Chapter 10

Phase 2 Negotiations—Competition, Intellectual Property Rights and E-commerce

The scope of the Continental Free Trade Area (CFTA) includes disciplines on competition policy and intellectual property rights. Negotiations on these two areas are expected to be launched after the conclusion of the negotiations on goods and services. These disciplines are not usually included in a classic free trade agreement but would create a level playing field for all economic operators and facilitate policy convergence through common regimes in areas that affect liberalization of goods and services.

This chapter outlines the main issues that negotiators will face during phase 2 of the CFTA negotiations: that of competition policy and intellectual property rights. It also recommends phase 2 negotiations on e-commerce and the digital economy, for the CFTA to provide a platform to harmonize an African digital industrialization strategy.

Competition

In a free market, business should play a competitive game, and consumers should be the ultimate beneficiaries. Competition and consumer protection laws and policies therefore should promote competition, protect consumers' rights, make markets work better (including through the participation of informed consumers), improve efficiency in individual markets and enhance competition among businesses in any sector. Competition puts businesses under constant pressure to offer the best possible range of goods and services at the best possible prices. Consumer protection provides information and rights awareness to consumers, enforces rules against unfair and misleading commercial practices, promotes product safety and integrates consumers' interests across all economic sectors. It aims to balance the existing asymmetry between traders and consumers.

Dealing with anti-competitive practices in Africa

Developing countries have been one of the groups most affected by anti-competitive practices. For instance, data published in 2004 by the American Bar Association indicated that the total value of the potentially "cartel-affected" imports to developing countries was $51.1 billion, largely because developing countries account for a large proportion of consumers of products from international cartels. It affects them as producers as well; for example, by limiting access to technology, thus raising barriers to entry.

One example is the $200 million damage to vitamin consumers in six developing countries (India, Kenya, Pakistan, South Africa, Tanzania and Zambia) as documented by the Consumer Unity and Trust Society in 2003. While the cost and the harm of the anti-competitive practices are well known, it is surprisingly that there has been relatively little response by developing country governments or developing country consumers to these cartels.

In another example, a study by the University of Johannesburg in 2012[1] found that in Kwa Zulu Natal (South Africa), a cartel mark-up on the price of building materials was estimated at 51–57 per cent. Another study, under the auspices of UN Conference on Trade and Development (UNCTAD) Research Platform,[2] presented data from selected developing countries whereby 249 major "hard-core" cartels were prosecuted in more than 20 developing countries from 1995 to 2013. An original and relatively simple methodology has been developed to estimate cartels' economic harm, in price overcharges and consumers' welfare losses (Box 10.1).

Much has taken place on the African continent to address these challenges, including laws, regulations and institutions. Côte d'Ivoire, Egypt, Gambia, Kenya, Malawi, Namibia, South Africa, Tanzania, Tunisia and Zambia have all enacted laws. However, other countries do not have legislation in place (including the Democratic Republic of the Congo, Ghana and Nigeria). Moreover, a lack of implementation and enforcement of such laws presents a barrier for addressing competition at the continental level. The CFTA should design competition arrangements for a diversity of countries with varying institutional capacities for competition issues.

A regional approach is needed to deal with cartels, mergers and acquisitions and abuse

African competition authorities are increasingly dealing with anti-competitive practices that have a regional dimension, including cartels and abuse-of-dominance cases. A study by the African Competition Forum on Cement (covering Botswana, Kenya, Namibia, South Africa, Tanzania and Zambia) found anti-competitive practices in the cement sector. Cement is one product where a whole region can be cartelized, providing a powerful case study of how collusion can operate regionally. A bread cartel,[3] which was addressed in 2005 in South Africa, raised the price of bread in two other SACU countries (Lesotho and Swaziland).

These examples reveal the importance of regional integration in dealing with cross-border anti-competitive practices. Without safeguards to deal with anti-competitive practices, businesses and dominant firms—domestic (and especially) foreign—can abuse their market position. The abuse may take different forms, including predatory behaviour (eliminating local competition), price-fixing cartels and other market-sharing agreements. Such anti-competitive practices reduce choice, increase prices and thus deny consumers and other excluded producers the benefits of trade liberalization.

