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Testimony before the SFRC Africa and Global Health Policy Subcommittee

“US Trade and Investment in Africa”

Distinguished members of the committee and fellow witnesses:

I would like to begin by thanking you for the opportunity to testify before you today.

My name is Aubrey Hruby. I am a Senior Fellow with the Africa Center at the Atlantic Council, and I have spent my career advising Fortune 500 companies and investors to design and implement successful investment and market entry strategies in over 32 African markets. I will devote my testimony to the following 5 themes: (1) improving DFC, USAID, MCC, AGOA, Prosper Africa and the new tools needed to bolster economic engagement in Africa; (2) playing a greater role in helping to aid implementation of the African Continental Free Trade Area (AfCFTA) and the opportunities the AfCFTA afford US firms; (3) how to work with allies and partners to meet Africa’s needs and present a better alternative to China and Russia; (4) how US investment in 5G and telecoms can help bridge the digital divide on the continent; and (5) what the next generation of Africans is looking for in US-Africa relations and where the alignment is between US investment opportunities and African growth needs.

Introduction

Emerging markets, home to six billion people, accounted for nearly two-thirds of global growth and half of new consumption came from emerging markets over the past 15 years.¹ In order to remain competitive throughout the 21st century and beyond, US companies need to be better equipped to navigate and succeed in the fast-growing markets of Asia and Africa. As the youngest continent with the highest urbanization rate in the world, Africa’s 1.2-billion-person market, home to six of the world’s ten fastest growing economies, increasingly commands more attention from US tech and entertainment companies. This momentum should be accelerated by creative US government financing and support initiatives. Ensuring that Prosper Africa actualizes its potential and continuing to enhance the DFC should be key pillars of US commercial policy moving forward.

¹ “Outperformers: High-growth emerging economies and the companies that propel them,” *McKinsey*, September 11, 2018, <https://www.mckinsey.com/featured-insights/innovation-and-growth/outperformers-high-growth-emerging-economies-and-the-companies-that-propel-them#>; David Muller, “Emerging Markets – Powerhouse of global growth,” *Ashmore Group*, May, 2018, http://www.ashmoregroup.com/sites/default/files/article-docs/MC_10%20May18_2.pdf.

(1) Improving DFC, USAID, MCC, AGOA, Prosper Africa and the new tools needed to bolster economic engagement in Africa.

DFC--In order to enable the US to compete with Chinese financing activity in African markets and match the offerings of European DFIs, the DFC needs the full equity power afforded to it in the BUILD Act and potentially more. It is my understanding that OMB faces challenges scoring equity in the budget and the DFC has yet to receive the full \$1 billion outlined by the BUILD Act because OMB is treating equity investments on a dollar-to-dollar basis as it would with grants. The DFC must be allowed to start with at least \$1 billion in equity authority, using a net present value model so only 5% of the \$1 billion needs to be provided in direct appropriations in the form of a loan loss reserve as is common with European DFIs. The legislation currently allows for up to 35% of its \$60 billion investment portfolio (or \$21 billion) to be made in the form of equity.² Therefore \$1 billion of equity authority is a minimum for the DFC to be taken seriously. As the Senate considers the EAGLE Act and reconciles it with the US Innovation and Competition Act, I urge that the changes put forth in the amendment from Rep. Joaquin Castro (D-Tx) to the EAGLE Act and those from Senator Chris Murphy to the Innovation and Competition Act that would fix the budget scoring issue around equity investing be codified into law.

I strongly supported the expansion of the DFC through the BUILD Act as it is crucial to US commercial policy globally and particularly in African markets. And going forward, it should remain focused on investing in low-income countries and this committee should resist efforts that have been made within the EAGLE Act to shift the agency away from its core development finance mandate. The DFC also needs the resources, personnel, and direction to mobilize capital domestically in order to optimize its international activities.

While, by mandate, the DFC must operate internationally, it must also embrace a domestic imperative, in partnership and coordination with Prosper Africa, to actively mobilize institutional capital and better support US investors who venture into new markets. This will require the DFC to address key data, network, visibility, and structural gaps that have historically handicapped US investment in the emerging world. It can no longer remain passive in Washington waiting for investors or project sponsors to facilitate opportunities.

