

**The Paved Road to Development:  
Chinese Investment in African Infrastructure**

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## ***Real World Observation***

On April 2, 2021 *The Washington Post* reported on the hiring practices of Chinese employers whose construction enterprises and contracts dominate African infrastructure projects.<sup>1</sup> In a survey of China's investments in recent years, they found that China has contributed upwards of 25% of the annual global budget committed by various organizations and countries to the development of African infrastructure. In years such as 2018, China alone won "almost half of all engineering, procurement and construction contracts continent wide — including those funded by non-Chinese sources like the World Bank," most of which served China's Belt and Road Initiative.<sup>2</sup> Their reports conclude that in a survey of 1,000 Chinese firms operating numerous infrastructure projects, African employees made up 89 percent of the firms' combined workforce.<sup>3</sup> According to the article, local African labor has become increasingly favored over Chinese expats who demand higher wages and better living conditions and, in multiple African countries, face visa restrictions. This recent hiring pattern reflects the initial promises of Chinese investment as contributing to African economic growth, not only by creating adequate and reliable infrastructure that boosts said growth, but also by facilitating the direct employment of African citizens as well.

The recent use of African labor over that of imported Chinese labor represents a deviation from China's past model of infrastructure projects on the continent. The Belt and Road Initiative (BRI) has been repeatedly criticized for having an "enclave character," in which Chinese firms rely primarily on the labor of Chinese expatriates at the expense of producing job opportunities

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<sup>1</sup> Frangton Chiyemura, "Chinese Firms -- and African labor -- are building Africa's infrastructure," *The Washington Post* (April 2, 2021).

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

for local Africans.<sup>4</sup> In the past, financing by Chinese development firms has often come with stipulations about Chinese oversight in the implementation of projects and have only offered funding conditional on the use of Chinese contractors and Chinese workers.<sup>5</sup> Many Chinese-led African infrastructure projects have been met with protests and riots from local Africans, who attribute loss of jobs to the influx of Chinese employees. On an international scale, ongoing complaints have been leveled at Chinese firms for utilizing African development projects to benefit their citizens through direct employment more so than other comparable foreign firms operating in Africa, while also offering uniquely low localization rates. This change suggests China is not only responding to the international pressures leveled against them, but also addressing the on-the-ground problem in order to further legitimize their development initiatives and investments.

The implications of a Chinese system which is willing to evolve means that the nation's infrastructure development projects might be more readily received by both local Africans and by the international community at large. According to the Afrobarometer, as of 2015, 63% of those surveyed in 36 African countries view China as a positive influence and see China as the second model for development after the United States, marking a growth from previous years.<sup>6</sup> A responsive Chinese government and private sector reaffirms the shift in foreign policy of China to one more focused on assimilation into the norms and standards of the global system.<sup>7</sup> Most importantly, the increased use of African labor points to China's greater consideration of African interests in their development initiatives. Without Chinese acknowledgment of potential

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<sup>4</sup> Tim Wegenast et.al, "At Africa's expense? Disaggregating the employment effects of Chinese mining operations in Sub-Saharan Africa," *World Development* Vol. 118, (June 2019): 39-51

<sup>5</sup> Ann-Sofie Isaksson and Andreas Kotsadam, "Racing to the bottom? Chinese development projects and trade union involvement in Africa," *World Development* Vol. 106, (June 2018): 284-296

<sup>6</sup> "China's growing presence in Africa wins largely positive reviews," *AfroBarometer* (October 24, 2016).

<sup>7</sup> Mark Beeson, "Goeconomics with Chinese Characteristics: The BRI and China's Evolving Grand Strategy," *Economic and Political Studies* Vol. 6 iss. 3 (September 3 2018): 240-256.

inequalities in their development projects or willingness to address such issues, the impact of these projects will not reach full potential. To better understand the ways in which Chinese influence affects the structure of African development initiatives leads me to ask the following research question: How does Chinese infrastructure investment contribute to African development?