In the CFTA, member states have widely divergent territories, firm types, sizes and development levels. Dominance is therefore likely to be an issue in the continental market. At issue is that national competition laws operate on a "territorial" basis: They address the anti-competitive practices by foreign actors in their domestic market, but they do not address domestic actors using restrictive practices in other territories. Sectors where anti-competitive practices are suspected include agriculture (specifically fertilizers), communications (possible price fixing for telecoms), air transport, energy, retail and road freight.

The CFTA can draw on the experiences of a few regional economic communities (RECs): the East African Community (EAC) established a community Competition Act; the Southern African Development Community (SADC) Treaty prescribes an enforcement cooperation network; and the SACU Treaty advocates for cooperation in competition law and policy enforcement.

Resolving overlapping frameworks and harmonizing legal systems

In EAC, the newly established Competition Authority will have to evaluate what mechanisms can be used to implement its EAC Competition Act, given that only Kenya and Tanzania have operational national competition authorities. Burundi and Rwanda are at advanced stages of establishing national competition authorities, and Uganda is in the process of enacting a new competition law. The CFTA must decide at the continental level how to implement competition arrangements when countries are diverse in their competition institutions. Also diverse are Africa's various legal systems, notably on interpretation and harmonization, in order to put in place cooperation systems that "speak" to each other.

An article in the *African Law and Business Journal*,[4] which addressed the EAC Competition Authority, urged Burundi, Rwanda and Uganda to enact or implement competition laws. The article referred to the future interplay between EAC and the Common Market for Eastern and Southern Africa (COMESA) regarding the overlapping memberships of some countries and the lack of laws in others, plus how to deal with current cross-border anti-competitive practices.

COMESA has been active in dealing with cross-border mergers.[5] One benefit of having an institution like COMESA is that it closes the gap of absent extra-territorial application of national competition laws by addressing concerns spanning jurisdictions. Another is that it reduces the regulatory burden of merger

notification for cases with a regional dimension, saving time and money. COMESA also promotes a sense of certainty and predictability because it removes the possibility of different outcomes and timings. A similar system should be designed for the CFTA.

Continental competition framework to support the CFTA

To implement any decision for developing competition law and policy in the CFTA negotiations, it will be necessary to design an effective competition framework. Existing competition policy and legislation at national and regional levels must be taken into account (for example, COMESA and EAC, the SADC competition enforcement cooperation arrangement and a SACU arrangement in draft stage). These can form a useful starting point for the various approaches in each region, as well as a reflection on practice for the CFTA.

There are some areas that the existing RECs do not deal with, such as rules governing private restraint on trade. The CFTA has the opportunity to close such gaps and strengthen existing competition law domestically and regionally; to build enforceable rules or secure member states' consensus to fix the gaps in the legislative and enforcement framework; and to allow for countries with no competition laws to enact some legislation in conformity with the agreed approach.

The following are the immediate priorities for CFTA member states:

- Agree on a common objective that the CFTA competition framework seeks to achieve.

- Identify and understand the provisions of the present competition laws, identify gaps in each of them and rationalize all systems in the framework of the CFTA competition law.

- Establish other parameters/areas of law that need to underpin the CFTA competition framework and formulate the key features of those laws, synchronizing them with the preferred approach that allows for seamless implementation. These may include rules on consumer protection, standard setting and customs law implementation, state aid and subsidies, procurement laws, adjudication and dispute resolution systems and rules.

- Secure the cooperation of the member states, their enforcement agencies, adjudicative bodies and the mirroring agencies at the regional level.

- Rationalize key issues of public international law, regional law and domestic law that may affect the legality of a CFTA competition framework that can be effectively ratified or incorporated in each member state. These could include the competition- and consumer protection–related rules under World Trade Organization (WTO) law and the bilateral trade and investment agreements that member states are already party to.

- Take into account existing ad hoc networks, such as the African Competition Forum (ACF), and examine its recent role in technical cooperation on competition law and enforcement, analysis, awareness raising and capacity building. ACF has 34 members, including 30 national competition agencies and four regional agencies. The ACF could be a good foundation to gauge which system—a cooperation network or a supra-national institution—would be most appropriate for the CFTA.

- Give attention to consumer protection issues, including how to distinguish them from competition issues and how to deal with diversity in legislative and institutional arrangements.

Proposal for a CFTA Enforcement Cooperation Protocol on Competition Law and Policy

A draft protocol should be developed after a careful analysis of every member state. It is recommended that such a protocol be enforced through a cooperation network (similar to the European Union [EU] Competition Network) operated by the CFTA Secretariat. Alternatively, member states could establish a supranational competition institution covering the work being done at regional and national levels. This second option would be more challenging to coordinate with existing frameworks, including the new ones. It would also be more costly.

