

Implications of China's Rising Influence in Africa: A Case Study of Ghana, focusing on Trade, Investment and Aid

Nana Akua Sarpong Asante

Ghana Institute of Management and Public Administration (GIMPA)

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ABSTRACT

During the last two decades, the political and economic bond between China and Africa has deepened greatly in the areas of trade, FDI, and Aid generating extensive interest and discussions within the academia, international trade practitioners, and investment analysts about the implications of this development for both Africa and the global system. The study explains the empirical and theoretical literature on trade, FDI, and aid. Whereas some scholars believe that China's footprint in Africa is for exploitative purposes or has a neo-colonialist undertone, others view it as a genuine desire by China to support Africa's quest for economic development and growth. The study uses Ghana as a case study, and attempts to fill a knowledge gap by evaluating the characteristics and motivations of Chinese companies either as state-owned or private enterprises coming to partner Ghana. The study also assesses the impacts of the partnership on the Ghanaian economy. Using both qualitative and quantitative data from trade, FDI, and aid; and supported with graphical illustrations, the findings from the study do not support the theories that China-Ghana co-operation has been exploitative or was borne out of neocolonialist ambitions of China. The study highlights some of the visible impacts on Ghana's economy through the partnership and concludes with recommendations to policy makers on how to create even competitive business environment to consolidate the gains from the co-operation.

Keywords: China, Ghana, Co-operation, Trade, FDI, Aid, Exploitative, Neo-colonialist

INTRODUCTION

Background to the Study

In the last two decades, the economic and political bonds between China and African states have deepened rather speedily to the surprise of the international community, generating extensive interest and discussions about the implications of this development for Africa and for the global system of China's footprint in Africa (Maverick, 2020). International journals including the New York Times, Financial Times, Washington Post, BBC and Christian Science Monitor all led series of debates on the subject in 2007. Concurrently, The Economist, BusinessWeek, Foreign Policy, Vanity Fair and others all featured articles on China's sudden growing interest in African economies. It must be emphasized that the rapid growth of China especially in recent years has raised many questions about the consequences for the global economy particularly the economies of Sub-Saharan African states. As the economy of China expands, it is expected that the expansion will generate investment opportunities with its concomitant effects on key strategic areas including consumer, agricultural, industrial, banking and logistics sectors of African economies. The rapid rate of China's growing footprints in Africa has engendered debate around two critical questions: what inspires this scale of China-Africa alliance? What are its consequences for Africa's sustainable advancement? (Broadman, 2006; Chan, 2006; Goldstein et al, 2006; Tull, 2006; Wild and Mephram, 2006; Alden, 2007; Chin and Frolic, 2007; He, 2007; Li, 2007; Manji and Marks, 2007; Davies et al, 2008; Dollar, 2008; Gu et al, 2008; Review of African Political Economy, 2008; World Development Special Issue, 2008).

At this juncture, it is worthy to emphasize that the West – represented by America and Europe – had had long international development co-operation with Africa in the areas of trade, investment, and aid prior to the rising interest of China in the African continent. The western co-operation with Africa has either been on multilateral basis (i.e. between the Bretton Woods institutions – the World Bank and the International Monetary Fund); or bilateral (i.e. between a specific western country and a particular African state). Typically, the OECD member countries would fashion out the appropriate development strategy (for instance using the G-20 compact) to realize a successful co-operation.

Since economic transformation is at the core of Africa's development agenda, the OECD works closely with African governments, regional organisations and private actors to help them design and implement innovative policies adapted to each context, and improve the economic and social well-being of African people. However, unlike the Chinese co-operation with Africa which is often shrouded in opaqueness, and most of the times ignores the issues of corruption of the African state government, child abuse, environmental degradation, debt sustainability, and the like; the co-operation between the west and African state is more transparent, and is more often than not fashioned to meet certain fundamental standards. For instance, the west looks at certain factors such as credit ratings, good governance, political stability, etc. of the country concerned to determine the level and type of co-operation it would strike with a particular African country. Specifically, the OECD focuses on domestic resource mobilization and tax. The importance of this requirement for Africa is meant to drive domestic resource mobilization as well as a basic pillar of an investment-friendly tax system.