### ***Conventional Wisdom***

The American layman views China through a militaristic lens, perceiving the nation to be both a geopolitical threat and a competitor. In a poll conducted by *Gallup*, research found that 45 percent of Americans see China as the greatest enemy of the United States, while a new record high of 63 percent of Americans view the economic power of China as a significant threat to the interests of the United States in the next 10 years.<sup>8</sup> In another poll by the *Pew Research Center*, researchers found that 67 percent of Americans reported feeling “cold” towards China and around roughly nine in ten Americans consider China a competitor or enemy.<sup>9</sup> These polls reveal that Americans tend to view China in a “net-bad” framework, thus filtering their perception of Chinese actions in the global political arena through their presumption that China is a negative force. This further reinforces for Americans that China’s economic and political endeavors are not only harmful and counter to the United State’s agendas, but ultimately are motivated by China’s desire to win the “competition.”

While China’s growing influence in global affairs warrants certain criticisms and fears, this conventional wisdom is incomplete. China has exhibited ongoing commitment to participate in multi-national efforts of global development, including economic investment in the areas of

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<sup>8</sup> Mohamed Yunis, “New High in Perception of China as U.S.’s Greatest Enemy,” *Gallup News* (March 16, 2021)

<sup>9</sup> Laura Silver, Kat Devlin, and Christine Huang. “Most Americans Support Tough Stance Toward China on Human Rights Issues Fewer have confidence in Biden to handle U.S-China relationship than other foreign policy issues.” *Pew Research Center* (March 4, 2021)

infrastructure, health, and education as well as the provision of troops for United Nations peacekeeping missions. The perception that China is a military menace and threatening competitor focuses only on how Chinese investment in African infrastructure will allow the nation to confer more influence and disregards the potential benefits of these investments. Chinese investment is distinctly different from the historical structure of Western aid, which is often contingent on specific political objectives or reform agendas, because it emphasizes and centers around the concept of national sovereignty.<sup>10</sup> Sovereignty provides African nations and leaders the ability to dictate their own development agenda, prioritize the interest of African citizens, and actively participate in the implementation of projects. Chinese investment in African infrastructure also benefits the long-term development goals and desired trajectory of economic growth expressed by African nations by providing debt-cancellation and establishing a beneficial trade relationship with China. The capital gained from stronger infrastructure, which promotes more efficient flow of goods and resources, promises to increase Africa's economic independence and assist them in progressing in other areas of development.

### ***Methodology and Evidence***

To investigate the ways in which China's investment in African infrastructure contributes to the development of Africa, this paper will employ the use of qualitative methodology in the form of case study research. These case studies will look at Chinese contributions to African infrastructure in the areas of rail, roads, and power/energy. The types of evidence used in this paper will be a combination of primary and secondary evidence. This paper will rely mostly on primary sources to answer the research question without bias. Examples of primary sources that will be used are speeches from African and Chinese leaders, reports from United Nations'

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<sup>10</sup> Denis Tull, "China's engagement in Africa: scope, significance, and consequences," *Journal of Modern African Studies* Vol. 44, no. 3 (2006): 459-479

conventions and their agency on international development, and World Bank reports. Secondary evidence will be collected from sources such as *The New York Times*, *The Washington Post*, think tanks, and scholarly journals.

### ***Theoretical Paradigm***

The theory that best helps me explain and frame my answer to the research question is modernization theory. Modernization theory's core assumption is that traditional nations develop into modern ones by following similar pathways of progress established by industrialized nations. The way towards development is centered on material arguments, as modernization theory believes bringing underdeveloped nations out of poverty is accomplished through technology transfer, investments, and integration into the greater world order. According to Wil Hout in "Classical Approaches to Development: Modernisation and Dependency," modernization is a "syndrome of social changes linked to industrialization" where economic development is responsible for bringing social and political change.<sup>11</sup>

Given these assumptions, modernization theory will help explain my research question and findings. This theory's emphasis on social improvement as contingent on economic growth, helps weigh the impact of Chinese monetary investment on the development of Africa. A prioritization of infrastructure as grounds for self-sustained growth is in line with economic Walt W. Rostow's five stages of modernization. The "take-off stage" when "manufacturing, initiated by an entrepreneurial elite, becomes the driving force of development" is made possible by Chinese infrastructure projects which facilitate transport of goods and peoples necessary to build manufacturing.<sup>12</sup> Additionally the "drive to maturity" stage, which replaces original growth sectors with heavy industry, aids in framing the outcomes of infrastructure projects thus far. This

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<sup>11</sup> Will Hout, "Classical Approaches to Development: Modernization and Dependency," *The Palgrave Handbook of International Development*, J. Grugel D. Hammett, eds. (New York: Palgrave, 2016): 21-39.

