The mobile services supply chain and industry characteristics



Given the industry characteristics and the competition dynamics presented above, some potential anticompetitive practices arise frequently in mobile markets (Figure C3-5). In the case of unilateral strategic behavior, dominant operators can engage in anticompetitive practices in the input sector by hoarding spectrum in auctions, creating barriers for potential new competitors and competition disadvantages for existing competitors in the market. In the wholesale market, given that each network enjoys a monopolistic position in termination, they can try to impose excessive fees or engage in margin squeeze practices. In addition, as explained, discrimination between on-net and off-net prices by dominant firms can lead to anticompetitive outcomes. In terms of network sharing, dominant wholesale networks can engage in direct or indirect refusals to provide access to key elements of the network (active or passive infrastructure), not only to other MNOs but also to MVNOs that need this access to provide their services in the final market. Collusive behavior can arise at both the wholesale and retail level. At the wholesale level, mobile networks can engage in collective refusals to deal with or boycotts of MVNOs in an attempt to block their access to the market. Finally, collusive behavior can arise in retail markets if operators collectively set prices or other commercial conditions to final consumers.

Figure C3-5
Potential anticompetitive behaviors in the mobile industry



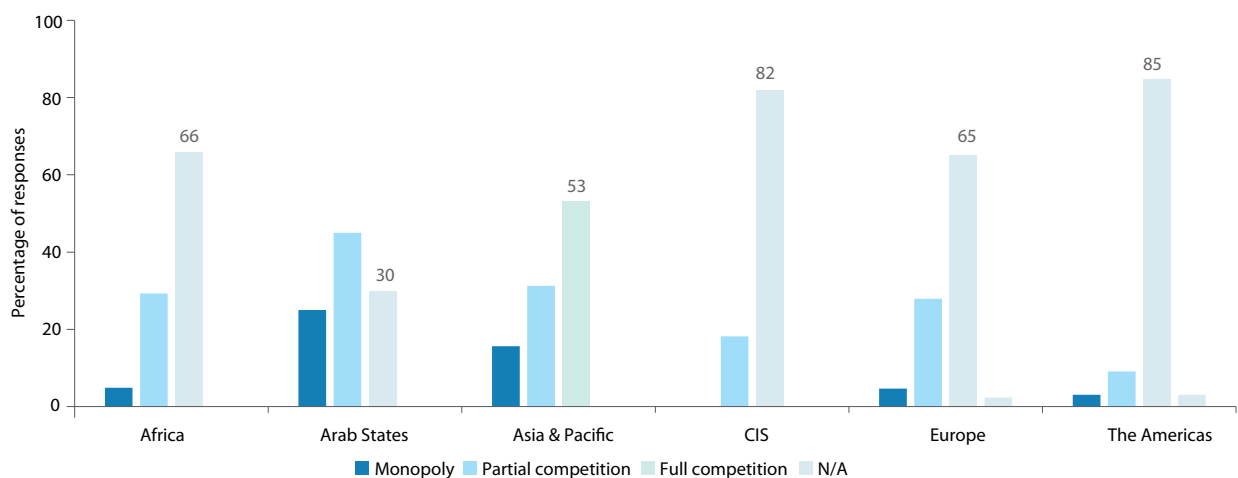
Potential anticompetitive behavior within mobile markets includes spectrum hoarding, collective refusals to deal with MVNOS, and collusion in final markets on prices and coverage.

INDUSTRY CHARACTERISTICS THAT SHAPE COMPETITION DYNAMICS OF MOBILE MARKETS IN AFRICA

Several countries in Africa currently allow full competition in mobile phone services. According to the International Telecommunications Union (ITU) (2013), 26 countries allow full competition in the sector and 11 have partial competition through the issuance of a limited number of licenses (Figure C3-6). The latter include Botswana, Côte d'Ivoire, Eritrea, Guinea-Bissau, Liberia, Malawi, Senegal, the Seychelles, Sierra Leone, South Africa, and Zimbabwe. Tanzania has no state-owned providers, while in Egypt, Kenya, Mauritius, Morocco, Namibia, and South Africa, there are providers with state shareholding of more than 50 percent of the market share. Africa compares well to the rest of the world, with lower monopoly rates than among Arab States and countries in Asia and the Pacific, and levels of full competition that are equivalent to those in Europe and higher than those in Asia and the Pacific and among Arab States (ITU 2013).

Mobile market expansion in Africa has been driven mainly by the high penetration of prepaid services. Between 2005 and 2015, prepaid subscriptions have sustained the exponential growth of mobile technologies around the continent. The only exception to this trend is South Africa, where postpaid services have a small but relatively steady market share. Among the mobile technologies that are present on the continent, GSM is the most relevant in terms of subscribers, with 168 percent of penetration in 2015. These high rates of penetration can be explained by the phenomenon of multi-SIM ownership. Ownership of multiple SIM cards is widespread, and actual penetration of individuals could be closer to 40–50 percent in some countries, potentially leaving room for further growth. This is the case in Nigeria, for example, where mobile penetration is above 60 percent but individual penetration just above 26 percent (GSMA 2012). Internet mobile penetration has also expanded significantly.

Figure C3-6
State of competition structure in the mobile phone services sector across regions, based on percentage of respondents, 2013



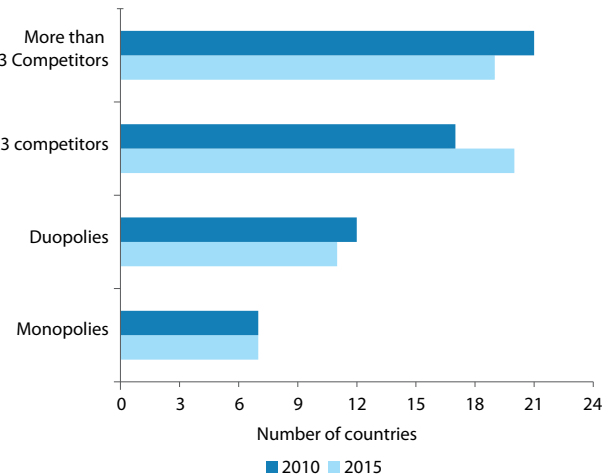
SOURCE: ITU 2013.

THE CHARACTERISTICS OF MOBILE MARKETS IN AFRICA CAN BE GROUPED INTO FOUR MAIN FACTORS THAT DETERMINE COMPETITION DYNAMICS

FACTOR 1: Concentrated markets and high presence of panregional economic groups

In 2015, mobile markets in Africa included seven monopolies,¹⁰⁶ 11 duopolies,¹⁰⁷ 20 economies with three competitors, and 19 countries with at least four suppliers. This landscape has not changed dramatically since 2010. In this period, 17 countries experienced either entries, exits, or both.¹⁰⁸ The number of competitors throughout the continent has not changed significantly. The number of providers expanded in only four countries: Libya and Mozambique, from two to three, and Cameroon and Rwanda, from three to four.¹⁰⁹ On the other hand, five have reduced the number of competitors: the Democratic Republic of Congo, Kenya, Madagascar, and Sierra Leone moved from four to three players, and Namibia from three to two. Figure C3-7 summarizes the evolution of the market structure in terms of the number of suppliers per country, between 2010 and 2015.¹¹⁰

Figure C3-7
Number of suppliers per country, 2010-15



SOURCE: Authors' elaboration based on GSMA Intelligence data.

¹⁰⁶ Comoros, Djibouti, Ethiopia, and Eritrea have state-owned enterprises as providers. São Tomé and Príncipe (Oi Group), Swaziland (MTN group), and Saint Helena, Ascension and Tristan da Cunha (Batelco group) have private providers. Data for Saint Helena is available only from Q3 2015 on, as 100 percent Batelco; this number was considered to 2010.

¹⁰⁷ Mayotte and Reunion, despite having three providers, are considered to be duopolies in the analysis: the Altice group owns two of the three providers in each country.

¹⁰⁸ Six countries had entries: Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Ghana, Libya, and Mozambique. Six experienced exits: Democratic Republic of Congo, Kenya, Madagascar, Namibia, Sierra Leone, and South Sudan. Five countries saw companies both entering and exiting their markets: Burundi, Nigeria, Rwanda, Tanzania, and Uganda.

¹⁰⁹ The number of providers also increased in Ghana, Tanzania, and Uganda, but all of these countries already had at least four different suppliers before 2010 and all entries were marginal: three new companies in Ghana, with combined market share of 5.43 percent; three new companies in Tanzania, with combined market share of 5.7 percent; and three new companies in Uganda, with combined market share of 1.6 percent. One of the entrants in Uganda was Vodafone, with 0.52 percent market share in 2015.

¹¹⁰ Countries considered: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Côte d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of Congo, Reunion, Rwanda, Saint Helena Ascension and Tristan da Cunha (UK), São Tomé and Príncipe, Senegal, the Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, and Zimbabwe.

Although there has been a subtle change in the number of competitors, market shares show that the majority of African mobile markets have a strong market leader. As of 2015, 27 countries in Africa have a mobile provider with more than 50 percent market share. This represents a decline from 2010, when there were 37 operators holding this level of market share.¹¹¹

Notwithstanding the general trend of redistribution of market shares, some countries also faced sharp concentrations during the period. Namibia, for example, which in 2010 was already a highly concentrated market, lost its second player, Powercom. Powercom's 13.7 percent market share was almost entirely absorbed by the market leader (Oi Group) which reached 96.2 percent market participation in 2015. In Sierra Leone, Comium Group—formerly the third-largest player in the country, with 26.71 percent in 2010—exited the market. Again, the result was that a leader absorbed almost all the remaining market share, reaching more than 71.88 percent, and the number of players dropped from four to three. The second player was left with a 25.37 percent share.

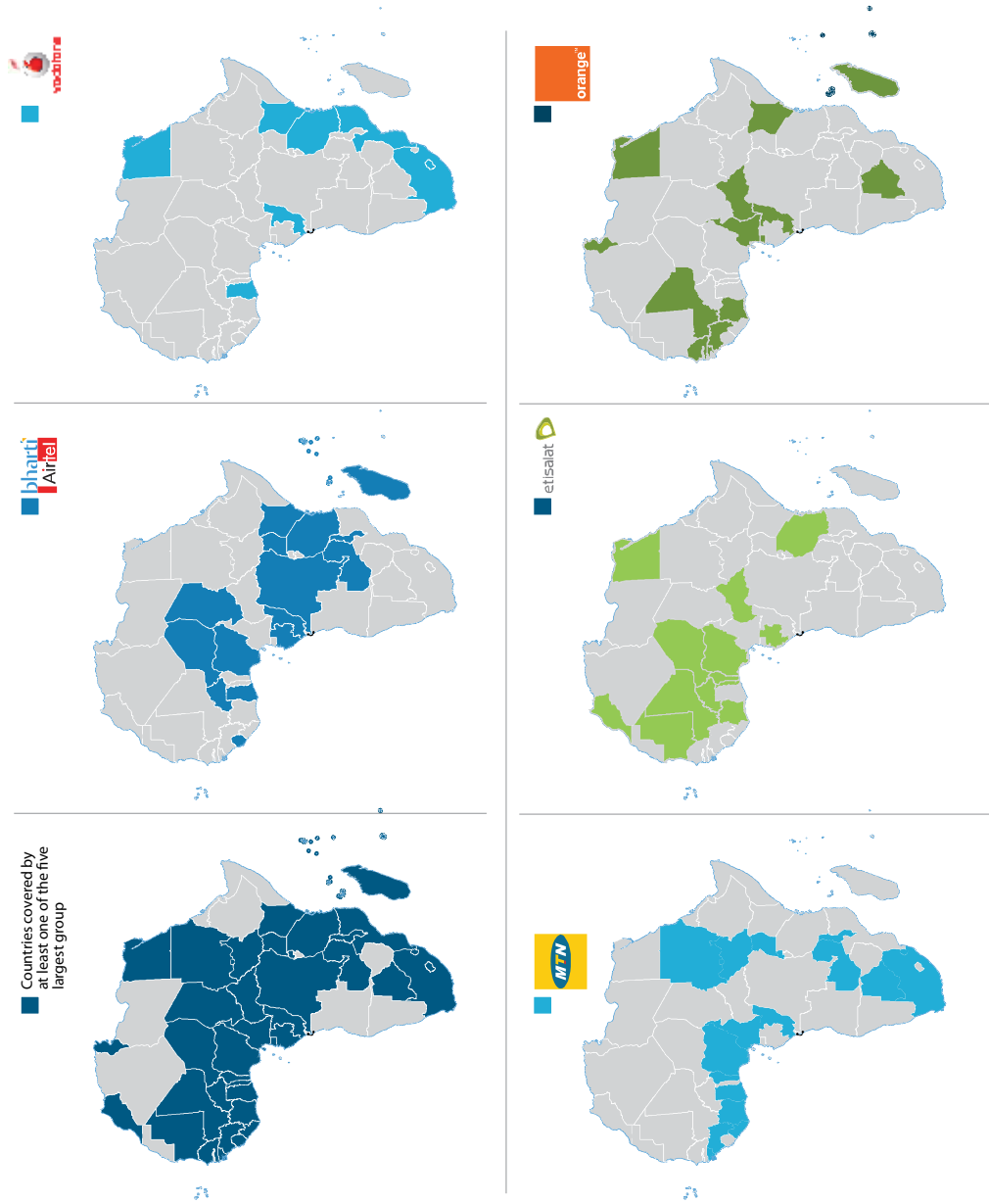
In 2015, 27 countries in Africa have a strong market leader with more than 50 percent market share.

