Theory and Evidence…..

**Washington versus Beijing: A Comparison of Development Strategies in Africa**

by

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Abstract:

This paper addresses the models both China and the West established to spur economic development in Africa. It first describes each of the development models in detail and addresses the criticisms levied against them. Then, using loan data from the China-Africa Research Initiative at Johns Hopkins, as well as data from the World Bank, the paper tests whether Chinese loans to Africa have a higher correlation with African GDP than Western Loans to Africa. Ultimately the paper shows that Chinese loans have a stronger correlation with African GDP than Western loans and lays out the case as to why Chinese loans outperform Western loans. The paper concludes with an analysis as to the impact this trend will have on the foreign relations and power dynamics in the region.

I. Introduction:

The relationship between China and Africa has become the subject of much study over the last few decades. Increasing economic ties and the rising trajectory of China’s global profile propel the debate not only to an issue of economic development but also to one of power dynamics and political influence in the region. Despite the Continent’s history of persistent poverty, Africa and its economy has an extremely prosperous future of ahead of it. The World Economic Forum estimates that by 2030, 43% of Africans, or nearly 750 million people will make up a thriving middle and upper class.¹ Household spending is projected to increase to over $2.5 trillion by 2030, compared to just $1.1 trillion in 2015.² Moreover, the future of Africa does not lie in natural resources or other extractive industries, as it has in the past. Instead, by 2030, the food & beverage, education & transport, and housing sectors will represent the three largest contributors to African wealth, generating over $1.5 trillion in combined annual economic output alone.³ Likewise,
African business spending is projected to increase from $1.6 trillion in 2015 to over $4.2 trillion in 2030. The Continent also represents an important political battle ground for international influence. The United States and Europe have important strategic interests in maintaining influence in Africa, particularly concerning anti-terrorism operations.

China on the other hand, has built out an extensive trade network that features both manufacturing and natural resource extraction. However, one of the principle features of China’s economic relationship with Africa is the enormous scale of debt financing granted to the region. In the last three years, the Chinese Government extended over $60 Billion in loans and recently announced plans to loan an additional $60 Billion over the next three years. Altogether, the amount of loans extended by China to Africa from 2000 to 2017 is estimated to be $143 Billion. In addition, China also increased its Foreign Direct Investment (FDI) stock to $42 Billion as of 2017. This investment is part of the larger Belt and Road Initiative (BRI) which China announced in 2013. The Initiative seeks to develop new trade routes and markets for Chinese goods in Europe, Africa, as well as the Middle East, and is part of a larger effort to extend Chinese influence beyond East Asia. To realize this goal, China pledged to invest billions of dollars into infrastructure projects to develop land and sea trade routes that generally fall between China and Europe. Africa has been a major financial recipient of this program which caused an infrastructure construction boom that continues to accelerate today.

BRI is part of an emerging Chinese development model which differs from the approach taken by Western countries in trying to promote economic development in Africa. The Western approach has taken three forms: foreign aid, conditional loans and FDI. Western foreign aid, which largely comes in the form of American or European grants, has been criticized by writers like Dambisa Moyo for creating a “dependency trap” between the West and poor African countries
with corrupt governments. African politicians are often accused of relying on grant money to make up for government funds lost to corruption. Moyo argues that with billions of dollars coming in from the West, many corrupt government officials have little incentive to reform their governments, or to boost their country’s economic prosperity.

Conditional loans from the World Bank, International Monetary Fund (IMF), and other multilateral institutions have also been criticized for pushing preconditions which force African countries to privatize their economy and move toward greater trade liberalization. These policies can be described as falling under the tenants of the Washington Consensus developed toward the end of the 20th Century. Finally, while the West (US and EU) is the largest investor in African business (in terms of FDI), much of this investment focuses on the most developed countries in places like South Africa, Ghana and Kenya. Meanwhile, the West leaves smaller countries like Cameroon, Angola and Zambia without robust development financing assistance. Additionally, many criticize Western investment as focusing on extractive industries like mining which do little to promote long term development in host countries. The Congressional Research Service, for example, estimates that half of American investment in Africa directly focuses on “extractive industries.” Thus, there are significant questions as to whether the Western investment actually contributes to long term economic prosperity in Africa.

The Chinese model, on the other hand, focuses on large scale infrastructure projects financed through debt and built by Chinese companies, coupled with a “trade not aid” approach to development. Chinese loans do not tie recipient countries to the same restrictive conditions imposed by Western loans. The funds are also much more geographically dispersed throughout Africa reaching countries which typical Western investment has ignored. There is also a documented shift in private Chinese investment away from traditional raw materials extraction.
toward the services and manufacturing sector. This financing is focused on infrastructure projects like roads, bridges, airports and railways. China’s investment, however, is not without its own criticism. Analysts point of the high Debt-to-GDP ratios many African countries have assumed because of Chinese-financed infrastructure projects. Critics also argue that much of the money is allocated to inefficient and lower value ventures, often called “white elephant projects,” like roads built to regions with little economic potential. Ultimately, the Chinese have developed a distinct approach to investing in Africa that rivals the American and European approach which stretches back to colonial times.

Research Question, Data and Methodology:

This paper will examine whether Chinese Investment in African countries contributes to economic growth, and whether that growth outperforms the growth caused by Western investment. The purpose of this comparison is to determine whether the Chinese development model more effectively contributes to the development of African economies, versus the contribution of Western development finance. Thus, our research will test the following hypotheses:

1. Increased Chinese investment correlates with increased African GDP Growth
2. Chinese Investment is more strongly correlated with African GDP than Western Investment

To examine these hypotheses, we will use Chinese investment data and GDP data to establish whether there is any correlation between increasing Chinese investment and increasing GDP growth. We will conduct the same analysis for Western investment to determine whether there is a correlation between increasing western development finance and African GDP growth. We will
compare these two correlations to ascertain whether Chinese development finance offers countries a chance for greater levels of economic development than traditional Western development finance.