China appears to capitalize on the stringent conditions that African states must satisfy under western-sponsored programmes to launch itself into the Africa arena. Some experts however, allude to the possibility of the fortunes and developmental projections of African economies rather suffering as a result of this Chinese "invasion". For instance, they forecast that improved growth in China will accelerate competition in global markets for manufactures, and the manufacturing industries in many African countries south of the Sahara will be affected negatively. They argue that unable to keep up with the pace of China's growth, some countries may become less competitive and see further erosion of their export shares and high-tech manufacturing sectors (Mark Esposito and Terence Tse, 2015). On the other hand, there is another school of thought which believes that the increased demand for natural resources by the fast-growing Chinese economy may create new prospects for traditional suppliers of these resources (Chen et al, 2015). The question, however, is whether Africa will be well positioned to take advantage of these emerging opportunities thereof to translate the supply of resources into sustainable economic development and growth. Research and data confirm an increasing trend of trade and investment flows between Africa and Asia during the last decade and China in particular undoubtedly contributes significantly to these flows due to its co-operation with Africa. According to Nduru, bilateral trade between China and Africa has quadrupled in the last fifteen years to reach \$40 billion in 2005 (Nduru, 2006). The high growth of Africa's trade with China is mainly driven by exports to China. Also, China's increasing prominence as a major source of imports for many African countries raises a number of questions as to the implications for local industries. In Ghana for instance, imports from China rose from a 3.7 percent share in 2000 to 9.8 percent share in 2004 (ISSER, 2005), reflecting the increased importance of China as a major trading partner. Between 2001 and 2005, the value of Ghanaian imports from China increased more than four-fold, from US\$ 160.5 million to \$740.1 million (IMF, 2006). In 2004, the value of the bilateral trade between the two countries reached \$500 million, up 70% over the 2003 figure. All these figures are indicative of the forging of closer trade links between Ghana and China. However, it is necessary to determine to what extent Ghana is benefiting from this increased trade. Cheap goods from China may enhance consumer welfare but it is also possible these same goods may compete out domestic manufacturers, thus impacting negatively on Ghana's industrial sector.

Another area of strategic interest is flow of foreign direct investment (FDI) from China to Africa. There is statistical evidence to show that in absolute terms, FDI from China to Africa is increasing. However, the investment levels are not as significant as those of trade. It must be noted that Sub-Saharan Africa accounts for only 1.8 percent of global FDI inflows but, in recent times, African-Asian FDI has been growing at a remarkable rate due mainly to Chinese influence on the African continent. Chinese firms tend to have different risk aversion with respect to investments in Africa relative to Western firms because they regard Africa as less competitive, especially in war-torn states such as Angola, DR Congo, Sudan and Sierra Leone and see the continent as a place

where a ‘first mover advantage’ plays out in favor of risk-taking entrepreneurs. In the case of China, it has been a deliberate policy of the government (through FOCAC) to encourage and support investment in Africa, especially in the provision of preferential loans and buyer credits (China, 2006). Chinese investments in Africa are in the specific areas of mineral extraction, apparel, food processing, retail ventures, transport and telecommunications, among others. There is no denying that a large part of Chinese FDIs has gone to African oil-producers like Sudan and Nigeria. In addition, some other important FDI destinations are South Africa, Ghana, Tanzania and Senegal. The effect of these investments is to drive African trade into cutting-edge multinational corporate networks, which are increasingly altering the concept of international division of labor (Broadman, 2006). However, it is often argued that the nature of these investments in terms of quantum and spread may not bring about the vital growth to these economies as may be anticipated. The reason is that a greater chunk of the investments is directed towards the extractive sector, with the aim of securing oil and raw materials for sustaining industries in China, and thus the investments do not contribute much to diversifying and broadening the industrial base of the African economies. With the exception of South Africa, FDI from Africa to China is negligible.

Also, of strategic interest in China-Africa co-operation is foreign aid (including technical assistance and human resource development, etc.). For instance, the Ministry of Finance of People’s Republic of China data represents actual expenditure (as against pledges or budget estimates) in respect of foreign aid indicates that China’s assistance has been increasing on yearly basis between 2003-2015 with a slight dip in 2016. Increases in aid support resumed from US\$2.97bn in 2017 to US\$3.09bn in 2019 before dropping slightly again to US\$2.94bn in 2020. Whilst total loans from China to Africa totaled over US\$140bn between 2000 and 2017 (CARI, 2018 Report). The loans financed projects in the power, telecom, transport and sewerage sectors, as well as the petroleum and mining sectors. The five countries that benefited most from these concessional and non-concessional loans were Angola, Nigeria, Mozambique, Sudan and Zimbabwe, accounting for over 80percent of total Chinese loans sent to Sub-Saharan Africa. In addition, China is using debt relief to assist African nations by effectively turning loans into grants. With regard to technical co-operation and human resource development as a form of aid, China has made significant contributions to Africa. It has been revealed that China has become the largest single provider of university scholarships to students from Sub-Saharan Africa, awarding about 12,000 from a total of 30,000 bursaries that were distributed by the top 50 global donors, according to the United Nations Educational, Scientific and Cultural Organization (UNESCO) 2020 Global Education Monitoring Report titled “Inclusion and Education: All means all”.

The report further illustrates how China alone accounted for 40percent of all university scholarships for Sub-Saharan African students followed by South Africa, the Russian Federation, the United Kingdom, Turkey, Egypt, India, Germany and Japan. This suggests that China in addition to supporting infrastructural development in Sub-Saharan Africa, is also empowering the African youth to acquire skills through university education system thus, confirming China as one of the most dominant foreign powers on the continent when it comes to foreign aid, technical assistance, and human resource development.

The literature on the impact of China’s trade, FDIs, and aid on developing economies in Africa has been well documented by several authors (Jenkins and Edwards, 2005; Kaplinsky and Morris, 2006; and Chen et al, 2005) among others. That notwithstanding, few have focused on the impact of these relationships on the various sectors of Sub-Saharan economies including Ghana. This in itself is not surprising since data is usually unavailable. Therefore, there is a huge research gap in appreciating the mechanisms through which trade, investment and aid relations between China and Africa affect these sub-sectors and their subsequent impact on economic growth and poverty reduction. Hence, the primary aim of this study is to determine the size, composition and significance of exports and imports between Ghana and China as well as the size, composition and significance of Chinese investment and aid to Ghana; and to determine the extent to which these variables have impacted on Ghana’s economy over a time frame of ten years.