Five panregional groups offer telecommunications services in 42 economies in Africa. In 2015, 78 economic groups offered telecommunications services in 57 African countries. Despite the apparent diversity, some of these groups are present throughout the continent. The five largest providers are (in order of the number of countries covered): Orange, in 19 markets; MTN group in 18; Bharti Airtel in 16; Etisalat Group in 13; and Vodafone/Vodacom in eight countries. At least one of these five groups can be found in 42 countries, which represent more than 70 percent of African economies. Figure C3-8 summarizes the presence of each of the five largest groups that provide telecommunications services in Africa.¹¹²

¹¹¹ From 2010 to 2015, seven of the eleven duopolies of the continent saw their market leader losing market share. The same happened with 14 of the 20 countries with three competitors and 11 of the 19 economies with at least four players. Across the continent as a whole, 64 percent of the leaders lost market share during this period. The reduction in the average magnitude of the market share of leaders is portrayed by the following graph: the percentage of leading companies holding more than 65 percent market share in duopolies or more than 50 percent in economies with three or more players has diminished significantly.

¹¹² Since 2010, the only changes have been Vodafone's entry in Uganda and Bharti Airtel's entry in Rwanda.

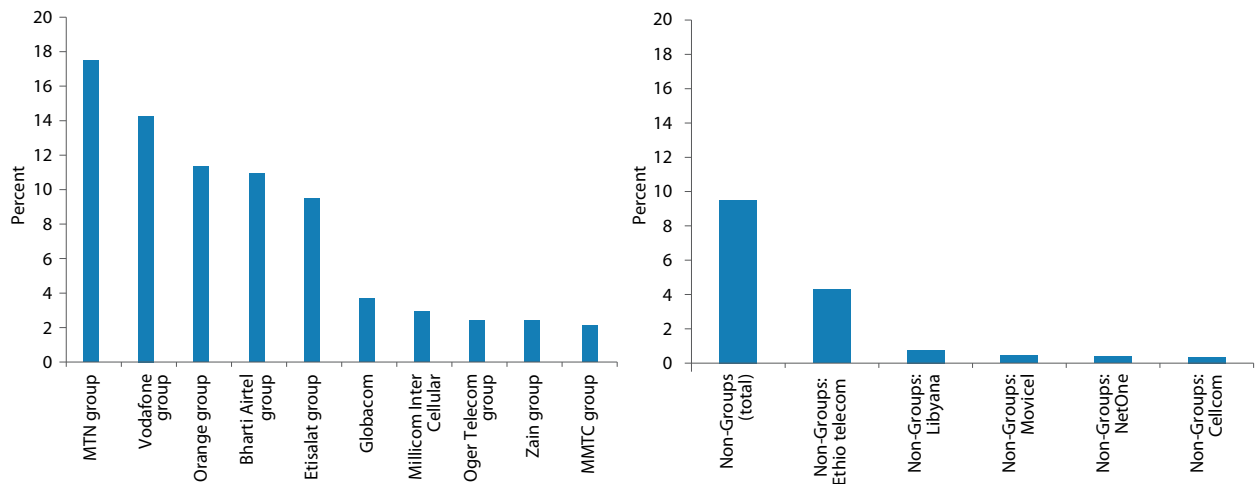
Figure C3-8
Countries covered by the five largest economic groups providing telecommunications services in Africa, 2015



SOURCE: Authors' elaboration based on GSMA Intelligence data

These five economic groups concentrate 64 percent of total connections in Africa. Individual operators (not pertaining to groups) are much smaller, the largest individual being a state-owned monopoly in Ethiopia. The above figures show the presence of these groups in the continent, as well as the significant differences in the volume of connection among these groups and individual operators not pertaining to the groups operating in other countries.

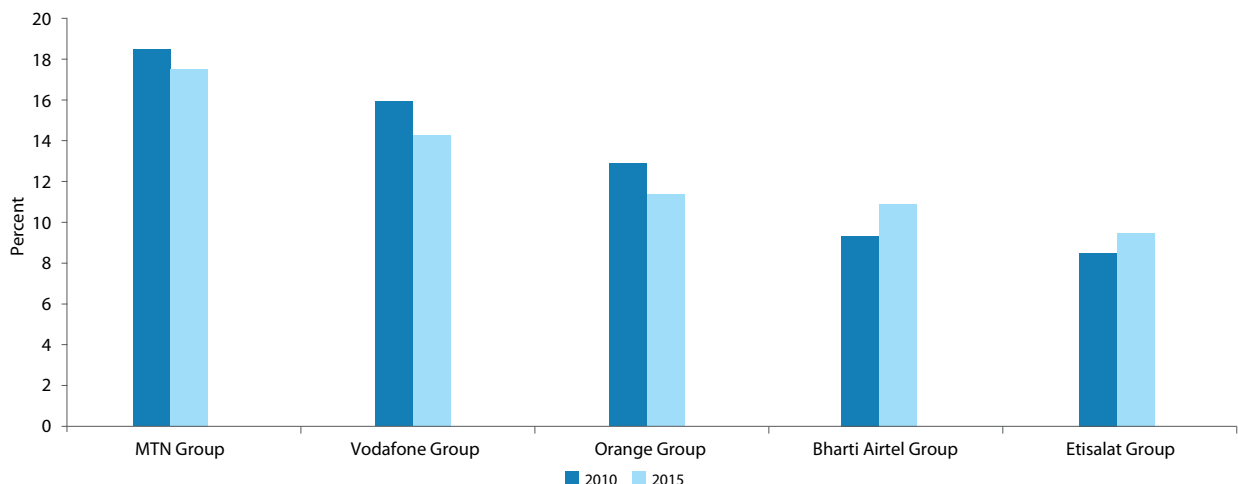
Figure C3-9
Shares of the five biggest economic groups and individual operators in the total number of mobile subscriptions in Africa



SOURCE: Authors' elaboration based on GSMA Intelligence data.

These economic groups are becoming more symmetric over time, while holding their total Africa-wide share constant. Between 2010 and 2015, MTN, Vodafone, and Orange have decreased their share of total subscribers, while Airtel and Etisalat Group have increased their share on the continent. Their overall shares on the continent, however, have remained similar over the five-year period.

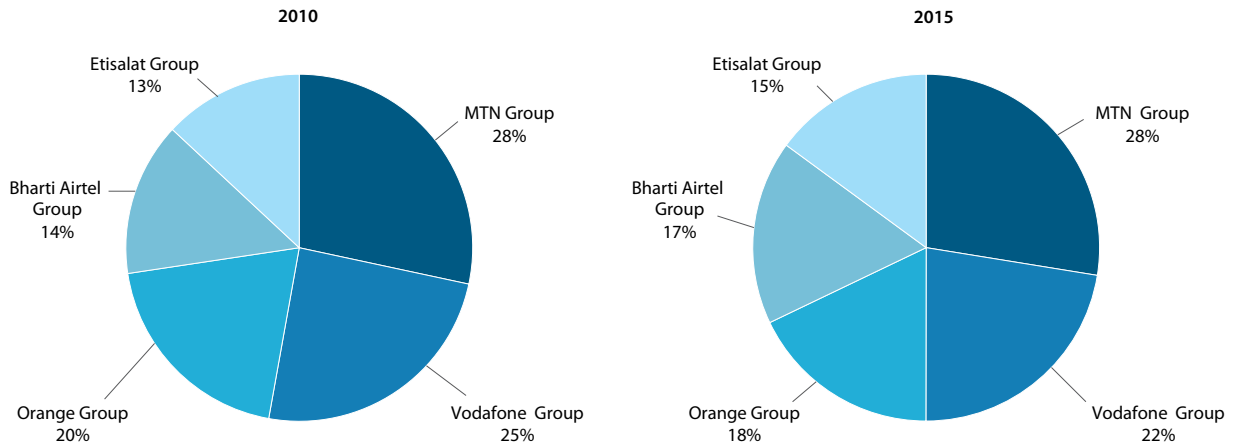
Figure C3-10
Africa-wide share of connections among the biggest five operators



SOURCE: Authors' elaboration based on GSMA Intelligence data.

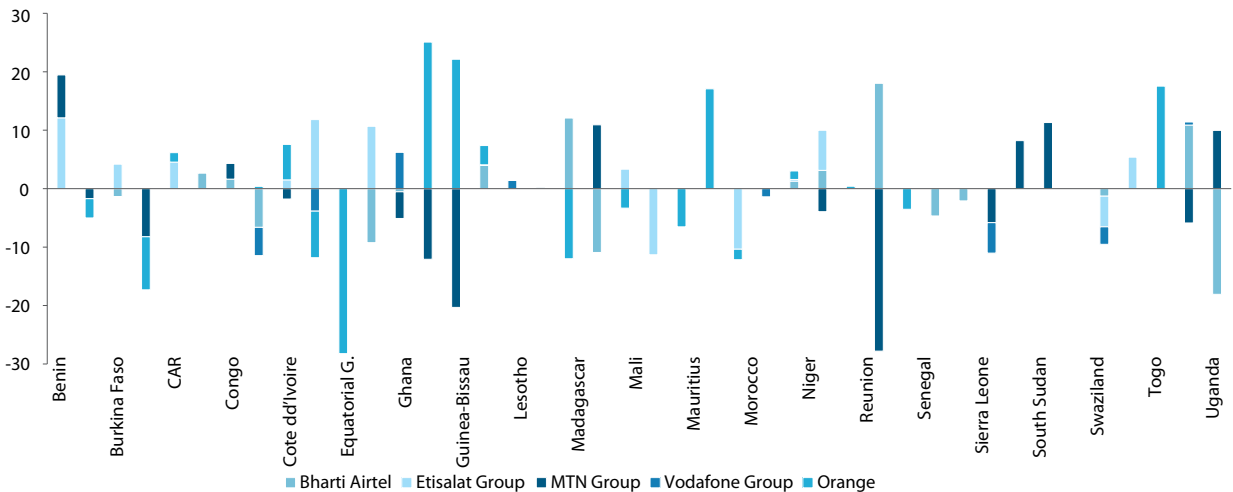
During the period of analysis, there has been considerable change in the country-specific market shares of these economic groups. A closer analysis of the market dynamics within these countries shows that the market shares of each of these five economic groups have changed significantly at the country level.

Figure C3-11
Share of connections among top five operators



SOURCE: Authors' elaboration based on GSMA Intelligence data.

Figure C3-12
Change in country-specific market shares of the largest operators, change in percentages, 2010–2015



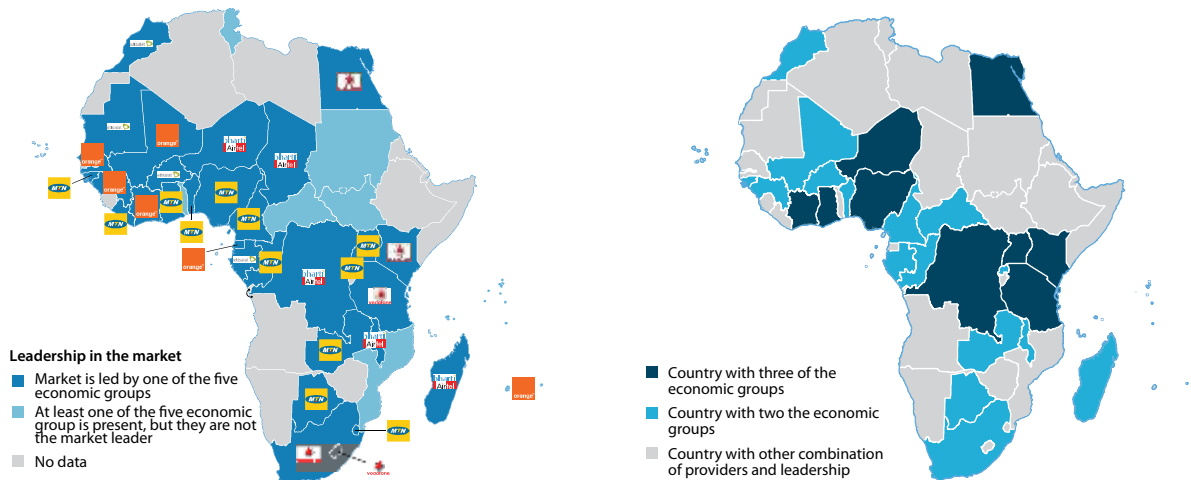
SOURCE: Authors' elaboration based on GSMA Intelligence data.

Five panregional groups offer telecommunications services in 42 economies in Africa, which concentrate 64 percent of the total connections in the continent and which have become symmetric over time.