The DFC could partner with USAID's Prosper Africa to create an office of project promotion that would facilitate the collection and synthesis of data from an investor perspective on projects in sectors of US competitive advantage. The data could be accessed via a portal by state offices of

² Rob Mosbacher, "We need to get the new US DFC over the finish line. Here's why." *Devex*, October 2, 2019, <https://www.devex.com/news/opinion-we-need-to-get-the-new-us-dfc-over-the-finish-line-here-s-why-95728>.

international trade, business associations and investors, and used as part of DFC roadshows to major US cities.

There remains a widespread perception that US companies are not active and are disadvantaged in African markets. This office could help to dispel this misperception by working with US business schools to commission a series of in-depth case studies of both successes and failures in African markets. High-level business forums can also help to address the visibility gap between US investors and investment opportunities by creating a platform for sharing these investment case studies, especially when they have highly visible White House or Congressional support. The natural tendency of investors is to invest in what they know best, which is often what is in their backyard. But in today's interconnected market and video-conferencing world, distance is no longer an excuse for ignorance.

In parallel, the DFC should create a program for private sector secondees, volunteers, and retirees to serve in advisory council roles on specific funds, deals, and sector teams. Or for those interested in a longer, on-the-ground commitment, a Peace Corps MBA-type initiative (a US commercial corps) should be considered.³ The Dutch government-funded PUM Netherlands Senior Experts—a nonprofit organization that develops small and medium-sized enterprises in over thirty emerging markets—provides a viable model.⁴ These types of programs would amplify US soft power and create a new cadre of American business leaders with experience and linkages to African markets.

Prosper Africa – Building on the recommendations above, I believe that Prosper Africa, despite its slow roll-out, has been a positive development in US Africa commercial policy. The deal teams are an unprecedented effort to coordinate the disparate agencies involved in US-Africa commercial policy. This backend coordination should be sustained and strengthened. In terms of enhancing its competitiveness, Prosper Africa needs to have an outward sectoral organizing principle and focus. For example, Power Africa should be a front-facing focus of Prosper Africa, as well as a future digital Africa program. I often like to use the analogy of a computer chip to describe Prosper Africa. Prosper Africa is like the intel chip of a Dell or HP laptop. For me, Prosper Africa is our computer processor, universal in the backend process, operating as a coordination mechanism that brings everything together while the front-facing brand to our African partners or US companies in Chicago, Houston or Seattle see and engage with Power Africa or Digital Africa.

³ Aubrey Hruby, "Go where the action will be: Biden needs to pursue African initiatives," *The Hill*, January 21, 2021, <https://thehill.com/opinion/international/535171-go-where-the-action-will-be-biden-needs-to-pursue-africa-initiatives>.

⁴ For more on PUM see: <https://www.pum.nl/en>.

As Prosper Africa approaches its two-year mark, it is still struggling to articulate and operationalize its vision of doubling trade and investment by mobilizing US capital. To put it on the right course, the Biden Administration and/or Congress should encourage the following recommendations:

(1) Define priority sectors for US commercial policy in African markets. Prosper Africa should announce and market a focus on two or three priority sectors, choosing among energy, financial services, agribusiness and renewables, specialized oil and gas services, digital infrastructure/technology, or media and entertainment as priority sectors for its capital mobilization and partnership development efforts. Each can then be operationalized through task forces, replacing the Doing Business in Africa (DBIA) campaign as the mechanism for channeling engagement with US companies. When it comes to infrastructure and implementing the vision outlined by the Build Back Better World Initiative, the US government should engage companies on African opportunities in niche areas that make commercial sense—especially in renewables, energy management services, cybersecurity, data centers, and smart city technologies.

Taking a sectoral approach does not mean that US government agencies will shut the door on companies seeking support in sectors that are not a priority, but rather structure active promotion and communication around priority sectors. If Prosper Africa were to adopt a sectoral focus, it could inject excitement about potential investments through industry-specific communications and outreach. A sectoral emphasis also has a secondary effect--it enhances and accumulates expertise in a particular sector within the US government (as has happened with Power Africa), which can be further leveraged to support investors. Instead of being jacks-of-all-trades and masters of none, US officials become steeped in specific sectors and consequently become well positioned to engage with and help US companies succeed.