<sup>12</sup> Ibid.

theory also contextualizes China's approach as consistent with development pathways defined by Western nations and is therefore assumed to be largely beneficial for the modernization and development of Africa. While modernization theory is an imperfect explanation of my research findings due to the both beneficial and harmful nature of China's presence, it aids in the conclusion that China's investments in infrastructure have contributed to extending Africans nations' sphere of influence and economic potential.

### ***Case Study: Railways - Kenya's Standard Gauge Railway***

As identified by the United Nations 2030 Agenda, the building of resilient infrastructure, especially "transborder infrastructure" which adopts greater "resource-use efficiency and environmentally sound industrial processes," is critical to sustainable development.<sup>13</sup> The United Nations Development Program has long identified the modernization and extension of railway systems as one of the most viable areas of infrastructure for mitigating climate change and promoting the exchange of goods and peoples necessary for economic growth.<sup>14</sup> Kenya, in their own Vision 2030, reflects the UN's goal by highlighting railways in their foundational plan to achieve an industrial middle income country.<sup>15</sup> The construction of the Standard Gauge Railway (SGR), financed through loans from China's Exim Bank, comes after nearly a *century* of the nation being unable to produce the capital costs needed to expand their railway network.<sup>16</sup> The SGR has produced numerous benefits for Kenya's public good and is the largest infrastructure project in the history of independent Kenya. On a larger scale, the SGR has provided the

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<sup>13</sup> UN General Assembly, "Transforming our world : the 2030 Agenda for Sustainable Development," (online report, October 21, 2015).

<sup>14</sup> United Nations Development Programme, "Kenya National Human Development Report 2013 - Climate Change and Human Development," (online report, 2013).

<sup>15</sup> Government of Kenya.

<sup>16</sup> Uhuru Kenyatta, "Speech by His Excellency Uhuru Kenyatta, C.G.H., During the Launch of Commencement of SGR Freight Services From Nairobi to Naivasha at Nairobi Terminus" (speech, Nairobi, Kenya, December 17, 2019).

necessary linkage of East African states, providing for the economic and social unity required to further stabilize the region.

President Kenyatta stated that the SGR's rapid transport of building materials and agricultural products has accelerated construction of affordable housing while also providing greater food security, and its connection of peoples and cities has boosted their execution of universal healthcare.<sup>17</sup> Kenyatta describes it as a "game changer" which has facilitated the creation of "industrial parks, logistics and commercial hubs, and special economic zones" that make Kenya more attractive to neighboring nations and foreign investors.<sup>18</sup> From a logistical perspective, the railway has provided newfound efficiency in the nation while adding to the value of existing infrastructure. The amount of freight transported by the SGR has reduced congestion and pollutants on Kenya's roads and in its ports, meaning greater preservation of existing infrastructure. Both the cost and time to travel between the major cities of Nairobi and Mombasa has been reduced by half, allowing greater connection of the nation and more economic and social opportunity at the individual level.<sup>19</sup> Additionally, the rail network has reduced costs of transporting materials and peoples to the hinterlands -- areas which have been geographically disadvantaged from reaping the benefits of industrialization in other parts of the nation.

The project produced 46,000 local jobs, with 97% of those jobs including skill training.<sup>20</sup> The skill training is indicative of a greater framework of knowledge transfer as crucial for sustainable development, as it was supplemented by Chinese scholarships for African students and employees to complete higher level education.<sup>21</sup> The creation of local jobs, with newfound skills, bolstered the strength of other industries leading to their subsequent development and

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<sup>17</sup> op cit. fn 16

<sup>18</sup> Ibid.

