

# Filling Africa's Infrastructure Financing Gap: Opportunities for Africa-China-West Trilateral Cooperation

*Jie Li<sup>1</sup>*  
*Michigan State University*

## Abstract:

To reach sustainable development goals (SDGs), Africa's infrastructure investment needs are massive, but the financing gap remains huge. African countries are now seeking financial resources well beyond their own domestic revenues and foreign aid. Meanwhile, the international development cooperation landscape is going through significant changes, with more and more developing countries shifting from recipients to active providers of development cooperation and innovative forms of development cooperation partnerships emerging. During the past ten years, OECD donors, international organizations, and NGOs have made progress on cooperating with China and Africa partners. Often framed as trilateral cooperation, existing activities remain small-scale, with little African ownership. Therefore, how to cooperate with China and African partners effectively and how to ensure that this spurs sustainable economic and social development in Africa are pressing questions. At bottom remains a recognition that African development and ownership must be the focus of any collaborative activities. It also requires a recognition of the diversity of China's Africa engagement beyond aid. Thus, this paper starts with a detailed analysis of China's Development Finance Model in Africa. Our analysis shows that China's investment-driven model lifts two major constraints of African countries simultaneously: infrastructure and financing. The second purpose of this paper is to discuss possible Africa-China-West trilateral cooperation in filling Africa's infrastructure financing gap through thoroughly considering comparative advantages of partners, within African development priorities.

Keywords: Development Finance, China, Africa, Trilateral Cooperation

## Introduction

With growing economic and political strengths, more and more developing countries (e.g., China, India, South Africa, Brazil, etc.) have shifted from being recipients to active providers of development cooperation. South-South Cooperation (SSC) has become a meaningful complement to North-South Cooperation (NSC), promoting new norms, principles, and approaches. Innovative forms of development cooperation partnerships have emerged, trilateral cooperation being one of them. Trilateral Cooperation is defined as a partnership among three types of development actors: DAC donors, pivotal countries (providers of SSC) and beneficiary countries (Han 2017). Trilateral Cooperation is currently mostly discussed in DAC donor countries against the backgrounds of learning more about the cooperation of non-DAC partners, improving aid effectiveness and involving other development funding particularly private sector (Grimm 2011).

---

<sup>1</sup> Email: lijie@msu.edu, Tel: 5177759797

Infrastructure development is critical to Africa’s economic growth and poverty reduction. Yet there is a significant funding gap to fulfill the continent’s infrastructure needs. According to African Development Bank, Africa’s annual needs for infrastructure will be in the range of \$130-170 billion a year with a financing gap of \$68–\$108 billion (AfDB, 2018). African governments and donors (ICA members) remain the main sources of infrastructure finance in Africa, with China becoming a significant player in the scene (Table 1). African countries are now seeking financial resources well beyond foreign aid, which opens up opportunities for possible Africa-China-West Trilateral Cooperation.

Table 1. Trends in infrastructure finance in Africa, by source (\$ billion)

Source	2012	2013	2014	2015	2016	Average
African governments	26.3	30.5	43.6	24	26.3	30.1
Donors (ICA members)	18.7	25.3	18.8	19.8	18.6	20.2
MDBs and other bilaterals	1.7	2	3.5	2.4	3.1	2.5
China	13.7	13.4	3.1	20.9	6.4	11.5
Arab countries	5.2	3.3	3.4	4.4	5.5	4.4
Private sector	9.5	8.8	2.9	7.4	2.6	6.2
Total	75.1	83.3	75.4	78.9	62.5	75.0

Source: the Infrastructure Consortium for Africa (ICA) 2017; AfDB 2018

However, the potential for trilateral cooperation in practice should be rather cautious. Differences in development policy concepts, instruments, and modalities are challenges that will not be easily overcome. During the past ten years, OECD donors, international organizations, and NGOs have made progress on cooperating with China and Africa partners. However, existing activities remain small-scale, with little African ownership (Patey and Large 2012). Therefore, how to cooperate with China and African partners effectively and how to ensure that this spurs sustainable economic and social development in Africa are pressing questions. At bottom remains a recognition that African development and ownership must be the focus of any collaborative activities. It also requires a recognition of the diversity of China’s Africa engagement beyond aid.