FACTOR 2: Multimarket contact between suppliers

There is significant multimarket contact between the five largest telecommunications groups across Africa. The major regional mobile providers tend to be present across multiple African countries, leading to multimarket contact among them. From the 42 countries covered by at least one of these five groups, 25 have at least two companies competing for the market. Even though four or five of these groups are never present simultaneously, nine countries have three of them competing for their markets and 16 have two among their providers. Moreover, there are five countries that are only supplied by a combination of these five groups: one monopoly (MTN in Swaziland); two duopolies (Orange and Etisalat in Mali; Bharti Airtel and MTN in Malawi); and two instances in which there are three suppliers, all of whom are among the five largest providers (Orange, Etisalat, and Vodafone in Egypt; Bharti Airtel, Orange, and Vodafone in Kenya). Finally, in 76 percent of the countries covered by at least one of these five groups, one of them is market leader.¹¹³ One of these five groups is the market leader in 32 of the 57 African countries considered in the sample. Figure C3-13 displays the multimarket contact among these providers. In 88 percent of the countries in which two of these panregional economic groups participate, these companies jointly control more than 70 percent of the market.

Figure C3-13
Leadership and multimarket contact among the five largest telecommunications providers, 2015



SOURCE: Data from GSMA Intelligence. Maps from the World Bank Group.

There is significant multimarket contact among the groups that operate across Africa. In 88 percent of the countries in which two of these panregional economic groups participate, these companies jointly control more than 70 percent of the market.

¹¹³ There are 10 countries that, despite participation from one of these groups, are led by other providers: Central African Republic, Mayotte, Mozambique, Reunion, the Seychelles, Sierra Leone, South Sudan, Sudan, Togo, and Tunisia. Only Mozambique and Togo are led by state-owned enterprises; the remaining countries are led by other private economic groups that are less prevalent across the African continent.

Although cartels have not been detected among these five groups across the region, awareness of multimarket contact can improve the effectiveness of competition policy in the region. Although the market structures of mobile and wireless markets in Africa suggest that potential anticompetitive practices in the form of unilateral behavior are more likely to occur, and this presumption is consistent with the practice of competition authorities, it is important to bear in mind the multimarket contact when authorities deal with mergers or potential horizontal agreements in the region. The cost structure of mobile telecommunications leans towards a “small numbers” market structure; therefore, the sector seems to be a natural oligopoly, which can lead to tacit coordination.¹¹⁴ Indeed, it is likely that the conditions for tacit coordination are met in many cases in the mobile telecommunications market, since transparency of rates is a feature of the marketplace, cost structures are broadly similar, and the largest operators often have roughly symmetrical market shares and interact frequently in the market (Cave 2013). In addition, unilateral practices could be conducted by the same group in different countries. There is a need, therefore, for regional coordination to address the potential anticompetitive effects of Africa’s multimarket telecommunications sector.

There is a need for regional coordination to address the potential anticompetitive effects of the multimarket telecommunications sector. These include tacit coordination across the region and unilateral practices conducted by the same group in different countries.

FACTOR 3: Lack of use of competitive mechanisms for spectrum assignment

Market-based spectrum pricing is increasingly acknowledged as an important mechanism to encourage the most effective use of spectrum. However, not all spectrum can be priced through market-based mechanisms such as auctions and spectrum trading. Where these are not possible, any prices set must be calculated administratively rather than set through market-based methods.

To date, Nigeria is the only country in Africa to have carried out spectrum auctions (Song 2014). Spectrum auctions in Africa can serve several regulatory objectives, including control of market power through caps on spectrum holding and limitations of dominant firms, and universal access, imposing coverage obligations in less developed areas.

Policies for assigning spectrum need to be updated to ensure efficient and procompetitive allocation of spectrum freed up by the digital switchover. Kenya, Mauritius, Namibia, Rwanda, South Africa, and Tanzania use a first-come, first-served basis to allocate radio spectrum. This method, though time-efficient, does not always lead to desirable outcomes, since firms that cannot make the best use of the spectrum may nonetheless win rights to it. Egypt is planning to use auctions to allocate 4G spectrum. Nigeria is another example of the use of auctions for assigning spectrum. In South Africa, the regulator has attempted to launch a spectrum auction for 4G spectrum, but the process is on hold. In markets where there is a predominant firm, special consideration has to be given to imposing appropriate spectrum caps to safeguard competition,

¹¹⁴ According to best practice, tacit coordination requires that firms are able to reach an agreement and to supervise their partners, coordination must be internally sustainable among the members of the agreement, and coordination needs to be externally sustainable. EC Commission Case T-342/99[2002] ECR II-258.

as has been the case in various countries. In Rwanda, the government assigned the 4G spectrum to a joint venture with government participation and declared it to be the sole mobile broadband wholesaler. Other countries, such as South Africa, have considered creating a monopoly for the provision of 4G broadband services. While this arrangement is expected to boost productive efficiency, the lack of competition could constrain deals for consumers.

In Kenya, the most efficient band has been assigned to the dominant operator, creating a first-mover advantage. Safaricom controls almost two-thirds of spectrum in bands below 1 GHz, and 43 percent of spectrum between 1 GHz and 3 GHz. This allows it to offer considerably higher maximum data speeds and/or carry a considerably larger volume of traffic for a higher number of subscribers than its rivals. Safaricom has been assigned spectrum in the 800 MHz frequency band on a trial basis as part of a public-private partnership to supply services to the police, and awaits a full spectrum license under which it would be required to share 30 percent of its network capacity.

There is a need to adopt an approach to spectrum pricing and assignment that incentivizes efficient use of a scarce public resource, for instance through auctions and other competitive selection methods. In many countries, spectrum is assigned administratively to operators that are already in the market or to the largest or state operator, as in Cameroon and Rwanda. Tenders in mobile markets are sometimes designed without considering competition implications. There is a need to protect consumers against the accumulation of spectrum, providing for safeguards against concentration of spectrum in the hands of a few players while considering efficient use of spectrum.

The biggest impact of the release of the global 700 MHz band is most likely to be felt in Africa, as its excellent propagation characteristics make it an ideal technology for rural broadband in terms of both reach and cost of rollout. This band will be central to delivering broadband services on an unprecedented scale, along with the attendant social and economic impact. So far, no African countries have assigned spectrum for broadband in the 700MHz band. In the majority of countries, it is still a part of the spectrum allocated for terrestrial television broadcast. The challenge for regulators will be to make the spectrum available in a manner that promotes competition and encourages rapid deployment (Song 2014).

To date, Nigeria is the only country in Sub-Saharan Africa to have carried out spectrum auctions. The remaining countries use a first-come, first-served basis to allocate radio spectrum, which can lead to inefficient outcomes.

FACTOR 4: State participation in the provision of mobile services

The government participates in companies that compete with private operators, highlighting the importance of measures necessary to ensure competitive neutrality. According to the 2015 ACF-WBG survey, several countries have providers with state participation at over 50 percent market share (EAC, Kenya, Morocco, Mauritius, Namibia, and South Africa). This issue will be addressed in greater detail in the following section.

Government interventions that may act as obstacles to competition in mobile markets

While governments set the rules that create the conditions that allow firms to operate and generate incentives for firms to thrive for the benefit of consumers, certain regulations and government interventions are more likely to restrict or distort efficient and competitive markets. Anticompetitive behavior along the supply chain can be facilitated by government interventions that restrict competition through:

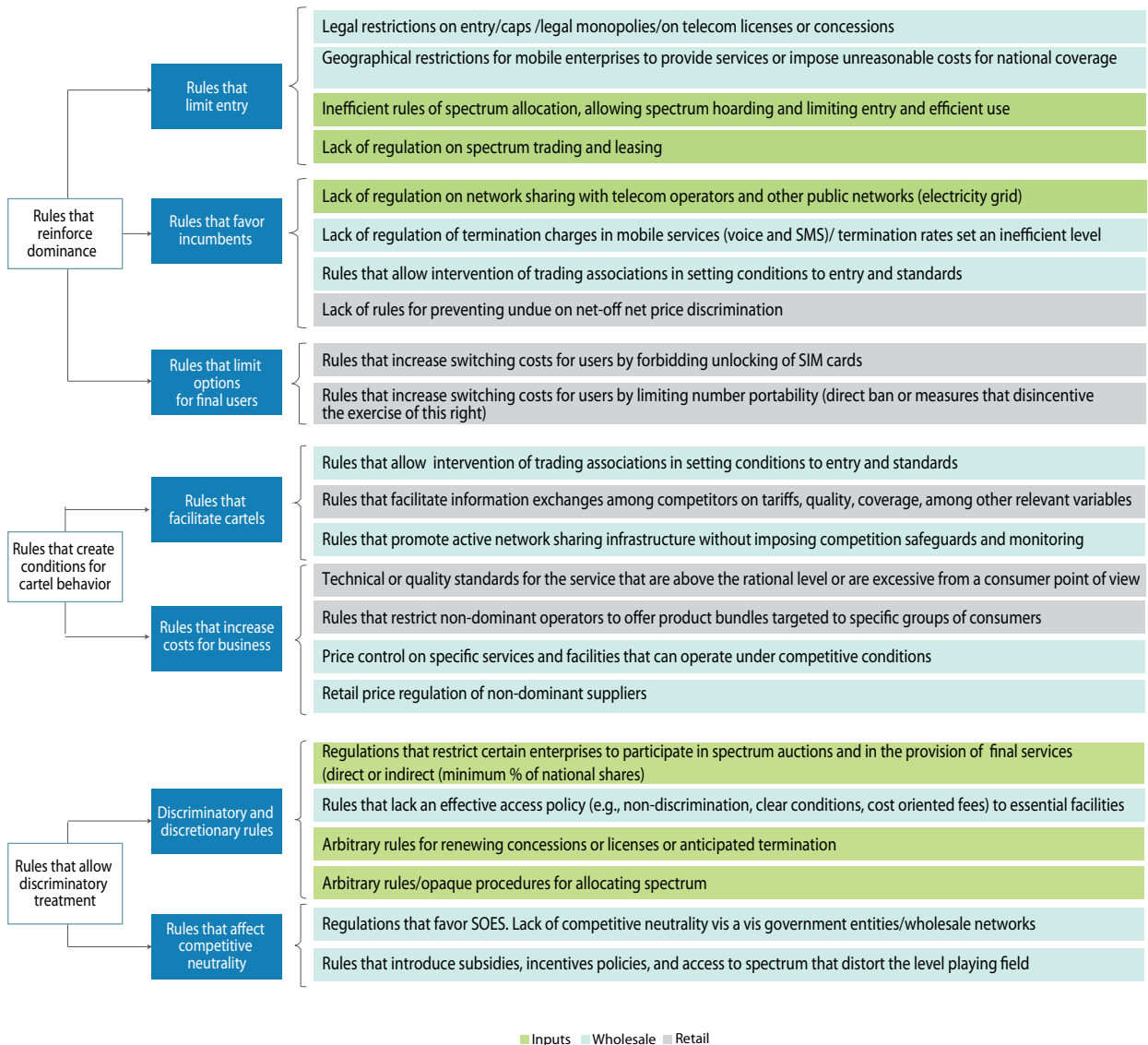
- i) Rules that limit entry and facilitate dominance by increasing concentration and entrenching dominant positions, thereby increasing the risk of abuse of dominance or collusion;
- ii) Rules that facilitate collusion or restrict firms' choice of strategic variables; or
- iii) Rules that discriminate or protect vested interests, and therefore indirectly increase concentration.¹¹⁵

Within these broad categories, specific types of restrictions can be identified. Figure C3-14 presents government interventions and specific regulations that can restrict competition in mobile markets.¹¹⁶ Figure C3-15 shows specific examples of government interventions that restrict competition in certain African countries.

¹¹⁵ Within each category, there are restrictions that can be considered most restrictive regulations. This specific guidance is provided in the Markets and Competition Policy Assessment Tool (MCPAT), developed by the World Bank. Agencies should bear in mind, however, that although some restrictions are not considered the most pervasive ones—and are therefore not immediate candidates for priority reforms—the combination of these regulations within a specific sector or relevant market could create significant restrictions to competition. This can happen, for instance, when they recur in specific market subsegments or, when assessed collectively, it is clear that they are part of a strategy, for example, to prevent the entry of new players by imposing barriers to competition in the form of standards or excessive requirements.