<sup>19</sup> Nancy Githaiga and Wang Bing, "Belt and Road Initiative in Africa: The Impact of Standard Gauge Railway in Kenya," *China Report* Vol 5, no. 3 (2019): 219-240.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.



expansion. Formal employment in the construction sector grew by 11.4 percent in 2015 and sustained that growth with an additional 10.6 percent the following year.<sup>22</sup> Ultimately, the SGR has significantly grown the construction, tourism, and local manufacturing sectors by increasing efficiency of cross-industry collaboration on transport infrastructure.

The long-term economic viability of the railway has been questioned. According to Kenya's Ministry of Transport and Infrastructure, the SGR lost \$100 million USD in its first year of operation.<sup>23</sup> Despite promising the transport of 22 million tonnes of cargo a year, the railway has annually produced only a third of that, suggesting that it has been somewhat underutilized. Kenya will be tasked with maintaining the railway through government subsidy alone as they pay off loans that have an interest rate of \$200 million dollars per year.<sup>24</sup> However, these concerns can be tempered by an understanding of how resilient Kenya may be to debt. The Organization for Economic Co-operation and Development has found China has a positive influence on Africa's debt tolerance because it stimulates exports and economic growth from infrastructure investment.<sup>25</sup> Essentially, China invests in infrastructure that promises capital accumulation for African countries, thus enabling the very mechanisms by which to pay back said loans. Even further, China's investments have fueled a sense of competition with Western financial institutions that has prompted renewed interest in Kenya and opened them as the recipient country to more choice for foreign direct investment.<sup>26</sup> The underperformance of the railway is to be expected in its first years, as this is a phenomenon experienced by comparable development projects conducted by rich democracies. Ultimately, China's contribution to

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<sup>22</sup> Ibid.

<sup>23</sup> Kenya Ministry of Transport and Infrastructure (MTI) "Standard Gauge Railway: Forging New Frontier in Railway Development in Kenya and the Region," (online report, 2014).

<sup>24</sup> Op.cit., fn 19

<sup>25</sup> Helmut Reisen, "Is China Actually Helping Improve Debt Sustainability in Africa," (online report, The Organization for Economic Co-operation and Development, 2008).

<sup>26</sup> Ibid.

Kenya's railway system has been significant in reviving a seriously dilapidated, underinvested sector of their economy and has greatly advanced the development wants and needs advanced by the Kenyan government.

### ***Power and Energy***

According to the International Energy Agency (IEA), sustainable development in the areas of education, health, and social improvement are contingent on energy access and energy security.<sup>27</sup> The development of Sub-Saharan Africa is acutely constrained by the fact that 635 million people live without electricity in the region and that it lacks the funds, technologies, and infrastructural systems to address this issue.<sup>28</sup> According to World Bank enterprise surveys, unreliable power supply “leads to losses in industrial production valued at 6 percent of turnover” and “50% of the firms in sub-Saharan Africa identify electricity as a major constraint.”<sup>29</sup> Africa has repeatedly been identified as insufficiently tapping into its energy potential, with sectors such as hydropower in Sub-Saharan Africa amounting to only 5 percent of their potential.<sup>30</sup> Chinese investment in the power sector has become increasingly diverse, covering almost every source, with a primary focus on hydropower and electricity endeavors. Overwhelmingly, China has diverted resources to expand the renewable energy markets throughout Africa, an area aligned with the 2030 Agenda for Sustainable Development and Africa's commitment to pursuing cleaner, greener infrastructure.

China has been repeatedly criticized for only contributing to energy development projects when it supplements China's endeavors to extract resources, however recent reports show “less than 20% of Chinese generation projects intend to supply a specific industry (mine, cement plant,

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<sup>27</sup> International Energy Agency, “Boosting the Power Sector in Sub-Saharan Africa: China's Involvement” (online report, 2016).

<sup>28</sup> Ibid.

<sup>29</sup> World Bank, “Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa” (online report, 2008).