A draft protocol on consumer protection is also needed. In line with the revision of the United Nations Guidelines on Consumer Protection in 2015,[6] to include electronic

commerce and financial services, attention needs to be accorded to consumer protection issues. There is a need for in-depth analysis on consumer protection to design the appropriate instrument for the CFTA.

Intellectual property rights and innovation[7]

The CFTA provides Africa with an opportunity to progress along a new path for knowledge governance.[8] Such governance includes intellectual property (IP), and encompasses the range of formal or informal, legal, economic, social, cultural, political and technological structures that determine who can appropriate or access knowledge, and how (Open AIR, 2016). In the process, Africa can redefine the agenda for the negotiation of IP issues in trade agreements affecting the global North and South. To do so, African countries must first address their own fundamental priorities for IP, given the collaborative dynamics of innovation on the continent (de Beer et al., 2014).

The CFTA can provide a framework to address IP rights; there is, however, a backlash against the inclusion of IP in free trade agreements.

Intellectual property in trade agreements: Cautionary tales

Procedural and substantive failures around IP issues have contributed to a backlash against trade agreements. Concerns initially arose during the negotiation of the WTO's Agreement on Trade-related Aspects of Intellectual Property (TRIPS), which heavily favoured the interests of the most developed countries. IP issues were also among those that fostered aversion to the Trans-Pacific Partnership (TPP), especially those relating to digital and cultural policies and medicinal patents (Geist, 2016; Balsilie, 2016; IMF, 2016; Mui, 2017).

Agreements focused solely on IP issues have had an equally poor fate. The most notable misstep was when a group of countries tried to promote an ill-advised IP policy through an undemocratic process—which resulted in the Anti-Counterfeiting and Trade Agreement (ACTA). While Morocco was the only African country among the strange bedfellows involved in the ACTA,[9] its experience should be a warning for the rest of the continent. The procedural and substantive problems with ACTA have been well documented in dozens of working papers,[10] a special journal issue,[11] and even a book (Roffe and Seuba, 2015). It has been called a "lesson in how not to negotiate an agreement on international cooperation in law enforcement" (Weatherall, 2011).

In each of these contexts, protectionist sentiments emerged to preserve national sovereignty over knowledge governance, put limits on the commodification of information, and safeguard the public domain. There is a common theme: Since the negotiation of TRIPS in the 1990s, countries at all stages of development, aided by an engaged civil society, have become more astute on IP issues. They have refused to stand idly by as inequitable IP provisions are folded into international trade agreements. It is clear to negotiators what will not work; what is not clear is how to update the previous century's outdated IP templates.

Closer to home, EAC's experience with anti-counterfeiting policy and regulation also raises a red flag. EAC prepared a draft policy on anti-counterfeiting, anti-piracy and other intellectual property rights violations and the EAC Anti-Counterfeit Bill, neither of which have been adopted (Ncube, 2016). The main criticism was that they espoused TRIPS-plus provisions, which were totally inappropriate for EAC's least-developed country (LDC) member states.[12] (The Kenyan High Court's struck down equivalent provisions in the Kenyan Anti-Counterfeit Act.)[13] EAC's mistake was to underestimate the complexity of IP issues, which led to inappropriate reliance on the rhetoric of lobbyists and inadequate consultation with local experts and civil society.

Despite the withdrawl of the US from the TPP and the demise of ACTA and similarly flawed agreements, regional trade integration involving IP remains possible. Canada and the EU overcame difficult odds to salvage the Comprehensive Economic and Trade Agreement (CETA).[14] Negotiations towards a Regional Comprehensive Economic Partnership between Australia, China, India, Japan, New Zealand, Republic of Korea and 10 ASEAN countries are ongoing.[15] And prospects for pan-African economic integration are good.

However, lessons must be learned from the experience of initiatives that failed: More must be done to ensure

that negotiations are inclusive and consultative; that they regard implications for personal freedom of expression and privacy; and that they are respected as consistent with democratic legitimacy and development aspirations.

Africa's fragmented IP frameworks

As detailed in *ARIA VII*, Africa's IP regulatory framework is fragmented. An agreement regarding IP in the CFTA would need to overcome challenges on three levels: multiple subregional IP organizations, the proliferation of IP matters in RECs, and misalignment with the continent's overall development agenda.