## China’s Investment-driven Development Finance Model in Africa

China’s economic presence in Africa has led to heated debate about the nature of Chinese engagement in the continent and its implications. Many questions have also been raised, such as the composition and nature of China’s aid to Africa, the scope of Chinese investment to the continent.

Unlike Official Development Finance (ODF)<sup>2</sup> disbursed by bilateral donor countries or multilateral development banks, China’s aid programs emphasize mutual benefits commercially and often mixed with investment (Construction Contract and/or Outward FDI, hereafter ODI). A “complete” China package may include an infrastructure contract, complementary direct investments (sometimes with a domestic partner), export credits, often

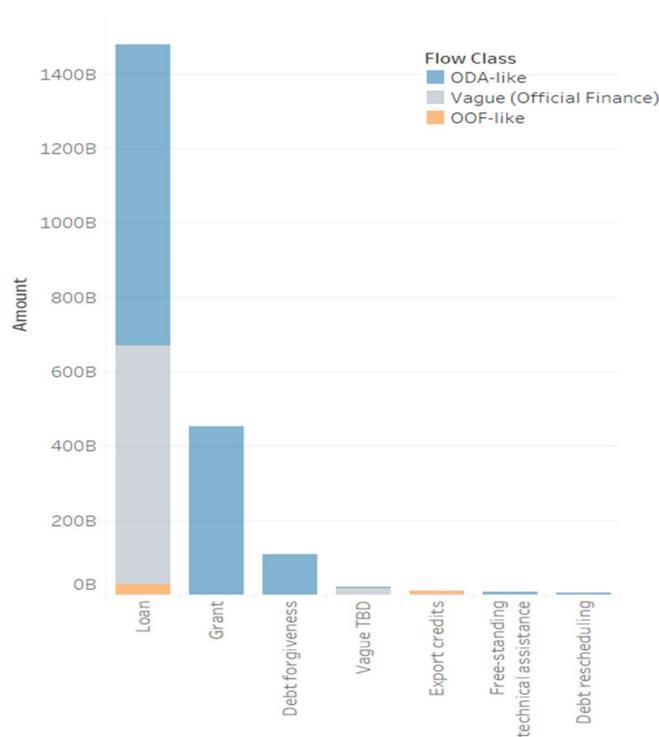
<sup>2</sup> Bilateral ODA as well as concessional and non-concessional financing by multi-lateral development banks such as the World Bank’s International Bank for Reconstruction and Development (IBRD) and the AfDB. ODA is over 80% ODF to Africa’s infrastructure. But the proportion of ODF in total infrastructure spending is modest (22.7% in 2017), with reduced likelihood of further increase in a context of tightening budgets in donor countries.

times with some “aid” (McKinnon 2010). The Chinese model of development finance in Africa is multi-faceted, involving a mix of aid and investment.

### Aid as catalyst of infrastructure investment

In contrast to many traditional partner countries focusing on social sectors, Chinese lending agencies provide significant loans for infrastructure projects in Africa (Chen and Nord 2018). China regards infrastructure as important for development in Africa, particularly since infrastructure development played a key role in China’s own economic growth and poverty reduction. An analysis of 2391 China aid projects to Africa during 2000-2014 in AidData database (AidData 2017) shows that loan, grant, and debt forgiveness are the top three sources of Chinese aids to Africa (Figure 1). When breaking down into industry sectors, the results are consistent with findings in Wang (2007) and Moghadam (2011): grants are mostly for construction of health, other social infrastructure and services (e.g., stadiums, market squares, and government complexes), and education, while loans are provided for productive infrastructures, such as roads/railways, water supply and sanitation, energy generation and supply, etc.

Figure 1. Decomposition of Major Aid Sources to African Countries (2000-2014)



Data source: AidData database Version 1.3

Further, China provides development assistance in Africa both as ODA<sup>3</sup> and as OOF<sup>4</sup>. As shown above, about 50% Loans are OOF-like or categorized as Vague<sup>5</sup> due to the complexity of funding sources. Dambisa Moyo's notes in her 2010 book *Dead Aid* that the African countries supporting market-based financing including OOF have made more economic progress when compared with African countries depending mainly on ODA. Evidence suggests that blending or package model (combining concessionary funding with market-based finance) helps catalyze infrastructure financing in a more effective way than direct grants or concessionary loans would on their own (OECD 2012).