<sup>30</sup> Ibid.

sugar mill, etc.).”<sup>31</sup> While China maintains a strong resource-seeking focus, few African nations have received only resource-seeking foreign direct investment (FDI).<sup>32</sup> Rather, as of late, China’s FDI has been characterized by “market-seeking, efficiency-seeking, and strategic asset-seeking FDI” which is linked more to transfer of technologies to increase productivity and grow consumer bases in recipient nations, all of which is evident in China’s investment in fueling manufacturing through the power and energy sectors.<sup>33</sup> Chinese power plants and projects have increasingly connected to grids throughout Sub-Saharan Africa with no purpose other than contributing to the distribution of electricity and the benefit of the economy at large. Over the period 2010 to 2020, “120 million people will gain access to electricity” in Sub-Saharan Africa due to the development of power grid capacity where Chinese contractors were responsible for ⅓ of the projects.<sup>34</sup> For hydroelectric power, the World Bank reports that China’s financing of ten major dams in nine different African countries amounted to generating just under a third of the hydropower capacity that exists in Africa today, with four of those projects doubling the total electricity generating capacity in the countries where they are located.<sup>35</sup>

Ethiopia is a valuable case study for assessing the benefits of China’s activities in the energy and power sector of infrastructure investment. China, through construction of power plants and grids, has contributed 1.5 GW towards Ethiopia’s Growth and Transformation Plan in which the nation aims to increase installed generation capacity by 15 GW by 2020, meaning China has advanced this agenda by 10%.<sup>36</sup> China has been singularly responsible for hydropower projects in Gezhouba and at the Tekeze River, which produce a total of 400 MW, and the Geba

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<sup>31</sup> op.cit, fn. 27

<sup>32</sup> Henri Bezuidenhout and Ewert Kleynhans, “Modern Trends in Chinese Foreign Direct Investment in Africa: An Oli Approach,” *Managing Global Transitions*, Vol. 16 iss. 3 (2018).

<sup>33</sup> Ibid.

<sup>34</sup> op.cit, fn. 27

<sup>35</sup> op.cit fn. 29

<sup>36</sup> Op.cit fn. 27

hydroelectric complex that added another 400 MW in generation capacity.<sup>37</sup> A new study by the London School of Economics (LSI) has confirmed the long-term benefits of Chinese FDI, precisely by assessing areas where electricity usage was apparent in satellite images of night lights in Ethiopia. They found China's investment has a "significant and persistent impact on local growth after 6-12 years" after monitoring increased evidence of electricity usage and light pollution that connotes greater urbanization and industrialization.<sup>38</sup> LSI confirmed China's fundamental shift to "higher value-add activities," in areas such as energy and power, has improved the economy of Ethiopia.<sup>39</sup>

One of the key aspects of building a power sector that is self-sufficient and profitable in the long-term is technological progress facilitated by technology transfer. Technology transfer is important primarily because it is linked to increasing productivity in developing countries and productivity growth is a significant predictor of a country's potential for long-term economic growth.<sup>40</sup> Technology transfer increases the domestic productivity of local firms because of introduction to new technological processes and managerial operations, as well as usher in "a process of technological catch-up among domestic firms due to competitive forces."<sup>41</sup> Recent studies have shown that Chinese FDI has enhanced technological progress in Africa, while non-Chinese FDI or that from Western, developed nations has not.<sup>42</sup> China's contribution to technological progress in Africa is greater than Western nations for a number of factors.

Researchers have found that when both the host and origin economies are developing, FDI flows

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<sup>37</sup> Super Teravaninthorn and Gael Raballand, "Transport Prices and Costs in Africa: A Review of the Main International Corridors," (online report, The World Bank, 2009).

<sup>38</sup> Riccardo Crescenzi and Nicola Limodio, "The Impact of Chinese FDI in Africa: Evidence from Ethiopia," *London School of Economics and Political Science* (January 2021).

<sup>39</sup> Ibid.

<sup>40</sup> Hu Dengfeng You Kefei and Esiyok Bulent "Foreign direct investment among developing markets and its technological impact on host: Evidence from spatial analysis of Chinese investment in Africa," *Technological Forecasting and Social Change*, Vol. 66 (2021).