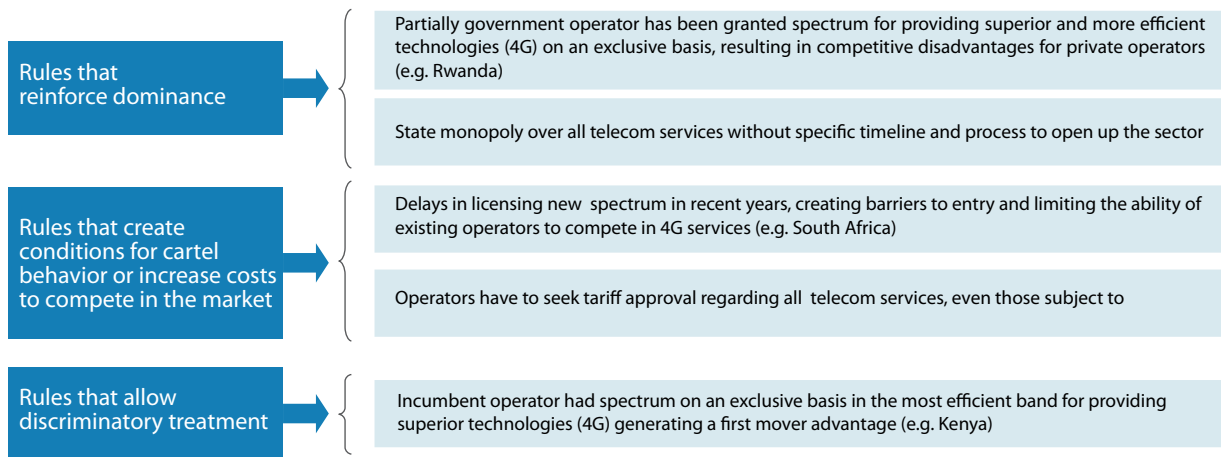
¹¹⁶ These examples have been developed considering the World Bank's experience in working on procompetition interventions in several markets.

Figure C3-14
Most common government interventions that limit competition in mobile services



Among the government interventions that can significantly restrict competition in mobile markets are those related to inefficient spectrum allocation, inadequate regulation of termination charges, rules that introduce subsidy schemes, and interventions that increase switching costs for final users.

Figure C3-15
Examples of specific government interventions that restrict competition



Mobile termination rates are high in the region due to the lack of adequate regulation

Given the monopolistic characteristics of call termination, termination rates should be based on the costs of an efficient operator. There is overwhelming international evidence that cost-based termination rates encourage competition and are more affordable for consumers. Indeed, several studies show that appropriate regulation of mobile termination rates has generally had a considerable impact on tariffs (Cricelli *et al.* 2012; Hurkens and Lopez 2012), and empirical reviews show that Africa follows this pattern (Stork 2012). Regulators are moving toward the forward-looking long-run incremental cost (LRIC) methodology to determine the most appropriate glide paths after the European Commission recommended this methodology in 2009 (Commission of the European Communities 2009).

Although African countries have embarked on regulatory interventions that reduce mobile termination rates (MTRs) toward the cost of an efficient operators, high mobile termination rates are still very common in Africa. Comparing termination rates of selected countries in Africa against the cost of Organisation for Economic Cooperation and Development (OECD) low-user baskets for mobile telecommunications for the cheapest product available confirms the link between high termination rates and high prices for these African countries (Stork 2012).

Rwanda's MTRs, for example, are exceptionally high compared to others in the region. Kenya, after some reduction had already taken place, took a much stricter stance in June 2010, cutting MTRs in half. This move had a powerful impact on tariffs, with average prepaid on-net tariffs decreasing by 32 percent and prepaid off-net tariffs decreasing by 57 percent (postpaid reduced even further) by the end of June 2011 (CCK 2013; Stork 2012). Tanzania had, up until late 2013, exceptionally high rates within the region, but has recently taken a stronger stance, cutting MTRs by almost 70 percent.¹¹⁷ Whether this move will have a similarly transformative effect on the Tanzanian market as in Kenya remains to be seen. In Mozambique, mobile termination charges have been cut

¹¹⁷ See the Determinations on Interconnection Rates of 2004, 2007, and 2013. Available online at www.tkra.go.tz [accessed July 2014].

significantly starting in 2013, and positive effects on competition have been reported (Calandro, Chair, and Mabila 2014). Rwanda’s mobile termination rates are now more than 200 percent those of Tanzania and more than 330 percent those of Kenya.

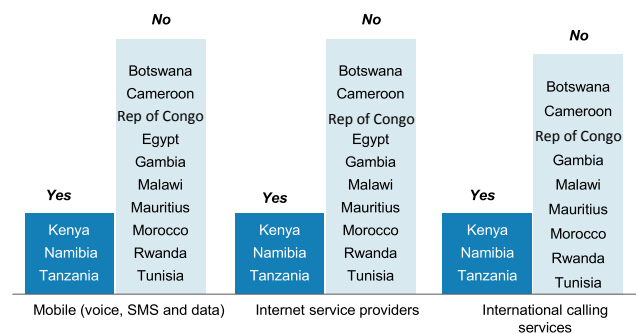
Although African countries have embarked on regulatory interventions that reduce mobile termination rates toward the cost of an efficient operator, high mobile termination rates are still common in Africa.

Restrictions on foreign investment are present in some countries

Private investment is critically important in the telecommunications sector and remains the key driver of the expansion of telecommunications networks. In Sub-Saharan Africa, the majority of countries allow foreign investment and permit foreigners to own at least 51 percent of a given firm, or complete ownership of subsidiaries, with the exception of Kenya, Namibia, and Tanzania. In Kenya, a foreign investor must issue at least 20 percent of its shares to Kenyans during a maximum period of three years after issuance of the license to provide communications services. This requirement may only be waived by the government on an exceptional basis. Moreover, the foreign investor must be registered as a company, sole proprietorship, or partnership and have permanent premises in Kenya (Harney and Otaba 2014). In addition, telecommunications markets that are closed to private participation—such as Comoros, Eritrea, and Ethiopia—restrict foreign investment in their telecommunications sectors.

Figure C3-16
Status of regulations that restrict foreign investment in telecom services in Africa operators

(legal limits to the proportion of shares that can be acquired by foreign investors by sector)



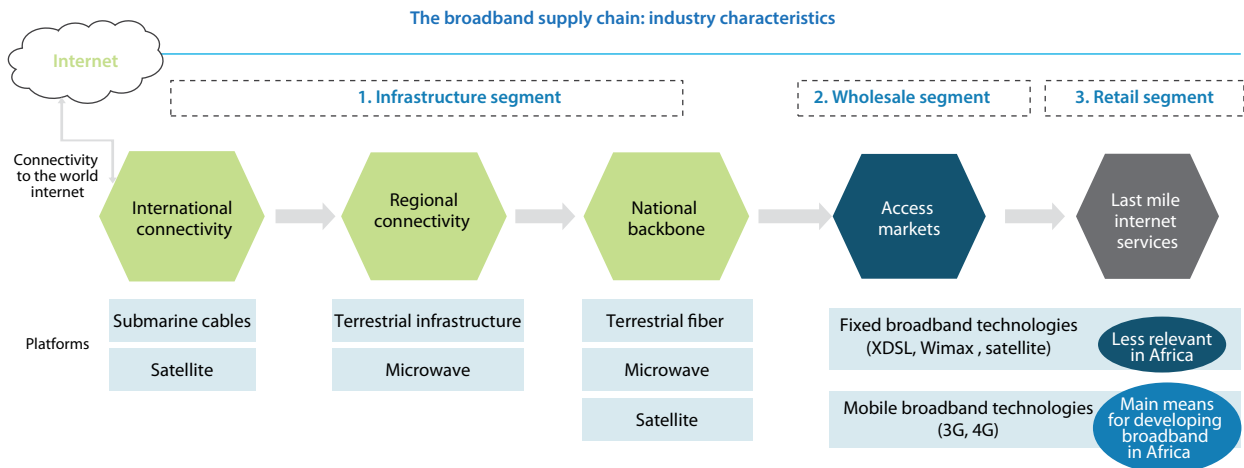
SOURCE: ACF-WBG 2015.

C. Wireless broadband services

In Africa, the monopoly of incumbent operators over undersea cables, landing stations, and international gateways has contributed to the high cost of telecommunications services. Monopoly rights were typically granted because it was believed that these facilities were natural monopolies and that the state would provide services in the most efficient way. The experiences of various countries clearly demonstrate, however, that where the provision of international communications has been opened to competition, prices have been driven down while demand has gone up. As Internet connections in Sub-Saharan Africa remain among the most expensive in the world, it is necessary to identify and evaluate the main competition challenges that continue to hamper the development of truly competitive telecommunications markets.

Low levels of Internet access in Africa may be explained in part by how the Internet connection market functions (ITU 2013). Accordingly, this section provides a brief overview of the value chain for the provision of Internet connection.¹¹⁸ Each segment of the value chain may be affected by different barriers, which in turn determine the overall level of competition. Figure C3-17 describes the wireless value chain from the perspective of services that, taken together, allow end users to use the Internet.¹¹⁹

Figure C3-17
Value chain of wireless Internet services



While the deployment of submarine cable has substantially increased bandwidth capacity in Africa, the benefits that can be reaped from this development are yet to be fully exploited. The main challenge lies in extending the capacity offered by submarine cables to landlocked countries and rural areas, and opening this market to more competition. Landlocked countries generally pay higher prices for bandwidth than coastal countries. In Africa, for instance, being landlocked adds an average of \$232 to the monthly price of fixed broadband access (World Bank 2016c).

Before 2006, most African countries granted monopoly rights to incumbent operators to operate a submarine cable landing station. In fact, incumbent operators in 13 of the 19 countries in the Middle East and North Africa (MENA) region enjoy exclusive control over access to international submarine cable connectivity (World Bank 2014). Cameroon granted CAMTEL (Cameroon Telecommunications) an exclusive right to access the SAT-3 international fiber optic submarine cable, which in turn allowed the company to charge high prices to Internet Service Providers (ISPs).

¹¹⁸ The summary overview is based on ITU 2013.

¹¹⁹ Operators and suppliers of telecommunications services operate at different levels of the value chain. It is possible to distinguish between: Internet service providers (ISPs), national or international backbone providers, and Internet access providers (IAPs). While these types of suppliers can be independent of each other, it is possible for all three functions to be subsumed under a single operator.

South Africa’s experience with respect to submarine cables provides a good example of the positive impact that competition can have on prices. Until 2009, South Africa’s bandwidth relied on satellite and a single submarine cable, SAT-3. This translated into one of the highest bandwidth prices in the world. The incumbent telecommunications operator was the sole owner of the cable. Since 2009, however, three new submarine cables have landed in the country, leading to a significant drop in prices.

As Internet connections in Sub-Saharan Africa remain among the most expensive in the world, it is important to identify the main competition challenges that continue to hamper the development of truly competitive telecommunications markets.

MAIN REGULATORY RESTRICTIONS AND COMPETITION ISSUES

In many Sub-Saharan African countries, mobile operators are allowed to deploy their own backbone networks to provide services to their retail customers, but are or were prohibited from offering wholesale backbone services to other telecommunications operators. This restriction “limits opportunities for taking advantage of economies of scale in network infrastructure and reduces incentives to invest in high-capacity backbone networks,” thereby shifting the investors’ focus to lower-capacity wireless networks (Williams 2010).

Before 2006, most African countries had in place regulatory barriers with respect to submarine cables, as the incumbent operators had a monopoly right to operate such cables. In recent years, however, regulatory policy has undergone a significant change as many countries liberalized their markets. One country in which regulatory barriers continue to impair the development of competition is Cameroon (Schumann and Kende 2013).

Applicable taxes and tax administration can constitute a significant barrier to entry, thereby dampening network investment and potentially discouraging telecommunications operators from upgrading or expanding their networks. In Nigeria in 2014, for example, mobile operators paid \$850 million in taxes and regulatory fees. The GSMA reports that “adding to this cost, international comparisons reveal that the amount of time needed to comply with tax duties is the highest in the world, and the number of different taxes paid are high, particularly for mobile operators who are subject to numerous sector-specific taxes and to local taxes across their national footprint” (GSMA 2015).

Table C3-1
State of competition in wireless local loop services in Africa

Partial competition	Full competition
Angola	Burundi
Eritrea	Cameroon
Ethiopia	Cape Verde
Namibia	Congo
South Africa	DRC
Swaziland	Equatorial Guinea
	Guinea
	Guinea-Bissau
	Kenya
	Lesotho
	Madagascar
	Mauritius
	Nigeria
	Tanzania
	Uganda
	Zambia
	Zimbabwe

SOURCE: ITU 2013.

In most African countries, full competition is allowed but the presence of large firms in the market and government ownership are common. Table C3-1 shows the status of competition in cable modem and wireless local loop services in Africa. Based on available data, in cable modem services, 10 countries allow full competition, five have monopolies, and Sierra Leone is the only country with partial competition (ITU 2013). As far as wireless local loop is concerned, 10 countries have partial competition, 18 allow full competition, and six have monopolies (ITU 2013). According to the ACF-WBG survey, seven out of 11 countries have one firm with more than 50 percent market share, and there has been entry in the last two years in Botswana, Kenya, Mauritius, and Zambia. It is worth noting, however, that four countries impose legal limits on ownership by foreign investors.

The government participates in companies that compete with private operators, highlighting the importance of measures that can ensure competitive neutrality. Based on the ACF-WBG survey, Zambia is the only country with no state-owned providers in the fixed and wireless Internet service sectors. However, the state owns a fiber network that provides wholesale services to other providers and retail data services. Seven of the remaining 10 countries have providers with state participation of more than 50 percent market share (Botswana, Egypt, Kenya, Mauritius, Morocco, Namibia, and South Africa). The Gambia, Tanzania, and Tunisia have providers with state participation of less than 50 percent market share.

