

A TALE OF TWO STRATEGIES:  
AN ANALYSIS OF THE CHINESE  
BELT ROAD INITIATIVE  
IN AFRICA

by  
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## ABSTRACT

The expansion of Sino-African relations over the last decade is remarkable for its seemingly unique perspective on aid and investment strategies. While it was once tradition for donor countries to link aid with policy conditionalities that prioritized self-promoting geopolitical gains, it seems as though this trend is no more. Instead, China has chosen to alter the status quo of aid strategies by focusing on trade and investment projects in areas such as infrastructure and natural resources, presumably to acquire greater market access and employment outlets. This study will focus on the global shift in aid by analyzing the Chinese Government's Belt Road Initiative (BRI) and its effects, specifically within the context of African economies. BRI aims to expand China's influence by utilizing its financial and capital resources to help develop the economies of African nations without the use of political or economic conditionalities traditionally attached to Western aid. However, a staggering amount of speculation surrounds the initiative specifically concerning the ultimate motives of China's policy and if they are similar to those of Western Donors in regards to their goal of acquiring and retaining global dominance. Alternatively, these motives could also be deciphered through an altruistic lens by citing the initiatives ability to improve global trade relations while also promoting bilateral cooperative economic growth through the acquisition of natural resources. In this study, I explore two speculative paths about China's motivations while also developing an empirical model to test the associations of Chinese aid within two domains of motivation; The first being the traditional path towards global dominance that expands China's economic and political influence, followed by an analysis of need-based aid that is altruistic and self-rewarding. The empirical results are used in a systematic review of Chinese Aid to draw inferences from BRI and discern possible implications for African countries.

## **Introduction**

The era of modern international aid began in 1945 with the completion of World War Two and has been dominated by North to South aid flows ever since. The membership of the OECD's Development Assistance Committee (DAC), which consists of the world's top thirty aid providers, can attest to the limited diversity in international donors. Within this list, only three nations are located outside of Europe or North America; they are Japan, Korea, and New Zealand (OECD, 2019). The countries on this list are privileged as they not only house a majority of the world's wealth but, also use their monetary resources to shape the world in their image by prioritizing their geopolitical interests, ideologies, and values. Historically, this has been done through the extension of conditional aid as defined as "loans in exchange for policy reform and structural adjustment" on behalf of the recipient to ensure their political and economic values align with those of the donors (Ramcharan, 2002). Despite the predominantly negative reviews due to their limited effectiveness, the continued existence of conditional aid creates tension between donors and recipients as it reinforces the current global hierarchy. However, because of the finite number of countries that are able to donate at equal levels of DAC members, the developing world is left with few options other than to accept these investments as well as their policies. As a result, our world is reliant on the continued success of DAC countries to ensure the health of the global economy.

However, over the last twenty years, a new regime of donor states has arisen with the partial purpose of challenging the global paradigm (Hernandez, 2017). The most notable and successful of these countries has been China. Over the last twenty years, China has actively worked to expand its presence as a global investor and provide an alternative option for in-need nations (Sauvant and Nolan, 2015). In addition, they have also sought to improve trade relations

by establishing bilateral relationships with developing countries (The National Development and Reform Commission, 2015). To do so, China has employed a unique approach that provides recipients with loans, credits, and grants with little to no political conditionalities. This approach is known as the Belt Road Initiative (BRI) and represents a new perspective on international investment.

The BRI was introduced in 2013 by President Xi Jinping and focuses on expanding China's global presence by investing in the infrastructure of nations around the world (Belt and Road Initiative, 2019). These projects have varied from the construction of roads and railways to building oil and gas pipelines. Currently, this policy includes seventy countries and impacts over two-thirds of the global population (Hillman, 2018). Additionally, since its implementation, approximately fifteen hundred projects have been planned, and as of June 2018, seven hundred and eighty-five have started (Eder, 2018). In addition to China's desire to increase their economic presence, Chinese officials have also claimed that they hope to use the BRI to expand their friendships with other nations and foster greater international cooperation (China Power Project, 2017).

One of the most interesting elements within the BRI is its effect on transforming pre-existing Sino-African relationships. So far, two-thirds of the continent has pledged to join BRI and, two hundred and ninety-five of the one thousand one hundred and forty projects have taken place in African nations according to The American Enterprise Institutes (AEI) China Global Investment Tracker. While Sino-African relations have consistently been healthy, this initiative has led to increased Chinese investment, making them the continent's largest creditor. Since the implementation of the BRI, approximately eighty-seven billion dollars' worth of loans have been provided to African nations according to the John's Hopkins SAIS-CARI database on Chinese

Loans to Africa. In addition, bilateral trade has also risen dramatically since the program's implementation. As a result, China now holds massive levels of African debt and plays a vital role in the development of participating African nations (Schneidman and Wiegert, 2018).

However, traditional donors are hesitant to support this initiative due to the limited knowledge of China's long-term motives. When analyzed, China's investments lack the obvious political aims of western nations but, their increased exportation of Chinese goods and emphasis on infrastructure initiatives promote the expansion of economic dominance. Within Africa specifically, experts also worry that governments are taking on mounting levels of debt to attain much-needed infrastructure with little hope of repayment (Hurley, Morris and Portelance, 2018). This is strongly reminiscent the African debt crisis of the 1980's and 1990's where African nations overborrowed and were unable to repay creditors due to decreased demand for exported African goods and rising foreign interest rates (Greene, Khan, 1990). While each scenario is not rooted in the same cause, the motive behind each of these situations are the same in that in both cases African nations were borrowing to develop their economies and improve their standard of living (Sandefur and Wadhwa, 2018). However, while the first African debt crisis ended in the unification of politicians and rock stars for the promotion of debt relief policies, the outcome of this version remains ambiguous. As a result, a plethora of speculation surrounds the BRI and the ramifications it could have on African economies.

