Making the most of Prosper Africa
Leveraging US competitiveness in African markets

Introduction
Global powers are jockeying for access to opportunities in African markets. In recent years, through the Forum on China-Africa Cooperation, the Tokyo International Conference of African Development, the Russia-Africa Summit, and many others, the world’s largest economies have sought to make headway in what are seen as fast-growing and lucrative new markets. In this environment, effective United States (US)-Africa policy requires greater focus on areas of American competitiveness and concerted efforts to educate, mobilize, and support US commercial success in African markets.

To this end, there is much to be learned from Power Africa, launched in 2013 by the Obama administration with the goal of doubling electricity access in sub-Saharan Africa by 2030.\(^1\) With almost no new resources, the US government was able to convene and educate companies and investors, and generate new interest in energy projects on the continent by simply putting a public focus on one sector. Today, the initiative boasts more than 140 private sector partners, including new players such as the Illinois-based engineering firm Weldy Lamont Associates, which is working on a rural electrification project in Senegal.\(^2\)

There is, however, a long way to go to increase US competitiveness in Africa, especially relative to newer players in the market. Under the Trump administration, US government agencies have enhanced tools for commercial diplomacy, from additional financing capacity and transaction assistance to policy and regulatory reform support. Most dramatically, in 2019, the Trump administration worked to transform the Overseas Private Investment Corporation (OPIC) into the US International Development Finance Corporation (DFC), a super-charged development finance agency with a sixty billion dollar financing cap, equity power, and the ability to provide technical assistance in order to encourage investment in less developed countries.\(^3\)

The Trump administration has also sought to make its own mark in Africa specifically. Prosper Africa, launched in 2018, promised to be transformational by doubling two-way trade and investment between the United States and the continent: “For the first time ever, Prosper Africa brings together the resources of over fifteen US Government agencies to connect US and African

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businesses with new buyers, suppliers, and investment opportunities.” Over a year after its launch, however, Prosper Africa has yet to announce any priority sectors or countries and remains mainly an interagency coordination effort.

The delay in clearly articulating a strategic focus is slowing down US ability to compete with rising global players like China in African markets. China’s commercial footprint is rapidly evolving: in 2020, it is no longer just construction and light manufacturing, but telecommunications, media, and venture capital-backed start-ups. In the last six months of 2019, Chinese venture capital in African tech went from being negligible to constituting over $240 million. Now that the new DFC is operational, the United States must double down on areas of US competitiveness and quickly mobilize US capital and ingenuity.

This working paper presents original methodology used to determine sectors of American competitiveness and argues that the US government, in formulating and executing Africa policy, should focus on promoting sectors in which US companies already lead, such as financial services, specialized oil and gas services, agribusiness, and technology/entertainment. The paper concludes with recommendations for US policy makers to consider in executing Prosper Africa (and subsequent US-Africa commercial initiatives) and increasing US private sector competitiveness on the continent.

The Importance of US Competitiveness to US-Africa Commercial Policy
Historically, the US government has been reluctant to tell US companies which opportunities to focus on out of respect for market mechanisms and for fear of trying to pick winners. This reluctance is misplaced and is built on the framing of the private sector in abstract terms. The “private sector” talked about continually in the policy formation and execution process is only defined by its juxtaposition to the public sector. No one introduces themselves at a cocktail party or meeting as working for the private sector, but rather identifies the specific sector in which they work (e.g., banking, insurance, manufacturing, etc.). If Prosper Africa calls a meeting of leading companies interested in African markets, how does a global bank, for example, choose internally whom to send to participate? Right now, the answer is not clear. By contrast, if that same bank is invited to a Power Africa meeting, it is clear that the bank would send the person in charge of banking power projects and engagement would be more productive due to the concentrated expertise and responsibility in the room.

Therefore, a program designed to engage with the private sector or to mobilize the private sector will be ineffective without engagement, communication, and mobilization on a sectoral basis. As

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such, US-Africa policy makers should direct resources and manpower to sectors in which the United States has a competitive advantage in African markets.