Ultimately, this paper may have implications on our understanding of the success of the development models cultivated by the West for African economies, versus the success of the emerging Chinese development model. We will discuss what the implications of our findings may be on foreign relations and power dynamics in the region, as the West and China compete for influence.
II. The Western Approach to International Economic Development:

To understand the Western approach to development finance, it is important to understand the historical context of its genesis which began at the end of the Second World War. By the end of the conflict, much of Europe’s economic infrastructure was physically destroyed. Allied bombing raids and the intense fighting of the subsequent invasion destroyed much of the European industrial manufacturing capability. In the years following the victory of the American-led Allies, President Harry Truman and Secretary of State George Marshall set about implementing what would become the greatest re-industrialization and nation-building programs of the modern era. The scheme, which would come to be known as the Marshall Plan, distributed over $17 Billion in aid to rebuild the European economy and refocus the continent’s industrial capacity on peaceful rather than military production. In today's dollars, adjusting for inflation, the deal was worth over $175 Billion, and contributed to a full economic recovery of Europe within ten years. The plan, however, was not just a capital investment or wealth transfer of the United States into Europe, but it also came with “a host of technical experts” who sought to reshape and modernize Europe in order to enhance the “political and economic integration” of the Continent. These experts argued that economic development and interdependence was the optimal path to promoting future peace and preventing further conflict. They would also establish the professional policy advising culture that would go on to influence the development of the International Monetary Fund (IMF) and World Bank. Under this emerging “neoliberal” framework, the United States and its European partners set about implementing a development model which would promote globalization, trade liberalization and economic growth.

The US government and its European partners formalized this approach at the Bretton Woods Accords in 1944, where they set up Institutions like the IMF and the World Bank to aid in
maintaining global economic stability and to spur growth in the most underdeveloped regions of the world. The Accords also set up a global fixed currency exchange regime that lasted until the 1970’s. The IMF managed this system and assisted member countries in settling their balance of payments, in order to facilitate international trade. Under the original design of the system, the IMF served as an “international lender of last resort” and did not play a role, as it does today, in resolving sovereign insolvency or in implementing structural adjustment programs. If a country faced a liquidity crisis and could not obtain the foreign currency reserves it needed to pay for international imports, the IMF could step in and loan the government the funds it would need to avoid defaulting on payments. Ultimately the function of the IMF was to inject confidence into the system of international trade and to, as the original charter of the organization put it, address “temporary” challenges to international trade.

The World Bank played a different role, though it also intended to build on the emerging world order that sought to stabilize and grow the global economy as a means of achieving sustainable peace. Before it was called the World Bank, it was called the International Bank for Reconstruction and Redevelopment. Its purpose was to aid Europe in rebuilding after the destruction of the Second World War. Unlike the IMF, the Bank loaned money to countries who had specific long-term projects in areas like transportation, medical and educational infrastructure. The Bank often structured its loans to pay for machine and raw material imports that would go directly to reconstructing roads, bridges, and dams in addition to building new infrastructure that would reignite the industrial capability of countries like Germany. Very soon after the establishment of the World Bank, the Truman Administration announced the Marshall Plan, which would completely out scale the resources the Bank brought to the table. In its first year of operation, the World Bank loaned out approximately $500 million, while the Marshall Plan
disbursed nearly $4 billion. As a result, very soon into the life of the World Bank, the Institution had to reinvent itself in order to remain relevant. Its approach was to turn toward the developing world, and to play a role in the emerging chess game of the Cold War.

The Washington Consensus and the Western Model for International Development:

Nearly 25 years after the end of World War II, the Bretton Woods Fixed Currency Exchange system collapsed in the 1970’s. Along with it went the traditional roles of the IMF and World Bank. The focus of the two institutions shifted firmly away from Europe and the West and moved toward the developing world. The IMF continued in its role as “lender of last resort,” but also began taking a more active role in advising governments on managing their economy and trade policy. Over time, the role of the IMF began to widen as it sought to implement programs which “increasingly involved lending to countries with a wider range of crises...including banking, and sovereign debt crises.” While the Organization still offered support for countries that experienced short-term liquidity challenges, the IMF began to focus on “long-term development assistance, especially in some of its poorest member countries.”

The IMF also pioneered its most controversial tool that it continues to implement today—structural adjustment programs (SAP’s). These programs focus on addressing the underlying causes of national poverty and seek to change macroeconomic policy to promote growth and economic stability. In many poor and mismanaged economies, the IMF makes its loans and technical assistance contingent upon a recipient country agreeing to a set of reforms the Fund believes will fundamentally improve the foundation of the economy. The British economist John Williamson first coined the term “Washington Consensus,” to describe the set of economic policies which the IMF considered as “best practices” for developing economies. Williamson described the
model as focused on three major categories as a means to achieve full development—“a market economy, openness to the world and macroeconomic discipline.”

Williamson penned a list of ten points to describe the Washington Consensus in 1989 (See Appendix 1) generally noting fiscal discipline (point 1), trade liberalization (point 6), privatization of state owned assets (point 8) and more, all falling under what economists today call the “neoliberal framework.”

At the time Williamson famously coined the term “Washington Consensus,” the focus of his study was on Latin America and the transition away from “old ideas of development economics that had governed Latin American economic policy since the 1950s.” But since the collapse the Iron Curtain and the counterbalance of the Soviet Union and its socialist system, the reach of the IMF and the Washington Consensus significantly expanded. Today, nearly one billion people in the developing world live in a country which is supervised in some way by the IMF.

Foreign Relations and Strategic Implications:

For much of the Cold War, The West and its development institutions sought to establish a stable world order through a multilateral vision of peace and economic interdependence. But the picture becomes more complex against the backdrop of the Cold War. During the spread of the Iron Curtain, multilateral institutions like the IMF and World Bank increasingly became political pawns in preventing the spread of Communism. In addition to the financing the IMF and World Bank would provide to countries that maintained capitalist systems, the United States also maintained a suite of programs that delivered foreign aid and even military equipment to countries that refused the advance of the Iron Curtain. During this period, the United States and, to some extent, the World Bank were more strategic in channeling aid, and focused on achieving political objectives when making investment decisions. Burnside and Dollar were among the first to
empirically link strategic interests to foreign aid during the Cold War Period. They found that “policies in a receiving country which favor a donor country positively impact the amount of aid the country receives.” In other words, there is strong empirical evidence that the West strategically deployed its capital to court the support of the developing world.