In researching the BRI, two main speculations arise when determining the long-term motivations behind the Belt Road in Africa. Primarily, an argument can be made in favor of Chinese investments by framing China's actions altruistic. Within this perspective, China aims to improve international cooperation and build upon the South-to-South method of economic development through the BRI rather than engage in predatory investment behavior for their

personal gain. Alternatively, Chinese investments could also be described as self-serving and strategic. The acquisition of greater African debt could allow China to form a strong-hold within African economies and establish lasting economic dominance that could potentially lead to enforcement of political influence.

These speculations were derived from a variety of sources including both data driven studies as well as think pieces that theorized about the potential outcome. Because a portion of this research stemmed from unproven speculation rather than true quantitative analysis, the varying expected results of the data will be described as speculations rather than hypotheses. In addition, only two speculations were formulated from the research due to the polarity of the BRI initiative. The vast majority of authors took a pro or con stance in their pieces and the two opposing viewpoints were replicated in this model to represent the current discussion taking place. However, this does not discount the existence of a third model that combines both altruism and self-interest but rather, recognizes that such as model is beyond the scope of this study.

While both sides have substantiated evidence to support their claims, further analysis is required to determine if one speculation provides a greater rationale for China's investment behavior in Africa. This paper assesses both speculations by analyzing the relationship between levels of Chinese investment and the most common independent variables to justify China's actions. In doing so, this paper attempts to provide some clarity on the quantifiable aspects of the Belt Road and determine the potential consequences that could arise for participating African nations.

## **The Evolution of China as a Global Donor**

Since the 1950s, China has been an active participant within the arena of foreign investment (Gu, 2009). However, it was not until 1978 that substantial economic reforms allowed the Chinese economy to fully enter the global market. Before this transformation, China's economy was determinately self-sufficient with three-fourths of its industrial goods produced by state-owned enterprises (SOEs). It was not until the death of Mao Zedong in 1976 that officials began the process of gradually shifting from a communist regime to align with free market principles. These reforms focused on greater decentralization on behalf of the Chinese government and the entrepreneurial empowerment of its citizens to expand international trade and attract foreign investment. To do so, they began the process of making themselves a commerce-friendly environment. For example, "special economic zones" were created around ports and coastlines to attract attention from outside businesses. Additionally, one of the most important components of these reforms focused on eliminating trade barriers and encouraging greater inflows of foreign direct investment (FDI). Since then, China has experienced unprecedented levels of growth in comparison to every other developing nation and has reported an average annual GDP of 9.6% between 1979 and 2016 in addition to a more than 7% increase in real annual output (Congressional Research Service, 2018).

Since the 1980's China expanded its efforts to attract foreign investment becoming a prime candidate for international business and FDI. Between 1980 and 2004 China received 560.39\$ billion in U.S. dollars of FDI making it the second largest recipient of FDI after the United States (Ford, Sen and Wei, 2010). In doing so, China integrated itself into the supply chains of the world's largest companies. This influx of investment is in part due to the efforts of the Chinese government to make itself a hub for international commerce by creating a business-



friendly environment that is ideal for production. In doing so, its citizens benefitted by gaining greater access to employment opportunities and heightened standards of living. Additionally, Chinese economic growth also improved the government as it provided the country with a more significant role in global policy discussions.

The progress continued into the 1990's when the Chinese government enacted greater measures to expand outward foreign investments by implementing the "Going Out" policy (Yelery, 2014). While China continued to receive high levels of investment inflows, the Going Out policy signaled to the international community that China had begun to also focus on greater diversification and the expansion of its global presence (Yelery, 2014). The policy attempted to promote the importance of foreign acquisitions, mergers, and infrastructure to increase levels of outward direct investment in international markets. Historically, these investments favored sectors such as energy, metals, real estate, and transportation. In addition, many Chinese contracts focused on infrastructure projects such as building new schools or roads (Hillman, 2018).

The "Going Out" policy focused largely on ascertaining high levels of foreign debt while also depicting China major global exporter. Thirty years later, China is ranked as the world's second largest creditor and owns \$2.4 trillion in net foreign assets as of 2015, many of which are comprised of "international reserves accumulated by the central bank, mostly invested in U.S. Treasury bonds" (Dollar, 2016). In addition, this policy was unique in that it also allowed for the inclusion of private firms in the investment process. While the policy initially only utilized state-owned enterprises (SOEs), negative initial reports caused China to reevaluate its investment strategy and make drastic alterations (Gu, 2009). In response, the number of private firms participating in the program rose. In addition, greater decentralization and acceptance of private

firms led to the decrease of SOE's from 10,000 million to 300,000 due to privatization (Yueh, 2015).

However, as China continues to grow and gain a greater international presence, the sustainability of its current growth rate has come into question. In general, China's growth has been attributed to high levels of foreign assets and productivity from technological and human capital. However, as their level of technological development meets that of developed nations, it is theorized that their productivity and growth will diminish, making it unlikely that they will surpass the development of other countries in the near future (Yueh, 2015). As a result, China will need to formulate a strategy to improve its productivity while also continuing the collection of foreign assets as reserves.

### **The Belt Road Initiative**

Since 2013, China has attempted to build upon its prior model of foreign investment with the unveiling of the Belt Road Initiative (BRI). This model represents the evolution of China's investment strategy as it contains similar ideologies to the Going Out policy while also expanding its reach to include unlikely nations. Within this policy, Chinese firms invest in the construction of major infrastructure projects around the world which are primarily financed through Chinese loans (Belt and Road Initiative, 2019). In doing so, they are supplying countries with desperately needed services while also accumulating higher levels of foreign debt. In addition, by engaging with other nations, they can capture a lucrative profit opportunity that provides the Chinese population with more jobs, their economy with more resources, and their markets with a broader consumer base.

