

**A Window of Flexibility:
Why the Formation of AfCFTA Provides an Ideal
Opportunity for African Nations to Employ TRIPS
Flexibilities on a Continental Scale**

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INTRODUCTION	121
I. INNOVATION AND INTELLECTUAL PROPERTY IN AFRICA	124
A. The Relationship Between Innovation, Intellectual Property and Trade	124
B. Importance of Innovation in Africa	126
C. AfCFTA's Potential Impact on African Markets.....	128
II. THEORETICAL AND HISTORICAL DEVELOPMENT OF THE GLOBAL PATENT SYSTEM.....	130
A. Justifications for Patents	130
B. Colonialism and Patent Harmonization in Africa	132
C. TRIPS and TRIPS-Plus Agreements.....	135
D. Calibrating TRIPS and TRIPS-Plus for Innovation in Africa	140
III. POTENTIAL FOR TRIPS FLEXIBILITIES TO SPUR AFRICAN INNOVATION	144
A. Compulsory Licensing	144
B. Parallel Importation.....	147
C. Early Working Exceptions	148
D. Competition Laws	150
E. Policy Alternatives Compliant With TRIPS Obligations	151
IV. NEXT STEPS FOR AFCFTA.....	154

INTRODUCTION

In October 2016, crowds of Rwandans gathered outside of the capital of Kigali and cheered as they witnessed medical delivery drones swoop in and drop off lifesaving supplies to remote hospitals and clinics.¹ This was the first of many such deliveries from drones operated by Zipline, a San Francisco-based startup operating in multiple countries across Africa.² In Rwanda, over 30,000 people require blood transfusions annually.³ To receive treatment, most Rwandans must travel multiple hours to hospitals on unreliable roads often

¹ Jeremy Hsu, *Africa's Delivery Drones are Zipping Past the US*, WIRE (Sep. 13, 2017), <https://www.wired.com/story/africas-delivery-drones-are-zipping-past-the-us/>.

² *Id.*

³ Melia Robinson, *This Secretive Startup Could Save Lives in the Most Remote Places*, BUSINESS INSIDER (May. 9, 2016, 6:00 AM), <https://www.businessinsider.com/zipline-drone-laboratory-2016-5>.

washed out by storms.⁴ Adopting innovative technology like drone delivery systems allows a country like Rwanda to “leapfrog” over previous barriers to development and move quickly into the 21st century.⁵ Rwanda’s commitment to this level of innovation is the reason it recently received a \$30 million USD pledge from the African Development Bank to stimulate innovation, reduce poverty, and promote socio-economic growth.⁶

Zipline isn’t the only company from an industrialized nation trying to move quickly into the \$70 billion global healthcare logistics industry.⁷ Google, Amazon, and Walmart are already testing their own drone delivery systems and have secured multiple patents on related technologies.⁸ With the exciting prospect of innovation in Africa being used to increase access to healthcare, it is hard to imagine that any of these corporations would use their patents to block any other advancements of such technology in Africa. But when the same idea is applied to multinational pharmaceutical companies, using patents to limit the expansion of life-saving drugs is not only conceivable, it is at the very core of their business model.⁹

A decade before Rwanda’s successful promotion of drone delivery systems, the country made headlines for becoming the first ever developing nation to openly import a generic version of a patented HIV drug in spite of pharmaceutical patents that sought to block its distribution.¹⁰ Rwanda was capitalizing on a “flexibility” in the Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS”) under the World Trade Organization (“WTO”). TRIPS contains these flexibilities specifically for the purpose of

⁴ *Id.*

⁵ Hsu, *supra* note 1.

⁶ See, e.g., WORLD INTELLECTUAL PROPERTY ORGANIZATION [WIPO], GLOBAL INNOVATION INDEX 2019 (2019); see also Caroline B. Ncube, *Intellectual Property for Open Innovation*, AFRO-IP (Jun. 23, 2013), <http://afro-ip.blogspot.com/2013/06/intellectual-property-for-open.html>; see also Firi Abibirem, *How to Encourage Innovation*, AFRO-IP (Mar. 21, 2018), <http://afro-ip.blogspot.com/2018/03/how-to-encourage-innovation.html>.

⁷ Jake Bright, *Drone Delivery Startup Zipline Launches UAV Medical Program in Ghana*, TECH CRUNCH (Apr. 24, 2019, 5:00 AM), <https://techcrunch.com/2019/04/24/drone-delivery-startup-zipline-launches-uav-medical-program-in-ghana/>.

⁸ Hsu, *supra* note 1.

⁹ Christina Cotter, *The Implications of Rwanda’s Paragraph 6 Agreement with Canada for Other Developing Countries*, 5 LOY. U. CHI. INT’L. L. REV. 177, 178 (2009).

¹⁰ Andrew Mitchell & Tania Voon, *The TRIPS Waiver as a Recognition of Public Health Concerns in WTO*, in INCENTIVES FOR GLOBAL PUBLIC HEALTH: PATENT LAW AND ACCESS TO ESSENTIAL MEDICINES 69 (Thomas Pogge et al. eds., 2014) (after Article 31b was introduced in TRIPS, Rwanda became the first member to import a pharmaceutical product under a compulsory license for TriAvir, an HIV Drug).

improving access to healthcare for developing countries.¹¹ In the decades since adopting TRIPS, however, industrialized nations have effectively forbidden developing countries from taking advantage of these flexibilities in their domestic policies.¹² Such behavior by governments and corporations illustrates the industrialized world's approach towards intellectual property ("IP") in Africa for over a century.¹³

A key contributing factor to this stifling of African innovation is that countries on the African continent represent varying degrees of political sophistication and development.¹⁴ Since the beginning of decolonization in Africa, industrialized nations have used IP and trade negotiations to further fragment and exploit African markets.¹⁵ But in May 2019, Africa formed the African Continental Free Trade Agreement ("AfCFTA") to remedy this power imbalance and make new demands on the international community.¹⁶ Unlocking the full potential of innovators across Africa in the 21st century will require AfCFTA to implement an IP framework that harnesses flexibilities offered in the TRIPS Agreement. For the reasons discussed in this Comment, AfCFTA provides African governments with a unique chance to make demands of the international institutions that have thus far opposed local African development and growth.

Part I of this comment provides a foundation for the connection between innovation and intellectual property in Africa. Part II explores the theoretical and historical development of the international patent regime. That section also highlights the way that IP policies became the foundation of international trade. Part III outlines specific flexibilities in TRIPS which AfCFTA can use to achieve innovation across the continent. Finally, Part IV concludes with concrete advice for how AfCFTA should approach the necessary international negotiations to make these demands.

¹¹ SAM F. HALABI, INTELLECTUAL PROPERTY AND THE NEW INTERNATIONAL ECONOMIC ORDER: OLIGOPOLY, REGULATION, AND WEALTH REDISTRIBUTION IN THE GLOBAL KNOWLEDGE ECONOMY 9 (2018).

¹² *Id.*

¹³ See *infra* Part II.B.

¹⁴ UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA [UNECA], ASSESSING REGIONAL INTEGRATION IN AFRICA VIII: BRINGING THE CONTINENTAL FREE TRADE AREA ABOUT 76 (2017) [hereinafter ASSESSING REGIONAL INTEGRATION IN AFRICA VIII].

¹⁵ See *infra* Part II.C.

¹⁶ Kanzanira Thorington, *African Continental Free Trade Area: A New Horizon for Trade in Africa*, COUNCIL ON FOREIGN RELATIONS (June 10, 2018), <https://www.cfr.org/blog/african-continental-free-trade-area-new-horizon-trade-africa>.

I. INNOVATION AND INTELLECTUAL PROPERTY IN AFRICA

A. *The Relationship Between Innovation, Intellectual Property and Trade*

Innovation is any set of creative processes that introduce new goods or services into the market.¹⁷ The products of innovation take different forms across the globe because the socio-economic conditions of a community naturally correlate to the problems that its innovators seek to solve. From the standpoint of a national government, competitiveness in the modern economy requires implementing policies aimed at encouraging the knowledge transfer and inventiveness necessary for innovation.¹⁸ Nations with robust legal frameworks to encourage innovation can increase their economic self-reliance and promote sustained development.¹⁹ With the passage of AfCFTA in 2019, nations across Africa have a unique chance to implement policies specifically tailored to encourage local innovation and development across the continent.

IP laws provide varying degrees of rights and protections to inventors of literary, artistic, and scientific works.²⁰ IP laws are fundamental to innovation because they provide a structure through which innovators can place a value on the investment of resources required to solve a problem.²¹ IP laws both determine how an inventor pursues a problem and generates profits from a successful solution.²² IP laws are territorial, meaning that the associated rights are enforceable only in the jurisdiction in which they are filed, so innovators are naturally attracted to countries with favorable IP policies.²³ While revisions to a country's IP laws are not the only way it can encourage

¹⁷ Ncube, *supra* note 6.

¹⁸ See Sacha Wunsch Vincent, *The Changing Face of Innovation*, WIPO MAGAZINE (Feb. 2012), https://www.wipo.int/wipo_magazine/en/2012/01/article_0006.html ("Innovation is a central driver of economic growth, development and better jobs. It is the key that enables firms to compete in the global marketplace, and the process by which solutions are found to social and economic challenges.")

¹⁹ SOUTH AFRICAN DEPARTMENT OF SCIENCE AND TECHNOLOGY, WHITE PAPER ON SCIENCE, TECHNOLOGY AND INNOVATION 14 (Sept. 2018), https://www.gov.za/sites/default/files/gcis_document/201809/41909gon954.pdf (affirming that innovation policies are required to respond to opportunities and threats of a rapidly changing world).

²⁰ See Convention Establishing the World Intellectual Property Organization, July 14, 1967, art. 2 ¶ viii, https://www.wipo.int/treaties/en/text.jsp?file_id=283854 ("[I]ntellectual property shall include rights relating to literary, artistic and scientific works, . . . protection against unfair competition, and all other rights resulting from intellectual activity in the industrial, scientific or literary fields.")

²¹ Ncube, *supra* note 6.

²² *Id.*

²³ Levon Barsoumian, *India's Use it or Lose it: Time to Revisit TRIPS?*, 11 J. MARSHALL REV. INTELL. PROP. L. 797, 801 (2012).

innovation or obtain foreign investments, it is a particularly effective policy option for promoting the exchange of information and incentive models required to sustain innovation.²⁴

Of the three main categories of IP law – copyrights, trademarks, and patents – patents most closely correlate to innovation as described above. Patents provide protections on new technologies in the products and processes which generally characterize innovation.²⁵ Filing for patent protection requires the inventor to publicly disclose details about the invention which in turn facilitates the kind of knowledge transfer fundamental to innovation.²⁶ In exchange for disclosure, patents provide inventors with the right to exclude others from making, using, selling, or importing the invention.²⁷ The intention of the “quid pro quo” of disclosure-for-protection is intended to create a competitive market for an invention that allows the inventor to recoup their costs by offering the invention to the most number of consumers at an attainable price.²⁸ Because solving society’s most pressing problems generally offers investors high profits, proponents of this system justify its negative consequences with the notion that it creates transparent incentives for the proper allocation of resources.²⁹

As explained below, international trade policies have been used to control national IP laws and subsequently direct innovation throughout modern history.³⁰ A severe recession in the late 1970’s and early 1980’s disrupted trade balances so dramatically that industrialized nations, led by the United States, took drastic actions to restore their dominant market positions.³¹ Their solution was to use multilateral treaties to impose stringent IP requirements

²⁴ Daniel J. Gervais, *IP Calibration*, in *INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT: STRATEGIES TO OPTIMIZE ECONOMIC DEVELOPMENT IN A TRIPS-PLUS ERA* 105 (Daniel J. Gervais ed., 2014).