Subregional IP organizations

The first challenge is that two subregional IP organizations exist: the African Regional Intellectual Property Organization (ARIPO) and the Organisation Africaine de la Propriété Intellectuelle (OAPI). And several African Union (AU) members do not belong to either of these two organizations, including regional powerhouses Egypt, Nigeria and South Africa.

Language is one issue dividing ARIPO and OAPI, with the former operating mostly in English-speaking countries, and the latter in French-speaking countries. Structural differences also exist. ARIPO member states have different IP frameworks, while OAPI member states subscribe to a unified IP legal system. *ARIA VII* identified the challenges of this prevailing model of two regional IP organizations that are independent from RECs and disengaged from the regional integration agenda.[16]

The following are four difficulties that flow from this bimodal issue:[17]

- Policy and institutional incoherence.
- Focus on the grant of patent rights at the exclusion of giving significant guidance on the exercise of those rights.[18]
- Harmonization efforts sometimes reducing the policy space available to member states.
- Lack of an IP cooperation framework for negotiating bilateral trade and investment agreements leading to the further degradation of policy space when Member States sign such agreements.

Negotiations surrounding Pan African Intellectual Property Organisation (PAIPO), conducted under the auspices of the AU, may help to address some of these difficulties, but a guiding framework will be necessary for any new organization. OAPI and ARIPO have recently concluded a third cooperation agreement with the intention to more closely align their work in 2017–21.[19] Previous agreements were signed in 1996 and 2005.

Regional economic communities

The second challenge is that there are multiple IP-related initiatives being led, or planned, by the RECs that do not include existing or proposed regional IP organizations. At least eight RECs have, to some extent, sought to address IP matters.

REC initiatives are necessary because of the independent disengagement of ARIPO and OAPI from regional integration efforts. One such REC initiative is the IP Agenda of the Tripartite Free Trade Area (TFTA). In 2016, to become more engaged in this area, ARIPO signed a memorandum of agreement with COMESA for COMESA's IP unit and programme to work closely with ARIPO.[20] This arrangement has implications because it indirectly feeds into the TFTA and ultimately the CFTA.

Misalignment with the continental agenda

The third challenge is the misalignment between the CFTA, PAIPO and Agenda 2063. The AU's adoption of Agenda 2063 includes the following aspiration: "An integrated continent, politically united, based on the ideals of Pan Africanism and the vision of Africa's Renaissance."

The Agenda 2063: First Ten-Year Implementation Plan 2014-2023[21] sets out implementation goals for the CFTA and PAIPO. The creation of the African Economic Community (AEC) and PAIPO are prioritized under the framework and Institutions for a United Africa.[22]

Alignment would secure the ultimate goal of protecting existing policy spaces from erosion by trade agreements; the national efforts to craft appropriate IP legislative and policy frameworks; and the management of regional cooperation.

Innovation in Africa is different: An IP Framework must reflect that

The innovation requirements of Africa differ fundamentally from those elsewhere in the world. Studies of African innovation have taught us that it occurs mainly in the informal sector and is not heavily reliant on conventional means of knowledge governance and appropriation (Kraemer-Mbula and Wunsch-Vincent, 2016; de Beer et al., 2013).

Even if formal IP protections were appropriate in such contexts, which they are not, research shows that such formal protection "cannot exist in the absence of strong institutions, including not just IP offices that register, disclose and education, but also a culture of respect and enforcement of IP rights" (de Beer et al., 2013). Such respect is impossible to build as long as the substantive provisions of IP law are far removed from the realities of everyday life in Africa.

For example, in an eight-country comparative study of copyright's impact on the access to education in Africa, researchers concluded that the challenge with copyright is not lack of legal protection, nor that countries' copyright laws do not comply with international standards. Rather it is the "lack of awareness, enforcement and exploitation of copyright." The study further concluded that even where there is awareness of copyright principles, people are unwilling to comply with principles that do not reflect their socio-economic reality (Armstrong, 2010). These observations must guide the procedural and substantive content of the CFTA IP framework.

A CFTA framework for solving IP issues

A CFTA IP agreement would primarily be an internal intra-African initiative in that it would serve as a binding statement of the signatory countries' position on IP matters. It would also serve as an important external guide for these countries when they negotiate free trade agreements (FTAs) with countries beyond the continent. In other words, these internal issues would guide signatory member states in their trade agreement negotiations with other countries or regional groupings.