### Investment serving development purposes

International literature recognizes the importance of China's investments and private sector presence as one of the main catalysts behind infrastructure growth in Africa (Godfrey and Ross 2016). The ultimate objective of discussing foreign investment in Africa is not about promoting private investment *per se*. China's investment to African countries focuses on infrastructure as a path for economic development. Infrastructure development is critical to Africa's economic growth and poverty reduction. Yet there is a significant gap to fulfill the continent's infrastructure needs, which cannot be met by African countries domestic resources and current ODA funding. Historically, the role of private investment in African infrastructure from traditional donor countries has been limited. China's investment fills this gap. As of 2015, China's investment in infrastructure construction in Africa totals \$21 billion, much higher than the total investment of Africa Infrastructure Group<sup>6</sup>(王磊 2018). In 2017, China has become the most prolific (and single country) builder of construction projects in Africa, constructing 28.1% of all projects. China is also the second largest funder (15.5%) of construction projects, next to African Governments (27.1%) (Labuschagne 2017). Based on 476 construction projects from CGIT database (2005-2017), most construction activities occurred in transportation and energy<sup>7</sup> (Figure 2).

---

<sup>3</sup> Except for Grants, zero-interest loans, low-interest loans (preferential loans with an interest subsidy), debt relief, stand-alone technical assistance with an emphasis on agricultural technology, and concessional loans are all qualify as ODA-like.

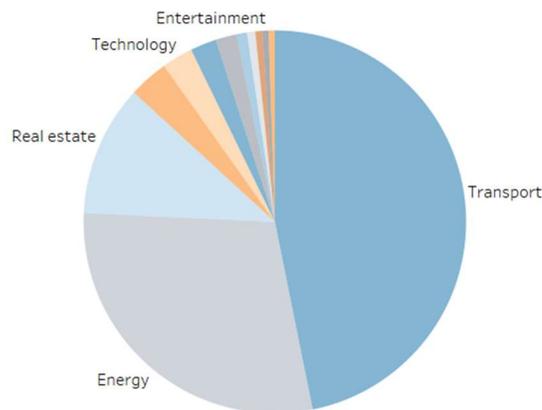
<sup>4</sup> Other Official Flows (OOF-like) may include funds for representational or essentially commercial purposes, official direct export credits, funds in support of private investment, etc.(Bräutigam 2011, OECD 2016). OOF-like Aid include export buyers' credits (including preferential and market-rate), official loans at commercial rates, commercial loans from Chinese banks, strategic lines of credit to Chinese companies and equity funds (China-Africa Development Fund) assisting Chinese companies investing in Africa, etc.

<sup>5</sup> The vague category is reserved for flows of either ODA-like or OOF-like (Strange et al. 2017), but there is insufficient information to determine the category possibly because of the complexity of funding sources.

<sup>6</sup> Africa Infrastructure Group members include the World Bank, IFC, European Commission, European Investment Bank (EIB), Africa Development Bank (AfDB) and G7.

<sup>7</sup> Transport and Energy are the sectors that attract most Chinese construction investment (\$mn) in Africa. Both are infrastructure sectors defined by AfDB Africa Infrastructure Knowledge Program.