²⁵ *Frequently Asked Questions*, WORLD INTELLECTUAL PROPERTY ORGANIZATION, <https://www.wipo.int/tk/en/resources/faqs.html> (last visited Oct. 22, 2019).

²⁶ Alex Rosenberg, *Designing a Successor to the Patent*, in *NEW FRONTIERS IN THE PHILOSOPHY OF INTELLECTUAL PROPERTY* 96 (Annabelle Lever ed., 2014).

²⁷ Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, art. 28, Apr. 15, 1994, 1869 U.N.T.S. 319, https://www.wto.org/english/docs_e/legal_e/27-trips.pdf [hereinafter TRIPS] (“A patent shall confer on its owner the following exclusive rights: (a) where the subject matter of a patent is a product, to prevent third parties not having the owner’s consent from the acts of: making, using, offering for sale, selling, or importing for these purposes that product . . .”).

²⁸ Rosenberg, *supra* note 26.

²⁹ *Id.* at 104.

³⁰ *See infra* Part II.B.

³¹ Jeannette Mwangi, *TRIPS and Agricultural Biotechnology*, in *HUMAN RIGHTS AND INTELLECTUAL PROPERTY RIGHTS: TENSIONS AND CONVERGENCES* 249 (Mpazi Sinjela ed., 2007).

with strict enforcement mechanisms on emerging economies.³² This strategy led to WTO's implementation of TRIPS in 1995.³³ By requiring member countries to adhere to minimum thresholds of IP protections in their domestic policies, TRIPS deprived many developing nations of any ability to tailor their domestic IP laws to encourage local innovation.³⁴ The consequence of TRIPS has been particularly detrimental to innovation in Africa during a time in which nations across the continent might otherwise be uniquely primed to experience a renaissance across multiple industries.

B. Importance of Innovation in Africa

The African continent is as legally diverse as it is culturally. Legacies of colonialism and migration have created five different types of legal systems across the continent, including common law, Napoleonic Code, and Islamic law.³⁵ The economies of the 54 nations across Africa have differing levels of infrastructure, access to natural resources, and political stability.³⁶ For example, GDP per capita ranges from as low as \$130 in Somalia to as high as \$20,381 in Equatorial Guinea.³⁷ Nigeria has a population of 190 million people, Ethiopia and Egypt have over 90 million people, but most countries have populations below 20 million.³⁸ Reforming IP laws alone cannot address the varied challenges and opportunities related to innovation in Africa, but a discussion of those topics is beyond the scope of this comment. A proposal to strengthen African technological capabilities through innovation incentives addresses only one aspect broader issues in Africa. Still, African leaders have long recognized that this kind of policy change could have transformative potential.³⁹ Achieving such prospects today requires an understanding of innovation in Africa and how to use AfCFTA to implement a new IP regime across the continent.

³² *Id.*

³³ MARGO A. BAGLEY ET AL., INTERNATIONAL PATENT LAW AND POLICY 16 (2013).

³⁴ HALABI, *supra* note 11, at 9.

³⁵ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 76.

³⁶ *Id.*

³⁷ *Id.* at 50.

³⁸ BROOKINGS INSTITUTE, AFRICA'S UNTAPPED BUSINESS POTENTIAL: COUNTRIES, SECTORS, AND STRATEGIES 80 (2008), https://www.brookings.edu/wp-content/uploads/2019/01/BLS18234_BRO_book_006.1_CH5.pdf.

³⁹ African Union, *Treaty Establishing the African Economic Community*, (June 3, 1991) available at <https://au.int/en/treaties/treaty-establishing-african-economic-community> ("Member states shall strengthen scientific and technological capabilities in order to bring about the socio-economic transformation required to improve the quality of life of their population, particularly that of the rural populations").

Most business activity in Africa is conducted in the “informal sector.”⁴⁰ This means that it isn’t subject to the same types of regulations, governance, or appropriation as business activity in the “formal sector.”⁴¹ Enterprises of all sizes operating in the informal sector often face conditions of scarcity and collective action problems not found in the formal sector.⁴² Solutions to these problems oftentimes take the form of innovation uniquely suited to address local needs and everyday challenges.⁴³ In this context, national IP policies should facilitate innovation in the informal sector by providing more flexibility to innovators. However, by complying with the strict IP minimum requirements mandated by TRIPS, IP law in Africa is far removed from the daily reality of innovation across the continent.⁴⁴ Since the advent of the WTO and implementation of TRIPS, life expectancy in sub-Saharan Africa has declined, poverty has increased, and GDP across the continent has stagnated.⁴⁵

Even so, a variety of regional and global factors reveal that Africa is uniquely poised for success in the 21st century. Long-term socioeconomic trends show a rising middle class of young people are being propelled by several fast-growing economies.⁴⁶ To meet the demands of the rising population, African manufacturing output could double in the coming decade from \$500 billion in 2016 to \$940 billion in 2025.⁴⁷ To overcome what has traditionally been viewed as its biggest impediment to internal growth, Africa has doubled its annual

⁴⁰ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 150.

⁴¹ *Id.*

⁴² See Caroline Ncube et al., *Intellectual Property Rights and Innovation: Assessing Regional Integration in Africa (ARIA VIII)* 15 (OpenAir Working Paper, Paper No. 5, 2017), <https://openair.africa/wp-content/uploads/2020/05/WP-5-Intellectual-Property-Rights-and-Innovation-Assessing-Regional-Integration-in-Africa-ARIA-VIII-1.pdf>.

⁴³ *Id.*

⁴⁴ Jacques Bughin et al., *Lions on the Move II: Realizing the Potential of Africa’s Economies*, MCKINSEY GLOBAL INSTITUTE 15 (Sept. 2016) <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Middle%20East%20and%20Africa/Realizing%20the%20potential%20of%20Africas%20economies/MGI-Lions-on-the-Move-2-Full-report-September-2016v2.pdf>.

⁴⁵ *Id.*; see also Aurelie Walker, *The WTO has Failed Developing Nations*, GUARDIAN (Nov. 14, 2011, 10:49 EST), <https://www.theguardian.com/global-development/poverty-matters/2011/nov/14/wto-fails-developing-countries?newsfeed=true>.

⁴⁶ See ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 84 (60% of Africa’s population are aged 24 or younger and are about to enter the workforce).

⁴⁷ U.N. Conference on Trade and Development, *Economic Development in Africa Report 2019: Made in Africa – Rules of Origin for Enhanced Intra-African Trade*, U.N. Doc. UNCTAD/ALDC/AFRICA/2019/Corr. 1 (Oct. 29, 2019), available at https://unctad.org/en/PublicationsLibrary/aldfafrica2019_en.pdf. [hereinafter *Economic Development in Africa Report 2019*].

investment in infrastructure to about \$80 billion a year.⁴⁸ Internationally, the re-emergence of regionalism and a repudiation of free trade emanating from internal politics in the United States and European Union are disrupting existing trading patterns in ways that offer Africa the opportunity to define clear policy priorities during trade negotiations. Furthermore, the continued rise of new trade partners in Brazil, China, India and Turkey presents broader opportunities for growth and a reduced reliance on the EU and United States.⁴⁹ With these developments in mind, leaders across Africa should use the formation of AfCFTA as a chance to demand a broader international acceptance of TRIPS flexibilities to encourage innovation and development across the continent.

C. AfCFTA's Potential Impact on African Markets

When the member states of the African Union (AU) published its ambitions continental development entitled “Agenda 2063,” the stated objective was to create, “an integrated continent, politically united and based on the ideals of Pan-Africanism and the vision of Africa’s Renaissance.”⁵⁰ Two years later, the Heads of State and Government of the AU began negotiations focused on boosting intra-African trade, stimulating local innovation, and enhancing economic growth.⁵¹ These efforts led to a decision to establish a free trade area (FTA) that would create enforceable contractual obligations among member countries to lower tariffs on 90% of goods, reduce non-tariff barriers to trade, and establish new IP protections.⁵² On May 30th, 2019, AfCFTA went into effect with signatures from 52 AU member nations and ratifications by 22.⁵³

In covering a market of more than 1.2 billion people who produce \$3 trillion in GDP, AfCFTA is the largest of some 500 FTAs created since the establishment of the WTO.⁵⁴ Generally speaking, countries pursue FTAs out

⁴⁸ BROOKINGS INSTITUTE, *supra* note 38, at 80.

⁴⁹ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 137.

⁵⁰ African Union, *Agenda 2063: The Africa we Want*, at 2, (Apr. 2015), <https://www.un.org/en/africa/osaa/pdf/au/agenda2063.pdf>.

⁵¹ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at xi.

⁵² See Tonderayi Mukeredzi, *Africa's Free Trade Agreement Hinges on Commitment and Implementation*, UNITED NATIONS: AFRICA RENEWAL, <https://www.un.org/africarenewal/web-features/africa%E2%80%99s-free-trade-agreement-hinges-commitment-and-implementation> (last visited Oct. 3, 2020); see also *Economic Development in Africa Report 2019*, *supra* note 47.

⁵³ Arne Mielken, *Free Trade Agreements (FTAs) and Why They Are Important to You*, E2OPEN, <https://www.e2open.com/free-trade-agreements-and-why-they-are-important-to-you/> (last visited Oct. 3, 2020).

⁵⁴ *Id.*; see also Thorington, *supra* note 16.

of a belief that liberalizing trade will lead to economic growth and poverty reduction.⁵⁵ AfCFTA follows in the recent pattern of mega-regional trade agreements (MRTAs) as a means to circumvent impediments created by conflicting trade rules within existing multilateral agreements.⁵⁶ Recent MRTAs include the Trans-Pacific Partnership (TPP) between the United States and Pacific Rim countries and the Regional Comprehensive Economic Partnership (RCEP) between the Association of Southeast Asian Nations (ASEAN), China, India and others.⁵⁷

The first step towards modern African economic integration came in 1999 with the establishment of eight regional economic communities (RECs).⁵⁸ Now most intra-African trade occurs between members of the same regional grouping.⁵⁹ AfCFTA's facilitation of greater intra-continental trade is expected to extend economic growth to Africa's least developed economies through more extensive value chains and spill-overs.⁶⁰ While traditional FTAs usually only emphasize the elimination of tariffs and quotas in trade goods, AfCFTA will also seek to facilitate economic integration through the establishment of a single continental market for goods and services.⁶¹ Enlarging the market for goods and services creates economies of scale that can lower the costs of innovation by increasing competitive interactions between firms.⁶² In Africa, continental trade integration has the added benefit of helping eliminate challenges associated with diverging trade agreements already in place among countries.⁶³

Whereas Phase I of AfCFTA negotiations focused mainly on the elimination of tariffs and other related topics, Phase II negotiations cover intellectual property, investment, and competition and are expected to conclude in June 2020.⁶⁴ AfCFTA's "Protocol on IP" faces multiple challenges arising from multiple sub regional IP organizations across Africa, the

⁵⁵ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 63.