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

are more likely to have “profound technological impact on host nations” than FDI which comes from developed economies.<sup>43</sup> The transfer of technological skill and knowledge from China to Africa is more efficient because the technology gap between them is smaller and China, as a developing nation itself, is particularly equipped to adapt to weaker institutional qualities and mindsets of the nations in which they invest, meaning they are able to perform better than investors from advanced economies. Additionally, a recent study by the World Bank identifies that short term investments, or ones in which the time horizons are limited, reduce the potential of FDI knowledge spillovers and technological spillovers.<sup>44</sup> Due to China being less constrained financially because of a supportive government, it is willing to maintain sustained investment in Africa, thus promising greater length of time for their FDI in Africa and potential for stronger technological spillover.<sup>45</sup> Technological progress acts as a significant marker as to whether China is adhering to promises of the Belt and Road Initiative, which stipulate transfer of knowledge to ensure African self-sufficiency after completion of infrastructure projects.

### ***Roads***

Road freight costs per kilometre are two to four times higher in Africa than the United States, contributing significantly to transporting costs in Africa being among the highest in the world.<sup>46</sup> According to a World Bank Report on Transport Prices and Costs in Africa, poor road conditions “reduce fuel efficiency; damage vehicles which leads to higher maintenance and higher operating costs; reduce the life of tires; reduce vehicle utilization because of lower speeds; and reduce the life of the truck.”<sup>47</sup> Due to the insufficient development of infrastructure in the colonial era, the use of rudimentary roads has been overly relied on, producing highly congested,

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<sup>43</sup> Ibid.

<sup>44</sup> World Bank, “New Growth Agenda: Encouraging FDI Spillovers,” (online report, 2019)

<sup>45</sup> op.cit fn. 38

<sup>46</sup> op.cit fn. 37

<sup>47</sup> op.cit fn. 37

inefficient systems that struggle to adequately compensate for deficiencies in other infrastructure areas such as rail. As a foundational aspect of infrastructure, the rehabilitation and elevation of road systems proves crucial to improving domestic trade efficiency and cross-national networks of trade, while fostering greater access to industrial centers for those in rural areas. Even more so, roads are a central link to more lucrative areas of infrastructure in nations like that of railways and ports. Road construction, in the forms of highways and expressways, has been one of the areas of infrastructure that China has had the longest involvement with on the African continent. These projects span from the Entebbe-Kampala expressway in Uganda to the Juba-Terekeka-Yirol-Rumbek in Sudan, with presences in Angola, Botswana, and Kenya to name a few.

The East-West Highway in Nigeria, which China has collaborated in funding with the African Development Bank and Nigeria's federal government, offers tangible examples of the impact that road investment has on economic growth and the increased well being of Nigerians in the employment and poverty sphere. The impact of a booming population, set to continue rising, has created severely congested and traffic-ridden environments in Nigeria's capital cities thus hindering the very value of cities to act as hubs for economic growth.<sup>48</sup> The East-West Highway, particularly the section of the highway primarily funded and executed by Chinese private firms and governmental loans, is a crucial link for diffusing Nigerian populations to depressed cities in the South East of the country and finally connecting the two busiest commercial cities.<sup>49</sup> This section improves links to the oil producing areas of Nigeria, which is foundational to Nigeria's economy, and also works to integrate the underdeveloped agricultural

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<sup>48</sup> Max Bearak, Dylan Moriarty, and Julia Ledur, "Africa's Rising Cities - How Africa will Become the Center of the World's Future," (November 19, 2021).

<sup>49</sup> Elena Popkova *Supporting Inclusive Growth and Sustainable Development in Africa. Volume II, Transforming Infrastructure Development* (Cham, Switzerland: Palgrave Macmillan, 2020)

sectors of regions in Nigeria which are highly fertile and lucrative yet inefficiently accessed.<sup>50</sup>

Completion of the highway has been plagued with funding inconsistency and bureaucratic troubles, making China's sustained investment incredibly necessary to the project.<sup>51</sup>