(2) As part of the office of project promotion outlined above, Prosper Africa should find credible interlocutors and create champions to be used in investment mobilization efforts. Prosper Africa should convene a group of industry ambassadors in priority sectors with experience in emerging markets to act as validators and mobilize their networks. These industry ambassadors would play a critical operational role in the sectoral task forces. The ideal person would be someone who had recently retired or was taking a sabbatical and is interested in goal-oriented public service. They should remain based in cities outside of Washington, DC, enabling the Prosper Africa team to have a wider reach across the country.



Atlantic Council

(3) Take the show on the road. Prosper Africa needs to significantly expand outreach efforts to connect US businesses with commercial opportunities in African markets. Prosper Africa can help coordinate with the DFC and other government agencies on a series of roadshows in US cities that are home to the most competitive companies to generate interest in Prosper Africa’s target sectors. For example, a focus on the media and entertainment sector would include regular activities in Los Angeles and New York.

Internal mobilization of capital and business interest could be paired with US investor trips, segmented by sector and investor type, to African markets and reverse trips of stellar African entrepreneurs to the US. These trips could be modeled on the USAID-supported Mobilizing Institutional Investors to Develop Africa’s Infrastructure (MiDA) program that has been bringing US pension funds to large African markets for the past three years. By educating and building trusted networks for US companies, focused investor missions can help Prosper Africa meet the goal of doubling trade and investment between the United States and Africa.

The efforts outlined above should be informed by market data. Given the size and breadth of the American economy, mobilizing US investment into African markets will require experimentation. As a starting point, Prosper Africa could focus on experiments in three main areas: messaging, education, and structure. First up, US government agencies need a better understanding of how to effectively present African investment opportunities to US investors. Despite years of economic and governance progress in African nations, old stereotypes remain, and US investment is stagnant. By holding focus groups and leveraging innovative public relations and marketing firms, this team could experiment with new messaging tactics to learn what works and what doesn’t. Beyond messaging, effectively educating different types of investors from venture capitalists to pension fund trustees requires some experimentation. This includes everything from determining who in these organizations are the correct targets for education to understanding which up-to-date, actionable data are needed and which platforms are most effective.

MCC – Congress must also work to make the Millenium Challenge Corporation a more efficient and sustainable investment platform by allowing it to make subnational compacts. MCC currently works on a bilateral basis with individual national governments and the Millennium Challenge Act allows for such assistance to “regional or local government units,” but the act requires the MCC Board to identify and evaluate countries, not regions, for compacts.⁵ I am glad to see that MCC is using its regional capacity in West Africa with the recent progress with ECOWAS around

⁵ Sec. 605(c) identifies the entities eligible for assistance, while Sec. 606 and Sec. 607 define the selection process.

the West Africa power pool.⁶ This is an important new effort that will hopefully deliver learnings that can be used in future regional projects.

But we are missing an opportunity to advance MCC's mandate to drive poverty alleviation in well-governed places at the subnational level. MCC's selection indicators typically reported only at the national level, especially for the corruption and democratic governance hurdles which are the primary cause of scorecard failures.⁷ It is likely that the MCC is going to run out of partner countries as countries increasingly will not pass the indicators on the national level. This would also prevent particularly impoverished regions of otherwise wealthy countries from participation in the MCC. Therefore, I am in agreement with former MCC CEO Dana J. Hyde that the MCC should, in certain contexts, address poverty reduction at the local level through regional or sub-regional compacts.

The subnational approach would make a lot of sense in federal countries such as Nigeria and would mirror the changing private sector market-entry strategies of focusing on cities rather than national economies. It would enable the MCC to partner with states and municipalities that would be overlooked given national failure in the scorecard assessment and mobilize the competitive nature of federalism to drive regulatory reform.

The African Growth and Opportunity Act (AGOA) – Given that AGOA has been the backbone of the US-Africa trade relationship for the past 20+ years and its expiration is on the horizon, it is important to create a process to mobilize the best thinking on the future of US-African trade. Prosper Africa, working with USTR, could oversee this process working with think tanks to create a working group with experts, surveying companies and consulting with African policy and business leaders. Congress can support this process by calling for hearings and reports.