Some governments in Africa have developed broadband infrastructure and are gradually incorporating private partners. Mauritius was the first in the world to develop a nationwide wireless broadband network in 2005. Mauritius Telecom has a 57 percent market share in the fiber optic broadband market and a 93 percent market share in the asymmetric digital subscriber line (ADSL) market through its fully owned subsidiary, Telecom Plus Ltd. Mauritius Telecom has been partly privatized, with France Telecom (Orange S.A.) now holding a 40 percent stake. In Rwanda, the fiber optic network developed by the government and the 4G infrastructure are managed by a joint venture between the government and Korea Telekom.¹²⁰

Government involvement in developing broadband infrastructure has risen in Africa, as has the need for accompanying regulation to ensure competitive neutrality and minimize distortions to competition.

D. International gateway services

Traditionally, monopoly rights to operate international gateway (IGW) services and to provide international services were granted to fixed incumbent operators. The main argument was that a monopoly over IGW would allow a given country to keep high prices for international calls. It was believed that high charges for outgoing calls would discourage such connections, while profits made from incoming calls¹²¹ would be used to fund network deployment by the fixed incumbent

¹²⁰ After a period during which telecommunications development was led largely by the private sector, there has been a recent move toward more direct government involvement. Increased government participation in the data sector has been accompanied by solid regulatory frameworks to ensure competitive neutrality and minimize distortions to competition.

¹²¹ The argument was that “consumers in developed countries had a better ability to pay for high international call charges than those in developing countries” GSMA, 2012.

operator.¹²² Over the years, the cost of entering into the IGW market has dropped significantly due to technological advancements, in particular the deployment of voice-over IP (VoIP) services and very small aperture terminals (VSATs). Despite these advancements, some countries have preferred to postpone or avoid liberalization of the IGW market on the grounds that more competition would lead to lower prices, which in turn would increase outgoing and decrease incoming calls, thereby decreasing the incumbent operator's funds for the deployment of its network.

Given the attractiveness of entry into this market, countries that chose to keep a monopoly structure have witnessed illegal bypassing made possible by technological advancements.¹²³

While illegal bypassing (which can account for 30–60 percent or more of traffic) delivers lower prices to consumers, it also compromises the quality of service, as there is a risk of service interruption. The possibility of bypassing the IGW of incumbent operators, either through illegal bypassing or by rerouting traffic through third countries, therefore significantly undermines any rationale behind maintaining a monopoly.¹²⁴

The experiences of African countries clearly demonstrate that full liberalization of the IGW market has the potential to deliver significant benefits, both to consumers and to the country as a whole.

It appears that consumers benefit from liberalization of IGWs either when governments allow the entry of competing IGW service providers, including mobile operators, or when competing operators provide IGW services by accessing the existing gateways of the incumbent operator. Prices tend to be lower in countries with competing international gateways than in countries with just one submarine cable. According to a GSMA study, average international call prices in countries that were liberalizing fell by as dramatic an extent as 90 percent in the years immediately following full liberalization (GSMA 2012). In Kenya, for example, international calling prices decreased by 70 percent after mobile providers obtained IGW licenses. Likewise, in Nigeria, prices fell by 90 percent. In the aftermath of IGW liberalization in Tanzania in 2005–06, international prices fell by 57 percent and mobile international tariffs by 68 percent. Evidence shows that the introduction of competition not only lowers prices, but also stimulates demand and leads to increased traffic. For example, the GSMA observed that the volume of international traffic increased by 40 percent in Kenya and by 65 percent in Nigeria after liberalization.

In addition to having a positive impact on voice services, competition in the IGW market can also lower prices for access to the Internet. Overall, the opening of the IGW market to competition increases consumer welfare by fostering lower prices, higher volumes of international traffic, and higher-quality telecommunications services as competition between multiple providers leads to improved and more reliable international connectivity.¹²⁵

¹²² Typically, fixed operators would each have their own international gateway and a network reaching to a point where both gateways would connect. Commercial relations between the operators are governed by bilateral agreements that specify, among others, compensation mechanisms and other financial arrangements.

¹²³ In particular, GSM gateways or SIM boxes are used to bypass international termination rates.

¹²⁴ In countries that opted for gradual liberalization, during the initial phase mobile operators were often prevented from deploying their own IGW. Instead, these operators were required to either access the incumbent operator's international services or to interconnect through competing fixed international gateway providers where multiple IGWs were available.

¹²⁵ For example, "in Kenya, prior to liberalization of the international gateways, the incumbent subjected ISPs to sudden and enormous price as well as technical problems which, for instance, meant that the country did not have access to the global Internet for an entire weekend in August 2004" (GSMA 2012).

In African countries that were liberalizing the IGW market, average international call prices fell by as dramatic an extent as 90 percent, and traffic has increased significantly in the years immediately following full liberalization.

MAIN REGULATORY RESTRICTIONS AND COMPETITION ISSUES

Monopoly rights and other restrictions on the provision of IGW services have a negative impact on consumers and on the economy as a whole. Not only are consumers charged high prices for international calls, but the country can become less attractive to foreign investors. This is particularly the case if neighboring countries have already successfully liberalized their IGW markets.

Monopoly over international gateways¹²⁶

To ensure optimum connection, each domestic fixed and mobile network should be connected directly to the IGW. Where a fixed operator continues to enjoy monopoly rights over an IGW, however, it may have both the ability and the incentive to request other domestic networks to convey their traffic at a lower point in its fixed network. Indirect connection to the IGW implies more carriage and, consequently, higher interconnection charges, but also a lower share of the charges paid by the foreign operator because the incumbent carries the call further over its own network.

Prohibitively high fees

The state of competition in the IGW market is determined not only by the liberalization policy, but also by the prices charged for international capacity, which in turn have a direct impact on the price and usage of Internet access. Zambia, for example, had kept its IGW market closed for over 20 years because the first liberalization steps were taken in other areas of the telecommunications sector. During that period, state-owned Zamtel routed all international calls through its international gateway. However, the gateway could not meet all the traffic demand and the incumbent operator did not have sufficient incentive to invest in the facility, as it did not face any competition. Although IGW services have eventually been liberalized and two service providers have obtained licenses to access the international gateway facility previously operated exclusively by Zamtel, private sector investment in these services was virtually nonexistent until 2010 due to prohibitively high license fees. Until 2010, the license fee for the international gateway was \$12.5 million per year, which acted as a barrier to entry.¹²⁷ As of 2010, when this fee was reduced to \$300,000, the market has attracted more investment and prices paid by end users have declined substantially.

Government-sanctioned cartels

An increasing number of countries have recently restricted or even fully eliminated market players' commercial freedom to set termination charges for incoming international telecommunications traffic by imposing binding rate floors. As the OECD notes, these charges "act as a government-

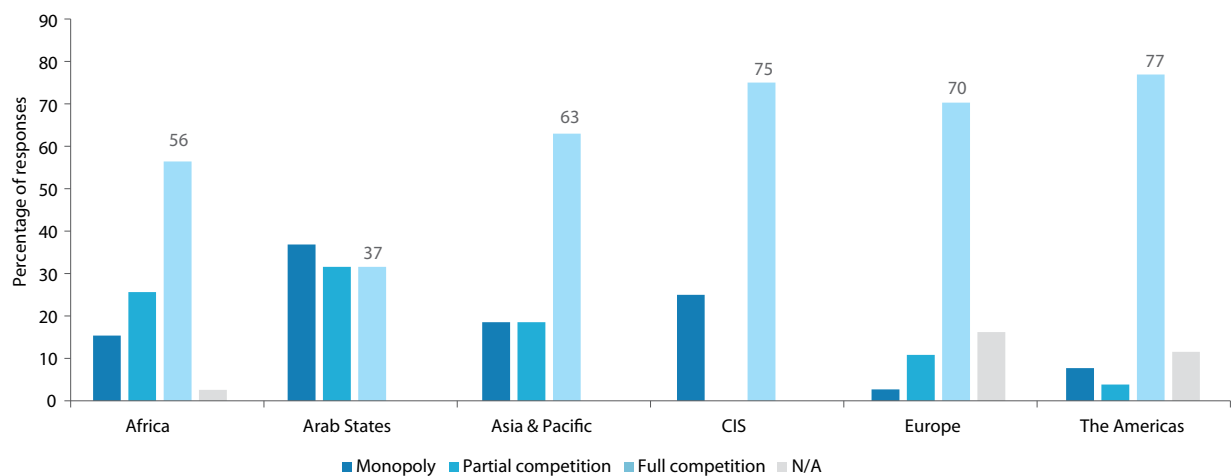
¹²⁶ In 2013, a monopoly on the international gateway continued to exist in Côte d'Ivoire, while incumbent operators in Cameroon and Botswana were still state-owned (Schumann and Kende 2013).

¹²⁷ In comparison, the fee for international gateway services was set at \$214,000 in Kenya and at \$50,000 in Uganda.

sanctioned cartel, precluding competition and raising prices for consumers in the countries involved (as some operators in other countries take reciprocal action which raises the prices for outgoing calls) as well as for users in other countries”(OECD 2014).

Although over half of respondents in Africa consider their IGW services market to be open to either full or partial competition, this falls considerably below the proportion in Europe, the Americas, the Common Wealth of Independent States (CIS), and Asia and the Pacific regions. According to the ACF-WBG survey, Cameroon, Ethiopia, and The Gambia have a state monopoly in the provision of IGW services.

Figure C3-18
State of competition in international gateway services across regions, based on percentage of respondents, 2013



SOURCE: ITU 2013.

The government participates in some countries as a commercial operator. Botswana, Kenya, Namibia, Tanzania, Tunisia, and Zambia have no state-owned monopoly providers in the international calling services market. In The Gambia, Kenya, Morocco, and South Africa, providers with state shareholding account for more than 50 percent of the traffic. In Mauritius, the state-owned enterprise has less than 50 percent market share.

Finally, regulation of the price of IGW services is crucial where there is a monopoly in order to facilitate competition in international communications services and roaming. According to the ACF-WBG survey, prices for accessing the service are not regulated in Namibia or the Seychelles, whereas Botswana, Egypt, The Gambia, Kenya, Mauritius, the Republic of Congo, Rwanda, and Tanzania regulate prices for accessing the service.

An increasing number of African countries have restricted or even fully eliminated market players’ commercial freedom to set termination charges for incoming international telecommunications traffic by imposing binding rate floors.

Table C3-2
Examples of recent sanctioned cases and ongoing investigations for anti-competitive practices in the telecom markets in Africa

Country	Recent antitrust cases in the telecommunications market	Topic
Cases in which sanctions were issued		
Kenya	The Competition Authority of Kenya ordered Safaricom to open up their mobile money transfer network and eliminate exclusive agreements with agents, M-Pesa, to rivals and has prohibited the firm from levying extra charges on competitors to use its network. This follows a complaint from Airtel, a rival telecom firm, which was barred from engaging in business with the 85,000 agents that Safaricom deals with for its mobile money transfer service.	Abuse of dominant position in financial mobile services
Mauritius	The case involved Mauritius Telecom, which was bundling its broadband Internet, international calling, and pay-TV products. The firm has a monopoly in the broadband market, a 37 percent share in the market for the retail supply of pay-TV, and a 3 percent share in the market for the retail supply of premium content in pay-TV. Since the firm has a monopoly in the broadband market and is using this power to gain share in the pay-TV market, this behavior could be considered to be abuse of dominance, which leads to anticompetitive outcomes.	Abuse of dominant position in broadband Internet services
Malawi	In May 2013, Airtel applied to the Commission for authorization of its exclusive distribution arrangement for recharge vouchers and other products, which was approved subject to amendments of some clauses that were found to possibly lessen competition. Airtel filed an appeal at the High Court stating that the Commission cannot reasonably expect Airtel distributors to appoint sales accountants who will be engaged in accounting for the sales of its competitors. The court ruled that Airtel was, through the clause in question, attempting to regulate the business affairs and conduct of its distributors, which are independent businesses, by leveraging its dominant market power.	Vertical restraints (anticompetitive distribution agreements) in the mobile sector
Egypt	The Competition Authority of Egypt has referred three major mobile operators—Mobinil, Etisalat, and Vodafone—to the prosecutor general following charges of engaging in an anticompetitive agreement through which they conspired to inflate prices under the pretext of charging a stamp tax. The operators simultaneously added the stamp tax of EGP 0.5 per month per customer to prepaid recharge cards beginning in March 2012 without notifying the National Telecommunications Regulatory Authority. The competition authority has argued that the simultaneous imposition of the stamp duty by all three companies at the exact same rate is a violation of Article 6 of the Egyptian Antitrust Code.	Illegal agreement among mobile operators
South Africa	During 2002 the South African VANS Association and other ISPs lodged a complaint alleging that Telkom had abused its dominance upstream to create an unfair advantage for its downstream retail division in the value-added network service (VANS) market. In 2004, the Commission referred the case to the Tribunal, having determined that Telkom had unlawfully sought to extend its monopoly rights by refusing to supply essential facilities (in the form of its fixed-line network) to independent VANS providers, inducing VANS providers' customers not to deal with them (by approaching them with claims of the illegality of the VANS model), charging their customers excessive prices for access services, and discriminating in favor of its own customers by giving them a discount on distance-related charges that it did not advance to customers of the independent VANS providers.	Abuse of dominant position in Internet access markets
	Between 2005 and 2007, five separate complaints against Telkom were submitted by the Internet Service Providers' Association and three other ISPs. In its investigation, the CCSA found that Telkom had engaged in margin squeeze against ISPs by charging excessive prices for inputs; had refused to lease essential facilities; and had engaged in anticompetitive conditional selling of managed network services and Internet access services by bundling these products with access services that were priced far lower than the equivalent access services that end customers would purchase when considering the purchase of managed network services and Internet access from other operators. Telkom and the CCSA agreed to settle the case and, as part of the settlement, Telkom admitted to contravention of the Competition Act in regard to margin squeeze and anticompetitive bundling and tying of products.	
Ongoing investigations		
Mauritius	The Competition Commission of Mauritius opened an investigation on the potentially exclusionary and exploitative pricing conduct of two mobile telephony operators, Emtel and Orange. The major concern is that on-net/off-net price discrimination could be anticompetitive. Mobile termination rates are not regulated in Mauritius.	Abuse of dominant position in mobile services
South Africa	Cell C lodged a complaint with the CCSA against Vodacom and MTC, alleging anticompetitive on-net/off-net price discrimination on voice calls. According to Cell C, the alleged conduct discourages consumers from switching to smaller networks by creating a so-called "club-effect." The ongoing investigation is being run in parallel with the review of mobile termination rates carried out by the Independent Communications Authority of South Africa upon the complaint of Cell C.	Abuse of dominant position in mobile services

E. Anticompetitive behavior detected and sanctioned in Africa

Competition authorities across Africa have been fairly active in pursuing investigations in the telecommunications sector. According to the ACF-WBG survey, Tunisia had the most investigations in the past three years, totaling 12, of which eight resulted in sanctions.