⁵⁶ *Id.* at 129.

⁵⁷ *Id.* at 129.

⁵⁸ *Id.* at 14.

⁵⁹ *Id.* at 35.

⁶⁰ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 64.

⁶¹ *Id.* at 15.

⁶² *Id.* at 64.

⁶³ *Id.* at 63.

⁶⁴ See Landry Signé & Colette van der Ven, *Keys to Success for the AfCFTA Negotiations*, BROOKINGS (May 30, 2019), <https://www.brookings.edu/research/keys-to-success-for-the-afcfta-negotiations/>.

proliferation of IP in TRIPS and TRIPS-plus agreements, and the historical misalignment of IP goals and the continent's overall development agenda.⁶⁵ AfCFTA's priorities in overcoming these challenges should focus on the creation of a framework in which every African nation can implement national policies to promote economic prosperity and human rights through innovation. To do this, AfCFTA should leverage its newfound bargaining power as the world's largest FTA to negotiate for flexibilities provided in the TRIPS agreement and waivers to compliance with certain trade commitments provided in Article IX of the WTO's Marrakesh Agreement.⁶⁶ As the world's least developed region, Africa has an opportunity with the rollout of AfCFTA to redefine the policies that have quashed local innovation for centuries.⁶⁷ To properly formulate and contextualize such a demand, it is important to understand the theoretical justification for patents, the historical development of the patent regime in Africa, and how multilateral agreements like TRIPS have hurt nations across the continent for over a century.

II. THEORETICAL AND HISTORICAL DEVELOPMENT OF THE GLOBAL PATENT SYSTEM

A. *Justifications for Patents*

When revisions to IP laws became the primary tool for leverage in international trade negotiations, IP policy, particularly the patent regime, became a cornerstone of the global market economy.⁶⁸ An inquiry into the theoretical and practical justification for this transition reveals that the decided course for our existing international IP system has historically lacked neither consent nor consensus.⁶⁹

Property rights and self-ownership are often understood through John Locke's argument that property originates and is acquired when a person mixes their labor with the land, thereby creating some value belonging to that

⁶⁵ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 149.

⁶⁶ *Id.* at 105.

⁶⁷ *Id.*

⁶⁸ Tigist Gebrehiwot, *Afronomics Analysis: The Critical Concept of International Intellectual Property Law as the Encryption of Disparity for Africa in the Global Market*, AFRONOMICS L (June 5, 2019), <https://www.afronomicslaw.org/2019/06/07/the-critical-concept-of-international-intellectual-property-law-as-the-encryption-of-disparity-for-africa-in-the-global-market/>.

⁶⁹ MATTHEW DAVID & DEBORAH HALBERT, OWNING THE WORLD OF IDEAS: INTELLECTUAL PROPERTY AND GLOBAL NETWORK CAPITALISM 41 (Chris Rojek et al. eds., 2015).

person.⁷⁰ In real property, physical and legal boundaries are evidenced by fences or lines on a map. In patent law, however, such boundaries are less clear.⁷¹ Despite sharing similar characteristics to property, patents are not a straightforward form of property. Patents lack clear boundaries and the subject matter can be used by multiple parties without diminishing its value.⁷² The economic justification for patentability, therefore, is that incentivizing the progression of an idea to the idea's physical manifestation in the natural world requires formal protection mechanisms and governance models.⁷³

Central to the patent regime is the theory that rational actors will not invest time and money into something that others could imitate cheaply.⁷⁴ Since this investment of resources is crucial to innovation, patents essentially act as a government intervention into the marketplace to achieve desirable social ends by restricting the freedoms of some inventors to improve society as a whole.⁷⁵ Although the granting of a patent disrupts the natural supply of a good or service in an otherwise competitive market and therefore allows an inventor to charge a premium on a patented product, the counterargument is that a highly priced invention is better than no invention.⁷⁶ While this may sound fine in theory, the negative consequences of such policies in practice are exacerbated when a patent holder in an industrialized nation imposes unattainable prices on consumers in developing countries.⁷⁷ As a result, patented goods, oftentimes life-saving medicines or therapeutics, are underutilized or limited to those who need them most.⁷⁸ Without empirical

⁷⁰ ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 31 (2011); see also Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 305 (1988) (asserting that under the “value add” theory, when one creates something with social value, the inventor “deserves” a reward.”).

⁷¹ Mark A. Lemley, *What's Different About Intellectual Property?*, 83 TEX. L. REV. 1097, 1101 (2005); see also Margo A. Bagley, *The New Invention Creation Activity Boundary in Patent Law*, 51 WM. & MARY L. REV. 577, 578-79 (2009).

⁷² Margo A. Bagley, *The Morality of Compulsory Licensing as an Access to Medicines Tool*, 102 MINN. L. REV. 2463, 2465 (2018).

⁷³ See Rosenberg, *supra* note 26, at 94–95; See also Adam Mossoff, *Who Cares What Thomas Jefferson Thought About Patents? Reevaluating the Patent 'Privilege' in Historical Context*, 92 CORNELL L. REV. 953, 974 (2007) (arguing that protections afforded by IP are better described as “privileges” rather than “rights” because they are the result of social compacts that regulate community interactions).

⁷⁴ Mark A. Lemley, *Faith-Based Intellectual Property*, 62 UCLA L. REV. 1328, 1331 (2015).

⁷⁵ *Id.*

⁷⁶ Timothy R. Holbrook, *Possession in Patent Law*, 59 SMU L. REV. 123, 132 (2006).

⁷⁷ James T. Pechacek, *The Past, Present, and Future of South Africa's Patent System*, 3 CYBARIS 188, 195 (2012).

⁷⁸ *Id.*

proof that patentability leads to the innovation or social benefits claimed by an economic justification, policy makers in industrialized countries often augment their argument with a moral justification of patentability that they claim warrants spreading the patent regime across the globe.⁷⁹

At best, patents are necessary because inventiveness accompanies an intrinsic entitlement to the fruits of labor employed in creating the invention.⁸⁰ Article 27 of the Universal Declaration of Human Rights reflects this idea by providing, “the right to benefit from the protection of the moral and material interests resulting from authorship of any scientific, literary, or artistic production.”⁸¹ At worst, however, the international patent regime is yet another way industrialized nations leverage the power imbalance inherent in property ownership.⁸² Unbridled capitalism, by definition, will constantly seek new markets and sources of capital, so therefore it is in the self-interest of wealthier nations to adopt policies towards poorer countries that serve those ends.⁸³ In this context, patent laws mainly serve as a means of economic protection for the world’s most powerful entities, which in the modern economy equates to industrialized nations and their large multi-national corporations.⁸⁴

B. Colonialism and Patent Harmonization in Africa

International law is generally both a product and reflection of complex relationships among domestic and international actors.⁸⁵ In international IP law, such relationships are characterized by industrialized nations exerting unbridled power over the developing world.⁸⁶ In 1883, the major European powers met in Paris to take the first major step towards harmonizing IP laws between and among countries by signing the Paris Convention for the Protection of Intellectual Property.⁸⁷ One year later, many of those same countries met again at the Berlin West Africa Conference to devise a plan to

⁷⁹ Lemley, *supra* note 74, at 1337.

⁸⁰ *Id.*

⁸¹ Ruth Okediji, *Does Intellectual Property Need Human Rights?*, 51 N.Y.U. J. OF INT’L L. & POL. 1, 18 (2018).

⁸² PETER DRAHOS, *A PHILOSOPHY OF INTELLECTUAL PROPERTY* 95–114 (1996).

⁸³ HALABI, *supra* note 11, at 20.

⁸⁴ *Id.* at 7.

⁸⁵ Okediji, *supra* note 81, at 3.

⁸⁶ *Id.* at 7.

⁸⁷ Jeremy De Beer et al., *Evolution of Africa’s Intellectual Property Treaty Ratification Landscape*, 22 AFR. J. INFO. & COMMC’N 53, 68 (2018).

colonize the African continent.⁸⁸ In the following decades, many of these colonial powers met again to adopt treaties to expand IP protections across all their markets, including copyrights (the Berne Convention (1886)), trademarks (Madrid Agreements (1891)), and industrial designs (Hague Agreement (1925)).⁸⁹ With these treaties, European rights-holders could protect their products and assets while exploiting African markets without fear of foreign or indigenous imitations.⁹⁰

When the decolonization of Africa began in the 1950's, industrialized nations recognized that the newly developing nations on the continent would benefit from abandoning the international IP regime and therefore pressured them into signing these existing treaties.⁹¹ Whereas the seizure of tangible property had allowed industrialized nations to maintain power in Africa during colonialism, these countries now sought to control African creative and industrial markets through IP law.⁹² Midway through the 1960's, nearly half of countries in Africa were persuaded to ratify one or more international IP treaty, usually the Paris and/or Berne Conventions.⁹³ In this context, the transplanting of strong IP onto African countries recalls some of the brutal legacies of colonialism.

In fact, these colonial legacies still define much of even the internal frameworks for IP in Africa. In the late 1970's, many of the former French colonies created the African Intellectual Property Organization (OAPI) while English-speaking colonies formed the African Regional Industrial Property Organization (ARIPO).⁹⁴ Rather than implementing IP policies focused on encouraging local innovation, though, these unions and their member countries must adhere to the increasingly oppressive multilateral treaties that would coalesce in later decades.

⁸⁸ Gitura Mwaura, *How Africa Reclaimed its IP Rights*, NEW TIMES – RWANDA (June 15, 2019), <https://www.newtimes.co.rw/opinions/how-africa-reclaimed-its-ip-rights>.

⁸⁹ See De Beer et al., *supra* note 87.

⁹⁰ HALABI, *supra* note 11, at 39

⁹¹ De Beer et al., *supra* note 87.

⁹² *Id.*

⁹³ See Mwaura, *supra* note 88.

⁹⁴ Ikechi Mgbeoji, *TRIPS, TRIPS Plus and Development in Africa*, in INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT: STRATEGIES TO OPTIMIZE ECONOMIC DEVELOPMENT IN A TRIPS-PLUS ERA 168, 185–88 (Daniel J. Gervais ed., 2nd ed. 2014).