Figure 2. Top 5 Sectors of China's Construction Projects in Africa

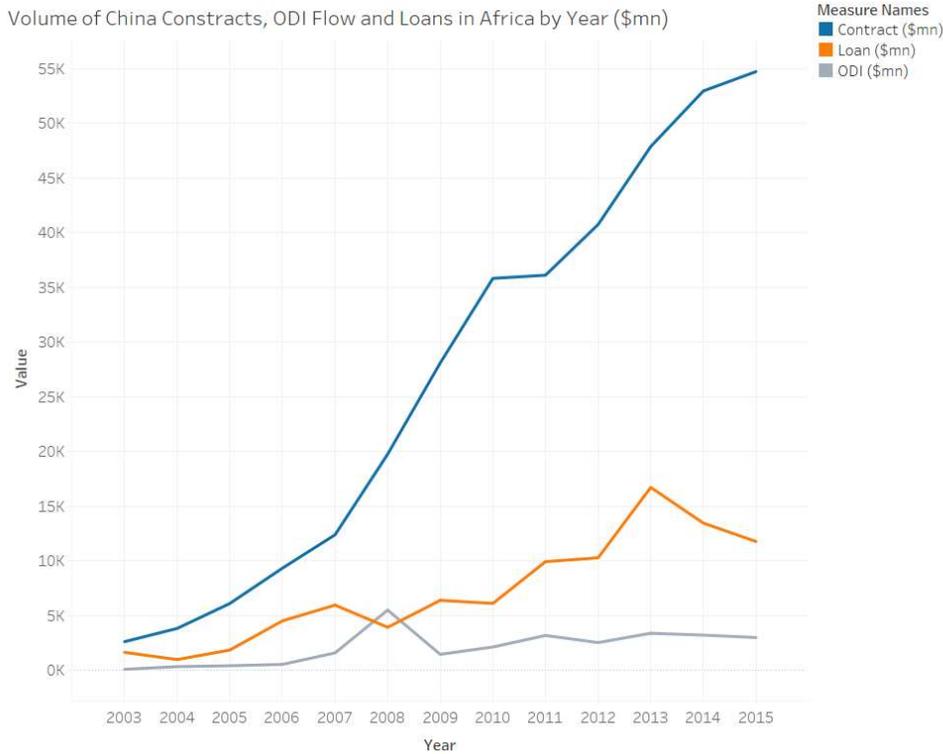


Data source: based on accumulated volume (2005-2017), China Global Investment Tracker (AEI)

China's construction investment in Africa can be traced back to the late 1970s when it started at very small scale and partly as a solution to the growing backlog of unpaid aid loans and consolidation of former aid projects (Brautigam 2009). In reforming foreign aid policy, investment was utilized as a means to improve aid effectiveness. This intertwined nature of investment and aid is also reflected by the annual data on overseas contracted projects in the Chinese National Bureau of Statistics and the Ministry of Commerce (MOFCOM) database, which include "projects financed by the Chinese government under its aid program". It is hard to pin down the aid component of the figures. Technically, it is even more difficult to evaluate the price of Chinese labor that worked on these projects and technical assistance provided, especially because many aid projects are in-kind and non-recurrent.

In the 1950s-1970s, a whole infrastructure project used to be delivered by aid. But now, only a small portion of China's infrastructure projects in Africa uses ODA-like aid (Wang 2007). A comparison of China Construction Contract and Loan flows between 2003-2015 (Figure 3) confirms this observation: Despite the steady increase of aid, the proportion of aid component in overseas construction contracts shrinks. Therefore, it is safe to argue that China's development finance in Africa has been increasingly investment-driven.

Figure 3. Flow of China's Construction Contract, Aid and ODI in Africa by Year (2003-2015)



Data Source: Statistical Bulletin of China's Outward Foreign Direct Investment 2003-2016; China Contract and Loan in Africa database, SAIS China-Africa Research Initiative, Johns Hopkins University.

China's construction projects in Africa cover an average 28.28% in annual total during 1998-2016 with growth rate averages 23.20% (SAIS China-Africa Research Initiative 2018). Also because of its size relative to African economies, Chinese construction projects can be highly important for recipient countries. Not to mention the influence through spillover effects of construction projects, such as significant exports of machinery and transport equipment and labor exports (workers on contracted projects and workers doing labor services).

### A Review of Africa-China-West Trilateral Dialogue

The growing importance of Africa to the global economy has brought the region into focus. While China pledged significant financing to Africa, the U.S. has tried to deepen its presence in the region through Trade Africa, Power Africa, and Africa Growth Opportunity Act (AGOA) and the EU has shored up its commercial position through free trade agreements and Economic Partnership Agreements (EPAs) which provide EU companies with preferential access to markets across the region and will liberalize about 80% of imports over 20 years (Schneidman and Wiegert 2018). Despite a somewhat competitive stance from the west on China's economic presence in Africa, the west, China, and Africa have the potential to benefit from unified engagement.

The Africa-China-EU cooperation initiative has been driven largely by the EU, especially the Commission, with the Chinese and Africans only gradually beginning to engage on the issue of trilateral cooperation. Contrary to Africa-China-EU dialogue's government-level setup,

Africa-China-US dialogue is initiated by non-profits and think tanks. Since 2014, China has become more active in trilateral cooperation and entered the period of active shaping (张春 2017, Han 2017). The Chinese government has advocated the ‘Africa-proposed, Africa-agreed, and Africa-led’ principles for guiding trilateral cooperation in Africa. At the current stage, the main partner countries are U.S., EU, France, and U.K.. Table 2 records the progress of trilateral dialogue between China and major partner countries.