The World Bank Group and the Agence Française de Développement, in their investigation of the economic benefit of roads in Africa, found that the rehabilitation of roads has produced especially salient results for Nigeria's public good and catalyzed trends of modernization in rural areas.<sup>52</sup> Improved roads in Nigeria, especially in large infrastructure projects of expansive roads, results in reduction of transport costs that greatly impacts sectors such as agriculture. Improved gains in agriculture is especially vital for the livelihoods and wellbeing of especially rural, poor populations throughout Africa. The reduction of transportation costs via roads by a mere ten percent increased crop revenue and livestock sales by four percent, associated with a two percent increase in wealth assets for families and reduction in probability of poverty in households.<sup>53</sup> Reduced transport costs also facilitated mass shifts in the population from agricultural to non-agricultural sectors – a key step towards modernization and the benefit of year-round employment for individuals and their familial beneficiaries.<sup>54</sup> Modernization was also thoroughly advanced by an increased association of low transport costs with adoption of modern technology and access to urban markets in Nigeria.<sup>55</sup>

The example of road rehabilitation and highway construction impacting Nigerian citizens' economic opportunities and thus the region's prosperity is reflected by AidData's study on Chinese infrastructure investment. AidData found that Chinese investment in transportation

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<sup>50</sup> Ibid.

<sup>51</sup> op. Cit 49

<sup>52</sup> Rubaba Ali, et.al, "Highways to Success or Byways to Waste - Estimating the Economic Benefits of Roads in Africa " (online report, The World Bank and Agence Française de Développement, 2015).

<sup>53</sup> Ibid.

<sup>54</sup> op.cit fn 52

<sup>55</sup> op. cit fn 52

projects in particular reduce economic inequality within regions because it creates a vast dispersal of economic activity.<sup>56</sup> Chinese infrastructure investment produces positive economic spillovers by providing individuals and businesses greater access to other regions, as was evident with the addition of more extensive and reliable road networks in Nigeria.<sup>57</sup> China aids countries like Nigeria “escape inefficient spatial equilibria in which most economic activity concentrates in a small number of urban centers and gravitates away from rural towns and villages.”<sup>58</sup> Ultimately, the positive implications of Chinese investment in road infrastructure are found mostly in its connective power and capability to disperse the benefits of economic centers to all regions within a country.

### **So What? Implications of Research Findings**

It is apparent that China, as of recent years, is facilitating the development agenda set forth by African nations themselves, while evolving their practices to address criticisms of their activities on the continent thus far. These findings suggest China’s investment in African infrastructure signals a shift from past patterns of resource extraction done under the guise of development to one more faithfully concerned with the social and economic advancement of African nations. China’s investment in African infrastructure has greatly impacted the economic growth of numerous African nations and has filled the aid gap left by Western nations who have taken a more passive approach to involvement in Africa. The research is particularly interesting because it provides a more nuanced understanding of China’s impact on the immediate public good of African nations and its increasing alignment with the United Nations’ sustainable development goals through new evidence produced in the last five years. These findings are

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<sup>56</sup> Richard Bluhm, Axel Dreher, Andreas Fuchs, Bradley Parks, Austin Strange, and Michael Tierney, “Connective Financing: Chinese Infrastructure Projects and the Diffusion of Economic Activity in Developing Countries,” (online report, AidData, September 11, 2018).

<sup>57</sup> Ibid.

<sup>58</sup> op.cit fn 56



innovative because they contradict a narrative of China as an entirely good or entirely bad force in Africa.

These findings have a number of implications on international norms and approaches to development. Recent research suggests China's method of development and infrastructure investment might be more beneficial for African sovereignty and technology transfer than foreign direct investment from wealthier, Western nations. The implications of Chinese investment in infrastructure as beneficial for the development of Africa, could mean the Chinese strategy of development may serve as the new model, thus garnering China more soft power and an elevation of their image in the global system. The future of the African continent promises great social, economic, and political opportunity as well as substantial influence in the evolving international sphere. Whichever countries have built a foundational relationship of trust and shared economic benefit with African nations will reap untold benefits and access to crucial partnerships that could shift global power dynamics. The more fruitful Chinese investment in African infrastructure becomes, the more solid a relationship China will have with Africa, thus ensuring more advantageous political capital as they continue to rise in power.