(2) Playing a greater role in helping to aid implementation of the African Continental Free Trade Area (AfCFTA) and the opportunities the AfCFTA afford US firms

AfCFTA promises US firms a much larger market in which to operate their businesses by helping to reduce the high costs of operating in the region, particularly in terms of regulatory and logistics expenses. The challenge lies in implementing the bold vision that African nations have codified in the AfCFTA. The market potential will remain unrealized if there is a major gap between the realities on the streets and border crossings and what is on the books in terms of the AfCFTA. The US can lead in the effort to support the Secretariat of AfCFTA in developing digital infrastructure

⁶ "MCC Advances Regional Integration to Expand Energy Access in West Africa," MCC, June 16, 2021, <https://www.mcc.gov/news-and-events/release/release-061621-mcc-advances-regional-integration-west-africa>.

⁷ Nick M. Brown, "Millennium Challenge Corporation: Overview and Issues," *Congressional Research Service*, October 3, 2019, <https://fas.org/sqp/crs/row/RL32427.pdf>.

solutions, smart city and e-government solutions and reducing the cost of logistics through digitization. While we have certainly faced our own challenges in modernizing our digital and physical infrastructure in the US, US targeted support for digitization would help African countries to leapfrog 20th century approaches to moving people, goods, and services across borders. The focus on digital infrastructure would also allow the US to compete with Chinese approaches to shaping the digital future of over one billion Africans. In addition to digital infrastructure support, the US can provide embedded advisors and technical experts to the Secretariat to support the implementation of the AfCFTA.

(3) How to work with allies/partners to meet Africa’s needs and present a better alternative to China and Russia

This is a broad and far-ranging question, and I will touch on some of the issues when discussing digital and telecom infrastructure. I would like to draw the attention of the committee to one particular area of potential US-European-African cooperation--the lithium battery value chain. China currently dominates the supply chains for inputs to lithium batteries though the majority of the primary resources sit in African markets. Ensuring US competitiveness in electric vehicles and the future green economy will require a rethinking of existing supply chains. To move these supply chains away from China and towards the US and EU, we need to create a triangle value chain that incorporates African value addition to these vital natural resources.

(4) How US investment in 5G and telecoms can help bridge the digital divide on the continent

It is important that we recognize that most African countries are years away from 5G, and estimates state only seven African countries, including South Africa, Nigeria, and Kenya will have 5G by 2025.⁸ Currently, Chinese companies such as Huawei and ZTE have state-backed financing mechanisms and have already built 2G and 3G infrastructure in over 40 African countries. According to Cobus van Staden, a senior China-Africa researcher at the Southern African Institute of International Affairs, Huawei has built roughly 70 percent of the continent’s 4G network.⁹ Currently, eleven Sub-Saharan African nations are deploying Huawei’s AI surveillance technologies.¹⁰ They include Cote d’Ivoire, Ghana, Kenya, Uganda, Nigeria, Rwanda, South Africa, Zambia, and Zimbabwe. During the COVID crisis, China is greatly expanding its aid to African countries and may support countries with surveillance technologies that can support tracking

⁸ “5G in Sub-Saharan Africa: laying the foundations,” *GSMA*, July 16, 2019,

<https://www.gsma.com/subsaharanafrica/resources/5g-in-sub-saharan-africa-laying-the-foundations>.

⁹ Amy Mackinnon, “For Africa, Chinese-Built Internet is Better Than No Internet at All,” *Foreign Policy*, March 19, 2019, <http://foreignpolicy.com/2019/03/19/for-africa-chinese-built-internet-is-better-than-no-internet-at-all/>.

¹⁰ Abdi Latif Dahir, “Chinese firms are driving the rise of AI surveillance across Africa,” *Quartz Africa*, September 18, 2019, <http://qz.com/africa/1711109/chinas-huawei-is-driving-ai-surveillance-tools-in-africa/>.

and tracing that may have other uses beyond the pandemic.¹¹ Therefore, the US should focus support on other aspects of the telecom and mobile tech space sector such as: satellite development and support, support for African space agencies, phone applications, fintech, venture capital, content creation and creative industries (i.e. Netflix), cybersecurity. This could all be done in a flagship digital Africa initiative that would be housed under Prosper Africa. By doubling down on sectors in which the US is already competitive or at a significant advantage, we can maximize US support for a digital future in Africa markets that aligns with US values and enhances long-term US competitiveness.