F. The potential benefits of more dynamic telecom markets in Africa

Prices for mobile and Internet services are still high and affordability low in Africa, compared with other regions, which indicates that increased competition would deliver benefits for consumers. Based on data from 2015, Sub-Saharan African countries have the highest final prices for mobile and fixed broadband services around the world. Moreover, prices for fixed broadband access are 100 percent higher than those in the second-most expensive region, EAP. Although prices of mobile services are not so high compared with other regions, it is clear that a gap remains in the affordability of these services compared with regions such as MENA and EAP. The fact that prices are generally cheaper for mobile than for fixed-line data can be explained by policy and market failures: most African countries jumped straight to mobile networks without investing first in connectivity. The consequence for many users is a second-class Internet: slow, expensive, and rarely always on. Internet usage in Africa is the second-lowest among the regions, after South Asia (World Bank 2016a). The affordability of mobile phones and the Internet is a key issue in Africa: the median mobile phone owner in Africa spends nearly 3 percent of monthly income on mobile phones and texting. In the Central African Republic, one month of Internet access costs more than 1.5 times the annual per capita income (World Bank 2016c). Table C3-3 provides a detailed comparison of average prices and the share of Internet usage among the world's regions.

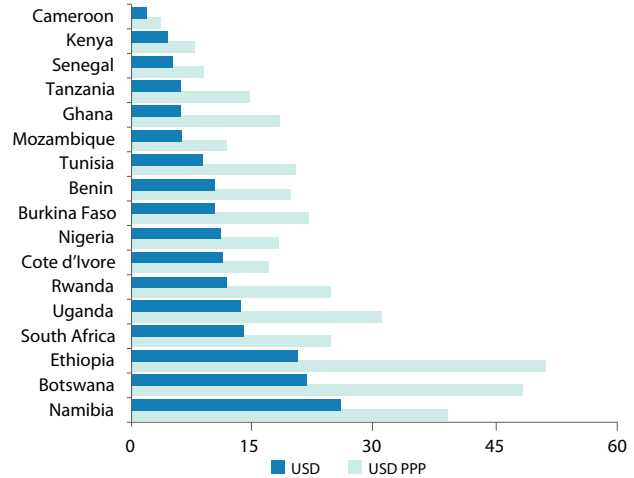
Table C3-3
Final telecommunications prices and usage in Africa, 2016

Region	Affordability		Usage
	Final average monthly prices mobile cellular (\$)	Final average monthly fixed broadband (\$)	Individuals using the Internet (%)
South Asia	2.8	5.6	16.6
MENA	7.8	11.8	32.7
Sub-Saharan Africa	13	40.6	19.2
Latin America and the Caribbean	12.9	20.7	47.5
EAP	6.9	20.5	42.1
Europe and Central Asia	10.7	11.5	48.2

SOURCE: World Bank and ITU 2016.

It is possible to draw a correlation between broadband Internet prices in Africa and market structures in terms of competition; more competitive markets are expected to deliver lower prices for consumers. Countries with higher prices and lower Internet use tend to exhibit barriers to competition in the sector, created by regulatory policies that prevent new entry in the market or give preferential treatment to incumbent operators. For instance, Botswana and Ethiopia exhibit the highest prices among 17 African countries in the Broadband Price Index of Research ICT Africa (RIA), and in both countries incumbent operators remain owned by the state. Namibia's market is highly concentrated and less open to competition (Schumann and Kende 2013).

Figure C3-19
Price of cheapest mobile broadband 1GB in each African country, Q1 2014



SOURCE: RIA 2014.

Increased competition in telecommunications markets will have a positive effect (Table C3-4). Market entry has a positive effect on access to mobile services. Furthermore, additional access is associated with increased productivity. Lower prices are expected to stimulate traffic.

Sub-Saharan African countries have the highest final prices for mobile and fixed broadband services around the world, meaning that increased competition would deliver benefits for consumers.

Table C3-4
Benefits of more dynamic telecommunications markets

Benefits	Service
Entry of an additional operator increased mobile subscriptions by an average 57 percent. In addition, various studies show the impact of increased access to telecommunications services, particularly Internet, on economic growth (Gebreab 2012).	Mobile
A 10 percent increase in mobile penetration in developing economies is likely to increase productivity by 4.2 percent (Deloitte 2012).	Mobile
Average international call prices fell by at least 31 percent with partial liberalization and by 90 percent in the years immediately following full liberalization. International call volumes increased between 32 percent and 104 percent in the years immediately following liberalization (GSMA 2012).	International gateway services

4. Other key services with spillover effects across African economies

A. Air transport

Regulatory actions to encourage open and contestable markets will be essential for the African air transport market to reach its potential. Growth-constraining factors, including high fares and lower quality of service in the region, may be the result of a lack of competition. Based on public information on the cheapest available price per km for a seven-day return trip, booked seven days in advance, the Infrastructure Consortium for Africa (2014) report notes that “the price per km for intra-European flights [is] significantly lower than African flights, over similar distances.” The average intra-European fare price per km for the 26 analyzed routes is approximately two-thirds of the average intra-African airfare. Limited competition in Africa is one of the possible explanatory factors, as are higher operational per-passenger costs given the level of demand, and the level of taxes and charges imposed by African States and airports. In most of the cases, weak competition stems from the fact that firms' ability to enter and operate in the market is restricted by regulatory barriers, while in other cases anticompetitive practices take place.

The nature of competition in the air transport sector is defined by different economic and regulatory features. Air transport markets are generally defined by route. Routes can be domestic or international, for short-haul and long-haul traffic. The sector exhibits economies of scope and scale. The demand size and cost structure for these different routes, as well as the distinct regulatory frameworks for each type of route, define different market features that give rise to various competition issues.

In international routes, market concentration on a number of routes remains high and stable over time; over a quarter of air routes in Africa continue to be served by only one carrier (AfDB 2013), but entry has been observed in some routes. Meanwhile, taking the EAC as an example, more than half of the top intraregional routes (about 90 percent of the international traffic within the EAC) are operated by only one carrier. Based on the ACF-WBG survey, eight out of 13 countries surveyed had one firm with more than 50 percent market share in the international air transport sector. Nevertheless, eight out of the 13 countries surveyed have seen entry in the last three years in the international air transport sector, showing some degree of contestability.

Domestic routes are also concentrated, but some markets such as Kenya and South Africa have seen entry by low-cost carriers. In the domestic air transport sector, all but one of the 13 surveyed countries have one operator with more than 50 percent of the market and in some cases statutory monopolies still exist. Seven countries have state-owned carriers dominating the market.

Regional efforts to open markets started more than 15 years ago, with 44 countries in Africa signing the 1999 Yamoussoukro Decision (YD). The YD was intended to “open the skies” by minimizing government involvement and allowing multilateral exchange of up to fifth freedom¹²⁸ air traffic rights between any African country that is a signatory. The YD became fully binding in 2002, but only a few countries have observed its principles—despite some positive results from Kenya, South Africa, and the SADC on passenger volumes and fares on those routes that were opened

¹²⁸ Fifth freedom is the right to carry passengers from one's own country to a second country, and from that country to a third country.

up in recent years. In addition to aspects that can be regulated with international agreements (like frequencies, number of providers, capacity, prices, and freedoms), national legislation on access to essential facilities at airports (such as landing slots, ground handling services, and fuelling), and procedures for licensing operators and authorizing their operations, affect competition dynamics.

Competition law can also play a role in the assessment of mergers, abuse of dominance, or agreements among competitors in the sector. At least four competition authorities have handled cases related to the air transport industry. Most of these cases related to abuse of dominance in air transportation services and ancillary services such as fuelling. Alliances between airlines have also been analysed. In Cameroon and South Africa, competition authorities have penalized infringements to the competition law in this sector.

B. Road transport

Road freight rates in Africa are high and quality in terms of timeliness is limited. Regulations that reduce barriers to entry and allow for competition on the merits are expected to have a positive effect on the sector's performance. Given that various actors intervene in the supply chain for end-to-end cargo transportation, the level of prices, quality of services, and performance of the sector depend on the functioning of various interlinked markets—trucking, freight forwarding, brokerage, warehousing, and cargo consolidation, among others. Traditionally, trucking services have been more heavily regulated. A recent study on competition in the road freight sector in Malawi, Tanzania, and Zambia found that implementation of procompetitive regulation would affect both the price and quality of service (Nleya 2014).

Effective competition depends on factors that affect not only trucking but the whole transport and logistics value chain. Road cargo markets are generally defined by routes, and their competition characteristics vary by type of transported cargo (for instance, containerized, bulk dry, bulk liquid, and refrigerated). The degree of vertical integration of the transport and logistics supply chain also has an effect on market characteristics and competition issues. The buyer power of large users (importers, exporters) and the option of own-carriage of goods creates countervailing buyer power. Multimodal competition between road and railways can also be relevant above a certain transportation distance. In a few countries, waterways can also be a substitute.

Road cargo transport markets in Africa are generally composed of various operators, but some restrictions exist on entry to operations in the domestic market. Based on the ACF-WBG survey, as far as market share is concerned, none of the respondents reported having one firm with more than 50 percent market share, and only Namibia and South Africa indicated the existence of state-owned enterprises operating in their road freight sector. Mauritius imposes some conditions on the number of firms allowed to operate in the sector based on a needs assessment. Based on the responses to the ACF-WBG survey, prices are generally unregulated, although in some cases (Malawi, Cameroon, others in West Africa) governments or associations still issue guidance on the level of prices. In some countries, freight allocation schemes that sustain market-sharing agreements are present as well.

For international freight, bilateral agreements usually restrict the number of vehicles that are allowed to provide services between two countries. A World Bank study (Kunaka *et al.* 2013) evaluated 77 international bilateral road freight agreements and found that intra-Africa agreements were the most restrictive, with four out of five of the most restrictive agreements being between African countries. Moreover, implementation of some regional regulations affects competition conditions in the road transport sector, particularly for international routes. In the context of the SADC, implementation of certain regulations constrains the full development of regional transport market. In ECOWAS, the Interstate Transport Convention allocates two-thirds of port freight destined to inland countries to transporters from the destination country, affecting competition on the merits in those routes. Examples of anticompetitive regulations in use in Africa include regulations that limit which truckers shippers can use and banning of third-country trucking and cabotage, which is common in West Africa. By contrast, in Southern Africa, there are no quotas or queues, which allows direct contracting between shippers and transporters.

Competition authorities have not reported cases in road cargo transportation in the last two years, but the Competition and Fair Trading Commission of Malawi is conducting an analysis of regulatory restrictions and competition issues in the road transportation sector.

C. Retail

Low rates of formal retail, combined with urbanization and a burgeoning middle class, implies massive potential for growth in the retail sector in Africa. Moreover, due to its direct impact on consumer welfare, it is an important sector for competition authorities to monitor.

In the ACF-WBG survey, both Botswana and South Africa pointed out significant competition concerns in the retail sector. Tanzania, Kenya, Mauritius, Zambia, Morocco, and Namibia indicated moderate competition concerns. Botswana flagged the involvement of professional bodies in granting licenses or permits, as well as exclusivity in retail leases for shopping malls as two significant concerns. South Africa also raised shopping mall lease exclusivity, which has been the topic of a recent investigation, as a significant concern. In Mauritius, the Competition Commission's concerns pertain mainly to the pharmacy sector, where the regulations regarding applications for entry are ambiguous on how to determine whether the requirement that an area is in need of an additional pharmacy is fulfilled.