**Sectors of American Competitiveness**

As surprising as it might be, there is no simple, go-to resource that ranks sectors where the United States holds a global competitive advantage delineated by market. To start to address this issue in the African context, a methodology was developed in the 2017 “Escaping China’s Shadow” issue brief constructed on four layered questions:7

- What do foreigners think the United States is good at (sectors of inbound foreign direct investment (FDI))?8
- What does the US government think US companies are good at (sectors promoted by Department of Commerce)?
- What global races are US companies winning (rankings of top ten companies in different sectors)?9
- What sectors contribute the most to US gross domestic product (GDP)?10

Using this simple and intuitive approach, the top competitive sectors identified in the 2017 report were: professional and business services; finance; media, entertainment, and information; agribusiness; and renewable energy.

In this report, a new methodology is applied to measure US competitiveness more systematically, focusing on three economic variables: multifactor productivity, capital productivity, and capital intensity. The first input, multifactor productivity,11 measures overall productivity of a sector across all unit inputs in the production process, which includes capital, labor hours, and other intermediate inputs.12 Sectors of the US economy with the highest multifactor productivity are the most efficient sectors at turning unit inputs into unit outputs, and are therefore the most economically competitive sectors.13

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8 The volume of FDI into a particular industry within a country means that foreign capital is flowing into that industry seeking a higher return than it would elsewhere in the world. Consequently, the industries attracting the largest FDI inflows are likely to also be industries in which a country holds a global competitive advantage.
9 The largest multinational US firms relative to their global peers can define industries in which the United States has demonstrably shown a competitive advantage globally over time and are clear candidates for inclusion into the list of competitive US sectors.
10 The contribution of a sector’s output as a share of a country’s total GDP is an indicator that that country is highly efficient in producing those goods and services within that sector and thus, also likely that it would hold a competitive advantage.
13 Multifactor productivity is a more appropriate metric than the often-used revealed comparative advantage (RCA), for the purpose of this paper. RCA’s major shortcoming is that it only measures industry competitiveness based on trade in real goods and would thus exclude the largest sector of the US economy, the service sector. In
The second metric, capital productivity, measures how efficiently an industry uses capital inputs in its production processes to produce outputs. Capital inputs (also known as capital expenditures) are defined as all equipment, structures, intellectual property, inventories, land, and services consumed to produce output within an industry. Analogous to a high multifactor productivity, a high capital productivity indicates a sector is using capital efficiently and therefore competitively.

The third metric, capital intensity, measures how intensively capital is utilized in the overall production process within an industry. Capital intensity is defined as the ratio of the units of capital inputs over the units of labor hour inputs used in a sector. Industries with lower capital intensity ratios will use less capital relative to labor in their production processes.

Capital intensity and capital productivity are included in conjunction with multifactor productivity because most African countries are faced with challenges of poor infrastructure and shortages of various industrial inputs, which often need to be imported. This makes construction and production far more costly. As a result, some sectors that might otherwise have a high multifactor productivity may not be able to sustain a competitive advantage in African markets due to the capital-intensive nature of the sector.

An example of this is the US aerospace manufacturing sector: Boeing faces only one global competitor—France’s Airbus—which by definition makes the US aerospace manufacturing sector highly competitive. However, aircraft manufacturing is also a highly capital-intensive process, requiring large factories with access to reliable and cheap power, high-precision tools, specialized equipment, and proprietary technologies that also rely on supply chains to other industries with similarly sophisticated production methods. If Boeing were to build an aircraft factory in a location like Burundi, land-locked, with poorly maintained infrastructure and far from its upstream suppliers, it would incur much higher operating costs. Thus, industries that are less capital intensive have a greater advantage in overcoming some of the logistical challenges faced in many African markets. Another added advantage of a low capital intensity sector is that it is more labor intensive and as a result creates more jobs. Given that African countries are under increasing pressure to create more jobs each year for the continent’s growing population, this may be more of a developmental positive than in other markets.