The pursuit of industrialized nations towards IP harmonization led to the creation of the World Intellectual Property Organization (WIPO) in 1967.⁹⁵ WIPO's stated mission is to facilitate "innovation and creativity for the benefit of all."⁹⁶ But as industrialized nations increasingly sought to exploit emerging markets in developing countries, they felt WIPO was too slow to develop meaningful policy and lacked the necessary enforcement mechanisms to protect rights-holders.⁹⁷ Beginning in 1986, industrialized nations shifted the forum for IP policy making away from WIPO and towards the General Agreement on Tariffs and Trade (GATT)⁹⁸ which was signed in 1944 to reduce international barriers to trade on a nondiscriminatory basis.⁹⁹

Since the formation of GATT, there have been many sets of multilateral negotiations called "rounds."¹⁰⁰ It was during the Uruguay Round, lasting from 1986-1993, that participating nations agreed on the creation of the World Trade Organization ("WTO.")¹⁰¹ The WTO was then formed on January 1, 1995 under the Marrakesh Agreement to administer trade rules, resolve trade disputes, and monitor the national trade policies of its member countries.¹⁰² The TRIPS Agreement was the culmination of industrialized nation's IP forum shifting efforts through the WTO and was designed to enforce trade policies through rules on various forms of intellectual property, including copyrights, patents, trademarks and geographical names.¹⁰³ As discussed below, the TRIPS requirement that all WTO member countries apply minimum standards of IP protections in their domestic laws would prove disastrous for the developing world.¹⁰⁴ With Africa's recent passage of AfCFTA, Africa should leverage the power of their continental market and the moral high ground in the context of the brutal history of IP harmonization to abandon some of the TRIPS requirements that have quashed local innovation and growth across the continent since the first colonial since it was first colonized.

⁹⁵ World Intell. Prop. Org., *About WIPO*, <http://www.wipo.int/aboutwipo/en/history.html> (last visited Sept. 30, 2020).

⁹⁶ *Id.*

⁹⁷ DAVID & HALBERT, *supra* note 69, at 35.

⁹⁸ ASIAN DEVELOPMENT BANK, *HOW TO DESIGN, NEGOTIATE, AND IMPLEMENT A FREE TRADE AGREEMENT IN ASIA 2* (2008).

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ Evan H. Tallmadge, *Nationalizing TRIPS: An Examination Through Exceptions*, 18 J. MARSHALL REV. INTELL. PROP. L. 285, 287-288 (2019).

¹⁰² Pechacek, *supra* note 77, at 203.

¹⁰³ *Id.* at 204.

¹⁰⁴ *See infra* Part II.C; Okediji, *supra* note 81, at 9.

C. TRIPS and TRIPS-Plus Agreements

As it relates to minimum substantive patent requirements, examples of TRIPS include protection for inventions in all areas of technology¹⁰⁵, a minimum patent term of twenty years¹⁰⁶, and civil penalties for patent infringement.¹⁰⁷¹⁰⁸ TRIPS requirements for patents largely track the patent laws of the United States¹⁰⁹ because they were negotiated by senior executives at major U.S. corporations and designed to maximize profits in the digital technology and biotechnology industries.¹¹⁰ One major victory for pharmaceutical companies was the TRIPS requirement that patents be available for “all fields of technology,” including pharmaceutical products and processes.¹¹¹ Before TRIPS, almost half of the 98 members of the Paris Convention excluded patents on pharmaceutical products.¹¹² The most significant victory for industrialized nations, though, was that non-compliant WTO members were equally subject to the WTO’s dispute settlement system for IP violations with the prospect of enforcing meaningful trade sanctions.¹¹³ The tradeoff negotiated in exchange for such sweeping enforcement mechanisms were flexibilities built into TRIPS to benefit developing nations.¹¹⁴

In fact, there is an abundance of language in TRIPS that acknowledges the need for flexibilities in implementation to protect the developing world.¹¹⁵ The preamble includes language that recognizes the need to ensure that less developed countries would still be able to create a “sound and viable

¹⁰⁵ TRIPS, *supra* note 27, art. 27.1 (“patents shall be made available for any inventions, whether products or processes, provided that they are new, involve an inventive step and are capable of industrial application.”).

¹⁰⁶ TRIPS, *supra* note 27, art. 33 (“The term of protection available shall not end before the expiration of a period of twenty years counted from the filing date.”).

¹⁰⁷ TRIPS, *supra* note 27, arts. 41–47.

¹⁰⁸ Margo A. Bagley, *Legal Movements in Intellectual Property: TRIPS, Unilateral Action, Bilateral Agreements, and HIV/AIDS*, 17 EMORY INT’L L. REV., 781, 783 (2003); Roberto Romandini, *Flexibilities Under TRIPS: An Analysis of the Proposal for Reforming Brazilian Patent Law*, 15 J. MARSHALL REV. INTELL. PROP. L. 150 (2016).

¹⁰⁹ See Barsoumian, *supra* note 23.

¹¹⁰ Thomas Faunce, *Innovation and Insufficient Evidence, in INCENTIVES FOR GLOBAL PUBLIC HEALTH: PATENT LAW AND ACCESS TO ESSENTIAL MEDICINES* 221 (Thomas Pogge et al. ed., 2014).

¹¹¹ Okediji, *supra* note 81, at 27.

¹¹² HALABI, *supra* note 11, at 9.

¹¹³ Okediji, *supra* note 81, at 8.

¹¹⁴ *Id.*

¹¹⁵ TRIPS, *supra* note 27, art. 1.1. (“Members shall be free to determine the appropriate method of implementing the provisions of this Agreement within their own legal system and practice.”).

technological base.”¹¹⁶ Article 7 recognizes that “intellectual property rights should contribute to the promotion of technological innovation . . . in a manner conducive to social and economic welfare.”¹¹⁷ Throughout TRIPS, there are specific provisions such as compulsory licensing¹¹⁸, parallel trade¹¹⁹ and early working exceptions¹²⁰ which provide policy options for developing countries to disregard some patentability requirements that might be detrimental to the health of its people and economy.¹²¹ On its face, TRIPS ostensibly seeks to strike a balance between obligations and the need for development by limiting the scope of some rights and offering flexibilities in implementation.¹²² But use of the TRIPS flexibilities is almost non-existent in Africa and the few attempts to employ such flexibilities in domestic legislation are often met with hostility by industrialized nations.¹²³

Unfortunately, the mere existence of these flexibilities led industrialized nations to again shift their preferred forum of IP policy in the early 2000’s towards forming smaller FTAs and bilateral investment treaties (BITs) accompanied by strict IP standards.¹²⁴ Even more recently, plurilateral treaties such as the Anti-Counterfeiting Trade Agreement (ACTA) appear to be the next method for forum shifting.¹²⁵ Dubbed “TRIPS-plus” because of the way they oblige developing countries to implement TRIPS before the end of their possible transition periods, these agreements eliminate flexibilities and require compliance with more stringent minimum standards than those in

¹¹⁶ Anna Dahlberg, *An Analysis on the Effects of the TRIPS Agreement*, in HUMAN RIGHTS AND INTELLECTUAL PROPERTY RIGHTS: TENSIONS AND CONVERGENCES 44 (Mpazi Sinjela ed., 2007).

¹¹⁷ TRIPS, *supra* note 27, art. 7 (“The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”).

¹¹⁸ See *infra* Part III A.

¹¹⁹ See *infra* Part III B.

¹²⁰ See *infra* Part III C.

¹²¹ See *infra* Part III.

¹²² See Mwangi, *supra* note 31; see also Cydney A. Fowler, *Ending Genetic Monopolies: How the TRIPS Agreement’s Failure to Exclude Gene Patents Thwarts Innovation and Hurts Consumers Worldwide*, 25 AM. U. INT’L L. REV. 1073 (2010).

¹²³ See *infra* Part II D.

¹²⁴ Cynthia M. Ho, *A New World Order for Addressing Patent Rights and Public Health*, 82 CHI.-KENT L. REV. 1469, 1495 (2007).

¹²⁵ Anslem K. Sanders & Dalindyabo Shabalala, *Intellectual Property Treaties and Development*, in INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT: STRATEGIES TO OPTIMIZE ECONOMIC DEVELOPMENT IN A TRIPS-PLUS ERA 42 (Daniel J. Gervais ed., 2014).

found in TRIPS.¹²⁶ Because of the patent doctrine of “national treatment” which requires a country to grant the same protection to foreign nationals as it applies to its own nationals¹²⁷, countries that sign just one restrictive TRIPS-plus agreements restrict the rights of patent-holders and the country’s ability to negotiate more favorable agreements in the future.¹²⁸

The negotiation of TRIPS-plus agreements often occurs between countries of differing economic development but have provisions favoring the kind of strong IP rights that traditionally only benefit developed countries.¹²⁹ There are usually varying degrees of coercion and ignorance in any negotiation, but more central to international IP norm-setting negotiations are the sets of bargains and compromises aimed at achieving favorable tariffs, investments and protections in exchange for concessions reasonably expected to promote self-interests.¹³⁰ Developing countries usually accept TRIPS-plus standards under political and economic pressures such as threatened trade sanctions or removal of trade preferences.¹³¹ That said, industrialized nations also are not immune from the pressures of entering into overly restrictive TRIPS-plus agreements. Australia, for example, signed an FTA with language that limits its ability to provide affordable pharmaceutical drugs to its citizens.¹³² This demonstrates the vast negotiating power of countries like the United States in offering access to large markets and avoiding trade disputes. Although Article XXIV of GATT permits the establishment of TRIPS-plus agreements, the spirit in which these agreements are negotiated deviates from GATT’s “guiding principle of nondiscriminatory trade.”¹³³

Central to the classic economic theory is the axiom that market participants compete as equals and face the same market barriers.¹³⁴ As stated above, the patent regime inherently runs contrary to this principle.¹³⁵ The effect of the patent regime in healthcare has remained among the single most

¹²⁶ Laurence R. Helfer, *Toward a Human Rights Framework for Intellectual Property*, 40 U.C. DAVIS L. REV 971, 982 (2007).

¹²⁷ BAGLEY ET AL., *supra* note 33, at 60.

¹²⁸ CYNTHIA M. HO, ACCESS TO MEDICINE IN THE GLOBAL ECONOMY: INTERNATIONAL AGREEMENTS ON PATENTS AND RELATED RIGHTS 225 (2011).

¹²⁹ HALABI, *supra* note 11, at 56.

¹³⁰ Gervais, *supra* note 24, at 80.

¹³¹ HO, *supra* note 128, at 226.

¹³² Ho, *supra* note 124, at 1495.

¹³³ ASIAN DEV. BANK *supra* note 98, at 5.

¹³⁴ Sanders & Shabalala, *supra* note 125, at 43–48, 88.