A number of competition authorities have been investigating anticompetitive practices in the retail sector. As mentioned, in South Africa, an investigation found exclusive clauses in lease agreements between mall landlords and the three biggest retail chains, although in this case the CCSA was unable to show an anticompetitive effect. A case on exclusivity clauses in lease agreements was also evaluated in Zambia. In Kenya, the CAK fined two retail stores for agreeing to eliminate price competition between them. In 2010, Mauritius completed its first case on abuse of monopoly in the market for block-processed cheddar cheese. The Seychelles undertook seven investigations in the retail sector, though none resulted in sanctions being imposed. Namibia's Competition Authority received six complaints in the retail sector though none have resulted in a formal investigation yet. Egypt investigated a case but did not find an infringement.

In addition to investigations, some competition authorities have been advising the government on policy making in the sector in order to foster competition. Some have also reviewed mergers and acquisitions in order to prevent anticompetitive outcomes in the sector ex ante. Namibia, for instance, conducted a study that supported the government's initiative of developing a retail charter to help strengthen the Namibian retail sector. In addition, South Africa is now pursuing an advocacy approach in response to the findings on exclusive clauses in mall lease agreements and has opened an inquiry in the sector. Mergers in the retail sector have been approved with modifications or conditions in Namibia (30 mergers in the last three years), South Africa, and Kenya.

D. Energy

With energy use rising in Sub-Saharan Africa, many governments are now intensifying their efforts to increase investment in the sector by tackling various regulatory and political barriers. Around 30 African countries have established independent electricity regulators. Some countries, including Kenya, Ghana, Nigeria, and Uganda, have also started privatizing some operations of their state-owned utilities, while others, including Tanzania, Namibia, and South Africa have remained with the state-ownership model.

Given the continued dominance of state-owned utilities in the various segments of the electricity sector in Africa, competition issues are often related to competitive neutrality that affects power generation. Provisions that allow for independent power producers as well as conditions to allow large consumers to select their power provider are not prevalent in Africa. In some cases, state-owned enterprises or the whole sector fall outside the competition law. For example, in Egypt, public utilities are excluded from the scope of competition law, while in Mauritius, petroleum products as well as liquid petroleum gas are exempt from competition law.

In the gas sector, concentration upstream has raised competition concerns in some countries in Africa. For instance, in South Africa, Sasol is virtually the only supplier and importer of natural gas. In 2009, the CCSA found evidence of market allocation and price-fixing arrangements with potential competitors. In addition, two other cases have been investigated in the gas sector, also involving Sasol. In Egypt, the competition authority has undertaken a study of the retail of natural gas. One issue that has been identified is the differential treatment of firms by the Egyptian Ministry of Petroleum in the sale of natural gas. The Egyptian authority also reported issues related to the limited number of licenses in oil assembling and refining, and noted that the state-owned petroleum corporation is responsible for all petroleum activities in Egypt, is party to all concession agreements, and is also entitled to a share of production once commercial discovery has been made. In Zambia, the Commission decided on an abuse of dominance matter regarding Puma Energy.

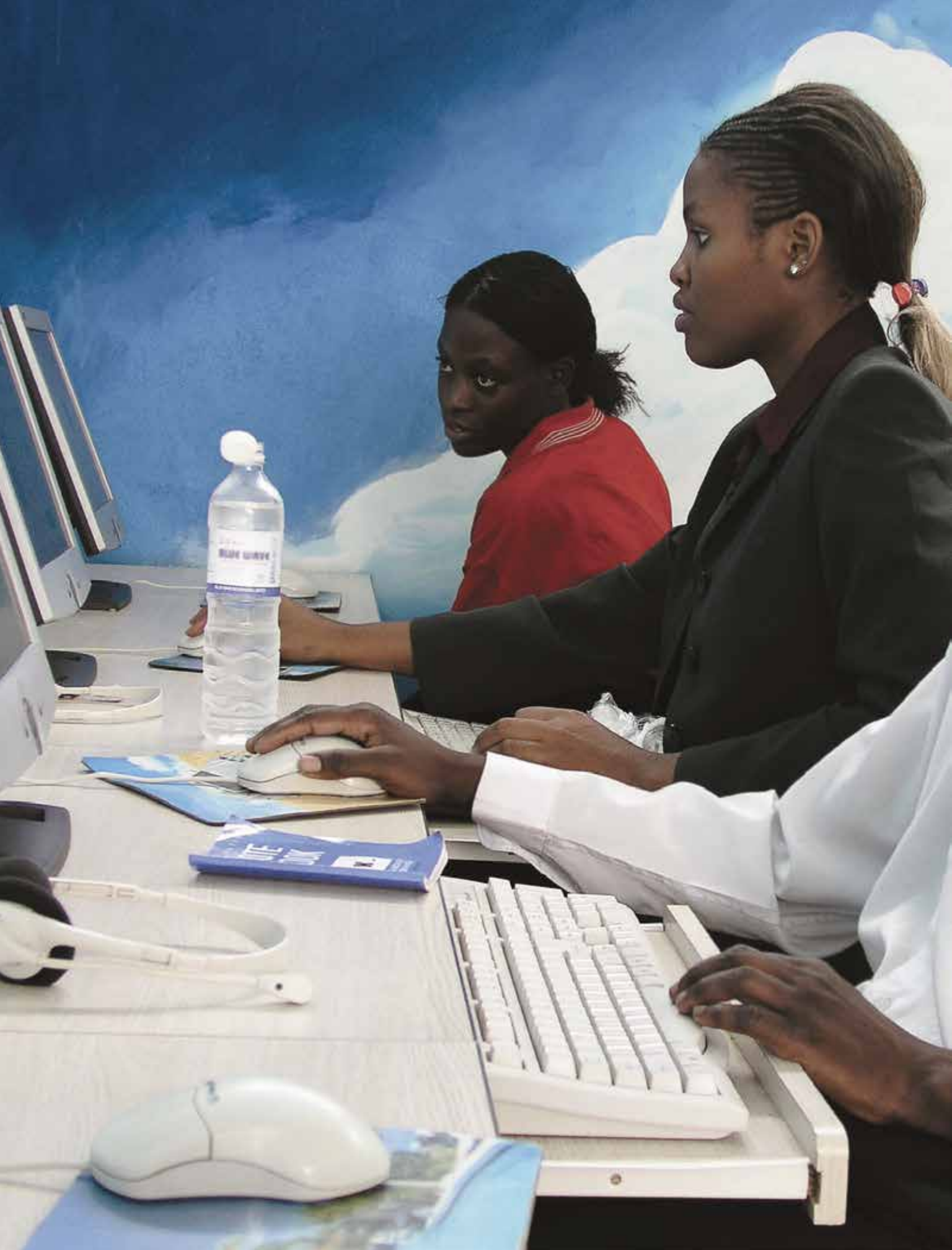
There have also been a number of merger cases in the sector. Mergers have been approved without conditions in Botswana, Kenya, Tanzania, Zambia, and Morocco. In South Africa, between 2005 and 2012, there were 25 mergers in the coal industry, of which 14 were large mergers. In 2011, the Tanzanian Fair Trade Commission approved the acquisition of 50 percent of BP Tanzania by Puma Energy.

E. Tourism

Given the dispersed structure of the sector consisting in various markets that are relatively open to competition, no significant competition issues have yet been reported by the respondents to the ACF-WBG survey. However with a 300 percent increase in tourists arriving in Sub-Saharan Africa since 1990, and an increasing role in country development strategies, it may become a sector of greater focus for competition authorities.

Some moderate concerns have been reported by some countries, including restrictive concession agreements for provision of hospitality services. Egypt, Kenya, Botswana, Tanzania, and The Gambia noted this as a moderate concern in the ACF-WBG survey. The next-most-frequently mentioned moderate concerns were restrictive requirements to obtain licenses and permits, and restrictions on providers of tourist road transfers—each cited by three countries.

Competition authorities have carried out some activities in the sector. Botswana, Tunisia, and The Seychelles have carried out investigations in the tourism sector, with Tunisia imposing one sanction. The Gambia's competition authority completed a tourism market study in collaboration with The Gambia's Tourism Board. In Egypt, the competition authority approached the Ministry of Tourism and the Ministry of Civil Aviation regarding a recently adopted initiative to encourage domestic tourism, which in fact favoured a state-owned enterprise at the expense of other competing, privately owned companies. As a result, the initiative was altered to include private firms. In 2013–14 there have been 15 mergers in this sector examined in Namibia, three in Botswana, as well as two in Kenya and Tanzania. Competition problems can arise in markets connected to tourism value chains, for example in passenger air transportation, tourism transport, and travel agencies.



D. THE WAY FORWARD

Governments can play an important role in encouraging competition in markets to get the most out of private sector participation. Areas of focus include enforcing competition laws and implementing procompetition regulatory frameworks that can transform markets and generate positive welfare distribution effects. Competition authorities play an essential role in these efforts and are called to become champions of these reforms. Nonetheless, great efforts are needed to show the gains of designing market regulations that incorporate competition principles and reduce the prevalence of anticompetitive practices. Placing competition policy at the center of the microeconomic reform agenda will enhance the benefits of other government policies targeted at sustaining economic growth and shared prosperity.

Given that sources allocated to competition authorities are finite, strategic prioritization is key for effectiveness and efficiency. In most of the cases, the legal framework is good enough to allow competition authorities to perform their mandate, but implementation challenges and trade-offs in the allocation of scarce resources are present. In general, authorities seem more active in merger control than in investigation of anticompetitive practices, so it would be useful to discuss strategies to transition to potentially more effective approaches. Collaboration with sector regulators and line ministries is necessary to address sector-specific challenges that can have spillover effects across the economy, such as those in fertilizers, cement, and telecommunications, highlighted in this report. Actions in this advocacy area require not only technical tools but also political capital and strategies to seek support from actors beyond the competition community. Market inquiries are a tool for arriving at a common understanding of competition issues in sectors; therefore, focused and in-depth analysis of market dynamics that provide implementable specific recommendations could be an area in which resources could be pooled to address competition issues.

Regional initiatives can support regulatory changes to help strengthen competition authorities and increase the effectiveness of competition policy. Given its coverage and mandate, the ACF is a valuable actor in supporting a common understanding of regulatory frameworks and principles for competition law enforcement. Regional communities can also perform a similar role in their jurisdiction. Based on this report, the following areas deserve special attention:

- *Efficient merger control:* refocusing resources toward transactions that are more likely to raise competition concerns and reducing undue administrative burdens, including adequate merger notification thresholds, fast-track and two-phase procedures, transparent and clear guidelines on public interest where this consideration is mandated, and mechanisms to support coordination between national and regional bodies.

- *Effective antitrust enforcement*: increasing deterrence of harmful practices through coordination of country authorities and regional analysis of detected practices that might affect more than one country; improving fining systems and maximum fine values; and adopting policies to facilitate case-work prioritization and increase the efficiency of enforcement.

Given the challenges present in African markets, authorities will benefit from prioritizing the allocation of resources with a view to preventing the most harmful anticompetitive practices and using available powers and tools more effectively. In some cases, there is a need to revise fines to ensure an adequate effect on deterrence and to assess administrative procedures that could be increasing the administrative burden on firms and authorities.

As shown by the analysis of the three core sectors, governments can take action to mitigate the risks of potential anticompetitive behavior in sectors. The interaction of industry characteristics, the degree of vertical integration, and the regulatory restrictions that apply to supply chains yield different dynamics in markets. Certain features can incentivize particular behaviors, such as collusion in cement and fertilizer markets and foreclosure in the telecommunications sector. Rules that make markets more open and contestable—by facilitating imports, supporting entry in production or operation, and giving all firms an opportunity to compete on common ground—would reduce concentration and dominance, and therefore the likelihood of anticompetitive practices. Based on the characteristics of certain markets and the past behavior of firms operating in the sector within the region, competition authorities can closely monitor certain markets.

Support to advocate for the adjustment of policies and regulations that unnecessarily limit competition and facilitate anticompetitive practices in member economies can deliver important benefits. This could be achieved by creating smaller, more cohesive subgroups of competition authorities for countries with economic linkages that can jointly study competition issues in a subregion, benefit from peer-to-peer learning, and design implementable strategies to address competition problems. Extending outreach to a broader group of stakeholders, such as sectoral regulators, the business community, academia, and civil society would also broaden the constituency of competition supporters. In addition to promoting competition in certain sectors, advocacy for the integration of competition principles into the implementation of state aid and price controls could give competition authorities a more important role to play in the economic agenda. The ACF could certainly support these efforts in collaboration with various partners.