It must be recognized that while dealing with China and other emerging Asian economies, African countries paradoxically, are also struggling to establish strong regional and sub-regional markets. Engaging with China therefore provides opportunities and challenges for African countries’ regional integration processes. Yet, China-

Africa relationship is largely on a country-by-country basis rather than on the basis of regional or continental bloc (Ngangjoh-Hodu, 2009). In other words, according to Ngangjoh-Hodu, though we always talk about China-Africa co-operation, China deals with each African country on its own merits. So that the nature and form of the Chinese co-operation with any particular African country depends on certain factors peculiar to that country. These may include: the type of governance system practised by the particular country (multi-party democracy or authoritarianism), the relative bargaining and leveraging power of the country in question, the type and economic significance of the natural resource available in the country, the level of economic development, and many more. All these factors play a role in the agency of leaders in their co-operation with China.

Whereas China's African policy is welcomed by some African leaders because it places equality at the forefront of this co-operation coupled with the understanding that similar historical experiences with interventionism has helped in forging and maintaining this south-south relation, others (especially the West) and a section of African elites, have criticized China's presence in sub-Saharan Africa, describing the move as a form of neo-colonialism. Former Zambian leader, Michael Sata, for instance expressed concerns over neo-colonial motivations of China regarding Africa's wealth of natural resources in the run-up to Zambian elections in 2011 (Langan 2017: p95). There are African actors such as business and political elites, actively exerting agency by carving opportunities from Chinese presence in Africa. They are doing so by determining the nature of the relations and engagement, to advance their interests (Mohan & Lampert 2010: p192-110). This underscores the fact that Chinese presence may not exactly be a zero-sum game for all Africans. Authors such as Brown (2012: p1894) view Africa as a continent with rising agency, and not just a passive actor in the international atmosphere as before.

Whereas Western press coverage has taken a keen interest in Chinese activities, the African perspective has gradually become more projecting in the mass media, revealing increased complexity surrounding the issues. Most political leaders of Africa see in China a new kind of partner that genuinely seeks their economic interest and therefore are poised to grab this rare opportunity of increased Chinese interest in Africa to improve their economic growth and development. The Beijing Summit and the Third Ministerial Conference of the Forum on China-Africa Cooperation (FOCAC) held from November 3 to 5, 2006 served to broadly outline the cooperation agreements that China has or aims to have with African countries, including Ghana.¹ Still, at the 2018 FOCAC meeting held in Beijing, President Xi Jinping disclosed that China will make available \$60 billion in financial support to Africa. Providing the breakdown, President Xi indicated that \$20 billion will be earmarked for credit lines, \$15 billion will be channelled into grants, interest-free loans and concessional loans, while \$10 billion will be put into investment financing. This support was expected to be in the form of government assistance and investments. However, opinions were divided over China's \$60billion support. Whereas, some experts saw China's investment plan as a trap to put African nations into cyclical, unsustainable debt burden, others saw China's gesture as a genuine desire to create opportunities for developing countries in Africa to grow their economies and create wealth and employment for their people. Since China took a giant step onto the African continent, there have been debates in various circles including academia, diplomatic, business, geopolitical, etc. as to why China is rapidly directing her economic interests towards the African continent in contemporary times. Indeed, some scholars like Edoho (2011), argue that China's relation with Africa is purely exploitative to the extent that China is not only after the continent's abundant natural resources but also a greedy competitor and a new colonizing power. Different reports by different international agencies on Equatorial Guinea lends credence to this notion of China being an exploiter on African soil. For instance, according to a 2013 African Development Bank report, the rate of enrolment at the higher education level in Equatorial Guinea was below 10percent. Per the report, the government only assigned 5percent of the state budget to education. The corruption and misappropriation of funds by the government had plunged the civil society into a life of poverty. Another report issued by the UNDP Human Development Index revealed that a huge number of the population living below the income poverty line, survived on \$1.90 or less. Moreover, according to a 2017 country report by the Human Rights Watch, Equatorial Guinea ranked 138 out of 188 countries in the Human Development Index, which measures social and economic development. This is in spite of the firm presence of China in some key strategic sectors of Equatorial Guinea's economy. The weakening of the education system in Equatorial Guinea was further validated by a 2018 Humans Rights Watch report. According to the report, in 2016, 42percent of children of primary school age were not registered as students. Per the report, it was obvious that the investment funds from China were not being channelled to fund pertinent sectors in the country, to promote its national

development; including the welfare of its citizens - the wealth doesn't drop down to the Equatoguineans. The growing existence of the Chinese in the country, has played a part in the lack of diversification – the Chinese had occupied certain sectors, competing with the local businesses to provide services and thus, stopping the country from investing and developing in such sectors. A classic example is the infiltration of the informal sector by the Chinese which had led to the neglect of the development of the local industry in Equatorial Guinea. However, as Esteban (2009: p683) suggests, the flooding of Chinese products into the market appeared to have gained general acceptance by the local people. Therefore, China cannot be held exclusively responsible for the lack of diversification. Esteban's argument thus goes to defeat the theory that the infiltration of China into the economies of African nations is purely for exploitation of Africa's natural resources through the vehicle of neo-colonialism.