The current competitive challenge that China presents the US in African markets is no longer around its financing and construction of physical infrastructure, but rather its new efforts to shape Africa's technology stack¹² and digital future, and as a result how the next generation of Africans will consume, interact, and do business with the world. Mobile devices have near-universal penetration in Africa's media markets, and increasingly, smartphones are becoming more accessible and affordable throughout the continent.¹³ Chinese firms have the lion's share of the market. By 2025, Africa's mobile penetration is expected to reach 50% or 614m connections, with 65% of those via a smartphone.¹⁴ Shenzhen-based Transsion, which does not operate in the United States or Europe, dominates the African smartphone space. It holds 40.6 percent unit share under its three brands (Tecno, Indinix, and iTel), ahead of second-place Samsung with roughly 19 percent.¹⁵ Increasingly important are the preferential treatment Transsion can give its own apps, including market-leading music streaming service Boomplay and mobile-money provider PalmPay.¹⁶ These Transsion brands also dominate the featured phone landscape with a combined 69.5 percent share. In South Africa alone, Huawei accounts for 14.5 percent of phones sold, the second-highest share and significantly more than Apple's 4 percent.¹⁷

¹¹ Simnikiwe Mzekandaba, "Govt puts mobile tech at centre of COIV-19 mass screening, testing," *itweb*, March 31, 2020, <http://www.itweb.co.za/content/rxP3jqBmKaKMA2ye>.

¹² The technology stack is defined as the individual layers that makeup the digital communications ecosystem, including six main layers: undersea cables & satellites, telecommunication companies & internet service providers, mobile handsets, cellular networks & Wi-Fi, operating systems, and lastly apps, mobile money, content platforms, and web browsers.

¹³ "New study reveals African media consumption habits," *African Marketing Confederation*, June 3, 2016, <http://www.africanmc.org/index.php/daily-articles/item/433-new-study-reveals>.

¹⁴ "The Mobile Economy of Sub-Saharan Africa 2020," *GSMA*, 2020, https://www.gsma.com/mobileeconomy/wp-content/uploads/2020/09/GSMA_MobileEconomy2020_SSA_Eng.pdf.

¹⁵ "Africa's Smartphone Market Posts Growth, but Uncertainty Around Global COVID-19 Outbreak Casts Shadow over Short-Term Prospects," *IDC*, March 5, 2020, <http://www.idc.com/getdoc.jsp?containerId=prMETA46110420>.

¹⁶ Ingrid Lunden, "Boomplay, a Spotify-style music and video streaming service for African music and Africa, raises \$20M," *TechCrunch*, April 5, 2019, https://techcrunch.com/2019/04/05/boomplay-a-spotify-style-music-and-video-streaming-service-for-african-music-and-africa-raises-20m/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xILmNvbS8&guce_referrer_sig=AQAAAE6ldsMZeJXxQIGSAEEURiQUXsRZqDK-hoPJGG413N1cS6YQ-eiQ9c2kWEUd9eigOia6Sn9IJFJmXjEHGQI00QP79vAomFzKr4i-Ct0jp-3VQD2IR8YWvtZPJEA5dq6NQ5aCHPpGQZxCgW8zhS4Jgd3TVR1YstGga-IL0rZW7hY.

¹⁷ "Huawei is beating Apple in South Africa – and is gaining on other competitors," *My Broadband*, August 3, 2019, <http://mybroadband.co.za/news/smartphones/270741-huawei-is-beating-apple-in-south-africa-and-is-gaining-on-other-competitors.html>.

Price and Africa-focused features are some of the determining factors. Smartphones that cost under \$100 composed of half the total market share in Africa in Q4 in 2019.¹⁸

However, as China's telecommunication infrastructure expands across the continent, there are concerns around built-in Chinese-apps, privacy, data protection, and over dependence. The recently launched African Youth Survey, which interviewed 4,200 African youths aged 18 to 24, finds that 80 percent of those surveyed view regular access to the internet as a human right.¹⁹ Access to the internet, especially in autocratic countries, is often restricted or completely shut down during periods of protests and around elections.²⁰ A report by Access Now, indicates that globally, in 2019, there were 36 incidents in nineteen countries of internet shutdowns lasting longer than seven days.²¹ Among these countries include eight African nations including Chad, Ethiopia, the Democratic Republic of the Congo, Eritrea, Mauritania, Sudan and Zimbabwe. The US can appeal to young Africans by defending open internet standards and policies, especially as US companies are involved in some of the largest digital infrastructure projects underway in African markets.