¹³⁵ See *supra* Section II.A.

pressing problems of the global IP system ever since the HIV/AIDS crisis during the 1990's was exacerbated by patent protections facilitating monopoly prices that limited access to life-saving drugs across the developing world.¹³⁶ The primary barrier to ensuring individuals in developing countries have access to medicine is pricing.¹³⁷ In sub-Saharan Africa, the median budget for healthcare is \$10 USD per year, meaning that almost no one can afford the patented medicines from big pharmaceutical companies.¹³⁸ Although the price of healthcare-related technologies is influenced by several factors, IP plays a central role.¹³⁹ The root cause of the issue is a fundamental policy incoherence between IP regimes based on legitimate economic interests but that nonetheless run contrary to the right to healthcare.¹⁴⁰

When the U.N. Sub-Commission for the Protection and Promotion of Human rights adopted a resolution on "Intellectual Property Rights and Human Rights" in 2000, it noted that implementing TRIPS prevented developing nations from realizing their economic potential by impeding technology transfer and restricting access to patented pharmaceuticals.¹⁴¹ The Doha Declaration on the TRIPS Agreement and Public Health addressed this second concern in 2001.¹⁴² Many WTO members sought consensus and clarification on how to interpret the flexibilities offered in TRIPS in the context of public health.¹⁴³ The Doha Declaration acknowledged in its preamble the necessity for countries to tailor their domestic IP regimes to address public

¹³⁶ Okediji, *supra* note 81, at 26; *see also* Bagley, *supra* note 108, at 783. At a time when the HIV/AIDS epidemic was ravaging the globe, more than seventy-five percent of WTO member countries were developing or least developed countries (LDCs). *Id.* These developing countries and LDCs made up about ninety-five percent of all HIV infections. *Id.*

¹³⁷ *See* Brent Savoie, *Thailand's Test: Compulsory Licensing in an Era of Epidemiologic Transition*, 48 V.A. J. INT'L. 211, 222 (2007). Even in countries with healthcare systems capable of procuring and providing medicines, unaffordable pricing limits both the government and consumer's ability to obtain such medicine.

¹³⁸ Bjorn Ley, *Are Patents Really the Only Barrier for Good Health Care in Developing Countries*, in HUMAN RIGHTS AND INTELLECTUAL PROPERTY RIGHTS: TENSIONS AND CONVERGENCES 114 (Mpazi Sinjela ed., 2007).

¹³⁹ UNITED NATIONS [UN], REPORT OF THE UNITED NATIONS SECRETARY GENERAL'S HIGH-LEVEL PANEL ON ACCESS TO MEDICINES 21 (Sept. 2016).

¹⁴⁰ *Id.* at 8 ("Public health-sensitive intellectual property rules and mechanisms can help address the misalignment between profit-driven innovation models and public health priorities."); *see also id.* at 16 ("Another key aspect of incoherence lies in the misalignment between market-based models that incentivize innovation and the need to obtain treatment for patients.")

¹⁴¹ Mwangi, *supra* note 31, at 254.

¹⁴² BAGLEY ET AL., *supra* note 33, at 148.

¹⁴³ U.N. SECRETARY-GENERAL, *supra* note 139, at 18.

health concerns.¹⁴⁴ Doha's conclusion was that TRIPS "can and should be interpreted and implemented' to support the 'right to protect public health [and] promote access to medicines for all,'"¹⁴⁵

In the years since Doha, however, few countries have employed the TRIPS flexibilities to expand access to pharmaceuticals, and those that did often incurred international pushback from industrialized nations.¹⁴⁶ For example, forty-two pharmaceutical companies sued South Africa for violating Article 27 of the TRIPS agreement when it tried to implement compulsory licensing.¹⁴⁷ The political and economic pressure exerted by industrialized nations to discourage developing countries from using TRIPS flexibilities violates the spirit of such provisions written during TRIPS negotiations and reinforced during the Doha Declaration.¹⁴⁸ The consequences of this system have had devastating effects on the well-being of individuals in developing nations. In 2009, nearly 5.6 million people in South Africa were still living with HIV despite the availability of life-saving antiretroviral drugs having been created more than a decade earlier.¹⁴⁹ TRIPS' minimum requirements are set too high and the subsequent inability of developing countries to use TRIPS flexibilities has led to an erosion of the healthcare system across Africa.¹⁵⁰

¹⁴⁴ Okediji, *supra* note 81, at 42; World Trade Organization, Declaration on the TRIPS Agreement and Public Health ¶ 4, WTO Doc. WT/MIN(01)/DEC/2, 41 ILM 755 (2002) [hereinafter Doha Declaration] ("We agree that the TRIPS Agreement does not and should not prevent members from taking measures to protect public health. Accordingly, while reiterating our commitment to the TRIPS Agreement, we affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO members' right to protect public health and, in particular, to promote access to medicines for all.").

¹⁴⁵ U.N. SECRETARY-GENERAL, *supra* note 139, at 18 (quoting World Trade Organization, Declaration on the TRIPS Agreement and Public Health ¶ 4, WTO Doc. WT/MIN(01)/DEC/2, 41 ILM 755 (2002)).

¹⁴⁶ *See id.* at 8 ("Many governments have not used the flexibilities available under the TRIPS Agreement for various reasons ranging from capacity constraints to undue political and economic pressure from states and corporations, both express and implied.").

¹⁴⁷ Bagley, *supra* note 108, at 784.

¹⁴⁸ U.N. SECRETARY-GENERAL, *supra* note 139, at 8.

¹⁴⁹ Pechacek, *supra* note 77, at 196.

¹⁵⁰ *See* Faunce, *supra* note 110, at 221 (discussing a study in 2001 of 177 IP policy shifts in 60 countries over 150 years that concluded that strengthening patent protection only had a positive effect on innovation if a country initially had low IP protections, but the opposite would be true if strong patent protection was imposed on a country before it was developed); *see also* U.N. SECRETARY-GENERAL, *supra* note 139, at 19 ("If given proper effect and properly observed, the provisions of TRIPS and the Doha Declaration would give rise to the necessary protections and required balances to protect the human right to health in trade and intellectual property matters.").

Despite the growing awareness of the negative effects that TRIPS and TRIPS-plus agreements have on innovation in developing countries, any proposals to eliminate such agreements are likely too radical to be readily embraced.¹⁵¹ Still though, as global inequality continues to surge, unstable public health conditions in developing countries can potentially cause national unrest, disrupt international trade, and destabilize the economy, so action of some kind is required.¹⁵² Any argument for a revision of the international patent system should emphasize that flexibilities available in existing agreements can be used to encourage innovation and improve the welfare of developing nations.¹⁵³ AfCFTA has coalesced around the interests of a large enough economic force that now is the ideal time for it to take the procedural steps to calibrate TRIPS and TRIPS-plus agreements necessary for fostering innovation across the continent.

D. Calibrating TRIPS and TRIPS-Plus for Innovation in Africa

Beginning with the Doha Declaration in 2001, the international IP landscape can be said to have entered into a “calibration phase” in which there is broadening recognition of the necessity for domestic calibration of IP policies tailored to drive local innovation.¹⁵⁴ WIPO’s passage of the Development Agenda in 2007 and subsequent establishment of the Committee on Development and Intellectual Property was a direct reflection of the thinking that embodies this new calibration phase.¹⁵⁵ This era is characterized by reanalyzing the link between local and global to identify the best construction of IP regimes for a given country based on its level of development.¹⁵⁶ The calibration phase is not necessarily a repudiation of the efforts towards IP harmonization that had characterized international norm-setting in previous decades, but it is an acknowledgement that a one-size-fits-all policy is not the only method that can be used to encourage growth.

¹⁵¹ Ho, *supra* note 124, at 1472.

¹⁵² Srividhya Ragavan, *Of the Inequals of the Uruguay Round*, 10 MARQ. INTELL. PROP. L. REV. 273, 302 (2006).

¹⁵³ See generally Rosenberg, *supra* note 26, at 89.

¹⁵⁴ Gervais, *supra* note 24, at 87, 89.

¹⁵⁵ See World Intell. Prop. Org. (WIPO), *Development Agenda* (Oct. 2007). The first recommendation states, “WIPO technical assistance shall be, inter alia, development-oriented, demand-driven and transparent, taking into account the priorities and the special needs of developing countries, especially LDCs, as well as the different levels of development of Member States and activities should include time frames for completion. In this regard, design, delivery mechanisms and evaluation processes of technical assistance programs should be country specific.” *Id.* at 3.

¹⁵⁶ See DAVID & HALBERT, *supra* note 69, at 37.

Fundamental to this new calibration phase is that the strength of a country's IP rights should be set relative to its stage of development and tailored specifically for certain industries to encourage innovation through appropriate protections.¹⁵⁷ The World Bank has made clear its position that stronger intellectual property rights limit the kind of "follow-up innovations" that promote development because inventors cannot create new things that draw on the inventions with patents that have yet to expire.¹⁵⁸ In 2007, the United States Trade Representative announced that it would implement new rules for negotiating FTAs with developing countries to "strike a better balance between promoting innovation and public health rights."¹⁵⁹ These examples of calibration phase thinking demonstrate that conceptions of development increasingly focuses on human needs rather than globally coordinated markets.¹⁶⁰ This era of international IP theory began because IP harmonization did not lead to the net development benefits originally forecast when introducing WIPO into the U.N.¹⁶¹ AfCFTA has a chance to capitalize on this sentiment because of its strong negotiating position and could therefore succeed where previous efforts have failed.

Obstacles to implementing TRIPS flexibilities are (a) lack of awareness; (b) lack of political will; and (c) lack of administrative structures to enable efficient decision making.¹⁶² African nations that have made the biggest efforts toward the use of TRIPS flexibilities are those with state-centered approaches to guaranteeing their citizens economic prosperity and access to healthcare.¹⁶³ For example, the 1997 South African Constitution's Bill of Rights included a provision that "everyone has the right to have access to . . . health care services" and that "the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of

¹⁵⁷ See HALABI, *supra* note 11, at 11, 13. Specifically, the protections should be set for different industries depending on the level of R&D generally required, the ease with which a product can be reverse-engineered, and the social utility of the product. *Id.* at 13.

¹⁵⁸ *Id.* at 13.

¹⁵⁹ See Ho, *supra* note 124, at 1503. Although the declaration only applied to pending agreements with Peru and Panama, it serves as an example of an industrialized nation's acknowledgement of the unfair practices inherent in TRIPS-plus agreements and its potential willingness to amend existing agreements. *Id.*

¹⁶⁰ See HALABI, *supra* note 11, at 149.

¹⁶¹ DAVID & HALBERT, *supra* note 69, at 72.

¹⁶² See PATRICK OSEWE ET AL., IMPROVING ACCESS TO HIV/AIDS MEDICINES IN AFRICA (2008).