Still, whereas some international development analysts and watchers believe that China's co-operation with Africa is exploitative and not mutually beneficial, others think otherwise. One scholar who belongs to the school of thought that sees China's increased support to Africa as genuine is Professor Mogopodi Lekorwe of the University of Botswana. Mogopodi is quoted by Folashade Soule and Edem E. Solermey, in their article "What Africans really think about China's role in Africa" as saying that: "China invests more in African countries as compared to other countries through bilateral co-operation because China is interested in seeing African nations overcome their development challenges, Folashade Soule et al (November 2020).

The question then is what is the main motivation for, or rationale behind China wanting to invest as much as US\$60bn in African economies at a time when investment opportunities which are relatively less risky and more attractive exist in Latin America, South America, Asia, and parts of Europe? This paper will attempt to investigate why Sino-African relationship is on the rise during the last two decades.

Now narrowing down on China-Ghana co-operation, we can confidently say that at the moment Ghana and China enjoy deep bilateral and economic relations. According to available data, China has become Ghana's largest trading partner, with trade rising from less than US\$100 million in 2000 to US\$5.976 billion in 2016 (Ghana Investment Promotion Centre, 2018). Generally, with regard to trade, Ghana exports raw materials to China, whereas China's exports to Ghana are predominantly manufactured products. According to the Economics and Commercial Counselor at the Chinese Embassy in Ghana, Chai Zhijing, China's export to Ghana in 2017 was \$4.8 billion, whereas import from Ghana was around \$1.8 billion (Xinhua newspaper on May 10 2018). Evidently, there is trade imbalance between the two countries with Ghana being at the disadvantage side. The nature of the trade relations has further drawn criticisms, citing the disadvantages at the expense of the Ghanaian local economy, because of cheap manufactured Chinese products flooding the market. The industry sector, comprising manufacturing, is one of the revenue-generating sectors of the country. The manufacturing sector has been negatively impacted, due to the influx of cheap Chinese products. Ademola et al (2009 cited in Langan 2010: p99) points to the consequences of such imbalance trade practice (that favours China) on the Ghanaian textiles industry, such as it leading to job losses and the displacement of Ghanaian textiles by Chinese textiles, due to the influx. Nonetheless, there are low-income consumers, retailers and wholesalers sourcing from Chinese imports which benefit their businesses. However, overall, the crippling of the manufacturing subsector may have a negative impact on the wider Ghanaian economy. Additionally, as Alden et al (2008: p39) put it, "it could derail the diversification of the economy".

It is often argued that China has four predominant strategic interests in Africa. The first one being the fact that China wants access to natural resources, particularly oil and gas. It is estimated that, by 2020, China would import more oil worldwide than the United States. Thus, to guarantee future supply, China is heavily investing in the oil sectors in countries such as Sudan, Angola, and Nigeria (relatively unstable environments though due to one form of conflict or other). The second reason is the fact that investments in Africa, a huge market for Chinese exported goods, might facilitate China's efforts to restructure its own economy away from labour-intensive industries, especially as labour costs in China increase.

Third, China wants political recognition. The Chinese government believes that deepening Sino-African relations helps raise China's own international stature and influence and break the Western hegemony. Most

African governments express support for Beijing's "One China" policy, which is sine qua non for attracting Chinese aid and investment. Finally, China has sought a more constructive role as contributor to stability in the region, partly to mitigate security-related threats to China's economic interests.

This study therefore reviews the existing evidence on the nature, causes and impact of China's economic engagement in Africa with special focus on China-Ghana relationship in three strategic areas including trade, foreign direct investments (FDIs), and aid (including technical assistance) to see the extent to which the co-operation has had some impact.

The paper will dwell mainly on the theoretical and empirical literature with both quantitative and qualitative focus.

Problem Statement

It is evident from the background study that the *rason d'être* of China's presence in Africa is a bit complicated. Sino-Africa relation is full of contradictory claims and is considered as a mixed bag of debates among scholars and policy makers (Idun-Arkhurst and Laing 2007). There are both merits and demerits of China's relationship with Africa, as the literature highlights.

There are both positives and negative of China's presence in Africa, as the literature highlights. What this thesis will shed light on, is how or the role governments can play in mitigating the negative effects of China's engagement in their countries, to take advantage of the opportunity being presented to them from the engagement between the two parties. Taking all of this account into consideration, it leads me to my research question. Thus, the statement of the problem sifted from this obvious complexity for the purpose of this study is as follows:

To what extent is the rising relationship between China and Africa in contemporary times be said to be exploitative or mutually beneficial using Ghana as a case study.