In 2019, Google announced a subsea cable called Equiano that runs from South Africa to Portugal, with a stop in Nigeria.²² This submarine cable will be owned and operated solely by Google, in contrast to the consortium of investors that typically co-own these cables. Facebook is undergoing an even more ambitious project—the 2Africa subsea cable that loops around the continent and connects twenty-three countries in Africa, Europe, and the Middle East.²³ The 2Africa cable alone, which is scheduled to be completed by 2024, would double the total internet capacity on the continent. These subsea investments from American firms stand to drastically increase the supply of internet on the continent, potentially leading to reduced internet prices.

The additional broadband capacity that will be delivered by the new subsea cables will then require investment into terrestrial fiber infrastructure to spread access from the port inland. US companies are also investing in innovations still at pilot stage but with the potential to scale and be transformative. Google's parent company, Alphabet, through its X moonshot company has launched Project Taara to expand the existing fiber network to surrounding rural areas at

¹⁸ Yinka Adegoke, "The Chinese-made, sub-\$100 smartphone is Africa's fastest-growing handset."

¹⁹ "Africa Youth Survey 2020," *Ichikowitz Foundation*, 2020: 60, <http://ichikowitzfoundation.com/wp-content/uploads/2020/02/African-Youth-Survey-2020.pdf>.

²⁰ Yomi Kazeem, "Internet shutdowns in Africa were more frequent and lasted longer in 2019," February 27, 2020, <http://qz.com/africa/1808728/african-internet-shutdowns-were-more-frequent-in-2019/>.

²¹ *Ibid.*

²² For Equiano overview see: <https://cloud.google.com/blog/products/infrastructure/introducing-equiano-a-subsea-cable-from-portugal-to-south-africa>.

²³ Najam Ahmad, Kevin Salvadori, "Building a transformative subsea cable to better connect Africa" *Facebook Engineering*, May 13, 2020, <https://engineering.fb.com/2020/05/13/connectivity/2africa/#:~:text=As%20part%20of%20our%20commitment,contine nt%20and%20Middle%20East%20region.&text=At%2037%2C000%20kilometers%20long%2C%202Africa,the%20circumference%20of%20the%20Earth>.

significantly lower costs.²⁴ Initially piloted in Kenya and India, Project Taara transmits high-speed data between two points above ground through invisible streams of light.²⁵ Transmitting data through the air avoids the costs and inconveniences of digging paths to lay fiber cables and will be met with fewer regulatory hurdles since private and public land is not required. US government agencies, such as the Millennium Challenge Corporation, the US International Development Finance Corporation, the Export-Import Bank of the United States, and the US Agency for International Development, could partner with X moonshot to scale these pilots and provide regional solutions as learnings accumulate and costs drop.

The high cost and low margins of laying fiber cables in rural areas has led to a persistent last-mile problem, reinforcing dependence on mobile data usage and reinforcing the digital divide. Less than one third of Africans have regular access to internet of any kind.²⁶ US policy should also provide an alternative to Chinese technology by promoting new direct-to-consumer satellite solutions. The SpaceX StarLink satellite project could also prove transformative in delivering high-quality internet directly to consumers wherever they may be.²⁷ The project's network of interconnected satellites can provide high-speed internet access to even the most remote locations on the planet, with speeds that are faster than 95 percent of US connections.²⁸ It is currently in a public invitation-only testing phase and is only available in latitudes 45 to 53 degrees, which covers a small range of regions in the northern hemisphere.²⁹ Initially only available in the northern United States and southern Canada, recent regulatory permission in the UK has allowed StarLink services to be offered in the country as well. As more satellites are launched, more areas around the globe will be covered by this service. Countries such as Greece, Germany, and Australia have already approved StarLink operations in anticipation of such an expansion.³⁰ StarLink's startup kit cost of \$499 and monthly payment of \$99 would be an obstacle for expansion into African economies but expected price drops of new models will make this an exciting option for internet access in African markets in the next eighteen to twenty-four months.