¹⁶³ JENNIFER ANNA SELLIN, ACCESS TO MEDICINES: THE INTERFACE BETWEEN PATENTS AND HUMAN RIGHTS: DOES ONE SIZE FIT ALL? 211 (2014).

these rights.”¹⁶⁴ When the South African government legislated new measures aimed at reducing the prices of medicines partly through fixed dispensing fees, their court ruled in the 2005 *New Clicks* case that the law was valid under the Constitution’s purview of providing access to health care services, rebuffing the attacks from multinational pharmaceutical companies.¹⁶⁵ Similarly, the Ugandan government has established a robust Constitutional Court which has both the “legitimacy and competence to adjudicate socio-economic rights, including the rights of access to medicines.”¹⁶⁶ Although the government has already reformed its patent regime to align with TRIPS requirements despite not being required to do so yet, it has at least implemented a concession that makes its patent terms last only 15 years rather than the required 20 in TRIPS.¹⁶⁷ These are the types of commitment to public health and development which AfCFTA should put forth to exemplify their commitment towards using TRIPS flexibilities to spur innovation and development across Africa.

African countries that have not used a state-centered approach in employing the TRIPS flexibilities to become proponents for their own progress unfortunately rarely employ the available flexibilities at all.¹⁶⁸ It is often countries with the weakest social-democratic commitment to the healthcare of its citizens that allow for powerful lobbyists to restrict the TRIPS flexibilities.¹⁶⁹ Morocco, for example, is a country that adopted legislation between 2004 and 2006 to fully satisfy both their TRIPS and TRIPS-plus requirements despite the effect of new laws seemingly to run contrary to the interests of the Moroccan people.¹⁷⁰ As discussed below, the consequence of Morocco’s bans on parallel importation and limitations on compulsory licensing effectively eliminates the key ways in which Morocco could secure cheaper

¹⁶⁴ *Id.* at 301; see also Heinz Klung, *Pharmaceutical Production and Access to Essential Medicines in South Africa*, in *INTELLECTUAL PROPERTY, PHARMACEUTICALS AND PUBLIC HEALTH: ACCESS TO DEVELOPING COUNTRIES* 30 (Kenneth C. Shalden et al. eds., 2013). In the dismantling of apartheid, the South African government passed a series of legislation and regulations between 1997 to 2004 to promote healthcare and control the price of medicines. One of the consequences of challenging the industrialized patent regime was that South Africa was put on a Special 301 Watch List by the USTR in 1998.

¹⁶⁵ SELLIN, *supra* note 163, at 313.

¹⁶⁶ *Id.* at 409.

¹⁶⁷ *Id.*

¹⁶⁸ Gaelle Krikorian, *Intellectual Property and Access to Medicines: Paradoxes in Moroccan Policy*, in *INTELLECTUAL PROPERTY, PHARMACEUTICALS AND PUBLIC HEALTH: ACCESS TO DEVELOPING COUNTRIES* 51 (Kenneth C. Shalden et al. eds., 2013).

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

pharmaceuticals for its citizens.¹⁷¹ TRIPS Article 66.1 provides an extended transition period for least developed countries (LDC), the lowest attribution of development category provided by the WTO, until January 1st, 2033.¹⁷² Of the 42 African countries that are members of the WTO and parties to TRIPS, 29 of them belong to the LDC group.¹⁷³ Despite the availability of the transition period, by 2002 all but 3 of these LDCs had already implemented some form of TRIPS-compliant legislation.¹⁷⁴ The actions of African nations in this regard do not align with the generally accepted ideas underlying the current calibration phase of international IP and therefore AfCFTA should be used to try to reverse course on as many policies as is possible across the continent.

Legal authority to amend or modify TRIPS on a scale proposed by this comment rests with the TRIPS Council under Article 71.¹⁷⁵ The success of the Doha Declaration in amending TRIPS and initiating the current calibration phase resulted in part of lobbying efforts by NGOs like Doctors Without Borders.¹⁷⁶ To repeat such efforts, AfCFTA should incorporate the demands of stakeholders from a wide-range of sectors in countries of differing development levels when negotiating for more favorable TRIPS provisions.

AfCFTA can learn from the failures of other large-scale free trade initiatives like the attempted Free Trade Area of the Americas at the turn of the 21st century.¹⁷⁷ In trying to form what would have been the largest FTA in the world at the time, negotiations between the 34 countries were marred by failed attempts to create a “one size fits all” policy among nations with differing levels of development.¹⁷⁸ There are a total of 54 countries in Africa, a continent

¹⁷¹ *Id.* at 56; *see also* HALABI *supra* note 11, at 57–58, 66 (Article 15.9 of an FTA between the United States and Morocco states that a patent owner’s right to prevent the importation of a patented product is not limited by the sale or distribution of that product outside the territory of the FTA, effectively eliminating a possibility for international exhaustion).

¹⁷² UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA [UNECA], *ASSESSING REGIONAL INTEGRATION IN AFRICA VII: INNOVATION, COMPETITIVENESS AND REGIONAL INTEGRATION* 64 (2016).

¹⁷³ *Id.* at 61.

¹⁷⁴ *See* Mgbeoji, *supra* note 94, at 207.

¹⁷⁵ Pechacek, *supra* note 77, at 210; *see also* TRIPS, *supra* note 27, art. 71(1) (“The council for TRIPS shall review the implementation of this Agreement after the expiration of the transitional period referred to in paragraph 2 of Article 65. The Council shall, having regard to the experience gained in its implementation, review it two years after that date, and at identical intervals thereafter. The Council may also undertake reviews in the light of any relevant new developments which might warrant modification or amendment of this Agreement.”).

¹⁷⁶ Faunce, *supra* note 110, at 226.

¹⁷⁷ *ASSESSING REGIONAL INTEGRATION IN AFRICA VIII*, *supra* note 14, at 52.

¹⁷⁸ *Id.* at 53.

the size of the United States, Europe, Japan and China combined, and the effect of TRIPS is permeating across every aspect of their economies.¹⁷⁹ While no one set of flexibilities will be relevant to any one country in Africa, opportunities for compulsory licensing, parallel trade, early working exceptions, competition laws, and other alternatives compliant with TRIPS requirements should be employed by nations across Africa.¹⁸⁰ Africa is a vast continent with countries at different stages of industrialization and development.¹⁸¹ Central to the issues relating to access to pharmaceuticals has been the lack of an articulated demand in the market because of the differing economies and level of development across Africa.¹⁸² It is here where the formation of AfCFTA offers an ideal opportunity for the combined interests across the African continent to demand wider acceptance of TRIPS flexibilities to be implemented on a state-by-state basis.

III. POTENTIAL FOR TRIPS FLEXIBILITIES TO SPUR AFRICAN INNOVATION

AfCFTA has a unique opportunity, by forming the largest free trade area in history, to use a newfound level of bargaining power in international trade negotiations.¹⁸³ For that reason, the TRIPS Protocol on IP should explore every possible flexibility offered by TRIPS. There are several that have potential to make a significant effect on the patent regime in Africa but are out of the scope of this comment.¹⁸⁴ The below flexibilities outline policy options that have been implemented to varying degrees of success by individual African nations that should serve as a foundation for AfCFTA negotiations.

A. *Compulsory Licensing*

¹⁷⁹ See Mgbeoji, *supra* note 94, at 168, 181–182.

¹⁸⁰ See *infra* Part III.

¹⁸¹ *Id.*

¹⁸² See WORLD HEALTH ORG. [WHO], PUBLIC HEALTH, INNOVATION AND INTELLECTUAL PROPERTY RIGHTS: REPORT OF THE COMMISSION ON INTELLECTUAL PROPERTY RIGHTS, INNOVATION AND PUBLIC HEALTH 15 (2006).

¹⁸³ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 53.

¹⁸⁴ Most notably, this comment will not cover Article 27.3 (subject matter exclusions), Article 27.1 (standards of patentability), Article 29 (disclosure requirements), or Article 51 (enforcement flexibilities.) For a comprehensive analysis on the details of those flexibilities, see BROOK K. BAKER, A FULL DESCRIPTION OF WTO TRIPS FLEXIBILITIES AVAILABLE TO ARIPO MEMBER STATES AND A CRITIQUE OF ARIPO'S COMPARATIVE STUDY ANALYZING AND MAKING RECOMMENDATIONS CONCERNING THOSE FLEXIBILITIES (2019), <https://www.bu.edu/gdp/files/2020/05/ARIPO-Member-States-obligations-and-flexibilities-under-the-WTO-TRIPS-Agreement-March-2019.pdf>.

Article 31 allows countries to grant compulsory licenses on patented inventions for non-commercial public use.¹⁸⁵ The TRIPS section on compulsory licensing is the longest and most complex patent provision, an indication of the threat that it is perceived to be by large pharmaceutical companies that helped draft the provision.¹⁸⁶ The issuance of a compulsory license on a pharmaceutical patent will enable generic manufacturers to sell drugs just above their marginal cost of production.¹⁸⁷ Possible grounds for the issuance of a compulsory license include failure to work the invention in a local market and the promotion of public interest, two arguments which could be made for many pharmaceutical patents in developing countries.¹⁸⁸ The risks associated with issuing compulsory licenses include establishing an unfriendly business environment in a country which might lead to diminished direct investment, reduction in the pharmaceutical industry's incentive to innovate, and retaliation from developed nations in the form of trade sanctions.¹⁸⁹ Governments must first try to reach a commercially reasonable commercial agreement with the patent owner, except in times of national emergency or extreme urgency when the government can act without contacting the patent owner.¹⁹⁰

One of the biggest problems with the TRIPS compulsory license flexibility was that Article 31(f) states that the compulsory license "shall be authorized predominantly for the supply of the domestic market of the Member authorizing such use."¹⁹¹ The reasoning for this limitation was to prevent the practice of arbitrage through which one country could create a generic version of a product and then import it into a wealthy country where the manufacturer is maintaining higher prices to recoup their investment.¹⁹² The practical result of this provision, though, is that countries with no manufacturing capabilities, oftentimes the same countries that have the most need to issue a compulsory

¹⁸⁵ TRIPS, *supra* note 27, art. 31; *see also* Cynthia Ho, *Compulsory Licenses under TRIPS: An Introduction*, LOY. UNIV. CHI. SCH. L. RSCH. PAPER NO. 2011-030, 125, 127 (2011) ("A compulsory license permits a nation (or a third party authorized by the nation) to use a patented invention without permission of the patent owner in exchange for payment of a government-determined royalty. The license is compulsory in that it is forced upon the patent owner.").

¹⁸⁶ HO, *supra* note 128, at 128.

¹⁸⁷ *Id.*

¹⁸⁸ *Id.* at 130–32.

¹⁸⁹ Jorn Sonderholm, *Ethical Issues Surrounding Intellectual Property Rights*, in *NEW FRONTIERS IN THE PHILOSOPHY OF INTELLECTUAL PROPERTY* 110, 114 (Annabelle Lever ed., 2012).

¹⁹⁰ *Id.* at 113.