Much literature has been written about the exploitative ambitions of China in making its footprints felt on the continent of Africa. Whereas some scholars have accused China's sudden interest in African affairs as not borne out of genuine desire to see Africa develop, others have criticized China's rapid involvement in the African development agenda – using trade and aid – as a sign of neo-colonialism (Langan, 2017: p40). Furthermore, others like Edoho (2011); and Uchegara, 2009a) have argued that China's attention to Sub-Saharan Africa (SSA) has been perceived as opportunistic and exploitative. That is using her economic might as leverage to exploit the natural resources of these obvious weak African states to exploit their natural resources with little thought of Africa's needs. The nature of China's activities has also raised some doubts over their intentions, by young educated Africans and some African leaders.

Nevertheless, many scholars identify the potential and significance of China's presence on African soil. They reason that it provides a unique opportunity for economies of countries in SSA to break new grounds in their quest for development. What is important though, is for these countries to remain vigilant and seize the opportunities to their advantage, to avoid being exploited by China through the economic and infrastructural investments.

Research Objectives

The general objective of this study is to analyze the implications of rising Sino-Africa relationship focusing on Ghana. However, in order to validate or otherwise the statement of the problem, the research specifically examines the impact of China-Ghana co-operation focusing on selected strategic areas of interest of Ghana's economy namely:

1. Trade
2. FDIs

3. Aid (including concessional loans, technical assistance, and human resource development)

Research Questions

Following from the background of the study, here are some questions to look into, to help realize the objectives of my research:

1. To what extent can we say that China-Ghana co-operation truly provides mutual benefits to both parties in the area of trade rather than it being exploitative whereby only China benefits at the expense of Ghana?
2. What is the *raison d'être* or motivation of Chinese multinational corporations and private-owned enterprises trooping to Africa to invest their capital, technology and other resources in economies of these African countries?
3. To what extent has foreign aid from China impacted on Ghana's economy in terms of infrastructural development (e.g. roads and railways); social services (e.g. sports, health and medical support, education and capacity building, etc.); agriculture; defense; energy, debt cancellation, etc.?

Significance of the Study

This study is significant in several respects among which are:

1. It will provide real insight into the rationale behind the sudden rise in Sino-Africa relationship and eliminate the propaganda and rhetoric often stirred out by the Western media, political actors and scholars to the effect that Sino-Africa relationship is more exploitative (favouring China) rather than it being mutually beneficial.
2. Though there have been several studies on the impact of Sino-Africa co-operation on the economies of some African states, none of them has specifically focused on Ghana. This study therefore attempts to fill that void.
3. Evidence of positive benefits from China and Ghana co-operation will direct future governments of both republics to focus on deepening the relationship for their mutual benefits.

Scope and Limitations of Study

The scope of the study covered the African continent. However, the study was limited to only Ghana which makes it a bit skewed. The main limitation was the inability to obtain quantitative data on the selected areas of the study prior to 2010 to do proper comparative trajectory analysis to appreciate the true impact of Ghana-China co-operation.

Ethical Implications

Mindful of the scope of the study whereby both qualitative and quantitative information will be required, due diligence will be paid to referencing all literary and empirical works (including data sources) used for the study.

Organization of the study

The study will be organized into five chapters. The first chapter will be the introduction which captures the background of the study, the problem statement, research objectives, research questions, the significance of the study, the ethical implications, and finally the scope and limitations of the study. Chapter two will focus on the literature review of the study which presents findings of other researchers in exploring the concepts and variables (i.e. Trade, FDI, and Aid) being studied. It will focus on the theoretical and empirical underpinnings for this study. Chapter three will discuss the methodology of the study. It will discuss the method that will be employed to gather and analyze data for the study. In chapter four, I will be looking at the overview of China-Ghana co-operation limiting it to trade, FDIs, and aid. The data will be analysed using graphs and pie charts. The roles

played by both Ghana and Chinese governments as well as private sector businesses to impact on the selected interest areas in Ghana's economy will also be highlighted. Chapter five, which is the final chapter will provide summary, conclusion and recommendations of the study.

LITERATURE REVIEW

Introduction

In an attempt to justify the relevance of my research topic, the proposed methodology adopted, and also indicate how this study relates to existing research works, I will proceed to do a literature review – both theoretical and empirical – in this chapter. Thus, chapter two will focus on the review of literary works to facilitate the conceptualization and discussions on the extent to which the rapid Chinese involvement in the economies of African countries (with Ghana as a case study) during the last two decades has impacted on trade, FDI flows, and Aids (including concessional loans, technical co-operation and human resource development) of the affected countries.

International Trade (trade), Foreign Direct Investment (FDI), and Aid

According to Max J. Wasserman, Charles W. Hultman, (1963), "International trade consists of transaction between residents of different countries". The definitions of Anatol Marad and Eugeworth are similar. To Anatol Marad, "International trade is a trade between nations", whereas to Eugeworth, "International trade means trade between nations". Put simply, international trade is the exchange of goods and services among nations with financial payments underpinning these transactions. In international trade, not only tangible commodities such as television sets, clothes, machinery, raw materials, food., etc. are traded in, but also services such as consulting, travel, tourism, and payments for foreign patents or copyrights all form part of international trade. International trade can be broadly distinguished between trade in goods (merchandise) and services. The bulk of international trade concerns physical goods, while services account for a much lower share. World trade in goods has increased dramatically over the last decade, rising from about US\$10 trillion in 2005 to more than US\$18.5 trillion in 2014 then falling in 2016 before reaching US\$18.8 trillion in 2019. Trade in services greatly increased between 2005 and 2019 (i.e., from about US\$2.5 trillion to close to US\$6 trillion) (source: UNCTAD secretariat – Division on International Trade and Commodities. calculations based on COMTRADE and UNCTAD Stat data.