After the fall of the Soviet Union, the West no longer faced an existential threat that compelled strategic allocation in aid and investment. Since the fall of the Iron Curtain, Burnside and Dollar revisited their empirical analysis and found a clear change in the underlying drivers of the allocation of Western Aid. Their new analysis found “that aid allocation favors countries with better institutional quality, measured through democratic development and rule of law.” In other words, American development aid, World Bank loans and IMF investment increasingly shifted their focus to encouraging strong democratic institutions and good governance in developing countries. No longer did strategic interests play as important a role as did more idealistic democratic goals. Investment today, therefore, is skewed toward rewarding the developing countries that have made the most progress in advancing their democratic systems. But as we will discuss, the West now confronts a rising power in China that does not invest according to the same democratic vision—a reality which may challenge the very foundation of the historic development models of the West.

**Criticism of the Western Approach:**

The structural adjustment policies that have come to the define the IMF are not without their detractors. The IMF is often criticized for so-called “tied aid,” or financial support that the Organization only disburses if recipient governments implement Washington Consensus style reforms in their domestic economies. For developing countries that means privatizing industry,
broadening the tax base, reducing social welfare programs and opening up their economies to free trade. At their most extreme, critics have called SAPs and the Washington Consensus tools of neo-imperialism advancing the interests of the West in sustaining its own wealth by creating trade relationships of dependency which force poor countries into a development trap.\textsuperscript{30}

The economist Joseph Stiglitz argues that “in countries that followed Washington Consensus policies, economic growth was limited at best.”\textsuperscript{31} There is empirical evidence to support his assertion as well—in Latin American countries that adopted the policies of the Washington Consensus, growth was half of what it was in the same countries when they pursued different development policies like import substitution.\textsuperscript{32} The best case, however, against the success of the Washington Consensus is the rapid industrialization and modernization of Asian economies like Korea, Japan and even China. These countries did not adopt the tenets of the Washington Consensus, and instead focused on import substitution and a form of state-directed capitalism.\textsuperscript{33} The result is that countries that used to be poorer than African countries 50 years ago, like South Korea, are now some of the richest countries today.\textsuperscript{34}

The West then, has pioneered a multilateral framework for development which focuses on opening up a country to international competition and implementing deeply transformative macroeconomic policies. Clearly, though, the success of this kind of development model is mixed at best, particularly for the poorest countries it serves. There are also still significant questions as to the motivation of Western countries in pushing this kind of model. Some take a realist approach and argue that Washington Consensus institutions are designed to create relationships that economically benefit the West at the expense of poor countries.\textsuperscript{35} In other words, the Washington Consensus is a case study of “dependency theory” in action. The argument asserts that the Washington Consensus is a macroeconomic framework designed for a mature economy that has
industrialized and developed internationally competitive goods and services. Implementing these policies in a developing economy would therefore not allow poor countries to build the assets and capabilities to be internationally competitive and bad approach to promoting growth.\textsuperscript{36}
III. The Chinese Approach to Development Finance

The Chinese economic success story is one that has been touted and studied since President Nixon “opened” China in the winter of 1972. A deep history of failed communist policies like inefficient industrialization, collectivization of communes and even the Cultural Revolution suddenly gave way in the 1990’s and 2000’s to double digit GDP growth and millions of Chinese people being lifted out of poverty. Today, analysts no longer discuss China as a developing nation struggling with the legacy of central planning and the Cultural Revolution. Instead, China is considered an emerging superpower rivaling the United States in economic clout and political influence. That political influence is beginning to spill over into the African Continent—in the last three years the Chinese Government originated over $60 Billion in loans to African countries, and in September of 2018, announced plans to loan an additional $60 Billion over the next three years.\(^{37}\) Altogether, the amount of loans extended by China to Africa from 2000 to 2017 is estimated to be worth $143 Billion.\(^{38}\) In addition, China increased its Foreign Direct Investment (FDI) stock, although at a smaller scale than that of the West, to $42 Billion as of 2017, making it the second largest equity investor in the continent.\(^ {39}\)

With these loans and equity investments, China has cultivated a different development model which diverges from the Washington Consensus and the Western model. In part, the Chinese approach involves financing that is not contingent on structural adjustment policies or meeting specific political goals like human rights standards. The Chinese approach also does not typically involve large amounts of grant-based aid and targets projects which aim to build or improve the physical infrastructure of a recipient country or to more efficiently extract the country’s natural resource endowment. Two key features of Chinese investment in Africa are China’s special economic zones, and natural resource-backed collateral loans.
Chinese special economic zones in Africa (CSEZA) are special administrative enclaves set up to host Chinese investment in Africa. These zones recall a distinctly Chinese strategy employed in mainland China from the early days of the economic liberalization period all the way to the present. They serve as a physical location for foreign companies to invest their capital (i.e. building factories and headquartering joint ventures), while receiving the benefit of special administrative laws that allow for the protection of intellectual property and improve the ease of doing business. Today, special economic zones in China are located in economic hubs like Shanghai and Shenzhen and are being set in in other less developed cities across China to encourage further foreign investment. These zones are clearly very successful, and have allowed China to accept foreign investment, while ensuring the government have the ability to limit foreign influence to strict geographical locations.