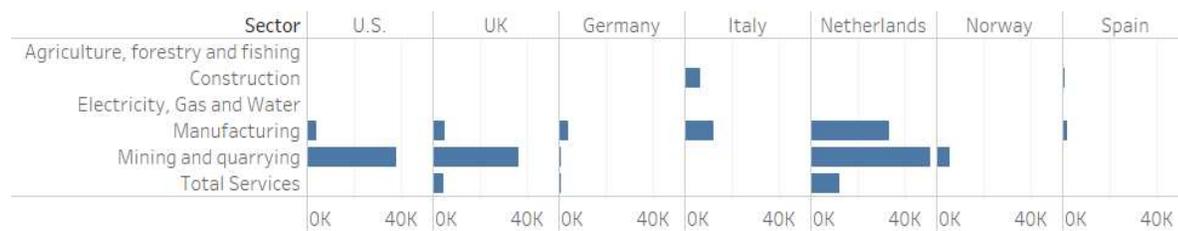
Table 2. Progress of Trilateral Dialogue with Major Partner Countries (2005-2016)

Partner Country	Starting Year	Dialogue
U.S.	2005	Total: 7 Rounds 2005-2008 3 Rounds 2009-2013 2 Rounds 2014-2016 2 Rounds
EU	2005	Total: 9 Rounds 2005-2008 4 Rounds 2009-2013 4 Rounds 2014-2016 1 Round
France	2006	Total: 11 Rounds 2005-2008 3 Rounds 2009-2013 5 Rounds 2014-2016 3 Rounds
U.K.	2008	Total: 8 Rounds 2005-2008 2 Rounds 2009-2013 4 Rounds 2014-2016 2 Rounds

Sources: Chinese Ministry of Foreign Affairs website; 张春 (2017)

Through dialogue, comparative advantages and areas of potential cooperation of partner countries were identified. While China, at first glance, seems to be competitors to traditional donors, they, in fact, complement each other. As shown by major partner countries’ ODI stock in Africa (Figure 4), Western investment in Africa is mainly concentrated in mining, manufacturing, and service, while China is active in other sectors (notably infrastructure and agriculture). Chinese and western firms, in a majority of cases, operate in different industry sectors and possess unique comparative advantages. Thus, West-Chinese commercial competition is overstated.

Figure 4. Major Partner countries' ODI Stock in Africa by Sector



Average of Value for each Sector broken down by Reportingcountry.

Source: OECD Stats FDI positions by industry BMD4 (2014-2016)<sup>8</sup>

Possible trilateral cooperation would have to identify clearly defined common ground for all three sides. “Support for infrastructure” is identified as the key area for trilateral cooperation in the European Commission’s “The EU, China and Africa: towards trilateral dialogue and cooperation” and Africa-China-U.S. Trilateral Dialogue summary report. In terms of the choice of cooperation field, infrastructure development is Africa’s pressing needs and bottleneck in achieving goals in 2030 Agenda for Sustainable Development as well as Africa's Agenda 2063.

## Moving Forward

Infrastructure projects in Africa are inherently risky. The capital-intensive nature of infrastructure projects, long repayment schedules, the challenges of African economies, and operational challenges are the primary reason why institutional investors, private investors, and lending institutions have long been taking a risk-averse attitude. Even when they did invest in infrastructure, they were mostly directed at the less risky and more profitable urban ICT networks and storage, as opposed to projects in much needed non-tolled roads, water, and sanitation or rural electrification (Miyamoto and Muzenda 2012). Trilateral collaborative activities could specifically build on effective existing China’s infrastructure financing model in Africa (Schneidman and Westbury 2013) and ongoing western initiatives (Schneidman and Wiegert 2018).