Substantively, a CFTA IP agreement should emphasize flexibility, the importance of a transition period, and the preservation of policy space to create limitations and exceptions that suit countries at various stages of economic development.

Such an agreement should also recognize the particular IP challenges and opportunities of the African continent.

Box 10.1

Innovation in Nollywood

The Nigerian movie industry, also known as Nollywood, offers an excellent example of phenomenal growth not because of IP, but *despite* IP. The lax intellectual property regime in the industry has given rise to creative patterns of engagement between the industry and actors in the informal movie distribution networks in Nigeria. A formal approach to intellectual property would alienate and isolate members of such informal networks and criminalize them.

The industry instead continues to develop creative ways of leveraging the partnership and contractual potential of these informal distributors who are now critical stakeholders in the Nollywood value chain. Some members of the industry recognize that while intellectual property may be desirable, unbalanced implementation of IP policies often privileges few in the industry. It also comes at the expense of the cultural contexts that favour collaborative creativity and the enduring desires of individual artists and creators for exposure. The industry recognizes that such exposure holds greater opportunities and potential for creators.

Gradually, Nollywood continues to evolve, calling attention to the need for pragmatism and sensitivity in the making of intellectual property policy. Typical, formal IP regimes would be ill suited to this environment.

There are similar patterns with musicians in Egypt (Rizk, 2014). Africa's vibrant cultural industries provide an opportunity to explore how best to tailor intellectual property in the context of authentic African innovation and creativity. Piracy in emerging economies, including in Africa, is more a market failure than an IP problem (Karaganis, 2011).

A made-in-Africa approach to the agreement is possible because the negotiating parties have common Afro-centric values and priorities and are confronted by the same IP-related issues. The following two subsections provide suggestions for the appropriate principles to be included in the CFTA framework agreement on IP.

Procedural principles

Cognizant of the mistakes made with IP issues in other bilateral, plurilateral or multilateral trade agreements and treaties, a CFTA framework agreement on IP must be negotiated with a regard for democratic legitimacy. The root causes of illegitimacy include:

- The secrecy in which the negotiations were conducted and the associated lack of transparency of these negotiations.
- The lack of inclusive consultations with all relevant stakeholders—instead, negotiating parties appeared to follow a selective consultation process that typically excluded civil society.
- Negotiations taking place outside international bodies such as the World Intellectual Property Organization and WTO that have rules for public engagement and the sharing of information.
- Ignoring, concealing or downplaying the implications for personal freedoms, such as freedom of expression and privacy.
- Rushed processes that appear to propose simplistic solutions to complex problems

In 2012, similar procedural concerns were raised in Africa regarding the draft PAIPO statute. African IP experts then argued that "[t]he draft PAIPO statute is the result of a non-transparent process without open consultations with relevant stakeholders including civil society. No drafts of the statute have previously been issued let alone publicly discussed."[23] This (traditional) approach needs to be replaced by a more open, holistic and transparent process that includes all relevant stakeholders.

Thus in response to changed dynamics and heightened public expectations in the area of international law and policy making—and to minimize the risk of public push-back and failure—the CFTA negotiations must ensure fair, balanced and widely supported policy through democratic, open, transparent, inclusive and diligent processes. These include wide public consultations and debates. The processes and methods followed by international organizations, such as the World Intellectual Property Organization, and national lawmakers involve public access to draft documents as well as public hearings; these processes should be followed.

Substantive principles

The substantive issues that should be covered in an appropriate IP framework for Africa include the following.

Copyright. To encourage innovation and creativity, domestic frameworks should be established that are balanced, sound, coherent, practically relevant, context appropriate and responsive to digital technologies. This requires appropriate provisions pertaining to the scope of protection, including exceptions and limitations, and the terms of protection. With regard to exceptions and limitations, the inclusion of express provisions (these would cater to diabled persons; temporary copies; parallel importation; orphan works and text; and data mining) is imperative.

Patents. The agreement should not simply seek to secure the grant of patents for the sake of improving Africa's position in ranking systems. The continent needs better patents that are granted according to patent law that adequately address access to, for example, the need for medicines. This will require a more robust approach to using existing flexibilities and more aggressively leveraging policy space. (As noted, some of the RECs have provided leadership on this.) The CFTA Agreement ought to consolidate these efforts by incorporating them, instead of reinventing policies andr guidelines. National patent laws require substantive examination, and patent office capacity and processes need to be strengthened so that such examination is credible and effective.