The entire world economy is buoyed by this kind of trading system. International trade and the associated financial dealings or payments are normally conducted for the purpose of providing a nation with merchandises it lacks in exchange for those that it produces in commercial quantities; such transactions, operating alongside other economic policies, have a tendency to improve a nation's wellbeing. International trade has increased over the last century, affecting the economies of many nations in different ways (James, 2014). This trade plays a critical role in influencing economic growth which is measured by increased productivity levels and Gross Domestic Product (GDP). International trade has become a major determinant of growth in empirical literature such that world economies are becoming increasingly dependent on it (Stancheva-Gigov, 2014).

The Theories of International Trade

As international trade evolved, a number of theories were propounded by some economists to explain the underpinnings and characteristics of international trade between nations. International trade theories are completely different type of theories that give explanations on international trade.

The Mercantilism Theory

Developed in the sixteenth century, mercantilism was one of the earliest efforts to develop an economic theory. This theory stated that a country's wealth was determined by the amount of its gold holdings. In its simplest sense, mercantilists believed that a country should increase its holdings of gold and silver by promoting exports and discouraging imports. The mercantilist doctrine attributed great importance to foreign trade, that is, the

international exchange process of wealth creation, a notable requirement for economic growth (Tapsin, 2016). Export services formed an increasingly essential requirement for international trade (Workman, 2019). This export involved the production of goods in a home country and the purchase by a foreign country (Mohan, 2005). This is because whereas China is pursuing aggressive export drive to African countries, it at the same time encourages and promotes imports from African countries though there is a limited protectionism in the form of tariffs on certain category of products from Africa.

Adam Smith's Absolute Advantage Theory

In 1776, Adam Smith interrogated the leading mercantile theory of the time in his book, *The Wealth of Nations*: Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (London: W. Strahan and T. Cadell, 1776). The first attempt to explain why countries engage freely in international trade has its origin in 1876 with Adam Smith's theory of absolute advantage (Krugman & Obstfeld 2003). Smith presented a new trade theory called Absolute Advantage, which essentially concerned itself with how a country was able to produce a commodity more efficiently than another country. Smith postulated that trade between countries should not be controlled or protected by government policy or interference. He argued that trade should flow naturally according to market forces. Using a hypothetical two-country world, Smith illustrated that if Country A could produce a good cheaper than Country B, then Country A has the advantage and could focus on specializing on producing that particular good. Equally, if Country B was more efficient at producing another good better than Country A, then Country B could focus on specialization as well. By specialization, countries could be more efficient, because their labour force would develop the necessary skills by doing the same tasks over and over again. His theory departed from the mercantilist thought on the basis that a nation's wealth should not be measured by how much gold and silver it had but rather by the standard of living of its people. Thus, the Smithian theory tended to promote liberalism as against protectionism that formed the basis of mercantilist philosophy. The liberalized economic model has therefore enabled more investors from China to troop into African countries to trade freely. In other words theorists under this approach focus on promoting free markets, eliminating government-imposed distortions associated protectionism, subsidies, and public ownership of businesses in some parts of Africa including Ghana. To that extent, Adam Smith's Absolute Advantage Theory is relevant to this study.

David Ricardo's Comparative Advantage Theory

The deficiency of the absolute advantage theory was that some countries may be better at producing both goods and hence, have an advantage in many areas. In contrast, another country may not have any beneficial absolute advantages. To cure this deficiency, David Ricardo, an English economist, introduced the theory of comparative advantage in 1817.

Unlike the Smithian absolute cost advantage theory that emphasizes the importance of specialization as a source of increased production, the Ricardian comparative advantage theory provides a more superior explanation as to why nations trade among themselves. Apart from showing the comparative advantage of each nation, it also shows the degree of specialization in production with trade, the volume of trade, the terms of trade, the gains from trade, and the share of these gains to each of the trading nations (Estevez, 2021). It is this power of the theory that provides a convincing explanation why trade is a positive sum game (Krugman 1992, 1993b, 1994a, 1994b, 1995a, 1998). However, comparative cost advantage has some fundamental limitations.

Fact is in reality, the world economy is more complex and consists of more than two countries and products as the theory assumes. For instance, in practical terms, Ghana specializes in the production of cocoa and cocoa preparations, grains, wood and articles of food, etc. in exchange for China's machinery, electrical and electronic equipment, vehicles, plastics, and many more. Again, barriers to trade such as quota system, tariffs, protectionism, etc. exist. Besides, goods must be transported, stored, and distributed which add to the cost of production.

This example makes Ricardo's model too simplistic and deficient in explaining how countries could gain comparative advantage over the other by producing and exporting just two commodities. It is noteworthy that cost of production of goods is not limited to labour only; several input costs are involved. In spite of its obvious limitations (because it is based on firm and unrealistic assumptions), comparative cost advantage is still relevant in explaining the gains from trade (Krugman 1990; Culbertson 1986; Keesing 1966; Vernon 1979). All the above evidence confirms the relevance of the Ricardian comparative advantage theory as far as China-African (including Ghana) trade is concerned.