In Africa, CSEZA’s largely serve a similar purpose. They provide China’s businesses entry points for investment and, in some cases, even host investment from other countries beyond China. Peter Dannenberg argues that CSEZA’s are set up to be “both resource and market-driven.” In other words, China established CSEZA’s in an economic hub as a means of pursuing profit by facilitating Investment in specialized economic hubs. To date, the success of these areas has been limited, but the scheme provides insight into how China has pursued it foreign policy in Africa. Not only is it seeking to boost investment in the region (presumably to increase its influence), but it is also profit seeking and market driven. In fact, Chinese State-owned enterprises which have traditionally spearheaded Chinese investment in Africa, are not the only participants in CSEZA program—the private sector has also played a significant role in expanding the Chinese presence.
Another key feature of the Chinese investment program in Africa is a strong emphasis on collateralized, or natural resource-back loans. These loans secure Chinese debt against the natural resource endowment of an African country, typically focused on oil, coal, minerals and other raw material commodities. While natural resources offer a lucrative opportunity for both Western and Chinese firms, each take a different structural approach to capitalize on their value. Western firms focus on mining these raw materials and exporting them to manufacturing hubs for further refinement. This places Africa at the bottom of the value chain for natural resources. The Chinese take a different approach and use natural resources to secure the risk presented by African investment opportunities. This means that China is able to supply hard infrastructure that functions to expand African prosperity in the long term, with the collateral of a liquid commodity in case a borrowing country cannot repay. This is a unique approach pioneered by the Chinese state, and has led some to call the strategy “infrastructure-for-resources loans.” This structure also allows China to offer larger loans, with lower interest rates, and quicker disbursement. Combined with a lack of policy concessions attached to the loans and the security of commodity backed collateral, China is able to offer resource rich countries very competitive loans, which retain repayment flexibility that is particularly attractive for developing countries.

Given China’s enormous trade surplus, its government controlled financial institutions, or so-called “Policy Banks,” have the resources to invest in the African continent at a scale not seen since the Marshall Plan after World War II. The Chinese Development Bank and China Export-Import Bank, are the principle institutions which direct loan dollars into Africa. These institutions are entirely under the control of the government and are not subject to disclosure or transparency laws. When President Xi established the Asian Infrastructure Investment Bank (AIIB) in 2013 it was heralded as a Chinese effort to contribute the world of multilateralism and globalization. The
Brookings Institute called AIIB and BRI the face of China’s “Institutional State-Craft” which would play out in a 21st century Scramble for Africa. Six years later, the AIIB plays a minor role in China’s investment initiatives, and largely resembles a western multilateral institution in its decision-making process. Instead, China’s policy banks have taken the lead in bringing the Country’s Belt and Road Initiative to fruition.

**The Belt and Road Initiative in Africa:**

The signature element of China’s investment in Africa is the Belt and Road Initiative (BRI) which seeks to develop new trade routes and markets for Chinese goods in Europe, Africa and the Middle East. China’s President, Xi Jinping, pledged to bring this plan to fruition by using his country’s financial, logistical and technical resources to build infrastructure along the route including new roads, railways, sea ports and airports. Africa is set to continue to be a major recipient of this investment, which has spurred a construction boom across the continent. US and European investment on the other hand has not, since the Cold War, been channeled through such a focused strategy. Western investment is largely diffuse, and market driven, with aid directed at countries with stronger democratic institutions and more pressing but temporary issues like hunger and disease. Nonetheless, BRI is seen by many as an attempt at “Infrastructure diplomacy,” by which China uses its financial might and close relationship between industry and government to buy influence in Africa and throughout the world.

One of the key differentiators of Chinese investment through BRI is its scale and wide scope, especially in countries that have not historically been recipients of large-scale Western aid. One of the most extensive and far reaching deals done by the Chinese Exim Bank occurred in the Democratic Republic of Congo (DRC) in 2007 following intense civil war. When agreed, the deal
covered infrastructure projects ranging from railroads to university campuses and was worth $6 Billion in Chinese financed loans.\textsuperscript{48} It was structured as a commodity secured loan in which China received a portion of the profits from a cobalt mining joint-venture in exchange for financing the project.\textsuperscript{49} Under the terms of the agreement the Government of Congo would hire the Chinese Railway Engineering Corporation to “renovate Congo’s colonial–era railway lines,” and construct thousands of miles of new road infrastructure.\textsuperscript{50} Congo would also contract with Sinohydro, another Chinese State-owned company, to rebuild much of the critical power and water infrastructure across the country. The investment also provided for “145 health centres, 31 hospitals, 5000 units of low-cost housing, and two universities.”\textsuperscript{51} In a country emerging from a conflict which resulted in the deaths 5.4 million people since 1998 and displaced millions more, this investment represented a major opportunity for recovery and economic development.\textsuperscript{52} The deal also represented one of the most clear examples of “infrastructure diplomacy.”

**Criticism of the Chinese Approach:**

The international community including the IMF and other multilateral organizations responded negatively to the China-DRC deal, citing serious concerns about the increased debt levels Congo would assume to finance the deal. During the negotiations of the infrastructure deal, DRC was simultaneously applying to the Highly Indebted Poor Countries Initiative (a program of the IMF), to seek forgiveness for its outstanding loans to international creditors. The IMF read this application as an attempt of the DRC to replace its existing Western creditors and outstanding loans with apolitical Chinese financing that would come with no strings attached (i.e. structural adjustment programs).\textsuperscript{53} Ultimately, the IMF and DRC came to an agreement that reduced DRC’s sovereign responsibility in the event of a default on the Chinese loans.
Regardless of the solution, however, the IMF’s reaction to DRC accepting the Chinese loans speaks to a broader issue on the sustainability of the huge levels of debt financing China is pouring into Africa. Between 2009 and 2019, the debt to GDP ratio of the combined countries in Sub-Saharan Africa increased from nearly 35% to over 55%. Under a Washington Consensus framework, developing countries are meant to maintain a low debt ratio to avoid sovereign default in international loans. Reinhart and Regoff argue that a 60% debt to GDP ratio is the cut off before the marginal cost of debt impairs national economic growth. They estimate that in developing countries “when gross external debt reaches 60 percent of GDP, annual growth declines by about two percent.” The picture becomes even more bleak when developing country reach 90% debt to GDP causing “growth rates [to] roughly cut in half.” Sub-Saharan Africa is quickly approaching 60% debt to GDP, and some countries have already surpassed that amount. This phenomenon has led to strong criticism against China and claims that it is setting up a debt-trap for poor African countries.