### Rethink the Risk

Chinese firms and lenders approach infrastructure development in a fundamentally different way from their counterparts in the West, both at home and abroad. China’s approach is relational in nature and fits the current development stage of African countries. Developing economies will eventually develop. That is the natural growth of development. Therefore, individual project outcome may not be as important as developing a program of projects and getting the projects underway. Rather, time is a compounding determinant of project success. Partners tend to sort out risks and issues during the development process as opposed to forecasting/planning ex-ante (Bennon, Bataineh, and Hillman 2017). The Chinese provide competitive procurement and nonrecourse financing without hidden sovereign guarantees and without imposing overly onerous requirements on host nations who are eager to move their projects forward (Bataineh, Bennon, and Fukuyama 2018). In this way, China is

<sup>8</sup> Note: ODI by-industry data is missing for France

successful at locking in higher rates because of the risks that it agrees to assume while other lenders will not (Hillman 2018). But the Chinese also tend to overvalue the beneficial economic spillover effects of infrastructure projects, while undervaluing the potential harms, whether economic, social, or environmental due to lack of experience and exposure to international norms (Bataineh, Bennon, and Fukuyama 2018). China's policy bank lending programs are relatively young. The blending nature and variety of instruments used in China's development finance, on one hand, provide host countries flexibility and access to funding that may not be available to them otherwise, on the other hand, renders difficulty for host nations to quantify the extent of their indebtedness and for China's policy banks to accurately assess their risk-weighted liabilities.

The Western approach, by contrast, is more transactional. Potential projects have always been assessed to ensure that their aggregate benefits outweigh their costs in economic terms and to ensure that loans will actually be repaid. The western approach also focuses on painstaking due diligence and rigorous evaluations concerning the economic, social, and environmental consequences of a given project (Bataineh, Bennon, and Fukuyama 2018). Admittedly, these safeguards and evaluations are in the interests of African countries. But western investors and lending institutions have become so risk-averse that the cost and time to implement such projects have skyrocketed and requirements for borrowers are too burdensome. The excessively rigorous and demanding fiduciary and social/environmental safeguards attached to the projects slow down the process. Time delays are highly correlated to potential cancellation and missing windows of investment opportunities.

As China and emerging development partners provide alternative funding sources, traditional donors to Africa took a competitive stance and demanded that the new donors, particularly China, should meet higher governance, environmental and transparency standards in providing their development assistance. However, the availability of these alternative funding sources potentially diminishes the leverage of traditional donors in making these demands. As we pointed out, the Chinese and western approach each have pros and cons. There is no one-fits-all solution for the west or for the Chinese. Chinese and western firms and institutions have plenty of opportunities to work out the best model together when conducting joint market development and joint financing as we describe later.

#### Build on Existing China's Infrastructure Financing Model

The Monterrey Consensus in 2002 emphasized the need to intensify efforts to "promote the use of ODA to leverage additional financing for development, such as foreign investment, trade and domestic resources" (United Nations 2003, 15). Despite the tremendous demand for investment in African countries and the traditional donor community's enthusiasm in highlighting the catalytic role of aid in drawing in private funds, empirical evidence is largely inconclusive on the causal link of aid to investment (Miyamoto and Muzenda 2012).

Traditionally, the investment-promotion tools in western countries are very restricted in the forms of support they can provide (Simon 2016). Africa is not a region where the U.S. and EU heavily invested in. Obama administration shifted the positioning of Africa from aid target to equal economic partner and started promoting U.S.-Africa economic cooperation. The 2014 U.S.-Africa Leaders' Summit signaled this shift. The Summit garners over \$33 billion in investment and financing pledges (Sethi 2014). Despite the government efforts to guide enterprises to increase investment in Africa, limited progress has been made. U.S.

investment in Africa has slowed down since 2010 and reached its peak at \$66.4 billion in 2014. continued to decline thereafter. By 2016, U.S. ODI stock in Africa was down to \$57.4 billion, only 1.07% of U.S. global ODI stock.

The private sector usually looks for profitability and the reliability of project revenue streams. This is a challenging issue for African governments, given the social or public good aspects of infrastructure projects, including the need to provide access for the poor (Miyamoto and Muzenda 2012). The China-DCA Study Group generated general lessons learned from China including using aid and blending (combining concessionary funding with market-based finance) to catalyze and 'crowd in' private investors for infrastructure.

A large part of the Chinese "private" component is typically state-owned. China draws on its own development experience and brings this to bear in the engagement with its African counterparts. SOEs laid a strong foundation for the economic development through large-scale investments in infrastructure in China's own economic development. SOEs were perceived to be the best way to accelerate the growth of core sectors of the economy given a weak industrial base, inadequate infrastructure, lack of skilled human capital and an underdeveloped private sector. Often governments have created and invested in SOEs because markets were imperfect or unable to accomplish critical societal needs such as effectively mobilizing capital or building enabling infrastructure for economic development (Sturesson, McIntyre, and Jones 2015). In fact, most public spending on infrastructure in Africa passes through Africa's own SOEs (Briceño-Garmendia, Smits, and Foster 2009).