Heckscher-Ohlin's Factor Proportions Theory

The theories of Smith and Ricardo failed to explain how countries determine which products would give a particular country an advantage over the other (s). In the early 1900s, two Swedish economists, Eli Heckscher and Bertil Ohlin, focused their attention on how a country could gain comparative advantage by producing products that utilized factors that were in abundance in the country. Their theory is based on a country's production factors—land, labor, and capital, which provide the funds for investment in plants and equipment. In contrast, countries would import goods that required resources that were in short supply, but higher demand. For example, whereas China is home to a large pool investible funds and technology (at relatively cheaper cost), African countries can boast of cheap labour and abundant natural resources. Hence African countries have become attractive locations for Chinese manufacturing investments that require intensive labor such as construction equipment, agribusiness, textiles and garments manufacturing, food processing, etc.

Steffan Linder's Country Similarity Theory

Swedish economist Steffan Linder developed the country similarity theory in 1961, as he tried to explain the concept of intra-industry trade. Linder's theory assumed that consumers in countries that are in the same or similar stage of development would have similar preferences. In this firm-based theory, Linder suggested that companies first produce for domestic consumption. When they explore exporting, the companies often find that markets that look similar to their domestic one, in terms of customer preferences, offer the most potential for success (Linder, 1961). However, this theory is not relevant to China-African trade aspirations. Because China and Africa are not at the same or similar stage of development; China is far advanced relative to African countries. Furthermore, the per capita income of China is several times higher than almost all individual African countries. (source: World Bank national accounts data, and OECD National Accounts data files, 2020).

Raymond Vernon's Product Life Cycle Theory

Raymond Vernon, advanced the theory of product life cycle in the 1960s. The theory, originating in the field of marketing, stated that a product life cycle has three distinct stages: (1) new product, (2) maturing product, and (3) standardized product. The theory assumed that production of the new product will occur completely in the home country of its innovation. The product life cycle theory has been less able to explain current trade patterns where innovation and manufacturing occur around the world. For example, global companies even conduct research and development in developing markets where highly skilled labor and facilities are usually cheaper. It is not surprising that Chinese firms are turning their attention to emerging markets in Africa (which abounds in highly skilled labor) to establish industries to manufacture products which have reached maturity or standardized stage in home country China. Thus, Raymond Vernon's Product Life Cycle theory is relevant in explaining China-African trade co-operation.

Porter's National Competitive Advantage Theory

In the continuing evolution of international trade theories, Michael Porter developed a new model to explain national competitive advantage in international trade (Porter, 1990). The model attempts to explain the importance of national environments in firms' attainment of competitive advantage. In advancing his theory further, Porter identified four determinants that he connected together. The four determinants are (1) local market resources and capabilities, (2) local market demand conditions, (3) local suppliers and complementary industries,

and (4) local firm characteristics. Porter's theory is relevant to this study because the Ghanaian local market environment and firm characteristics present some level of attraction to Chinese businesses and firms to investment. First, Ghana has resources such as cheap and abundant labour – both skilled and unskilled, raw material supplies, and firms which are relatively innovative. What these local firms may be lacking is high level technology and the requisite capital to expand and enjoy the benefits of economies of scale. These inadequacies could be addressed through partnership with Chinese firms who are better positioned technologically, and more resourceful capital-wise.

The Role of International Trade and its Impact on Economic Growth

There is no denying that international trade plays a critical role in influencing economic growth and development of nations. An increase in raw material imports, employment and production are linked to international trade. International trade contains efficiency and welfare improvement to all countries (Helpman, 1987). This is made possible by advanced technology and improved methods of response to the changing demands of customers (Frankel & Rose, 1998).

Similarly, the exchange of knowledge, techniques and modern technology is made possible through international trade; it helps industries and businesses to increase their efficiency and productivity (Chen & Gupta, 2006). The increase in competition has been a driving force for firms to be innovative. The innovative changes especially in technologies, have led to the growth of international trade (Daumal, 2010).

There are enormous benefits of international trade to a nation. First, international trade expands varieties of new products. Romer (1990) underscored that growth in knowledge rests on the introduction of greater variety of goods, and international trade plays a significant role in this respect. Rivera-Batiz & Romer (1991) reasoned that international trade in capital goods raises the market size for new product ranges. Grossman & Helpman (1991b, 1991c) argued that trade openness allows for the introduction of new product varieties because it creates access to a wider base of technical information that reduces the cost of innovation.

Similarly, the innovation-based growth model of Aghion & Howitt (1992) argued that international trade provides openings for creativity and thus, leads to technological advancements. Secondly, international trade provides access to foreign semi-finished inputs. According to Romer (1990), international trade enables countries to import semi-finished inputs from abroad that are not obtainable locally; this can help to generate output and growth in the manufacturing sector. Thirdly, international trade facilitates the dissemination of transnational knowledge. Contributing to the debate, Coe & Helpman (1995) argued that foreign trade in intermediate or semi-finished commodities is the main conduit of international knowledge spillovers. They supported the idea that knowledge disseminated through trade appears to raise internal productivity and affect the economic growth of countries.