Grant Harris, the former Senior Director for Africa at the Obama White House, argues that China’s loan program represents a “carefully laid debt trap” that allows its government to extract political favor and gain international influence. One example of this leverage comes from Sri Lanka where the Chinese Exim Bank loaned billions of dollars to refurbish and build the commercial shipping port of Hambantota in the hopes that the island nation could take advantage of strong shipping activity in the region. But only eight years after the port began operations, the Government of Sri Lanka defaulted on its debt, unable to support the cash payments China required to fund the deal. In part, the default was due to the high interest rate negotiated by China which was 6.3% on the first tranche of the loan. By comparison, a similarly sized development infrastructure loan at the time of the deal typically would have incurred 0.5% interest rate from
Japan’s Asian Development Bank. In other words, China charged Sri Lanka a market rate to fund the port, which overwhelmed the country’s ability to repay. Additionally, the port was called by some a “white elephant project” or a status symbol more than infrastructure designed to meet market demand. Ultimately, China repossessed the port in a 99 year lease to settle the debt in what many called a “land grab.” The episode also led to claims that China’s “debt diplomacy” represented a form of “neo-colonialism” in which China purposefully saddled poor countries with unsustainable levels of debt in order to collect on strategically valuable collateral.

Another key criticism of China’s loan program concerns countries without a natural resource endowment, which are not able to engage with China through “natural resource baked loans.” Critics of Chinese investment often point to the high interest rates charged for the infamous Sri Lankan port project, which hit above market rate at 6.3%. But a key difference that many fail to understand is in how China assesses interest rates. Typical Western loans often come packaged with interest rates that reflect the financial health and risk of the home country. Each agency essentially calculates an interest rate appropriate for the current state of the entire country. China, on the other hand, takes a different approach and assess interest rates on a project by project basis. In other words, they charge interest rates according to the specific risk and future cash flows of each individual project. That is how a small country like Sri Lanka was forced to pay such a high interest rate, despite its poor macro-economic health—the port was supposed to successfully soak up demand and boost the Sri Lankan economy. Had it been successful, then in all likelihood, the government could have afforded the higher than usual interest rate.
**Foreign Policy Implications:**

Given its emerging role in African development finance there are clear questions as to whether China will outcompete the West for influence in the region. China’s emerging infrastructure diplomacy and apolitical approach to investing may offer a more attractive financing partner for African governments, especially those who face criticism for human rights abuses. But given long standing connections between western development institution and African countries, the issue ultimately boils down to economics. If China is able to more effectively deploy its capital and spur economic growth, it will challenge the traditional approach taken by Western countries of promoting economic development in Africa. Given the lack of a focused American or European investment strategy, the challenges continue to mount in the face of a centralized Chinese approach. Ultimately, China would be offering development financing at a massive scale without the baggage of Washington Consensus structural adjustment policies, and a development opportunity that works better than the opportunity provided by the West. As Africa continues to grow and develop economically, this could mean that China is primed to not only replace the United States and Europe as an economic hegemon in Africa, but also as the main political leader as well.
IV. Research Findings

This paper seeks to test whether the Chinese development loan program is more effective in contributing to GDP growth compared to the Western development loan program. We will use a simple regression method to test the following hypotheses:

1. Increased Chinese investment correlates with increased African GDP Growth
2. Chinese Investment correlates with higher levels of GDP growth than Western Investment

Data:

The data we have collected comes from three sources; the China-Africa Research Initiative (CARI) at the Johns Hopkins School of Advanced International Study, the World Bank and the IMF. No accurate official statistics exist that holistically and accurately document Chinese loan disbursements to Africa. We find that the official statistics which are published by the Chinese Government, chronically understate the amount of loans and often do not account for loans which have been canceled or adjusted after the original agreement date.

Since 2007, CARI researchers have compiled and cleaned data which documents the total disbursed amount of loans distributed to African Governments, broken down by country and investment type. CARI sources the data from every publicly available filing, as well as through personal interviews with African government officials and Chinese corporate officers. To our knowledge, this data set is the most comprehensive and reliable in the world and continues to be updated and curated by CARI. The lack of information in this field, however, complicates our research, especially since we are focusing on data from 2000 to 2017. To minimize the effects of incorrect data from individual countries, we will take a macro approach and consider the entire
African continent by aggregating the country specific loan disbursements into continent-wide annual figures.

We have also compiled a comprehensive data set of loans originated by the IMF and World Bank to African countries between the years 2000 and 2017 which we have also aggregated into continent-wide annual figures. To measure GDP, we are using a data set compiled by the World Bank which break out Sub-Saharan Africa and North Africa. For our research, we will examine Africa as a whole (in other words, Sub-Saharan Africa and North Africa combined) and have excluded data from Libya because the country received no loans from China or from either the World Bank or IMF. We also aggregated the GDP figures into continent-wide annual values.

**Methodology:**

Using CARI, World Bank, and IMF data, we will determine whether Chinese loans correlate with African GDP growth. GDP will serve as the dependent variable and Chinese loan distributions will serve as our independent variable. In addition to testing for correlation, we will regress GDP onto Chinese loan distributions to determine if a relationship between the two exists and to test for statistical significance. We will then conduct the same test with Western loan distributions over the same period of time (2000-2017), or in other words, determine to what extent Western loans correlate with African GDP growth. Then we will regress GDP onto Western loan distributions to determine if a relationship between the two exists and to test for statistical significance. Our goal is to compare the correlation and statistical significance between the two tests to determine if Chinese loans or Western loans have greater correlation with GDP growth. The result may aid in determining which development model is associated with greater levels of
economic growth and therefore more efficiently contributes to the development of receipt countries.

Of course, with this research design, there are several potential challenges in interpreting the results. First, if we find a link between Chinese investment and higher levels of economic growth, one explanation could be that China is more efficiently investing in projects that have a greater contribution to development (a causal relationship). Alternatively, it could be that the economies in which China invests, are already growing at a faster rate (a non-causal relationship)—in other words, China is better at picking good projects (is projects that have a net positive impact on GDP) than the West. Either way, our ultimate goal is to investigate the potential for China to displace the West as the main economic and political partner of African countries. Whether China achieves this by more competitively spurring economic growth or by better allocating resources to good African projects, the effect may still be the same.