SOEs not only play a key role in developing the infrastructure, but also function to further leverage private investment. More recently, there has been a surge in Chinese private investment in Africa combined with a continued, but more limited, state engagement (Schneidman and Wiegert 2018).

Currently, collaborative activities could be found with western counterparts providing training and technical assistance for Chinese projects. This practice has occurred frequently in health sector construction projects. For example, in Liberia, where African partners have reportedly facilitated Chinese construction of hospitals with American capacity building efforts for institution staff. (Schneidman and Westbury 2013). Chinese firms are extremely competitive in the transportation sector, while western companies are more competitive in providing related equipment and services for and/or around these projects (Hillman 2018, 王磊 2018). General Electric (GE), for example, are frequently engaged in high-tech infrastructure developments that require specialized skills unavailable in many parts of Africa (Schneidman and Westbury 2013).

#### From Subcontracting to Joint-financing

China's Belt and Road Initiative (BRI), with infrastructure lending as its primary lever, is only the natural progression overseas construction investment that has already been underway for more than two decades. The planned network of infrastructure project - financed by China's bilateral lenders, the China Development Bank (CDB) and the Export-Import Bank of China (CEXIM), along with the multilateral Asian Infrastructure Investment Bank (AIIB) – is historically unprecedented in scope.

Practically speaking, it should not come as a surprise that Chinese companies are winning more contracts for Chinese-funded projects. At the current stage, western firms will be at disadvantage in competing for BRI projects, as BRI is designed to absorb Chinese

overcapacity and still evolving, but those firms that have well-established relationships with Chinese partners have unique strengths in identifying BRI-related opportunities and gaining competitive edge. GE partnered with major Chinese SOEs, such as China Machinery Engineering Corporation (CMEC) and Power China to explore BRI-associated opportunities. In the latter case, the two companies ventured into the field of “joint market development, joint fundraising, and joint operation” and transformed a single project into a net of related upstream and downstream opportunities(Sun 2018).

Meanwhile, with the \$2 billion African Growing Together Fund (AGTF) established by the People's Bank of China and the African Development Bank in 2014, Chinese and foreign companies are encouraged to “Co-Financing” in Africa (王磊 2018).

Similar to the incentives given to Chinese SOEs by BRI and bilateral lending institutions, western countries also designed initiatives to drive investment into projects deemed too risky for the private sector or to support firms with state-backed funds although at much smaller scale, such as the U.S. Millennium Challenge Corporation (MCC), the U.S. president's flagship program USAID's Power Africa initiative, and most recently, the BUILD Act. Taken Power Africa as an example, currently, Power Africa has 18 development partners (e.g., African governments, EU, ODA donors, MDBs, Development Finance Institutions, etc.), over 140 private companies and the United States Government agencies. In 2014, Power Africa initiative considered collaborating with China on Congo Inga-3 hydropower project. China also reportedly approached the U.S. on the partnership. Even though the project is stranded due to multiple considerations, the potential of China and western countries joining forces in improving infrastructure in Africa is enormous.

Considering the different ideology of development cooperation and ongoing U.S.-China trade war, the trilateral cooperation of western countries with China will most likely occur at the level of projects (not holistic aid programmes) and take a bottom-up approach.

## Bibliography

AidData. 2017. Global Chinese Official Finance Dataset, Version 1.0.

Bataineh, Bushra, Michael Bennon, and Francis Fukuyama. 2018. Beijing's Building Boom: How the West Surrendered Global Infrastructure Development to China. In *Foreign Affairs*.

Bennon, Michael, Bushra Bataineh, and Jonathan Hillman. 2017. *Constructing a New Global Order: Western and Chinese Infrastructure Development Abroad*. Center For Strategic & International Studies (CSIS).

Brautigam, Deborah. 2009. *The dragon's gift: the real story of China in Africa*: Oxford University Press.

Bräutigam, Deborah. 2011. "Chinese development aid in Africa: What, where, why, and how much?".

Briceño-Garmendia, Cecilia, Karlis Smits, and Viven Foster. 2009. Financing public infrastructure in sub-Saharan Africa: Patterns and emerging issues. World Bank.