In the new analysis, the combination of multifactor productivity, capital productivity, and capital intensity was analyzed to yield the top ten sectors of US competitiveness at the 3-digit North American Industry Classification System (NAICS) code level.¹⁴

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¹⁴ NAICS, or the North American Industry Classification System, was developed for standard use by Federal statistical agencies to classify business establishments. This hierarchical system starts at the 2-digit level and offers increasingly narrow categories ending at a 6-digit level. This report focuses on the 3-digit NAICS level as the 2-digit...
Table 1: Top 10 Competitive Sector Scores by 3 Digit NAICS Code\textsuperscript{15}

<table>
<thead>
<tr>
<th>3-Digit NAICS</th>
<th>Sector Name</th>
<th>MFP Index</th>
<th>CP Index</th>
<th>CI Index</th>
<th>MFP Rank</th>
<th>CP Rank</th>
<th>CI Rank</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>211</td>
<td>Oil and Gas Extraction</td>
<td>156.9</td>
<td>151.6</td>
<td>155.5</td>
<td>1</td>
<td>1</td>
<td>51</td>
<td>1.0</td>
</tr>
<tr>
<td>5415</td>
<td>Computer Systems Design and Related Services\textsuperscript{16}</td>
<td>117.0</td>
<td>145.6</td>
<td>74.4</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>485</td>
<td>Transit and Ground Passenger Transportation</td>
<td>91.3</td>
<td>128.6</td>
<td>79.1</td>
<td>50</td>
<td>3</td>
<td>4</td>
<td>4.0</td>
</tr>
<tr>
<td>524</td>
<td>Insurance Carriers and Related Activities</td>
<td>113.9</td>
<td>116.1</td>
<td>112.1</td>
<td>5</td>
<td>5</td>
<td>35</td>
<td>5.0</td>
</tr>
<tr>
<td>512</td>
<td>Motion picture and sound recording industries</td>
<td>103.6</td>
<td>115.3</td>
<td>84.8</td>
<td>14</td>
<td>6</td>
<td>5</td>
<td>6.0</td>
</tr>
<tr>
<td>531</td>
<td>Real Estate</td>
<td>102.9</td>
<td>123.1</td>
<td>86.8</td>
<td>16</td>
<td>4</td>
<td>6</td>
<td>6.0</td>
</tr>
<tr>
<td>111, 112</td>
<td>Crop &amp; Animal Production (Farms)</td>
<td>112.2</td>
<td>113.1</td>
<td>94.7</td>
<td>6</td>
<td>8</td>
<td>14</td>
<td>8.0</td>
</tr>
<tr>
<td>481</td>
<td>Air Transportation</td>
<td>124.8</td>
<td>109.7</td>
<td>108.2</td>
<td>2</td>
<td>9</td>
<td>30</td>
<td>9.0</td>
</tr>
<tr>
<td>722</td>
<td>Food Services and Drinking Places</td>
<td>100.7</td>
<td>113.1</td>
<td>90.8</td>
<td>24</td>
<td>7</td>
<td>9</td>
<td>9.0</td>
</tr>
<tr>
<td>525</td>
<td>Funds, Trusts, and Other Financial Vehicles</td>
<td>102.0</td>
<td>108.3</td>
<td>23.3</td>
<td>18</td>
<td>11</td>
<td>1</td>
<td>11.0</td>
</tr>
<tr>
<td>711, 712</td>
<td>Performing Arts, Spectator Sports, Museums, and Related Activities</td>
<td>99.1</td>
<td>108.7</td>
<td>93.1</td>
<td>29</td>
<td>10</td>
<td>11</td>
<td>11.0</td>
</tr>
</tbody>
</table>


\textsuperscript{15} Individual firms, especially large firms with many business activities, often have many six-digit NAICS codes assigned to them but generally these codes are related and are often within similar three-digit categories. As an example, General Mills is primarily a cereal producer classifying it as 311 (food manufacturing), but because its immediate supply chain is in cereal crops it also includes a 111 (crop production) classification.

\textsuperscript{16} Computer systems design and related services (5415) is technically a 4-digit sector under professional, scientific, and technical services (541); but given is its importance, BLS gives it special status and includes its productivity metrics with the other 3-digit sectors.
These sectors are oil and gas extraction; computer systems design and related services; transit and ground passenger transportation; insurance carriers and related activities; motion picture and sound recording industries; real estate; crop and animal production; air transportation; food services and drinking places; funds, trusts, and other financial vehicles; and performing arts, spectator sports, museums, and related activities, ranked one through nine respectively, with a tie for tenth place.