The Belt Road Initiative is a modern take on the once thriving Silk Road that once stretched from Asia to Europe. However, this policy will expand the scope of the road exponentially. Currently, the map of BRI is separated into two main channels, the Silk Road Economic Belt and the New Maritime Silk Road. The Silk Road Economic Belt is similar to the ancient route as it connects China and Europe over land. Within this section, five individual corridors will be implemented allowing for a greater number of direct paths between participating nations and China (Deloitte Insights, 2018). In addition, the Maritime Silk Road expands the traditional road to incorporate shipping routes to reach a greater number of distant countries in regions such as South East Asia, Africa, and the Mediterranean. In doing so, the two channels form a vast network of economic partnerships that expand the scope of trade and increases the levels of international investment across the entire world.

The importance of this initiative cannot be underestimated as this is one of the most ambitious development strategies in history. Since its implementation, over sixty countries have chosen to participate which accounts for “over 30 percent of global GDP, 62% of the population, and 75% of known energy reserves” (World Bank, 2018). As of 2017, China had already dedicated over 600 billion dollars in outward investment of which “a fairly large proportion will go into markets related to the Belt and Road Initiative” (Deloitte Insights, 2018). Estimates of the policy range anywhere from four to eight trillion US dollars depending on the scope and success of each investment (Belt and Road Initiative, 2019). While the most extensive projects are often completed by Chinese SOE’s and mainly focus on energy, real estate, and transportation, there has been a push to attain greater market access in a wider variety of industries. Furthermore, a trend of increased private participation has continued and advanced within BRI as an even greater number of private firms have joined (Deloitte, 2018). As a result, the initiative has

evolved from a policy solely based on infrastructure investment to one that favors greater diversification.

Within the initiative, there are five main goals: Policy Coordination, Facilities Connectivity, Unimpeded Trade, Financial Integration, and People - to - People Bonds (HKTDC, 2018). Each of these represents a specific function that should be completed as China establishes and develops relationships with every country. Policy coordination refers to participating countries regularly consulting with Chinese firms to “jointly formulate development plans and measures for advancing cross-national or regional cooperation; resolve problems arising from cooperation through consultation, and jointly provide policy support to practical cooperation and large-scale project implementation” (HKTDC, 2018). Additionally, the goal of Facilities Connectivity prioritizes the creation of a cohesive economic development belt by constructing continuous paths with other countries and supplementing service gaps. This policy seeks to facilitate increased levels of unimpeded trade within both the physical and political world through greater economic integration. Furthermore, as these projects become commonplace and relationships solidify, countries will become more willing to reduce trade barriers and investment costs to maximize the benefit of participating in the initiative.

Improving the level of financial integration will be met through several measures including “enhancing coordination in monetary policy, expanding the scope of local currency settlement and currency exchange, deepening multilateral and bilateral financial cooperation, setting up regional development financial institutions, strengthening cooperation in monitoring financial risk, and enhancing the ability of managing financial risk through regional arrangements” (HKTDC, 2018). In doing so, this will help China be an active creditor to participating nations as its financial institutions will partner with and relocate to participating

countries. In addition, this will also assist China with the globalization of its currency, the RMB (Hamilton, Tee, and Forbes, 2018). Finally, the policy will also encourage personal connection by promoting cross-cultural exchanges in the hopes of fostering friendship and understanding between different nations.

One of the biggest questions surrounding the entire initiative is: how will China pay for this? Studies have found that their funding originates from a variety of places. However, the largest contributors are China's four state-owned commercial banks. Also known as the "big four," this group is comprised of the Bank of China, the China Construction Bank, the Industrial and Commercial Bank of China, and the Agricultural Bank of China. Combined, they contribute approximately half the financing or \$150 billion US dollars as of 2016 (Wildau and Ma, 2017). The second highest contributor is the Chinese Development Bank which provided \$110 billion, or roughly 38% of investments, as of 2016 (Deloitte Insights, 2018). This bank was created to serve China's development strategy and has become the world's largest development finance institution (China Development Bank, 2015). The final eleven percent of investment is comprised of funds from the Export-Import Bank of China, the Silk Road Fund, Asia Infrastructure Investment Bank, and the New Development Bank. Out of these institutions, the Export-Import Bank has provided the most support with \$24 billion but, each of these firms contributed minute amounts in comparison to their counterparts (Deloitte Insights, 2018).

It should be noted that each of the top four donor institutions answers to the Chinese Federal Government as the government either owns the institution or acts as a partial shareholder. This is particularly important because it allows the Chinese government to serve as the main creditor for BRI loans, which as of 2016, equaled \$292 billion US dollars (Wildau and Ma, 2017). As a result, if an investor were to default, they would not only be held responsible to

a private company but also a federal government. In addition, if many of these loans were to default at once, the Chinese government would be liable for any experienced losses. While Chinese outflows still comprise a small percentage of its GDP, the government has expressed its desire to expand these funds and allocate even more money to the Belt Road in the future. However, many of the loan and investment recipients are developing nations. As a result, the likelihood of default is greater than will stable industrialized states. This raises the question of what will happen to recipients that are unable to repay these loans and the viability of this investment strategy in general.

### **BRI in Africa**

While the BRI is a global initiative, its presence within the African continent has expanded tremendously since the policy's implementation. Currently, thirty-six of the continent's fifty-four internationally recognized countries have agreed to participate in this initiative, and a total of \$1 trillion has already been funneled to recipients in Sub-Saharan Africa by 2018 through loans, credit, and grants (American Enterprise Institute, 2019). This policy has proven effective as China is now the largest creditor to the region of Sub-Saharan Africa with its loans accounting for 14% of its total debt stock (Schneidman and Wiegert, 2018). In addition, "While their FDI is relatively low, accounting for just over 5 percent of total FDI inflows into the (African) region in 2015, two-way trade has grown 40 times over the last 20 years and now exceeds \$200 billion" (Gandhi, 2018). Furthermore, over the past five years, they have regularly been ranked within the top 5 investors in the African continent. As a result, the Belt Road has allowed China to become an essential player in the process of African development.