- Chen, Wenjie, and Roger Nord. 2018. "China and Africa: Whither the Belt and Road? ." 5 July. <https://www.ictsd.org/bridges-news/bridges-africa/news/china-and-africa-whither-the-belt-and-road>.
- Godfrey, Samuel, and Anthony Ross. 2016. "China and Africa: the new water world." *Waterlines* 35 (1):12-17.
- Grimm, Sven. 2011. "Engaging with China in Africa–Trilateral Cooperation as an Option?" *Policy Brief* (9).
- Han, Christine. 2017. "Trilateral Cooperation with China: Sharing China's Development Experience through Innovative Partnerships." *VESTNIK MEZHDUNARODNYKH ORGANIZATSII-INTERNATIONAL ORGANISATIONS RESEARCH JOURNAL* 12 (3):201-229.
- Hillman, Jonathan E. 2018. *China's Belt and Road Initiative: Five Years Later*. Center For Strategic & International Studies (CSIS).
- Labuschagne, J-P. 2017. *A shift to more but less: Africa Construction Trends Report*. Deloitte.
- McKinnon, Ronald I. 2010. "China in Africa: the Washington consensus versus the Beijing consensus." *International Finance* 13 (3):495-506.
- Miyamoto, K, and D Muzenda. 2012. *Mapping Support for Africa's Infrastructure Investment*. OECD Note by the Secretariat COM/DAF/INV/DCD/DAC (201 1).
- Moghadam, Reza. 2011. "New growth drivers for low-income countries: the role of BRICs." *IMF, Strategy, policy and review department* 207.
- OECD. 2012. "Mapping support for Africa's infrastructure investment."
- OECD. 2016. "Other official flows (OOF)." <https://data.oecd.org/drf/other-official-flows-oof.htm>.
- Patey, Luke, and Daniel Large. 2012. *Cooperating with China in Africa*: DIIS.
- SAIS China-Africa Research Initiative, Johns Hopkins University. 2018. *Data: Chinese Contracts in Africa*. SAIS China-Africa Research Initiative, Johns Hopkins University.
- Schneidman, W, and A Westbury. 2013. "The Commercial Relationship between the United States, China and African Countries: Areas for Trilateral Cooperation." Paper for the "A Trilateral Dialogue on the United States, Africa and China" conference on.
- Schneidman, Witney, and Joel Wiegert. 2018. "Competing in Africa: China, the European Union, and the United States." *AFRICA IN FOCUS*. <https://www.brookings.edu/blog/africa-in-focus/2018/04/16/competing-in-africa-china-the-european-union-and-the-united-states/>.

- Sethi, Aakriti. 2014. "1st US-Africa Leaders Summit: A New Chapter in the US-Africa Relations | Institute for Defence Studies and Analyses." The White House, US-Africa Leaders Summit, Schedule of Events for the US-Africa Leaders Summit.  
[https://idsa.in/backgroundunder/1stUSAfricaLeadersSummit\\_AakritiSethi\\_200814](https://idsa.in/backgroundunder/1stUSAfricaLeadersSummit_AakritiSethi_200814).
- Simon, John. 2016. "International Development Priorities for the Next Presidential Term: A GOP Perspective." In *Global Development Monitor: A Changing World*, edited by Conor M. Savoy. Center For Strategic & International Studies: Rowman & Littlefield.
- Strange, Austin M., Mengfan Cheng, Brooke Russell, Siddhartha Ghose, and Bradley Parks. 2017. AidData's Tracking Underreported Financial Flows (TUFF) Methodology, Version 1.3. edited by AidData. Williamsburg, VA: AidData.
- Sturesson, Jan, Scott McIntyre, and Nick C Jones. 2015. "State-Owned Enterprises: Catalysts for Public Value Creation." *PWC.com*:1-48.
- Sun, Yun. 2018. "Foresight Africa viewpoint – China's engagement in Africa: What can we learn in 2018 from the \$60 billion commitment?".
- Wang, Jian-Ye. 2007. "What Drives China's Growing Role in Africa?" *IMF Working Paper*.
- 张春. 2017. "涉非三方合作: 中国何以作为?" *西亚非洲* 3:002.
- 王磊. 2018. "中美在非洲的竞争与合作." *Global Review* (4).