In addition to supporting US tech firms that are already investing in African markets with financing, advocacy or promotion, the United States can also invest in tech solutions, such as

²⁴ For more on Project Taara see: <https://x.company/projects/taara/>.

²⁵ Mahesh Krishnaswamy, "Bringing light-speed internet to Sub-Saharan Africa," X, November 10, 2020, <https://blog.x.company/bringing-light-speed-internet-to-sub-saharan-africa-4e022e1154ca>.

²⁶ "Individuals using the Internet (% of population) - Sub-Saharan Africa," *World Bank*, <https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=ZG>.

²⁷ For more on Starlink see: <https://www.starlink.com/>.

²⁸ Kate Duffy, "SpaceX's Starlink internet public beta is giving some users blistering download speeds of more than 210 Mbps, including in rural Montana," *Business Insider*, July 27, 2021, <https://www.businessinsider.com/starlink-internet-satellite-public-beta-speed-spacex-mbps-elon-musk-2020-11#:~:text=SpaceX's%20public%20beta%20test%20of,as%20part%20of%20the%20beta>.

²⁹ "Starlink Mission," *Space X*, November 24, 2020 <https://www.youtube.com/watch?v=J442-ti-Dhg&feature=youtu.be&t=606>.

³⁰ Thomas Seal, "Elon Musk's Starlink Broadband Terminals Gets Approval in U.K." *Bloomberg Quint*, January 11, 2021, <https://www.bloombergquint.com/business/elon-musk-s-starlink-broadband-terminals-gets-approval-in-u-k>.

improved routing protocols, that stand to build device trust and avoid the binary choice between US and Chinese tech.³¹ Through these policies, the United States can slow and possibly erode the gains that companies like Huawei have made on the continent by promoting innovative US technologies and providing resources to help unleash the second wave of the internet revolution in African countries.³²

(5) What is the next generation of Africans looking for in US-Africa relations and where is the alignment between US investment opportunities and African growth needs.

Africa's young people are looking to countries and companies that can speak to and keep up with their ambitions. They want to engage actively in the digital economy and in creative industries and consume creative content. And they increasingly are demanding a free and open internet as seen in the rise of VPN usage in Nigeria after the June Twitter ban. Already a 1.2-billion-person market, Africa's youth are better connected than ever before and COVID has accelerated digitization of products and services. African start-up ecosystems have attracted double-digit fundraising growth year-over-year.³³ As technology adoption expands, the means by which Africans view and see the world will be shaped by the hardware and software they have access to and use.

Despite the influx of Chinese investment into the backend of the continent's telecommunications infrastructure, venture start-ups, and the media space, the United States still has many competitive assets to build upon.³⁴ The US must leverage the strategic advantage of our African diaspora population to build and strengthen ties with the African continent. Higher education has a central role to play. The United States was built on the backs of Africans and their descendants, and the African diaspora continues to play an important role in strengthening people-to-people ties across the Atlantic. Of the more than 46.8 million African Americans, as of 2018, there were about 2.4 million foreign-born Africans in the United States, a dramatic rise from even 2000 when there were fewer than one million. About 40 percent of America's African immigrants hold at least a bachelor's degree, a rate higher than that of the US born population.

One area the US government has long promoted, but faced setbacks under the Trump administration, is opening the American education system to international students. Since 1950,

³¹ David Bray, "5G's geopolitics solvable by improving routing protocols against modern threats," *Atlantic Council*, April 9, 2020, <https://www.atlanticcouncil.org/blogs/geotech-cues/5gs-geopolitics-solvable-by-improving-routing-protocols-vs-modern-threats/>.

³² Briefing, "How the pursuit of leisure drives internet use" *The Economist*, June 8, 2019, <https://www.economist.com/briefing/2019/06/08/how-the-pursuit-of-leisure-drives-internet-use>.

³³ Taje Kene-Okafor, "How African startups raised investments in 2020," *TechCrunch*, February 11, 2021 <https://techcrunch.com/2021/02/11/how-african-startups-raised-investments-in-2020/>.