As this relationship strengthens, questions have arisen surrounding the ultimate motivations of the Belt Road. These questions have become even more prevalent due to China's

position as the continent's largest creditor. As a result, politicians and citizens alike have voiced concerns about the unexpected outcomes that could arise from tying themselves to China too quickly. However, the Sino-African partnership shows no signs of slowing down. In September of 2018 President Xi Jinping committed another \$60 billion to Africa investment with no "political conditions attached." This echoes similar commitment from 2015 to provide another \$60 billion in credit and loans which had been fulfilled as of this past year (Fifield, 2018).

Externally, Chinese investments seem attractive for many African nations, as they do not carry the same political stipulations and are accessible to a wider variety of countries. However, higher levels of debt could leave African resources and institutions vulnerable to Chinese influence. Within this discussion, two primary speculations have arisen to explain China's recent behavior. The first speculation speaks to the altruistic aims of Chinese aid and argues that, while China will attain economic dominance through their investment strategy, they do not wish to achieve ultimate control over each nation's resources and institutions. However, speculation two argues that while the Chinese aid strategy is nontraditional in its limited attention to political systems, their final goal is to follow in western footsteps and eventually gain both political and economic authority over recipient countries to challenge the entrenched global hierarchy and attain superpower status.

However, between the two speculations one theme is essential: to accomplish either motive, China must first establish economic dominance in recipient countries. The Belt Road Initiative is instrumental in reaching this goal as it places a greater emphasis on intertwining China's economy with those of African nations through infrastructure investment and greater levels of international trade. In doing so, China has been successful in integrating both its larger SOE's and smaller private firms into the economies of African nations, making both consumers

and governments dependent upon them to provide goods and services (Jayaram, Kassiri and Sun, 2017). As these relationships have expanded, a greater number of African countries have come to see the value in participating in the Belt Road Initiative which has led to increased levels of BRI participation as well as Sino-African trade (Tiezzi, 2018).

It should also be noted that any Sino-African partnership contains a high level of risk; specifically, when dealing with contracts for larger infrastructure projects such as those offered by the Belt Road Initiative. At first, these projects may seem appealing, as African nations require improved infrastructure to continue in their development process. However, upon further analysis, it becomes apparent that these projects could act as major debt traps (Schneidman and Wiegert, 2018). As the majority of these projects costs millions, if not billions, of dollars, African nations are placing themselves in precarious situations by committing to owing long term debts to Chinese enterprises. In doing so, the Belt Road Initiative mimics the environment created by OCED donors leading up to the first African debt crisis of the 1980s and 1990s by encouraging growing nations to take on greater amounts of debt despite their limited means of repayment (Hurley, Morris, Portelance, 2018).

This system of indebtedness is furthered by the way the initiative formulates its infrastructure contracts to allow greater participation from the Chinese government. Traditionally, when two parties have entered into a BRI infrastructure contract, the recipient country is provided with state-backed commercial loans from one of China's four state-owned banks. In some cases, the Chinese government is able to insert themselves even further by utilizing SOEs to construct and manage projects in Africa (Hillman, 2018). As a result, when a country enters into a contract with Chinese SOE's it does not merely owe the money to a private company but rather to the Chinese government itself. However, the real speculation begins when



questioning what China will do if a country defaults on its loans. As a greater number of African countries agree to these infrastructure projects, it increases their debt-to-GDP ratio and places them in a vulnerable position regarding the level of influence China is able to enact within their borders.

A recent example of this can be seen in the newly completed Mombasa-Nairobi Standard Gauge Railway. Spanning throughout Kenya, the railway extends for 300 miles and cost 3.8 billion dollars. To fund this project, the Exim Bank of China provided 90% of the commercial loans while the Kenyan government only paid for ten percent. As a result, Kenya continues to owe China 3.4 billion dollars (Sun, 2017). However, it should be noted that as the BRI has evolved there has been a greater push for the inclusion of independent Chinese firms as providers of both infrastructure and investment. While this trend is encouraging, it is still within its early phases, and a majority of projects continue to be funded by China's state-owned financial institutions.

In addition, because the Belt Road expands China's access to African markets, a greater number of smaller private Chinese firms have expanded into African markets to capitalize upon potential profit opportunities. In response, domestic economies have wavered due to the trouble local firms have faced from competing with the Chinese. If left unchecked, this could lead to a decline in national productivity and be a detriment to overall growth. Furthermore, this trend is predicted to continue as thousands of new Chinese firms establish themselves within African economies each year (Mckinsey & Co, 2017). In a study conducted by McKinsey & Co, analyzing the depths of China's involvement in the private sector of African economies, they found that "the number of Chinese-owned firms...was between two and nine times the number registered by China's Ministry of Commerce." By extrapolating data from eight separate African

nations, they were able to estimate that more than 10,000 Chinese-owned firms were operating in Africa as of 2017. On average, this is 3.7 times more than the expected number of Chinese firms based off of the data from China's Ministry of Commerce. Furthermore, it is estimated that approximately "12 percent of Africa's industrial production is already handled by Chinese firms" and nearly 50 percent of Africa's internationally contracted construction market (Mckinsey & Co., 2017).

Furthermore, even though higher levels of Sino-African trading have been reported, data reveals that an imbalance exists between the levels of Chinese and African exports within the traditional scope of the private market. Historically, China has run a trade deficit with African countries. For example, data shows that between 2004 and 2014 China continually imported more from African nations in comparison to their overall exports to the continent. However, when compared to trade relations between the US and the same African nations, these discrepancies are minute and lend themselves to a relatively bilateral trading partnership between African and Chinese countries (China Africa Research Initiative, 2017). During this period, the rate of Sino-African trade has only increased until eventually, "China surpassed the United States (US)...as Africa's single major country trading partner" in 2009 when accounting for both exports and import flows (Ighobor, 2013). The heightened relationship can be seen in countries such as Angola, Zambia, and DRC which each report China as the recipient of more than 40 percent of their exports. However, the economies of each of these nations are by nature resource dependent and undiversified as they are still within the earlier stages of development. As a result, the majority of these exports to China were compiled of resources such as crude oil, copper, as well as iron and other minerals necessary for industrializing economies (van der Lugt, 2014).