Finally, competition authorities and partners could play a useful role in knowledge creation and exchange. It would be important for the ACF to continue carrying out competition analysis in domestic markets for related countries, as well as to expand its analysis of trade and competition to capture the regional angle given that market players make regional business decisions, and to prepare a strategy for supporting the implementation of key recommendations. Countries with an incipient competition culture would benefit from the experiences of other countries in the region to show that competition matters for the effectiveness of government policies. The ACF could be a useful forum for exchanging this type of information: valuable enforcement and

advocacy experiences as well as studies that quantify the benefits of competition. Moreover, given the importance of encouraging research on competition in the region and the limited availability of systematized information on competition across countries, partners could help to collate and disseminate relevant information, which would be of use not only to ACF members, but also to researchers, policy makers, and development partners.

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ANNEXES

Annex 1

Supply and Demand Characteristics of the Cement Production Chain

Structural barriers to entry that facilitate abuse of dominance or collusion by reinforcing dominance or high market concentrations

The following structural supply-side characteristics are generally acknowledged to reinforce the dominance of one firm or a small group of firms in a market. Dominance and high market concentration in turn increase the risk that abuse of dominance or collusion may occur.

- **Economies of scale and capital intensity: Establishment of a limestone quarry and construction of a clinker or cement plant are highly capital intensive.** This capital intensity is enhanced by the scale economies characterizing the entire cement production chain. The minimum efficient cement production plant is between approximately 1 million and 2.5 million tons per year, with start-up costs of approximately \$300 million. (Mbongwe *et al.* 2014). Plants operating below the so-called minimum efficient size face a considerable cost disadvantage compared to their competitors.
- **Reliance on scarce resources:**
 - **Limestone is the essential base input for cement and typically comprises 85 percent of the raw material input of cement.** As a result, cement factories are often integrated with limestone quarrying operations, in order to reduce operating costs. Investors will seek locations with access and ease of extraction for cement plants. The size of the deposit is also important, and most plants are built near deposits that can supply the plant for its full 30-year life span. Unlike mineral inputs for fertilizer, limestone deposits are relatively abundant in Africa.
 - **Energy is the second-greatest input into cement production (particularly the production of clinker).** In some countries, firms are beginning to vertically integrate into coal mining in order to reduce energy costs. While nonvertically integrated firms are not necessarily prohibited from entering the market as long as they have access to limestone and energy at market prices, clearly integrated access to a source of raw materials and energy would confer an important cost advantage to vertically integrated firms.
- **Bulky product: The bulkiness of limestone, clinker, and the final cement product poses high costs for the road transportation of inputs and outputs. *This has two implications.***
 - Cement factories tend to be located close to sources of raw materials, such as limestone deposits, or close to ports for easy access to imported inputs.

- o The unfavorable ratio between weight and value in output markets for the final product discourages transportation by road over long distances so that, in some cases, producers tend to serve regionally close (including cross-border) markets, rather than national markets. For example, Lafarge (2007) puts the maximum radius at which a typical cement plant can remain competitive at 300 kilometers over land.¹²⁹ Cement plants with waterborne shipping lanes, on the other hand, have a much greater competitive radius.

Supply-side characteristics: other factors that facilitate collusion

Other than high concentrations, collusion is facilitated by several other factors that increase firms' ability to coordinate. These can be divided into general and country-specific factors.

General factors that apply to the cement supply chain across countries include:

1. *Product homogeneity.* While cement can be blended with an extender material to produce different strengths or colors, the different blends are generally considered to be substitutable for each other. While product homogeneity and high substitutability have the potential to lead to more intense price competition, they can also increase the risk of collusion since it is easier to reach an agreement on market outcomes.
2. *Similar cost structures in production* make it easier for firms to coordinate and agree on a profit-maximizing price or output. Given that technology for cement production is mature and stable, firm costs are likely to be symmetric along the value chain.

Country-specific supply-side factors that can facilitate collusion would need to be assessed on a case-by-case basis. These include excess capacity, multimarket contact, cross-ownership and cross-directorships between firms, and mechanisms to facilitate explicit and tacit communication, such as the presence of product-specific trade associations.

Demand-side characteristics

Given the high degree of vertical integration between limestone mining and clinker production, and given that this report covers the segments of the cement market preceding wholesale or retail supply, the most relevant buyers' market to analyze is the demand for clinker from grinding plants that are not vertically integrated backward into limestone mining or clinker production. The following characteristics of buyers of clinker determine whether they have sufficient power to lessen the ability or incentives of supplying firms to act in an anticompetitive way, or whether demand characteristics in fact facilitate that behavior. These factors include the following:

- *Inelastic demand:* Final demand for cement is usually considered to be inelastic (Competition Commission UK date; Boyer and Ponssard 2013). From this, it can be inferred that the demand for clinker from cement producers should be relatively inelastic.

¹²⁹ It has been argued however that this geographic segmentation of markets is less pronounced in countries with cement shortages and high prices, since the greater value of the product compensates for the high transportation cost. It might be argued that this applies to many African countries; at the same time, however, this effect is counteracted by the high cost of transportation due to poor overland infrastructure.

- *Stable demand:* Since demand for cement is driven primarily by the construction industry, which is correlated with growth, in the medium to long term, demand for cement is likely to grow at a predictable pace in most countries. In the shorter term, however, demand may be susceptible to the cyclical nature of the economy in general and of construction in particular.
- *Buyer power:* There are likely to be only a few large buyers of clinker in the market, with relatively large purchase volumes. This will confer some buyer power on cement producers to counteract market power from clinker suppliers.
- *Switching costs:* These would need to be reviewed on a case-by-case basis for a precise assessment, but in general, industrial buyers may be more constrained in their ability to switch than downstream retail and farm buyers, for example, by long-term contracts with suppliers or by the need to specify the source of their inputs in their manufacturing licenses.
- *Scope for backward integration:* Large buyers of clinker should be able to integrate backward into import, unless there are import regulations or tariffs in place that limit this practice. While in some countries it would theoretically be possible for cement producers to integrate into production of primary materials, this will be affected by the availability of lime resources and the regulatory framework around limestone mining licenses.

Annex 2

Supply and Demand Characteristics of the Fertilizer Production Chain

Table 2.1
Uses and characteristics of fertilizer nutrients

	Nitrogen (N)	Phosphorus (P)	Potassium (K)	NPK Complex fertilizer
Use	<p>Main constituent of proteins.</p> <p>Essential for growth and development in plants.</p> <p>Supply of nitrogen determines a plant's growth, vigor, color, and yield.</p>	<p>Vital for adequate root development.</p> <p>Helps the plant resist drought.</p> <p>Also important for plant growth and development, such as the production of seed and fruit.</p>	<p>Helps improve crop resistance to disease and drought.</p>	<p>An efficient way of providing balanced fertilization.</p> <p>Particularly useful when:</p> <ul style="list-style-type: none"> i) soil analysis is available to determine what nutrients are deficient in the soil ii) labor is scarce or expensive, since less labor is required compared to straight fertilizer.
Nutrient's proportion of total demand in Africa (2014)	66 percent	23 percent	10 percent	
Primary materials needed for production	Natural gas	Phosphate rock	Potassium salts	N, P, and K
Intermediate product	<p>Ammonia.</p> <p>Produced by combining nitrogen in the air with hydrogen in natural gas.</p>	<p>Phosphoric acid.</p> <p>Produced by digesting phosphate rock with a strong acid.</p>	NA	
Common straight fertilizers	Urea, calcium ammonium nitrate (CAN), and ammonium nitrate (AN)	<p>Di-ammonium phosphate (DAP) or monoammoniumphosphate (MAP).</p> <p>Produced by combining phosphoric acid with ammonia.</p>	<p>Note for potash, straight fertilizers are naturally occurring primary materials.</p> <p>The most common is potassium chloride (MOP). Sulphate of potash (SOP) is also used in crops sensitive to chloride.</p>	
Complex fertilizers				Various formulations of NPK, including crop- / soil-specific combinations.

Structural barriers to entry that may reinforce dominance or high market concentration

The following structural supply-side characteristics are generally acknowledged to reinforce the dominance of one firm or a small group of firms in a market. Dominance and high concentration in turn increase the risk that abuse of dominance or collusion may occur.

- *Economies of scale and capital intensity:* Economies of scale are present throughout the value chain, particularly in the production of primary materials and straight fertilizer. Achieving these economies of scale requires significant up-front investment in capacity. For example:
 - Straight fertilizer plants producing more than 500,000 metric tons (mt) of product generate substantial economies of scale in production (Bumb, Johnson, and Fuentes 2011).
 - Bulk blending factories also display economies of scale, but are usually smaller than plants producing straight fertilizer and local to the area where the fertilizers will be applied. Investment costs for plant establishment are usually relatively small, as less equipment is required than for straight production (Formisanin.d.).
 - Import of fertilizers also displays economies of scale, with bulk purchases and transport being more cost effective than importing small quantities. Shipments of 25,000 to 50,000 mt generate economies in prices and shipping (Bumb, Johnson, and Fuentes 2011).¹³⁰
 - Economies of scale in wholesale are likely to be lower than those for import.
- *Reliance on scarce resources:* Straight fertilizer production—via production of intermediate products—requires a significant number of scarce raw materials (gas and minerals), constituting 70–90 percent of cash production costs (Hernandez and Torero 2013).¹³¹ Production of complex fertilizers, on the other hand, can make use of imported straight fertilizer and therefore relies less on scarce resources.
- *Bulky product:* The value to transport costs ratio of outputs is low along the value chain but is lower further the upstream the product, meaning that it tends to be more efficient to process primary materials and intermediate products in more concentrated locations. This is particularly true of phosphorous, as opposed to nitrogen.

Supply-side characteristics: other factors that facilitate collusion

Other than high concentration, collusion is facilitated by several other factors that can be divided into general and country-specific factors. General factors that apply to the fertilizer supply chain across countries include:

- *Product homogeneity* within a particular nutrient group with similar attributes regardless of where they are produced. Whilst product homogeneity and high substitutability have the potential to lead to more intense price competition, it can also increase the risk of collusion since it is easier to i) reach agreement on the collusive

¹³⁰ On the other hand, five have reduced the number of competitors: the Democratic Republic of Congo, Kenya, Madagascar, and Sierra Leone moved from four to three players, and Namibia from three to two. Figure C3-7 summarizes the evolution of the market structure in terms of the number of suppliers per country, between 2010 and 2015.

¹³¹ For example, natural gas represents 72–85 percent of the costs of producing ammonia (Huang 2007).

- *Similar cost structures in production* make it easier for firms to coordinate and agree on a profit maximizing price or output. Given that technology for fertilizer production is mature and stable, and since the products being produced are relatively homogenous, firm costs are likely to be symmetric along the value chain.

Country-specific supply-side factors that can facilitate collusion would need to be assessed on a case-by-case basis. These include excess capacity, multimarket contact, cross-ownership and links between firms, and explicit and tacit communication.

Demand-side characteristics

The characteristics of buyers and their demand at each level of the value chain help determine whether they have sufficient power to lessen the ability or incentives of supplying firms to act in an anticompetitive way, or whether demand characteristics in fact facilitate that behavior. These factors include:

- *Inelastic demand:* Generally, demand is inelastic for buyers along the value chain.¹³² Producers of straight fertilizers and complex fertilizers are relatively restricted in the inputs they use for production, as well as the locations from which they can viably source inputs given the high costs of transportation. Farther downstream, there may be slightly higher elasticity from retailers or farmers if different product formulations or brands can be used in the same context. This will depend on agronomic practices, farmers' knowledge and ability to switch between formulations, and whether there are regulations in place that limit permitted formulations (see section C2-C for more details). On the other hand, smaller buyers will be more restricted in the geographic markets from which they can source materials..
- *Stable demand:* The fertilizer industry is relatively stable and growing at a predictable pace, making the maintenance of an anticompetitive agreement relatively easy.
- *Buyer power:* Upstream industrial buyers, such as producers of straight or complex fertilizers, are likely to have more buyer power to counteract supplier market power than smaller downstream buyers such as retailers or farmer groups. In general, the larger the number of dispersed buyers and the smaller the order value, the lower the buyer power.
- *Switching costs:* These would need to be reviewed on a case-by-case basis for a precise assessment, but in general, industrial buyers may be more constrained in their ability to switch than downstream retail and farm buyers, for example, by long-term contracts with suppliers or by the need to specify the source of their inputs in their manufacturing licenses.
- *Scope for backwards integration:* If firms are able to integrate backward into supply of an input in response to anticompetitive behavior from upstream firms, it will limit the scope of upstream firms to act in an anticompetitive manner. Large industrial or wholesale buyers of fertilizers—that is, fertilizer producers, wholesalers, and large agricultural groups—should be able to integrate backward into import, unless there are import regulations or tariffs in place that limit this practice. While in some countries it would theoretically be possible for fertilizer producers to integrate into production of primary materials, this is less likely given the scarcity of these materials and the degree of exclusivity typically given in licenses for their use.

¹³² For example, a review of the literature synthesizing this research during the 1970s suggests that farmers' demand for fertilizer was more responsive to changes in output prices than to changes in fertilizer prices, with estimates of the price elasticity of fertilizer demand generally amounting to less than one, ranging from -0.17 to -2.03 due to variability across countries and differences in modeling specifications (Timmer 1974, 1976).



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