³⁴ Aubrey Hruby, "Making the most of Prosper Africa; Leveraging US competitiveness in African markets," March 27, 2020, <http://www.atlanticcouncil.org/in-depth-research-reports/report/making-the-most-of-prosper-africa-leveraging-us-competitiveness-in-african-markets/>.

the United States has welcomed an estimated 1.6 million African students to colleges and universities adding diversity to classrooms and communities. Today, Nigeria is ranked eleventh for the number of students in the United States based on country of origin, ahead of countries including the United Kingdom, Germany, and France. US universities, and people-to-people exchanges such as YALI, thus serve as essential mechanisms for developing close relations with future African decision makers. More than 20 percent of current African leaders studied in the United States, including the leaders of Côte d'Ivoire, Ethiopia, Ghana, and Kenya. Studying or living in the United States unquestionably deepens one's understanding of the country, and while this does not mean future African leaders will agree with all US policies, it often does predispose them to an openness and familiarity with American policy and business ties. Yet, China surpassed the US in 2015 in hosting the largest number of English-speaking African students for higher education.

While we face our own infrastructure challenges at home in the US in terms of roads and bridges and rail, we should focus on our strengths in education as we think of investing in African infrastructure as part of the B3W initiative. Creating jobs for the 10 to 12 million young Africans that enter into the labor force each year will require a revolution and expansion of education and it will need to be delivered in a mobile digital format.

Even during the current global pandemic, following the closure of schools because of government efforts to mitigate the spread of COVID-19, the Chinese StarTime's Kenyan subsidiary has launched homeschool programming.³⁵ It presents primary and high school students with the unique opportunity to continue their education through audio visual programming that will include live sessions by experienced teachers at no cost.

China is also shaping media content through educational initiatives. It helps shape the careers of African journalists through high-level media cooperation initiatives and new China-Africa press centers.³⁶ Each year about 1,000 African journalists participate in training programs in China with the aim to build deeper understanding and cultural ties with the country.³⁷ This is a concerning practice given China's history of media coercion and censorship.³⁸

³⁵ Molly Wasonga, "StarTimes Launches a Homeschooling Program For Students," *CIO*, April 6, 2020, <http://www.cio.co.ke/startimes-launches-a-home-schooling-program-for-students/>.

³⁶ The 4th Forum on China-Africa Media Cooperation Held in Beijing and Joint Statement on Further Deepening Exchanges and Cooperation Declared," *Forca Summit*, July 19, 2018, http://focacsummit.mfa.gov.cn/eng/pthd_1/t1578639.htm; Darrel Frost, "Even if you don't think you have a relationship with China, China has a big relationship with you," *Columbia Journalism Review*, June 20, 2019, http://www.cjr.org/special_report/china-foreign-journalists-oral-history.php.

³⁷ "China is broadening its efforts to win over African audiences," *The Economist*, October 20, 2018, <http://www.economist.com/middle-east-and-africa/2018/10/20/china-is-broadening-its-efforts-to-win-over-african-audiences>.

³⁸ Geoffrey York, "Why China is making a big push to control Africa's media," *The Globe and Mail*, September 11, 2013, <http://www.theglobeandmail.com/news/world/media-agenda-china-buys-newsrooms-influence-in-africa/article14269323/>.

With traditional markets moving digital, the future of the African technology stack will only rise in importance. A critical area of future competition will be in digital currencies, including China's digital yuan, and the potential to undermine dollar hegemony. While today the utility of the digital yuan in Africa is minimal, ten years down the road this picture could change significantly with businesses, governments, and perhaps everyday individuals using digital yuan to settle transactions. All of this may be accelerated by Chinese handsets with pre-downloaded apps and wallets that support these transactions.³⁹

While trucks, trains, and planes have long dominated how African consumers and businesses are able to interact with global markets, the digitization in the last decade has changed this equation, and the US must update US-Africa policy considering this important trend. By marrying soft power and commercial success, the United States can do much more than simply help the bottom line of American companies—it can win the next generation of hearts and minds in some of the world's fastest-growing and youngest markets.

³⁹ Eric Olander, "Don't Worry America, Africans Aren't Going to Start Using China's New Digital Currency... At Least Not Right Away," *China Africa Report*, May 26, 2021, <https://chinaafricaproject.com/analysis/dont-worry-america-africans-arent-going-to-start-using-chinas-new-digital-currency-at-least-not-right-away/>.