However, since 2015, the stereotypical trade deficit between China and Africa has flipped marking a definitive shift in the Sino-African relations. As a result, Chinese exports to Africa have begun to outnumber imports from Africa. While this has not been definitively tied to the Belt Road Initiative, it is a possible factor that could have shifted the balance of trade (China Africa Research Initiative, 2017). The increase in exports can be attributed to several areas related to the BRI such as a greater number of exported capital goods to support infrastructure projects. In addition, the private sector plays a significant role in this as well, as the shift in trade could, in part, be due to a greater amount of commercial goods. As this switch occurred soon after the unveiling of the Belt Road, it is possible that a strong correlation exists between the two. However, limited data prevents us from claiming any level of causation.

If this is true, the BRI could alter the basis of Sino-African trade to make it more one-sided as opposed to its previous state. Furthermore, this also means that the relationships established from BRI are not aimed at benefitting both parties but instead, geared towards Chinese growth. While extensive data does not exist to forecast future levels of Sino-African imports and exports, for now, African nations are faced with trade deficits with their continent's largest creditor and partner (China Africa Research Initiative, 2017). If this trend continues, it could be harmful to African economies as their largest trade partners no longer possess the same demand for African goods and resources.

Through the BRI, China can expand upon its prior strategies for international trade to reach a new level of economic dominance. By using SOE's and private firms China has been able to integrate itself into the economies of African countries and become a key player in the overarching development process. In addition, by creating an environment that is dependent upon Chinese investment and capital for economic growth, they are able to place themselves in a

position of power over African economies which has allowed for the reversal of a decade long trade deficit. While the majority of Chinese exports continue to be crude resources, these levels have been unable to compete with the number of imports going into African nations (van der Lugt, 2014). As a result, the BRI is theorized to have led to a shift from mutually beneficial bilateral trade to one-sided trade in favor of China. Coupled with the greater levels of debt due to increased borrowing from China's state-owned banks, Africa could be entering into perilous territory in terms of long-term indebtedness. With African exports trending down, debt rising, and Chinese private firms crowding out local businesses, it leaves countries with few viable options to create lasting independent growth and pushes policymakers to form strong bonds with the Chinese to achieve some level of development (Dollar, 2016).

As Chinese dominance continues to encroach upon African development, two potential paths unfold for the basic observer. The first being a primarily altruistic strategy that frames China as the benevolent investor that is aiming to link developing and established nations through a network of investment and infrastructure. Most people that identify with this school of thought recognize the inevitability of Chinese imposition while also claiming that China's ultimate motive is not to gain control but rather to assist fellow nations in the development process for the benefit of everyone. This strategy has at times been related to "South-South Cooperation" where countries that have risen in the global rankings use their success to help other developing nations (China-UNDP Global Cooperation 2017 Highlights, 2018).

In theory, this strategy is logical as the newest donors have a greater understanding of the types of issues developing nations face today. Their recent experience with developing their own institutions would allow the newfound donors to provide aid and expertise in a greater number of areas that focuses on nation-building in the modern day. Within the context of the Sino-African

relations, this provides a possible explanation for China's behavior through an altruistic lens. However, for the altruistic speculation to be likely, investments would be expected to follow a distinct pattern of allocation based on need. As a result, a direct relationship is foreseen between the poverty levels of African nations and the amount of aid and investment they received from Chinese entities. Additionally, countries with limited infrastructure would also be likely to receive higher quantities from the Chinese, as basic infrastructure is vital to the development process.

While the possibility of international altruism sounds encouraging, realists believe that this perspective is far too naive. As a result, an alternative viewpoint has evolved which includes a greater deal of skepticism when dissecting the actions of Chinese investors. Like its counterpart, this perspective also recognizes the inevitability of Chinese dominance in African markets but, goes further to claim that China will use their basis of economic dominance to eventually gain political influence and notoriety as a global superpower. Compelling parallels can be seen throughout this perspective between the actions and possible motives of Chinese investors and those of traditional western nations in that both strategies utilize aid as a tool to gain economic influence and later, political dominance. While differences exist in country selection and formation of relationships, the strategy to maintain alliances is relatively similar. Both western nations and Chinese entities rely heavily on infrastructure investments and improved trade deals to cultivate these relationships (Schneidman & Wiegert, 2018). While China continues to make waves as the newcomer on the scene of international aid, especially within Africa, it should be noted that traditional donors continue to provide greater levels of FDI in comparison (UNCTAD, 2018).

Another significant difference between the Chinese and western aid is that China does not attach political conditionalities to any of its loans, investments, or aid. When analyzing this from a historical perspective, this is extremely unusual for an international donor. Traditionally, western donors such as the United States or the United Kingdom provided aid based on political conditionalities (Robinson, 1993). As a result, their desire to expand democracy to other countries proved to be a driving factor in their interest in international investment. However, their supporting motives were not based solely around the concept of global stability but rather, protecting personal foreign interests abroad while simultaneously gaining allies that operated on similar values and rules. In doing so, donors could ensure that recipient countries would act within the interest of their benefactors and remember the democratic principles that had been forcibly instilled into their governments and emerging economies. As a result, traditional western donors were able to shape the world in their own image based on their preferred political system through the use of seemingly endless aid flows, so long as their recipients maintained democratic appearances (Robinson, 1993).

In this regard, China is unique as they have elected to stray from preexisting frameworks. Instead, they have cast a wider net that reaches a greater number of African nations, many of which western donors would never have interacted with due to their unwillingness to accept conditionalities or based on preexisting instability. However, this does not disregard the possibility that China could use its aid to gain political influence in the future. As countries become more indebted to the Chinese government as well as independent firms, it is plausible to believe that in return, China could demand greater influence in a country's political structures. This is especially concerning if said country is unlikely to repay China for their investments.

While this always remains a possibility, current trends seem to illustrate that Chinese investment may not be driven solely by their desire to spread democracy or their own political ideology, but rather on alternative institutional factors such as trade capacity and quantity of internal natural resources. If correct, this would create a direct, proportional relationship between each of these factors and the levels of investment they receive from Chinese entities.