A number of the sectors in the top ten, or companies within individual sectors, are service-based, including many within computer systems design and related services and those that fall into financial services. Today, 32% of the American firms in the S&P 500 invest more in intangible assets than physical ones, with 61% of the market value of the S&P 500 sitting in intangibles.\footnote{17 “What It Takes to Be a CEO in the 2020s,” The Economist, The Economist Newspaper, February 6, 2020, https://www.economist.com/leaders/2020/02/06/what-it-takes-to-be-a-ceo-in-the-2020s.} This shift to highly valuing intangibles is an important reference point when considering US competitive advantage moving forward, particularly in the Fourth Industrial Revolution, where service-based industries are poised to succeed in the coming decades.


Creative sectors like motion picture and film production and performing arts, spectator sports, museums, and related activities are a huge source of America’s soft power with American films, music, and sports reaching nearly every country in the world. As countries’ middle classes grow, demand for American media and sports is increasing. For example, in Africa the NBA has signed multiple deals to broadcast US games on the continent and started its own Basketball Africa League in 2019.\footnote{20 Aubrey Hruby, “New NBA League Marks Growing U.S. Influence in African Culture Markets,” Axios, March 5, 2019, https://www.axios.com/new-nba-league-marks-growing-us-influence-in-african-culture-markets-2987f892-887c-493c-b02f-f7d92311c0fb.html.} The landscape for creative content is changing rapidly as well; film and music industries have recently gone through huge industry disruptions as technology has made production, editing, and content distribution cheaper, effectively democratizing the industry. As a result, the sector is less capital intensive, boosting its multifactor productivity, and able to reach more consumers at a lower cost point than ever.
The air transportation and transit and ground passenger transportation sectors cover passenger airlines, air shipping, charter busing, taxis, and ridesharing services. Unlike airlines that face many international regulations, US air freight/transportation companies are ripe for growth as e-commerce grows globally. US companies also lead in the ridesharing sector, with Uber and Lyft both expanding globally (Uber today operates in eight African countries). 21

Within the top ten, oil and gas and crop and animal production (farms) are the only two commodity producing sectors. Agriculture and oil have historically been competitive US exports, given the United States’ abundant arable land and natural resources. Furthermore, the oil crash of 2014 led to further consolidation of the US oil and gas sector, leading US oil producers to become more efficient than ever. 22 Despite US strength in service-based sectors, agriculture and oil and gas are likely to continue as top sectors of US competitiveness.

**Operationalizing the Sectoral Focus at the Firm Level**

After identifying priority sectors based on competitiveness, specific companies can be identified as ripe targets for US government outreach by agencies such as the DFC by their relevant NAICS codes. However, beyond just focusing on competitive sectors, US policy makers must also consider current investment experience of companies operating on the continent. This paper puts forth a qualitative measure called investment depth. Conceptually, investment depth is a useful indicator of a firm’s competitive edge, as a firm with a high investment depth in African markets has demonstrated that it has already developed its own internal capacities to compete successfully in the local business environment.

**Figure 1: Firm Selection Concept**

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While investment depth could be measured in a multitude of ways, the below table considered the size of the firm, countries of operations, number of employees on the continent, history in African markets, as well as a firm’s known level of business activity, including number, duration, and value of known projects and investments. Given this information is not readily provided for all companies, especially those that are private, this initial investment depth assessment is more qualitative and subjective than the competitiveness ranking and hopefully will encourage additional research.