**Regression Analysis: Total GDP versus Chinese Loans:**

<table>
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<th>Source</th>
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**Model Summary**

- S: 426.037
- R-sq: 64.29%
- R-sq(adj): 62.06%
- R-sq(pred): 15.59%

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<th>Coefficients</th>
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**Regression Equation**

Total GDP = 1012 + 70.8 Chinese Loans
Our first test regresses aggregate African GDP into aggregate Chinese loans to Africa. As the panel data shows, we find an R-squared value of 64.29% which represents a high correlation between the influx of Chinese loans and economic growth. The model outputs a regression equation of \([\text{Total GDP} = 1012 + 70.8 \text{ Chinese Loans}]\) with a coefficient that is statistically significant in explaining the variation in the aggregate GDP movement. While these results are compelling, they do not alone suggest that Chinese loans produce better GDP outcomes than Western loans. To investigate this, we must conduct the same test substituting Chinese loans for Western loans.

**Regression Analysis: Total GDP versus Western Loans**

**Analysis of Variance**

<table>
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**Model Summary**

<table>
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**Regression Equation**

\[\text{Total GDP} = 1145 + 61.1 \text{ Western Loans}\]

Here we have the output from our second test which regresses aggregate African GDP into aggregate Western loans to Africa. Here we see an R-squared value of 15.35% and a lower coefficient on the loan variable. We also see a higher p-value associated with “Western Loans” suggesting that the variable is less statistically significant than Chinese loans in explaining
movement in GDP. The lower correlation and coefficient suggest that Western loans play less of a role in driving African GDP movement. In other words, an increase in the amount of Chinese loans leads to a greater increase in aggregate African GDP than an increase in Western loans.

**Regression Analysis: Total GDP versus Chinese Loans, Western Loans**

Analysis of Variance

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Model Summary

- S      407.847
- R-sq  69.32%
- R-sq(adj) 65.23%
- R-sq(pred) 0.00%

Coefficients

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Regression Equation

Total GDP = 794 + 66.5 Chinese Loans + 35.8 Western Loans

The previous tests suggested a stronger relationship between variation in GDP and variation in Chinese loans. We will take this one step further by factoring both variables into the same model. In test three above, even with both variables included the R-squared only marginally increases from 64.29% to 69.32% and is offset by an increase in the p-value of “Western loans.” This further suggests that Western loans play much less of a role in explaining the variation in aggregate African GDP than Chinese loans. In other words, the impact of China’s loan program is much greater on GDP growth than the impact the Western loan program.
V. Analysis and Discussion:

The statistical analysis above suggests that our hypothesis is correct. China’s loan investment program in Africa, which is a keystone element of its Belt and Road Initiative, is indeed more strongly correlated with African GDP growth than Western investment. In the context of our research and discussion in this paper, this conclusion has serious implications on the international appeal of the Chinese development model as it competes with the legacy of Western development institutions. To be clear, the results of our statistical analysis cannot attribute causality to Chinese loans. In other words, there is no empirical proof that the Chinese loan program caused better economic outcomes than that of the West. Instead, the only conclusion we can draw is that the Chinese program shows a strong correlation with better outcomes than that of the West. Our analysis, however, will attempt to build a qualitative case for causality in order to more strongly link the Chinese loan program to better performance in African GDP growth. We argue that that Chinese investment contributes to more strongly to African GDP performance because of its focus on infrastructure even to the point of nation building, its combined strategic focus on geopolitics and profit, as well as its “trade not aid” program that China attaches to every loan.

Infrastructure and Nation Building

Africa suffers from a persistent infrastructure deficit stretching back to the turn of the 20th century that continues to stunt its economic growth today. The African Development Bank estimates “that the continent’s infrastructure needs amount to $130–170 billion a year,” mostly focused on three sectors—"power, water and transport."64 This gap, in part, was created by the structural adjustment policies of the Washington Consensus that emphasized low sovereign debt to GDP ratios. While fiscal prudence, in theory, should benefit a government and its economy in
the long term, in the case of Africa, it caused chronic underinvestment in the basic national infrastructure that facilitates daily life and commerce.

Today Chinese investment, though not enough to completely close the gap, focuses on achieving what Western development assistance could not—causing an infrastructure boom to help Africa realize its full economic potential. Of the ongoing Chinese funded African construction ventures in 2018, 52% were focused on transportation and 18% on energy and power—two of the most under-resourced sectors in Africa. Meanwhile in the World Bank’s allocation, only 18% of funds went towards projects in transport, and 14% went toward projects in energy. The Chinese approach, therefore, more heavily weights sectors which the West has historically not prioritized in its own development finance. One example is in the railway infrastructure of Ethiopia, where the rail lines had not been renovated since the period of French colonial rule in the late 1890’s. In 2011, China and Ethiopia agreed to construct a brand-new railway that would connect the landlocked country’s capital city, Addis Ababa with the capital city of Djibouti, whose port handled 90% of the Ethiopia’s international trade. By 2016, the railway was fully functional removing nearly 1500 daily trucks that transported goods bound for Addis Ababa and cutting the trip down from 2 days to just 12 hours.

Other examples like China’s $6 billion deal in the Congo support the argument that China’s foreign policy in Africa resembles the nation building of the Marshall Plan in the post-World War II period. While the United States may not have set out after the War to gain influence in Europe through its loan initiative, the program inevitably contributed to cementing the United States position as a great power on the global stage. China, employing the same technique, may be attempting to build a global order in much the same way.
Even putting the foreign policy implications aside, at the very least, China’s loan program addresses a sorely under met need in the African continent, especially when compared to the allocation of Western investment, which is stuck in a colonial legacy of resource extraction and far too focused on semi-altruistic motivations like rewarding the expansion of democratic institutions. Ultimately, the Chinese have found a gap in the market with a scale that only a government with large financial capabilities can handle. We argue that China’s heavy investment in this kind of infrastructure fuels the its contribution to African GDP growth and helps to explain why Chinese investment is better correlated with the continents GDP performance.