## **Methodology**

Once economic dominance is finalized, a greater level of speculation comes into play. Currently, Chinese investment spans the entirety of the African continent, and at the surface, these investments often look random. Despite the shared destination of these investments, each African nation that chooses to participate in this initiative remains determinedly independent and unique. As a result, when analyzing BRI activities in Africa, the natural question arises surrounding the allocation of investments between countries and why certain nations received greater inflows in comparison to their neighbors. Upon further research, two primary speculations arise that could explain the investment patterns of Chinese firms.

Speculation 1: Chinese investments are driven primarily by altruism and a desire to spread international goodwill by embracing the South-to-South cooperative method of economic development.

Speculation 2: Chinese investments can be attributed to motives of self-interest and a desire for future global domination. As a result, these investments are a ploy to create a strong-hold within Africa by establishing lasting economic dominance which could potentially lead to enforcement of political influence.

To test each speculative path, I conducted a multivariate OLS regression using seven independent variables that have been used in previous studies to determine levels of Chinese investment abroad. Each variable was chosen from its prior use in studies by various organizations. For example, the UN’s “2018 Report of African Cities”, The Brookings Institute’s review of “Trends and Determinants in Chinese FDI in Africa” by Dhruv Gandhi, as well as UKaid’s “Chinese Investment in Africa: How Much do we Know?” by Deborah Brautigam, Xinshen Diao were all used to select the most poignant independent variables available. In doing so, I hoped that each independent variable would prove significant in contributing to Chinese investment and could show that one speculation was favored in comparison to its counterpart. The supported speculation would be determined by the signage of each independent variable in its relation to the dependent variable of the level of Chinese investment provided to each country as seen in the chart below.

Figure 1: Theorized Variable Relationships

Variables	Data	Expected Relationship to Levels of Chinese Investment to support Speculation 1	Expected Relationship to Levels of Chinese Investment to support Speculation 2
GDP per capita	World Development Indicator: GDP per capita (current US dollars)	Negative Correlation	Positive Correlation
GNI	World Development Indicator: GNI (Current US \$)	Negative Correlation	Positive Correlation
Political Stability	World Governance Indicator	Negative Correlation	Positive Correlation
Rule of Law	World Governance Indicator	Negative Correlation	Positive Correlation



Exports	China-Africa Annual Trade Data (Country by Country)	Negative Correlation	Positive Correlation
Imports	China-Africa Annual Trade Data (Country by Country)	Positive Correlation	Negative Correlation
Resources	Total Resource Rents (% of GDP)	Negative Correlation	Positive Correlation

The independent variables aimed to test the level of poverty, economic size, governance, trade, and available resources in every country against the level of Chinese investment received by each nation. Primarily, I chose to use the GDP per capita because it provided comparable data on each nation’s wealth. This variable is traditionally used to represent the average standard of living for a person in a specific country. To collect this data, I utilized GDP per capita (in current US \$) from the World Bank’s “World Development Indicators” database. This data was collected based on annual collections of each country’s GDP by the World Bank and the OECD and was then divided by their individual midyear populations and converted in US dollars.

Furthermore, my analysis also needed to account for the size of a nation’s economy. To do so, I used GNI (in current US \$). This data was also collected from the World Bank’s “World Development Indicators” database. In its simplest form, GNI represents the sum of all value added by residents and producers within a country in addition to product taxes and income from abroad citizens. This data is also collected on an annual basis and is the result of the joint efforts of the World Bank and the OCED’s national accounts.

The World Governance Indicators quantifies the level and quality of governance in over 200 countries and territories. Overall, their data includes six separate variables of governance: “Voice and Accountability, Political Stability and Absence of Violence, Government

Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption” which are all rated on a scale of -2.5, weak, and 2.5, strong. For the purpose of this paper, I chose to focus solely on political stability and rule of law to emulate the analysis conducted by renowned scholars such as David Dollar, Wenjie Chen, and Heiwai Tang in their work “Why is China Investing in Africa? Evidence from the Firm Level” which was published in the World Bank Economic Review in 2018. “Political Stability and the Absence of Violence or Terrorism” assess the likelihood of instability due to politically motivated acts of violence. Alternatively, “Rule of Law” accounts for the confidence citizens and organizations have in others to abide by the rules of their society. Included in this is the enforcement of contract law and property rights, the quality of police and courts, as well as the likelihood of crime and violence. Both variables are compiled from over thirty separate sources including survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. Once collected and organized, the data is then scaled to fit the bounds of each variable.

To measure trade, I employed data from the John’s Hopkin’s School of Advanced International Studies, China Africa Research Initiative (SAIS-CARI) which analyzes the Sino-African relationship through a variety of factors including trade. Specifically, I utilized the “China-Africa Annual Trade Data (Country by Country)” from 2010 to 2016 in unadjusted U.S. dollars. This dataset is unique in that it divides trade between imports and exports which later uncovered some interesting trends. A combination of sources was used to create this data, including trade statistics published by the General Administration of Customs of the Peoples Republic of China, China Statistical Yearbook, and U.N. Comtrade. By utilizing a multitude of sources, the SAIS-CARI project hopes to create the most accurate and extensive dataset available.

Finally, to measure the resource levels of each nation, I collected data from the World Bank's, "World Development Indicators Data Bank" to compare "Total Resource Rents (as a % of GDP)" between countries. Throughout this project, this variable proved to be the most challenging. This is because few metrics exist that can quantify the levels of resources held within a country as it requires knowledge of all resources a nation has and will come to possess. Furthermore, evaluating the worth of each resource in significant numerical terms is almost impossible. As a result, the data used for this variable is restrictive and only partially illustrates the role resources play in attracting foreign investment as it only represents variables that have come to market in the past.