¹⁹¹ *Id.*

¹⁹² *Id.*

license on a life-saving pharmaceutical drug, are functionally unable to benefit from the compulsory licensing in any way.¹⁹³

When WTO member countries passed the Doha Declaration in 2001, paragraph six acknowledged this problem and encouraged the TRIPS Council to offer a solution.¹⁹⁴ The result was the introduction of Article 31*bis* during the 2003 General Council meeting which allows countries with insufficient or nonexistent manufacturing capabilities to import pharmaceuticals under a compulsory license in another country.¹⁹⁵ Practically speaking, it is now possible for one country to issue a compulsory license for the sole reason of exporting to another country, as long as the second country has no manufacturing capabilities.¹⁹⁶ AfCFTA could make use of this flexibility by coordinating a deliberate effort by which countries with manufacturing capabilities like Nigeria or South Africa could issue compulsory licenses on life-saving drugs and export them to less developed countries across the continent.

In 2002, the government of Zimbabwe declared an HIV/AIDS-related state of emergency and issued a compulsory license for the generic production and importation of ARVs.¹⁹⁷ Before the declaration was issued, the estimated monthly cost of ARVs was estimated at \$30 to \$50, a price unaffordable in the local market.¹⁹⁸ The generic version of the medicine, sold at a little more than \$15 for a month's supply.¹⁹⁹ In 2005, the government of Ghana issued a compulsory license allowing it to import generic versions of selected ARVs patented by GlaxoSmithKline (GSK) from Indian pharmaceutical companies. The cost of the medicine on the local market fell by more than 50% (from \$495 for a year's treatment to \$235).²⁰⁰ In 2004, Mozambique attempted to locally manufacture the fixed-dose combination of lamivudine, stavudine, and nevirapine under a compulsory license issued to Pharco Mozambique, a local company.²⁰¹ The effort, however, was shelved because of the high price of active

¹⁹³ JOHN T. CROSS ET AL., GLOBAL ISSUES IN INTELLECTUAL PROPERTY LAW 103 (2010).

¹⁹⁴ Doha Declaration, *supra* note 144, at ¶ 6.

¹⁹⁵ Dahlberg, *supra* note 116, at 51; *see also* CROSS ET AL., *supra* note 193, at 104.

¹⁹⁶ Ley, *supra* note 138, at 111.

¹⁹⁷ OSEWE ET AL., *supra* note 162, at 16.

¹⁹⁸ *Id.* at 17.

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ *Id.*

pharmaceutical ingredients, which rendered the production economically unviable.²⁰²

AfCFTA will first have to negotiate around the fact that developed nations remain hostile to the practice of compulsory licensing despite recognizing its positive effects.²⁰³ For example, when a 2001 Brazilian industrial property law stated that all patented inventions which were not worked or manufactured in their country were subject to compulsory licensing, the United States contended that it was not compatible with TRIPS Article 27.1 which prohibits local working requirements.²⁰⁴ When Brazil countered that their law was functionally similar to two U.S. laws relating to working requirements, the U.S. dropped their opposition.²⁰⁵ Oftentimes, the threat of compulsory licensing is sufficient to obtain the desired effect. For example, South Africa successfully obtained voluntary licenses on AIDS anti-retroviral medicines from the German pharmaceutical company Boehringer Ingelheim by threatening litigation under Section 56 of its Patent Act in *Hazel Tau v. GlaxoSmithKline* in 2002.²⁰⁶ AfCFTA should approach the TRIPS Council armed with a coherent plan to use compulsory licensing on life-saving medicines for diseases most significantly impacting the continent and use it as leverage throughout subsequent negotiations.

B. Parallel Importation

Article Six of TRIPS states that “nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights.”²⁰⁷ The concept of “exhaustion” falls under the First Sale Doctrine (FSD) which states that the first sale of a patented item in/to a territory exhausts the patent holder’s rights such that there are no more restrictions on the resale of the product.²⁰⁸ In the international context, FSD usually arises when goods bought in a foreign market are imported into a domestic market and resold at a lower price than the goods might otherwise be sold for directly from the patent holder.²⁰⁹ From an economic perspective, parallel importation ensures that the lowest price of a good in any country is the baseline for the good in any other

²⁰² *Id.*

²⁰³ Klung, *supra* note 164, at 50.

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ *Id.* at 38.

²⁰⁷ TRIPS, *supra* note 27, at art. 6.

²⁰⁸ BAGLEY ET AL., *supra* note 33, at 738; OSEWE ET AL., *supra* note 162, at 118.

²⁰⁹ BAGLEY ET AL., *supra* note 33, at 738.

country.²¹⁰ By leaving the decision to implement international, domestic, or regional exhaustion to each individual nation, TRIPS permits a situation in which countries across the African continent could coordinate better pricing mechanisms through AfCFTA.

The availability of parallel importation means that countries are free to import products from a country where they are legitimately sold for the lowest possible price.²¹¹ In European law, countries that are part of the European Economic Area (“EEA”) have implemented Article Six flexibility for all internal EEA trade.²¹² Nations in Africa take different approaches to the exploitation of parallel importation flexibility.²¹³ In Botswana, the Industrial Property Act of 1996 only permits exhaustion for articles placed on the market in Botswana, effectively eliminating the availability of parallel importation.²¹⁴ Kenya, on the other hand, provides for an international exhaustion regime and therefore full parallel importation under their Industrial Property Act of 2001.²¹⁵ It is no surprise, then, that industrialized nations prioritize the elimination of parallel importation in their TRIPS-plus agreements with developing countries.²¹⁶ For example, the U.S.-Morocco Free Trade Agreement requires the member to block importation of patented drugs if it violates a distribution agreement.²¹⁷ Even if some countries like Morocco may be unable to participate in parallel importation because of existing commitments, AfCFTA should prioritize the parallel importation among every nation on the continent in a similar policy to that of the European Economic Area.²¹⁸

C. Early Working Exceptions

Although patent infringement is a strict liability offense, Article 30 of TRIPS allows for limited exceptions to patent rights provided it does not unreasonably prejudice the legitimate interests of the patent owner.²¹⁹ In

²¹⁰ OSEWE ET AL., *supra* note 162, at 118.

²¹¹ HO, *supra* note 128, at 1501.

²¹² Ole-Andreas Rognstad, *The Multiplicity of Territorial IP Rights and Its Impact on Competition*, in *INDIVIDUALISM AND COLLECTIVENESS IN INTELLECTUAL PROPERTY LAW* 59 (Jan Rosén ed., 2012).

²¹³ OSEWE ET AL., *supra* note 162, at 20 – 21.

²¹⁴ *Id.*

²¹⁵ *Id.*

²¹⁶ HO, *supra* note 128, at 1502.

²¹⁷ *Id.*

²¹⁸ Rognstad, *supra* note 212; Ley, *supra* note 138, at 121.

²¹⁹ TRIPS, *supra* note 27, art. 30 (“Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal

Africa, this provision would be most useful to generic drug manufacturers by allowing them to conduct research and development on pharmaceutical patents prior to their expiration.²²⁰ This allows for researchers to complete the stability, bioequivalence, and other required tests to obtain marketing approval that will allow them to put a generic drug on the market as quickly as possible following the expiration of the original patent.²²¹ Section 69A of the South African Patent Act permits such early working exceptions for precisely this purpose.²²² As developing countries in Africa like Ghana, Kenya, and Zimbabwe continue to progress in their local manufacturing capabilities, AfCFTA should emulate the type of early working exceptions implemented in South Africa.²²³

Legislation in many countries has maximized the Article 30-flexibility by also allowing for exceptions that cover commercial experimentation.²²⁴ This type of flexibility could be particularly useful to African innovators across all industries because it would provide legal cover for much of the innovation already taking place in the informal sectors.²²⁵ The TRIPS provision in Article 30 mandating that the copying cannot harm the legitimate interests of the patent holder would still be enforceable.²²⁶ Even so, AfCFTA could claim in the majority of situations that providing patent exceptions in Africa would not harm the legitimate interests of a patent owner because Africa oftentimes constitutes a minor part of the market for large multinational corporations.²²⁷

exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.”).

²²⁰ Brook K. Baker, *A Full Description of WTO TRIPS Flexibilities Available to ARIPO Member States and a Critique of ARIPO's Comparative Study Analyzing and Making Recommendations Concerning Those Flexibilities*, 22 AFR. J. OF INFORMATION AND COMM'N 11 (2019), <https://www.kelinkkenya.org/wp-content/uploads/2019/05/ARIPO-Member-States-obligations-and-flexibilities-under-the-WTO-TRIPS-Agreement-March-2019.pdf>.

²²¹ *Id.* at 25.

²²² SELLIN, *supra* note 163, at 319 (noting that the South African Patent Act Section 69A does not consider copying infringement if it is reasonably related to the obtaining, developing, and submission of information required under any related regulation).

²²³ OSEWE ET AL., *supra* note 162, at 21.

²²⁴ BAGLEY ET AL., *supra* note 33, at 732 (citing Section §60(5)(b) of the UK Patents Act which says an act does not constitute patent infringement if “it is done for experimental purposes relating to the subject-matter of the invention.”).

²²⁵ *Treaty Establishing the African Economic Community*, *supra* note 39.

²²⁶ TRIPS, *supra* note 27.

²²⁷ PUBLIC HEALTH, INNOVATION AND INTELLECTUAL PROPERTY RIGHTS, *supra* note 182, at 15. Although developing countries account for more than eighty percent of the world's population, they are responsible for only about ten percent of global pharmaceutical sales. Africa, in particular, only accounts for 1.1% of the global share of sales for the pharmaceutical industry.

These are the types of arguments that AfCFTA must be prepared to make in advocating for more appropriate TRIPS flexibilities to promote innovation.

D. Competition Laws

Competition laws are domestic legislation which prevent the abuse of practices that restrain trade or impede technology transfer.²²⁸ TRIPS Article 8.2 broadly allows countries to challenge anti-competitive practices while Article 40.2 recognizes the ability of a country to define anti-competitive abuses in IP.²²⁹ Developing countries are particularly susceptible to anti-competitive practices because cartels are more easily able to manipulate the prices on goods.²³⁰ Here again, AfCFTA can learn from successful implementation of legislation in South Africa.²³¹ South Africa's Competition Act No. 1998 has a stated goal to promote economic welfare by "balancing the interests of workers, owners and consumers" to the benefit of all South Africans.²³² Section Eight of the act prevents dominant firms from charging excessive prices to the detriment of consumers or engaging in exclusionary acts like preventing competitors from market entry.²³³ AfCFTA has a chance to create continental competition laws by securing the cooperation of enforcement agencies across member states and implementing similar consumer protection protocols.²³⁴

In light of recent trends in anti-competitive practices by firms of all sizes, AfCFTA should focus on using competition laws to identify and prevent IP abuses.²³⁵ The rise of "patent trolls,"—companies or individuals who register patents for the sole reason of suing and bankrupting actual inventors—reflects a modern abuse of patents as valuable commodities rather than socially-constructive tools for innovation.²³⁶ "Blocking patents" are written to cover such essential features of an invention that any related product would almost

²²⁸ Baker, *supra* note 220, at 36.

²²⁹ TRIPS, *supra* note 27, art. 8.2 ("Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.")

²³⁰ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 145–46.

²³¹ SELLIN, *supra* note 163, at 336.

²³² *Id.*

²³³ *Id.* at 339.