Trademarks. Less conventional trademark-based strategies, such as communal trademarks, are better suited to translate the development vision of African producers into marketable inventions, because they combine elements of external protection with those of internal openness, inclusion and collaboration appropriate to the local conditions. However, such

strategies are currently under-used in Africa; there is no domestic framework to aid their use and protection is lacking, and legal frameworks are tailored for the protection of conventional trademarks. The CFTA negotiations afford a platform to promote IP policies tailored to achieving some form of *sui generis* framework for the protection of the less conventional trademarks at the national level.

Traditional knowledge. In terms of IP and trade policy, traditional knowledge remains a key strength for Africa. It finds expression in major areas innovation and knowledge, including in medicine, agriculture, biotechnology and food. Not only has the continent been forceful at the global stage to galvanize support for global protection of traditional knowledge, there are also initiatives aimed at regional harmonization. The call is for negotiators to recognize the positions and policy statements in these protocols and guidelines when crafting an IP policy for the CFTA.

Competition. Competition policy and law can complement IP and trade rules to increase access to and reduction in the price of IP rights–protected knowledge and technology, if properly used. To be effective, IP rules and competition principles must be balanced. For this purpose, the provisions in the TRIPS Agreement (identified above) are indispensable and should be considered in the CFTA negotiations. The complex issue of the intersection between IP rights and human rights, which formed a challenge for some international trade agreements, should not be ignored in the CFTA negotiations. Key international human rights treaties contain provisions with links to IP rights. The focus of the CFTA negotiations should be how best to integrate human rights issues with IP law and policy, especially regarding questions of access to educational materials and health care in Africa. The CFTA negotiations should consider exploring the stipulations of maximum instead of minimum standards in the area of user-focused flexibilities, such as exceptions and limitations.

E-commerce

The global economy is experiencing rapid digitization, including shifts in traditional economic sectors and the emergence of new digital products and services. In Africa, e-commerce is expected to grow at 40 per cent annually over the next decade (KPMG, 2013). New business models will continue to appear (Box 10.3), altering Africa's trade and industrialization pathway.

The raw material underpinning the digital economy is data. Data enables new business models to dominate markets through personally targeted advertisements across areas including logistics, agriculture, health, education and energy usage. As with all resources, there are considerable governance, political and security implications arising over its ownership and usage.

The growing size of the digital economy and the control of data has attracted proposals for international rules at the WTO. These would include measures to liberalize cross-border data flows and an open Internet, and to prohibit digital customs duties, data localization rules, local content requirements, and source code disclosure rules. They would also amount to TRIPS-Plus protections for certain parts of digital intellectual property. These rules could constrain the policy space that Africa needs to implement its own digital industrialization plans to harness the growing digital economy.

African countries face a digital divide with developed countries. Africa is the only region where mobile broadband penetration remains below 20 per cent, it has the fewest fixed-broadband subscriptions, at less than 1 per cent, and it faces among the highest prices for fixed broadband plans (many of which also have the slowest speeds) (ECA and South Centre, 2017). Africa also faces difficulties with international banking transactions as its domestic banks are not well linked to international banks; African small and medium-sized enterprises struggle to list on international e-market places or platforms; and delivery is constrained by poor transport infrastructure (ECA and South Centre, 2017).

Features of the digital economy, such as network effects, also foster the concentration of very large companies. This creates scope for anti-competitive practices, such as predatory pricing, which could challenge the development of domestic digital companies in African markets.

Another challenge accompanying the growth of the digital economy is the rise of automation. This runs the risk that tasks previously undertaken by manufacturers in developing countries will instead be automated in developed countries. A popular example is the case of Adidas relocating some of its manufacturing

Box 10.2

New business models of the digital economy

Goods delivery by drones

Physical goods can be delivered easily and cheaply: small packages sent to your door-step for example, using drone technology (for instance, Zipline deliver medical supplies to remote patients in Rwanda by drone).

"Uberization" of services delivery

An app links a supplier with a consumer via a platform. The app provider may be based in one country, the supplier in another and the consumer in a third. We see this in transport, accommodation and food. It could also take place in health, professional services and financial services.