Once collected, each independent variable was then broken down into years and countries to make them comparable to the AEI's "China Global Investment Tracker" which was used to represent the dependent variable of Chinese investment received. This data set was created through the combined efforts of the Heritage Foundation and the American Enterprise Institute (AEI) and has tracked China's overseas investment and construction expenditures since 2006. Each investment is recorded by factors such as date, investor, sector, subsector, country, and region. For simplicity, I narrowed this data to only include investments in Sub-Saharan Africa and limited the years to focus between 2010 and 2016. In doing so, I was able to identify which countries received the most aid and investment and measure the degree to which this relationship matched its theoretical version.

$$\text{Ln (Investment)} = \beta_0 + \beta_1 \text{Ln (GDPPC)} + \beta_2 \text{Political Stability} + \beta_3 \text{Rule of Law} + \beta_4 \text{Ln (Exports)} + \beta_5 \text{Ln (Imports)} + \beta_6 (\text{Resource Rents}) + \beta_7 \text{Ln (GNI)} + u$$

Finally, the variables were then combined into the regression function seen above, to test the correlation between each independent variable and determine the favored speculation. The

regressions aimed to test the strength of the primary speculation whereby if limited supportive evidence was uncovered, probable support could be given to speculation two. The variables were organized into a set of panel data, and each variable was assigned to a country from 2010 to 2016. Within this data set, thirty-two nations were analyzed to represent a cross-section of Sino-African investment activity. Subsequently, two regressions were run to measure the significance of each variable to the level of investment each country received. Primarily, a pooled OLS regression was conducted to create a general picture of the data set. Additionally, a fixed effect model was also examined to account for the heterogeneity between countries and years that could not be controlled for in the OLS model and control for the factors within each country that were not accounted for in the model. Finally, basic correlations were also included to provide surface-level statistics on each variable's relationship to Chinese investment.

While each variable was chosen based on its inclusion in previous studies, it should be noted that data collection within developing nations, and the African continent specifically, is limited. In addition, Africa houses fifty-four internationally recognized countries, each of which has different standards and priorities surrounding data collection and reporting. As a result, while this data can demonstrate strong correlations, it must be remembered that this does not represent a holistic picture of the BRI in Africa. Alternatively, this model represents a fraction of what economics can quantify in terms of the Sino-African relationship and must hold all other variables constant.

## **Results/Discussion**

Basic descriptive correlations were taken to compare each independent variable to its dependent counterpart in 2013 and 2016. As seen in Figure 2, in 2013 negative correlations were found for each of these relationships apart from GNI. Interestingly, by 2016 most of these

correlations switched. While this could be attributed to a variety of factors, the implementation of the BRI could play a significant role in the change. In addition, a shift was observed in the strongest correlations to investment. In 2013, the GDP per capita, Political Stability, and Imports contained the most robust relationships. However, in comparison to 2016 most of these correlations were relatively modest. Alternatively, by 2016 GNI, Political Stability, and Exports had taken over as the highest correlations, all of which were vastly stronger than their previous results in 2013. Notably, Exports also switched signs which provides a greater level of support to the regression results and represents China’s desire to track the receptiveness of investment recipient’s to Chinese goods in their markets. In addition, while the correlation is not as large as the results from the regression, the change in the sign of Imports also supports the regression results as it demonstrates that they lead to a greater amount of Chinese investment.

Figure 2: 2013 Summary Statistics

<b>2013</b>	<b>Investment (Millions of \$)</b>	<b>GDPPC (Current US\$)</b>	<b>Exports to Africa (unadjusted \$)</b>	<b>Imports from Africa (unadjusted \$)</b>	<b>Resource Rents (% of GDP)</b>	<b>GNI (Current US \$)</b>	<b>Political Stability</b>	<b>Rule of Law</b>
Average	\$1,619	3364.38	2567.66	5446.23	18.948	70341872566	-0.576	-0.765
Median	\$855	1415.19	779.29	898.64	14.272	25487453611	-0.433	-0.763
Correlation		-0.211	-0.034	-0.16	-0.068	0.038	-0.183	-0.008

Figure 5: 2016 Summary Statistics

<b>2016</b>	<b>Investment (Millions of \$)</b>	<b>GDPPC (Current US \$)</b>	<b>Exports to Africa (unadjusted \$)</b>	<b>Imports from Africa (unadjusted \$)</b>	<b>Resource Rents</b>	<b>GNI</b>	<b>Political Stability</b>	<b>Rule of Law</b>
Average	\$2,155	1493.962	2380.07	1818.07	12.823	63867678563	-0.723	-0.765
Median	\$1,260	1262.99	967.71	524.74	11.881	19634294352	-0.394	-0.814
Correlation		0.1341	0.4921	0.1394	0.0323	0.6942	-0.4766	-0.1613

In addition, both an OLS and fixed effect regression were conducted to test the significance of each variable in comparison to the amount of Chinese investment received to discover if any significant correlations could be uncovered to favor the primary speculation. Unfortunately, the results of the regression analysis suggest that this is not the optimal model to explain China's investment behavior within the African continent. To support speculation one, each variable would have to show statistical significance in addition to the correct signage for Chinese investment as explained in Figure 1. However, neither regression provided enough evidence to support either claim. As a result, the results are inconclusive.

When testing the OLS model, the R-squared equaled .2470, which demonstrates a modest level of explained variance in Chinese investment in Africa. In addition, little significance can be drawn from each variable due to their heightened p-values, with the exception of Imports and Exports. Additionally, the signs of each variable are inconclusive. For example, in this regression, GDP per capita, Political Stability, Rule of Law, Imports, and Resource Rents all contain the correct signage to support the primary speculation. However, Imports is the only variable also to show significance.

The limited significance of the model leaves room for conjecture on the alternative motives that could be driving Chinese investment. Although a wide range of speculations can be drawn from these results, the inability of the model to refute self-interest motives leaves the possibility open for future research. The signage of the GNI and Exports variables in the OLS regression is consistent with the expected relationships that promote self-interested investment tactics. In addition, Exports was shown to be statistically significant which supports the claims of China's increased desire to ship their commodities to new markets. However, it must also be noted that the limited significance of these variables is somewhat surprising as these variables

were chosen because of their popularity in explaining China's investment patterns. As a result, their limited explanatory power directly conflicts with the results of previous studies and demonstrates the knowledge discrepancies within the economic community when quantifying Chinese investment activity.