Table 2: List of Firm Candidates

<table>
<thead>
<tr>
<th>Sector</th>
<th>Investment Depth in Africa</th>
<th>Fortune 1000 Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and Gas Extraction</td>
<td>Advanced</td>
<td>Kosmos, Noble Energy</td>
</tr>
<tr>
<td>Computer Systems Design and Related Services</td>
<td>Advanced</td>
<td>Google, Microsoft, IBM</td>
</tr>
<tr>
<td>Transit and Ground Passenger Transportation</td>
<td>Advanced</td>
<td>Uber</td>
</tr>
<tr>
<td>Insurance Carriers and Related Activities</td>
<td>Advanced</td>
<td>AIG, Metlife</td>
</tr>
<tr>
<td>Motion Picture and Sound Recording Industries</td>
<td>Advanced</td>
<td>Netflix, Universal Music Group</td>
</tr>
<tr>
<td>Real Estate</td>
<td>Advanced</td>
<td>Newmark Knight Frank</td>
</tr>
<tr>
<td>Crop &amp; Animal Production (Farms)</td>
<td>Advanced</td>
<td>ADM, Monsanto</td>
</tr>
<tr>
<td>Air Transportation</td>
<td>Advanced</td>
<td>Delta, Southwest Cargo</td>
</tr>
<tr>
<td>Food Services and Drinking Places</td>
<td>Advanced</td>
<td>Yum Brands, JAB Holding Co.</td>
</tr>
<tr>
<td>Funds, Trusts, and Other Financial Vehicles</td>
<td>Advanced</td>
<td>JP Morgan, Prudential</td>
</tr>
<tr>
<td>Performing Arts, Spectator Sports, Museums, and Related Activities</td>
<td>Advanced</td>
<td>National Basketball Association</td>
</tr>
</tbody>
</table>
To get an idea of each sector’s investment depth in Africa, Fortune 1000 companies’ investment depth was ranked as advanced, intermediate, low, or none. To receive a rank of “advanced” a company needed to have sizable investments in multiple African countries, while those receiving “low” were often companies newly operating in the region on a small scale. When looking at the top ten sectors of US competitiveness by investment depth, it is no surprise there are more companies with an “advanced” investment depth in areas like oil and gas extraction and computer services design and related services. Companies with advanced investment depth in these categories include the likes of Chevron, Halliburton, and Exxon, and Google, Microsoft, PwC, Deloitte, and IBM respectively. In the motion picture and sound recording industries sector there are an increasing number of players with “intermediate” investment depth like Universal Music Group, which opened offices in Nigeria in 2018 to expand its operations in West Africa.23

The investment depth qualification provides a more complete picture of the competitive landscape for American firms in Africa, by identifying not only what sectors the United States has a competitive advantage in economically, but also which firms within those sectors have the demonstrated qualities needed to compete on the continent. These firms would constitute the “low hanging fruit” for investment mobilization efforts aligned with Prosper Africa’s goal of doubling trade and investment between the US and African markets.

Limitations of Competitiveness and Investment Depth Approaches

The data available on current US investments in African markets are backward-looking and reflect historical patterns of investment but not necessarily future opportunities. This must be kept in mind by policy makers looking to support US companies in emerging sectors. For example, historically US companies have been competitive in oil and gas extraction and have deep investment experience. However, this does not mean Washington should strategically not advance African renewable energy opportunities. Instead, Washington must look at sector growth trends and where American companies are poised to stay competitive in the decades ahead.

Comparing the most competitive sectors from the 2017 report and this report, there is considerable crossover, particularly in financial services, entertainment and media, and information technology services. This is no surprise, as all three sectors have grown immensely over the last decade, including in Africa. For example, between 2014 and 2017, investment in the information sector almost doubled on the continent with most of that growth outside of Egypt and South Africa. Another potential opportunity lies in the food services and drinking places sector as there is already investment on the continent and this sector creates a positive developmental impact through job creation. For American companies and investors to succeed in African markets over the long-term, US commercial diplomacy must not only be rooted in competitiveness but must also be strategically forward-looking.

Recommendations
Prosper Africa is approaching its two-year mark and is still struggling to articulate and operationalize its vision of doubling trade and investment by mobilizing US capital. Yet, the need to compete with China in African markets has become and will continue to be the primary frame of reference for US policy makers regardless of the outcome of the 2020 election. Speed of action is important as China is moving quickly into new sectors such as media and venture capital.

The Trump administration and future Africa policy makers should consider three recommendations to increase US competitiveness in Africa:

● **Define priority sectors for US commercial policy in African markets.** Prosper Africa should announce and market a focus on one, two, or three priority sectors, choosing among financial services, agribusiness and renewables, specialized oil and gas services, technology, or media and entertainment as priority sectors for its Africa investment 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, 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. However, this 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.

● **Find credible interlocutors and create champions.** 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 could remain based in cities outside of Washington, DC, enabling the task forces to have a wider reach across the country.

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 should be considered. 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. These types of programs would amplifying US soft power and create a new cadre of American business leaders with experience and linkages to African markets.

● **Take the show on the road.** The US government needs to significantly expand outreach efforts to connect US businesses with commercial opportunities in Africa. 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. These trips could be modeled on the US Agency for International Development (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.

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