"Servicification" of goods and services

General Electric no longer sells individual radiological equipment to hospitals; radiological equipment now has remote-monitoring capabilities that allow the firm to monitor and operate them.[24]

Rather than sell air conditioners to homes, companies will increasingly provide the service of "chilled air." Smart air conditioners will readjust temperatures according to the weather outside, and to the consumer's Google calendar (to switch on or off at appropriate times).

Data—the raw material of the digital economy

The digital economy will be run by data analytics. Those having access to this data will own the market, as advertising and supply of goods and services will be provided to consumers in real time. Advertising is adjusted to the target client,[25] even prices can be adjusted according to the client's profile (that the data analytics have pulled together).

Source: ECA and South Centre (2017).

processes back to Germany to produce shoes with robots and 3D printers rather than with Asian labour (*The Economist*, 2017). Such new business models have clear implications for traditional manufacturing-based, export-oriented industrialization strategies. The evolution of such businesses models will affect the position at which developing countries can enter global value chains.

African industrialization will therefore require a rethinking of the continent's digital economy and the role of African data. An African digital industrial strategy is recommended to strategically address the opportunities and disruptive challenges offered by the digital economy. An active digital industrial strategy can include market creation for domestic firms, joint public–private ventures, government-engineered venture capital markets, support for tech incubators and improved digital education.

It will be important to consider what kind of regional strategy can be put in place to process and gain value from Africa's own data (ECA and South Centre, 2017), to ensure that the small and fragmented African market does not prohibit Africa's successful start-ups from scaling up to competitive sizes. Here the CFTA can provide a platform for consolidating e-commerce rules and regulations, and establish an integrated market for Africa's own digital businesses. The rise of the digital economy will pose many challenges for African countries on the back of the digital divide, but with the right policies, it could be an opportunity to leap-frog development.

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Endnotes

1 See https://ryan-hawthorne.squarespace.com.

2 http://unctad.org/en/PublicationsLibrary/ditc-clpmisc2014d2_en.pdf.

3 http://www.saflii.org/za/cases/ZACT/2010/9.html.

4 http://www.africanlawbusiness.com/news/6944-competition-law-developments-in-africa-i.

5 Covering sectors such as agriculture, electronics, pharmaceuticals, energy, automobiles, construction, mining, insurance, logistics, information technology, aviation, hospitality, telecommunications, packaging, payment systems, water treatment, retail, beverages, commodity trading and textiles.

6 http://unctad.org/en/Pages/DITC/Competition-Law/UN-Guidelines-on-Consumer-Protection.aspx.

7 This section is derived from a Background paper authored by Ncube et al. (2017).

8 For a conceptualization of "knowledge governance," see Armstrong and Schonwetter (2016).

9 The parties to ACTA were Australia, the United States of America, Japan, the 27 nations of the European Union, Switzerland, Canada, Singapore, South Korea, New Zealand, Morocco and Mexico.

10 Available at http://digitalcommons.wcl.american.edu/research/.

11 Focus Issue: Intellectual Property Law Enforcement and the Anti-Counterfeiting Trade Agreement (ACTA) (2011) 26 (13) American University International Law Review available at http://digitalcommons.wcl.american.edu/auilr/vol26/iss3/.

12 Ibid.

13 Act No. 13 of 2008, in P*atricia Asero Ochieng, Maurine Atieno and Joseph Munyi v The Attorney General*, HCCC Petition No. 409 of 2009.

14 CETA was signed on 30 October 2016. See EC (2017) available at http://ec.europa.eu/trade/policy/in-focus/ceta/. For some major controversies around the negotiation of CETA, see generally de Beer (2013), Drache and Trew (2010) and Miles (2016).

15 Negotiations for the Regional Comprehensive Economic Partnership were launched in Cambodia on 20 November 2012. See Australian Government Department of Foreign Affairs and Trade (n.d.).

16 Note 2, 72.

17 Ibid, 73.

18 On copyright, ARIPO has given guidance through issuing a guide on the Marrakesh Treaty that is broad enough in its scope to encompass the exercise of user rights. See ARIPO (2016).

19 ARIPO (2017).

20 COMESA (2017).

21 AUC (2015).

22 Ibid, 65–66.

23 See Kawooya (2012).

24 See Atkinson (2016).

25 For a more detailed explanation, see Adler (2013).