As Imports and Exports are the sole variables to show statistical significance, they are the only variables within this regression to have a definitive influence on investment decisions. Their high correlation with received levels of Chinese investment could be attributed to China's growing desire to expand trade relations within Africa. According to a study by John's Hopkins SAIS- CARI of Sino-African trade, a definite shift can be observed in the balance of trade between China and African nations since the implementation of the BRI. Prior to this policy, Sino-African trade was relatively bilateral with a slight preference for African imports. However, after 2013, the relationship reversed to favor Chinese exports. The findings of this regression somewhat support the conclusions of the SAIS-CARI data although these results demonstrate that both Imports and Exports are significant factors.

However, due to the equal importance given to both Imports and Exports, the results can support neither speculation. Heightened levels of trade could demonstrate China's desire to become a dominant figure within African nations. This theory is also supported by the reports of a greater trade imbalance in favor of Chinese exports and strengthens the argument that China could be using the BRI to enter new markets and capture a greater demand. However, it is also probable that China is increasing trade to assist with the development of African nations and provide goods and services that are desired by the population. As a result, the results must remain open to interpretation as any definitive conclusions are beyond the scope of this study.

Figure 3: OLS Results

VARIABLES	(1) Model 1
GDPPC	-0.129 (0.234)
Political Stability	-0.121 (0.178)
Rule of Law	-0.343 (0.265)
Exports	0.348** (0.174)
Imports	0.377*** (0.118)
Resource Rents	-0.0118 (0.00894)
GNI	0.119 (0.214)
Constant	-1.093 (2.204)
Observations	220
R-squared	0.246

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The findings of the OLS model are further supported by the results of the fixed effect regression. By accounting for the inherent variance that exists between the countries included in the data, the results show greater limitations on behalf of the model to explain Chinese investment behavior in Africa. As seen below in Figure 3, the overall R-squared of the fixed effect model equaled .2407 which demonstrates a similar level of explained variance as the OLS regression. Furthermore, Exports and Imports again proved to be the only significant independent variables in this model.

Figure 3: Two-ways Fixed Effect results

VARIABLES	(1) Fixed Effects
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GDPPC	-0.0788 (0.248)
Political Stability	-0.118 (0.178)
Rule of Law	-0.369 (0.268)
Exports	0.353** (0.174)
Imports	0.357*** (0.122)
Resource Rents	-0.0107 (0.00910)
GNI	0.128 (0.214)
Constant	-1.449 (2.280)
Observations	220
R-squared	0.247
Country FE	YES
Year FE	YES

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Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

As a result, neither regression provides enough substantiated evidence to reject null and support the significance of the independent variables, apart from Imports and Exports. This is somewhat surprising as it directly contradicts other findings within the academic community. Scholars from the renowned universities, policy centers, and international think tanks have used these independent variables to justify China's investment behavior and create their own narrative on the consequences of these actions. These discrepancies can be attributed to a variety of factors such as greater access to data. Within this analysis, data collection proved challenging as accurate data from African nations and China is notoriously sparse. Large gaps often existed within the data which made it difficult to formulate a truthful picture of China's rational. In

addition, the newness of the BRI restricted the data due to the limited number of completed projects within Africa and made it difficult to deduct meaningful results.

Furthermore, the regression results could have also been affected by omitted variable bias. There were many potential variables that could have strengthened the results of this model however, the lack of collected data prevented them from being added to the study. An example of this is the Poverty Headcount Ratio at 1.90\$ a day which could have been helpful in analyzing the effect of collective poverty on investment levels. Furthermore, the limited ability to quantify and track the infrastructure of individual nations prevented its inclusion despite its likely impact on the dependent variable. Finally, certain demographic variables such as population, primary religion, or main language spoken could have also been helpful to determine if certain societal factors affected Chinese decision making.

Due to the limited significance of the majority of the variables, it must be concluded that the motivations of the Belt Road Initiative within Africa are unclear. What is apparent, is the expansion of Sino-African trade plays a significant role in determining the allocation of investment abroad. However, the consequences of this partnership are obscured by the limited available data on the current participating nations and the outcomes of BRI projects. While many experts claim to know the motivations and determinants of Chinese foreign investment, there is still an overwhelming level of uncertainty within the academic community surrounding this subject. As a result, to make it possible to obtain the true drivers of Chinese investment in Africa further analysis and data collection is required.

## **Conclusion**

The Belt Road Initiative is an ambitious and complex plan. Since its implementation, hundreds of plans have been implemented and billions of dollars have been allocated to its continuation. The potential of this policy is immense as it has the power to improve the lives of so many people by building desperately needed infrastructure around the world. However, it is also capable of indebting every participating nation to China. By taking on too many loans, developing countries especially make themselves vulnerable to Chinese influences. Although these investments are currently free of political conditionalities, it does not limit the possibility of Chinese encroachment in the future. Furthermore, the heightened influx of Chinese goods in African markets could also lead to socio-economic issues as they crowd out local, African brands and businesses. As a result, it is imperative that greater data collection is implemented to discover which factors determine Chinese investments in Africa.

While the data was inconclusive, the two speculations remain. Both sides have substantiated evidence to support their argument. However, neither can claim that their motivation is infallible due to the extreme level of discrepancy within the academic community. As a result, evidence on either side is not well supported and contains a great deal of bias and speculation. To account for this, the analysis must account for its quantitative shortcomings when providing any conclusion surrounding this issue. Furthermore, a great deal of caution is required when analyzing the factors of the Belt Road as the analysis is unable to account for every rational of the human brain. As a result, we may never fully understand the motivations for Chinese investment in Africa as it is beyond the scope of empirical analysis.

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