²³⁴ ASSESSING REGIONAL INTEGRATION IN AFRICA VIII, *supra* note 14, at 147.

²³⁵ See DAVID & HALBERT, *supra* note 69, at 51.

²³⁶ See *Id.*

certainly be guilty of infringement.²³⁷ Examples of blocking patents would include a patent on an entire genetic sequence or a method for determining the connection between a mutation and a disease.²³⁸ Oftentimes, efforts by multiple parties to create blocking patents on minor differences in an invention creates a “patent thicket,” which effectively prevents future inventors from creating any similar invention.²³⁹ When a patent owner wants to shield an invalid patent from exploitation, they might create a “patent pool” which bundles it to a valid patent licensed as a package.²⁴⁰ Finally, “product hopping” is a process by which patent holders introduce new versions of a patented drug that would otherwise expire soon and therefore introduce a new term of exclusivity that prevents generic manufacturers from entering the market.²⁴¹ AfCFTA should establish review processes to identify any instances of these anti-competitive patent measures and implement enforcement mechanisms ranging from injunctions, fines, to criminal sanctions.²⁴²

E. Policy Alternatives Compliant With TRIPS Obligations

Finally, there are additional TRIPS-compliant policy options that AfCFTA can experiment with in its pursuit to encourage innovation across Africa. As mentioned, there are certain market inefficiencies associated with encouraging, financing and protecting ideas.²⁴³ But the patent-in-exchange-for-exclusivity model presents just one option for solving these problems.²⁴⁴ Since many global IP and trade institutions have acknowledged that our existing system disfavors innovation in developing countries, AfCFTA should take the opportunity to pursue alternatives to the patent regime.

²³⁷See Geertrui Van Overwalle, *Individualism, Collectiveness, and Openness in Patent Law: From Exclusion to Inclusion Through Licensing*, in *INDIVIDUALISM AND COLLECTIVENESS IN INTELLECTUAL PROPERTY LAW 74* (Jan Rosén ed., 2012).

²³⁸ *See id.*

²³⁹ *See id.* at 87; Baker, *supra* note 220, at 37 (A patent thicket involves “multiple overlapping patent applications for new formulations, processes, chemical variations, and new uses/indications purposely designed to preclude generic market entry); DAVID & HALBERT, *supra* note 69, at 61 (One of the first instances of patent thickets was employed by Thomas Edison, who registered thousands of patents for things he did not specifically invent but used to monopolize downstream innovation).

²⁴⁰ Van Overwalle, *supra* note 237, at 91.

²⁴¹ Baker, *supra* note 220, at 36.

²⁴² *Id.*

²⁴³ *See supra* Part II A.

²⁴⁴ Joseph E. Stiglitz et al., *Intellectual Property for the 21st Century Economy*, *COLUM. BUS. SCH.* (Oct. 17, 2017), <https://www8.gsb.columbia.edu/articles/chazen-global-insights/intellectual-property-21st-century-economy>.

The first option AfCFTA should consider is the “prize system,” in which either a government or private institution funds the purchase the rights of a patent from an inventor.²⁴⁵ A prize system would reduce social welfare losses caused by monopoly pricing on patented products.²⁴⁶ It could also improve how government agencies can track the effectiveness of a pharmaceutical drug in a particular market.²⁴⁷ Government-sponsored prizes could be beneficial because governments already undertake the quasi-political task of issuing grants for research.²⁴⁸ A privately-sponsored prize system benefits from recent developments in crowdfunding and could offer tax-deductible benefits for contributors. For both routes, prize systems also have an added benefit of possibly decreasing or eliminating the socially wasteful spending by pharmaceutical firms where it is estimated that more than a third of all pharmaceutical firms’ revenues go towards marketing.²⁴⁹

A second alternative to patent exclusivity could be patent “buy-outs” or “purchase commitments.”²⁵⁰ These regimes reinforce the notion that products used to benefit the public good should receive public funds.²⁵¹ Buy-outs would comprise of a government purchase of a patent in one lump sum that allows the government(s) to manufacture and sell the product at an attainable price for consumers.²⁵² Purchase commitments, on the other hand, would consist of recurring payments for an already-developed product that it could then deliver to consumers.²⁵³ One benefit of purchase commitments over buyouts is that the lump sum price tag for pharmaceuticals would likely be billions of dollars and spreading the payments out might be more politically palatable for the AfCFTA governments.²⁵⁴

²⁴⁵ Ley, *supra* note 138, at 128.

²⁴⁶ William W. Fisher & Talha Syed, *A Prize System as a Partial Solution to the Health Crisis in the Developing World*, in *INCENTIVES FOR GLOBAL PUBLIC HEALTH: PATENT LAW AND ACCESS TO ESSENTIAL MEDICINES* 182 (Thomas Pogge et al. eds., 2010).

²⁴⁷ *Id.* at 183.

²⁴⁸ Rosenberg, *supra* note 26, at 104.

²⁴⁹ Fisher & Syed, *supra* note 246, at 183.

²⁵⁰ See Kevin Outterson, *Patent Buy-Outs for Global Disease Innovations for Low- and Middle-Income Countries*, 32 *AM. J. L. & MED.* 159, 171 (2006) (“This Article proposes marginal cost (generic) pricing of patented pharmaceuticals for low- and middle-income populations . . . by reimbursing companies for all lost R&D cost in those markets.”).

²⁵¹ Ley, *supra* note 138, at 129.

²⁵² *Id.*

²⁵³ *Id.*

²⁵⁴ *Id.*

Another consideration for AfCFTA should be “patent extensions.”²⁵⁵ One of the most prominent issues in African health is that people in developing and least-developed countries suffer from neglected tropical diseases which do not receive any attention from western pharmaceutical companies.²⁵⁶ Despite more than a billion people being affected and 200,000 dying annually from these diseases, pharmaceutical research mainly focuses on non-fatal diseases affecting populations in industrialized nations.²⁵⁷ The problem is that pharmaceutical companies lack an economic incentive in curing these types of diseases because the affected populations cannot pay high enough prices on the drugs for the pharmaceutical companies to recoup their investment costs.²⁵⁸ In this context, patent extensions offer a solution through which the government awards a patent holder with an extension of an existing patent if the inventor produces a new drug for a neglected disease in the developing world.²⁵⁹ An example of this in practice could be a large pharmaceutical company that creates a new drug for tuberculosis in Africa and then chooses to extend a patent on a lucrative cancer drug for sale in an industrialized country.²⁶⁰ Although this solution isn’t perfect because it just shifts the burden of high drug prices, it may still be a politically feasible policy for AfCFTA to pursue if stakeholders recognize the external benefits across the African economy.

A final option for AfCFTA that might be particularly beneficial to developing countries in Africa with less sophisticated economies would be a “patent pool.”²⁶¹ Already a recognized practice in biotechnology, patent pools and clearing houses provide collaborative licensing models for patents by making the licenses available to third parties willing to pay fees or royalties.²⁶² These help innovators in developing countries because more transparent licensing mechanisms facilitate agreements that might have otherwise been difficult for the innovator to engineer.²⁶³ An existing example of a successful patent pool is the Health Impact Fund, which offers participating patent holders with a stream of payments based on the assessed global health impact

²⁵⁵ *Id.* at 128.

²⁵⁶ Bagley, *supra* note 72, at 2485.

²⁵⁷ *Id.*; see also U.N. SECRETARY-GENERAL, *supra* note 139, at 13 (“Despite NTDs accounting for approximately 12% of total disease burden, just 4% of therapeutic products registered between 2000 and 2011 were indicated for these diseases.”).

²⁵⁸ Ley, *supra* note 138, at 128.

²⁵⁹ *Id.*

²⁶⁰ *Id.*

²⁶¹ COMM’N ON INTELL. PROP. RTS., INNOVATION AND PUB. HEALTH, *supra* 182, at 176.

²⁶² See Rosenberg, *supra* note 26, at 102.

²⁶³ *Id.*

of a drug.²⁶⁴ The formation of AfCFTA provides a unique opportunity for the nations of Africa to establish a continental patent pool and employ some of the other policy alternatives to creatively find the perfect alternative to the patent regime that is best suited to foster innovation specific to African development.

IV. NEXT STEPS FOR AFCFTA

It is a rare window of opportunity any time different geopolitical factors combine to offer a continent the possibility of clearly staking a new path forward. AfCFTA should capitalize on this opportunity by repositioning their IP laws to encourage innovation and other economic activity based on solving issues across the continent. The negotiations required to make any substantial changes to the international patent regime will not only occupy a driving force in future international trade negotiations, it will become the center piece of business strategies for both domestic and international firms.²⁶⁵ Together with the use of TRIPS flexibilities to promote a better patent regime, AfCFTA's Protocol on IP will also need to carefully address issues relating to public health, e-commerce, plant variety protection, geographical indications and traditional knowledge.²⁶⁶

To satisfy a wide range of stakeholders, it is important for the leaders of AfCFTA to be transparent in establishing agendas and priorities for innovation.²⁶⁷ Internationally, AfCFTA can expect to negotiate with a wide range of multilateral organizations, including the United Nations Conference on Trade and Development (UNCTAD), the United Nations Development Programme (UNDP), the World Health Organization (WHO), WIPO, and the WTO.²⁶⁸ Domestically, AfCFTA's Protocol on IP has still yet to find where it fits with the 2013 proposal to establish a Pan-African Intellectual Property Organization (PAIPO.)²⁶⁹ As AfCFTA addresses these challenges and

²⁶⁴ *Id.*

²⁶⁵ See Cynthia M. Ho, *Patent Breaking or Balancing? Separating Strands of Fact from Fiction Under TRIPS*, 34 N.C. J. OF INT'L. L. & COM. REGUL., 371 (2009).

²⁶⁶ See David Luke & Jamie MacLeod, *Bringing the CFTA About: Key Factors for Success*, INT'L CTR. FOR TRADE AND SUSTAINABLE DEV. (Sept. 21, 2017), <https://www.tralac.org/news/article/12170-bringing-the-cfta-about-key-factors-for-success.html>.

²⁶⁷ See Njeri Mwathi, *The Need for a Multilateral Framework on Investment Facilitation*, AFRONOMICS L. (May 6, 2019), <https://www.afronomicslaw.org/2019/05/06/the-need-for-a-multilateral-framework-on-investment-facilitation/> (“The World Bank reports that ‘investors seek predictability of public agency conduct—and the ease of doing business—and efficiency in the implementation of laws and regulations as important determinants of their locational decisions.’”).

²⁶⁸ U.N. SECRETARY-GENERAL, *supra* note 139, at 9.

²⁶⁹ CAROLINE B. NCUBE, INTELLECTUAL PROPERTY POLICY, LAW AND ADMINISTRATION IN AFRICA 128 (2018).

Winter 2021]

A WINDOW OF FLEXIBILITY

155

opportunities in the coming months, it should continually reinforce that it will employ its bargaining power towards negotiating a more-favorable IP regime across Africa that promotes economic development through innovation in a way that benefits all Africans.