**Geopolitics and Profit Seeking**

China has engaged in a significantly different strategy in disbursing its development loans within Africa that broadly mimics the strategy taken by the West during the Cold War in an effort to defeat the spread of the influence of the Soviet Union. Prior to the fall of the Iron Curtain, the American strategy focused its aid disbursements (especially military aid) to countries vulnerable to Soviet influence. The United States essentially bought off developing countries across the world by promising cash for political support. Putting moral objection aside, especially because this strategy led the United States to support several dictators around the world, this policy largely achieved its goal. US foreign aid played an important role in the West’s attempt to retain key allies in the developing world.

When the Soviet Union fell, US and European development finance markedly shifted in allocation to focus on expanding the reach of democratic institutions. The World Bank and IMF began placing a greater emphasis on indicators of human rights and democratic progress in making their investment decisions and developing structural adjustment policies. In the context of a
unipolar American-led global order, this shift worked for sustained period of time—perhaps as many as two decades. During this period, Western aid focused on reducing poverty and eliminating the political calculus of the Cold War in making investment decision. Development institutions sought, in principle, not only to spur economic growth, but to encourage the spread of strong institutions and democratic traditions. The side effect of this transition in strategy, however, was that development aid from Western institutions created a positive feedback loop which rewarded countries that made progress in developing democratic institutions while crowding out countries that had not yet developed the strong institutions they would need to escape the development trap. Today, China is filling that gap by offering an alternative to the hegemony of the West in Africa. In addition to taking advantage of a gap in the market, China has a strong focus on disbursing financing to countries which can help it to achieve its strategic goals.

Burnside and Dollar were the first to directly show a link between favorable policies toward a donor country and the value of development aid a receiving country obtains.\textsuperscript{68} Their analysis empirically showed that countries which supported American policies during the Cold War received higher amounts of development finance. They reevaluated their findings after the fall of the Soviet Union and documented a measurable shift in the driving forces behind American development financing decisions, finding that "aid allocation favors countries with better institutional quality, measured through democratic development (Freedom House data) and rule of law (International Country Risk Guide data)." \textsuperscript{69} In other words, Burnside and Dollar offer empirical evidence to support the notion of a feedback loop skewing the aid dollars in favor of countries that already had strong institutions.

David Landry takes this analysis a step further examining China’s strategy through the Burnside and Dollar approach by exploring the relationship between UN voting patterns and
China’s distribution of aid. His analysis shows that, “UN voting alignment [has] a stronger impact on China’s development finance than that of western countries.” In other words, China tends to allocate more aid to countries which support its policies at UN votes. Thus, China has taken a strategic aid distribution approach, while the US abandoned that role two decades ago. Strategic allocation of loans, however, cannot alone explain the strong correlation between Chinese loans and African GDP. We argue that China’s combined focus on geopolitical strategy and profit seeking represents a brand-new development finance strategy that, in part, explains the strong contribution of Chinese loans to GDP.

We previously proposed two interpretations for our statistical results. One, that China has some unique value adding characteristics as an investor that improves the contribution of its projects to GDP, or two that China’s unique allocation strategy supports projects that would already have a greater contribution to GDP. We believe the most likely is the latter, because there is ample evidence that one of China’s goals is profit seeking in its investment strategy. A recent McKinsey report discussed one interpretation of the goal of China’s loan program in Africa. The report argued that the loans set the stage for profit seeking Chinese companies to enter Africa to set up manufacturing operations and to develop new markets for their products. It goes on to discuss China as “China Inc.” in reference to what amounts to state-directed capitalism in Africa.

Ultimately, the combination of strategic allocation of loans and the profit seeking motivation of the Chinese government, create an investment regime which rewards China’s political supporters and creates an opening for companies that seek to invest in the Continent. These factors create a development strategy which not only provides the capital to develop an economy, but also the corporate means to do it. McKinsey estimates that since the Chinese loan
program began in principle in 2000, 10,000 private Chinese firms have invested and began operations in Africa.

“Trade Not Aid”

The final component of China’s foreign policy and development strategy is the practice of bundling loan packages with trade opportunities that allow African economies to utilize new infrastructure to realize GDP growth. China increased its trade volume from just over $10 billion in 2000 to over $200 billion in 2017.\textsuperscript{71} Meanwhile, American trade went from $10 billion in 2000 to $55 billion in 2017.\textsuperscript{72} The difference in trade volume is emblematic of the failure impending failure of the Western relationship and development model in Africa. Even through the West and China have loaned out nearly an equivalent amount of money to Africa over the last 20 years, the growth in trade volume between China and Africa represents an additional variable that have seriously contributed to the success of Chinese loans in Africa. While Chinese exports still dominate the trade relationship, African exports to China grew by over 2000% between 2000 and 2017. This represents a very lucrative trading opportunity for Africa and makes China its largest export destination in the world. Thus, thus Chinese investment is inseparably connected with Chinese trade. We argue that this factor makes Chinese development financing unique from the West, and also serves to explain why Chinese investment outperforms Western investment.
VI. Conclusion

As developing countries observe that supporting China on the international stage gives them access to investment and trade that outperforms the investment of the West it will be difficult for them to resist the temptation to side with China. China strengthens its allure with its “trade not aid” approach and the massive scale of financing it offers which is comparable to the scope of the Marshall Plan in the post-World War II period. Furthermore, the clear claims of neo-colonialism levied against the Washington Consensus and traditional development institutions, mean that by accepting Chinese development financing, African governments may be able to score political points by distancing themselves from the West, while simultaneously boosting economic prosperity in their home countries.

An opinion editorial from the former President of Senegal in 2008, encapsulates the positive opinion many African governments feel toward China and its development strategy. He argues that “China, which has fought its own battles to modernize, has a much greater sense of the personal urgency of development in Africa than many western nations.” 73 In a sense, he is expressing the shared understanding cultivated between his country and China, because China faced similar development challenges as recently as two decades ago. Moreover, public perception of China in Africa, continues to grow as investment expands GDP and lifts millions of Africans out of poverty. According to a survey conducted across 36 African countries in 2016 by the pollster AFR Barameter, “almost two-thirds (63%) of Africans say China’s influence is “somewhat” or “very” positive, while only 15% see it as somewhat/very negative.”74 This positive large scale public perception continues to grow today.

In the long term, though, there are serious questions as to whether China can continue to extend loans at the same scale and rate as it has for the last 17 years. Since 2011, annual Chinese
loans surpassed the scale of annual loans extended by the IMF and World Bank combined. From 2012 to 2017 China disbursed nearly $100 billion in loans, while the West disbursed just over $45 billion. As China’s economic growth continues to decline and stabilize, it may no longer be able to support its fledging loan program. For now, its financial resources continue to fuel an infrastructure boom across the continent which gives China the ability to strategize on allocation according to its strategic interests, and flex its new found foreign policy muscles.

As Africa continues to grow as an economy and as a political battle ground, there are serious question as to whether the West can retain its influence in the Continent. Given our findings, China has ample evidence to argue that its loans which target hard infrastructure projects and are apolitical in nature (with regard to human rights policy and democratic institutions), offer a stronger alternative to Western development finance. Given the claims of neo-imperialist development policy focused on creating a dependency between the West and African countries, China’s capital allocated to projects producing a greater economic impact seems to do the job the West has always claimed to be doing but has hardly ever delivered upon.

As we have argued, Chinese investment in Africa outperform Western investment through a causal relationship for three reasons. First, the loan program focuses on infrastructure and has the massive scale to seriously move the needle in meeting Africa’s infrastructure investment deficit. Second, the combination of allocating loans according to China’s geopolitical interests and the profit seeking motivation of China’s state directed capitalist system, creates a system which rewards China’s allies with investment into projects that will contribute to long term growth and boost the market making infrastructure of the economy. Finally, the “trade not aid” approach combines the benefit of large-scale investment with large scale opportunities for African firms to use newly built infrastructure and compound GDP growth. All of these factors make a compelling
case that China’s development model in Africa is working, and is working well. So far, the criticism focusing on the so-called “debt trap” has not played out in reality. It appears that the “land grab” in the case of Sri Lanka was more isolated than commentators originally anticipated. Perhaps this is due in part to the Chinese policy of setting interest rates unique to each project, instead of national ability to pay. Since they invest in high return projects like the train system in Ethiopia which reduced trade friction and barrier to the international market, so far, Chinese debt has been largely sustainable and has not caused the financial collapse of sovereign governments. How this story plays, however, remains to be seen especially in the context of waning American leadership on the world stage.

Finally, there is a silver lining for Western strategists seeking to regain lost influence in the developing world. China’s approach to its relationship with Africa is not impossible to replicate. There is nothing terribly difficult about the Chinese model for another power to imitate, so long as it has similar financial means and similar political focus. While the legacy of colonialism may cause some friction, it would not be impossible for Europe and the United States to regain their position as the top creditor and trade partner with Africa. The only difficulty is whether Western governments are prepared to compete with China’s narrow focus to boost its international influence. Given recent political instability in the West, we find that scenario unlikely, at least in the short term.
Appendices

Appendix 1: Principles of the Washington Consensus as set out by John Williamson

**Principles of the Washington Consensus**

1. **Fiscal Discipline**
   Budget deficits, properly measured to include those of provincial governments, state enterprises, and the central bank, should be small enough to be financed without recourse to the inflation tax. This typically implies a primary surplus (i.e., before adding debt service to expenditure) of several percent of GDP, and an operational deficit (i.e., disregarding that part of the interest bill that simply compensates for inflation) of no more than about 2 percent of GDP.

2. **Public Expenditure Priorities**
   Policy reform consists in redirecting expenditure from politically sensitive areas, which typically receive more resource than their economic return can justify, such as administration, defense, indiscriminate subsidies, and white elephants, toward neglected fields with high economic returns and the potential to improve income distribution, such as primary health and education, and infrastructure.

3. **Tax Reform**
   Tax reform involves broadening the tax base and cutting marginal tax rates. The aim is to sharpen incentives and improve horizontal equity without lowering realized progressivity. Improved tax administration (including subjecting interest income on assets held abroad – flight capital – to taxation) is an important aspect of broadening the base in the Latin context.

4. **Financial Liberalization**
   The ultimate objective of financial liberalization is market-determined interest rates, but experience has shown that, under conditions of a chronic lack of confidence, market-determined rates can be so high as to threaten the financial solvency of productive enterprises and government. Under that circumstance a sensible interim objective is the abolition of preferential interest rates for privileged borrowers and achievement of a moderately positive real interest rate.

5. **Exchange Rates**
   Countries need a unified (at least for trade transactions) exchange rate set at a level sufficiently competitive to induce a rapid growth in non-traditional exports, and managed so as to assure exporters that this competitiveness will be maintained in the future.

6. **Trade Liberalization**
   Quantitative trade restrictions should be rapidly replaced by tariffs, and these should be progressively reduced until a uniform low tariff in the range of 10 percent (or at most around 20 percent) is achieved. There is, however, some disagreement about the speed with which tariffs should be reduced (with recommendations falling in a band
between 3 and 10 years), and about whether it is advisable to slow down the process of liberalization when macroeconomic conditions are adverse (recession and payments deficit).

7. **Foreign Direct Investment**
   Barriers impeding the entry of foreign firms should be abolished; foreign and domestic firms should be allowed to compete on equal terms.

8. **Privatization**
   State enterprises should be privatized.

9. **Deregulation**
   Governments should abolish regulations that impede the entry of new firms or restrict competition, and ensure that all regulations are justified by such criteria as safety, environmental protection, or prudential supervision of financial institutions.

10. **Property Rights**
    The legal system should provide secure property rights without excessive costs, and make these available to the informal sector.

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**Appendix 2: Total Annual Chinese Investment in Africa (in bn of USD)**

![Graph showing total annual Chinese investment in Africa from 2000 to 2017]
Appendix 3: African GDP (in bn of USD) with Western and Chinese Loans (in bn of USD)

[Diagram showing African GDP and Chinese Loans from 2000 to 2017]
References


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4 Ibid


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19 International Monetary Fund. 1944. IMF Founding Charter. Washington, DC, July.


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29 Ibid


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33 Ibid


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