International trade, as a major factor of openness, has made an increasingly significant impact on economic growth, hence states can generate revenue through foreign trade activities (Sun & Heshmati, 2010). Several studies address the impact of international trade on economic growth of a country and state. Zahoor et al. (2012) investigated the relationship between international trade and economic growth using the ordinary least squares (OLS) method and concluded that international trade is linked to the economic growth of a country.

The study by Azeez et al. (2014) showed that international trade has a significant and positive impact on economic growth through imports, exports and openness on the economy.

Foreign Direct Investment (FDI)

Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity from country A in an enterprise resident in country B. (OECD, 1996; IMF, 1993). According to Will Kenton, FDI refers to a company in one country opening its own business operations in another country with the purpose of acquiring a controlling interest in the enterprise (Kenton,

2020). In some specific cases, the definition of FDI is acquiring interest in a foreign company's assets. So according to the IMF for example, a foreign direct investment is where the investor purchases over 10 percent stake in the firm in the destination or host country (IMF, (1993). Anything under this amount is classified as part of a stock or portfolio investment (Paul Boyce, 2021). However, for the purpose of this study, Kenton's definition will be adopted.

Types of Foreign Direct Investment

Foreign direct investments are usually put into three categories namely: horizontal, vertical, or conglomerate (Paul Boyce, 2021; Caves (1971).

The Horizontal Type

Horizontal or lateral FDI is an investment strategy where a home-based firm invests abroad in the same industry with the object to increase its market share and profits. In other words, a business invests in a foreign company that produces similar or same goods.

The Vertical Type

This is an investment strategy whereby, a business entity from one country acquires an interrelated business in a foreign country. An example is when a manufacturing firm acquires a controlling interest in a foreign company whereby the latter supplies the former with the requisite raw materials it needs to produce in the home country. FDI generally occurs side by side with greater international trade integration, which may reflect increasing vertical integration as well as the establishment of transnational distribution networks (OECD, 2002).

The Conglomerate Type

Conglomerate FDI is where an investment is made in a completely different industry. In other words, it is not directly related to the investor's line of business. For instance, a Chinese textile manufacturer may invest in a cocoa processing firm in Ghana. To explain further, some big businesses come to a point where the demand for its existing business begins to decline. In order to stay in business, it must invest in new ventures not in any way related to the original or existing line of business.

All three FDI types above are relevant for adoption to this study for the reason that most multinational corporations (MNCs) from China engage in one type or another in their investment activities in African countries.

Theories of FDI

Literature focusing on the determinants of FDI in Africa has been on the rise. Recent and notable studies include (Collier and Patillo 2000; Morisset 2000; Cotton and Ramachandran 2001; Asiedu 2006; Jenkins and Thomas 2002, as well as Naudé and Krugell 2007). These studies identified the most popular specific determinants of FDI in the region to include natural resources, market size, low labor cost, openness to trade, relatively low tax incentives, political stability, favorable investment and trade policies, and in some cases, fairly good infrastructure. This study will fail to answer the question as to why Chinese businesses have been trooping to Africa to invest their capital, technology, and management expertise in the economies of African countries if it fails to identify key theories underpinning FDI. Whereas some FDI theories emphasize on macroeconomic or country-specific factors such as trade and international economics, others tend to emphasize on microeconomic or firm-specific factors which relate to ownership, internalization benefits, market imperfection biases, etc. In fact, some have argued to the effect that some form of market distortions or market failure must be present to enable the realization of FDI. Hymer (1976), for example was the first to point this out in 1960, when he developed his theory based on an imperfect market setup. The essence of Hymer's theory is that firms operating

overseas have to compete with local firms that are in an advantageous position in terms of culture, language, legal system and consumer's preference. This makes the competition an imperfect one.

There are several competing theories of FDI which provide some elucidation to the phenomenon of FDI (Casson, 1982; Calvet, 1981; Grosse, 1981, Rugman, 1981). Vernon (1966), for instance argued that FDI was the response to the threat of a firm losing markets (in home country) as products matured; as well as the need for cheaper factor costs in the face of competition (Latorre, 2008). This theory, popularly referred to as the "Product Life Cycle Theory", provides an explanation of how factors such as the availability of larger and cheaper capital, superior management, discovery of new processes, product diversity etc. intermingle over time to determine production, export and foreign investment patterns of oligopolistic enterprises (Lall, 1976).

A few scholars have also attempted to integrate factors such as capital, location, industrial-organization, firm-growth, market failure, product life-cycle and other sub-theories into a logical and comprehensive whole all in an attempt to explain the *raison d'être* of foreign multinationals wanting to invest in other countries (Casson, 1980, 1982; Dunning, 1979, 1980, 1981; Robock, 1980; Rugman, 1980). Of all the theories however, Dunning's "eclectic paradigm theory" (of international production) stands out as the most convincing reason why FDI takes place. John H. Dunning combined three different theories of firm ownership benefit (O), firm location benefit (L), and firm internalization benefit (I) to form what became OLI framework to develop his "eclectic paradigm theory". The combined effect of the OLI framework is the ultimate reduction of production cost of the firm to stimulate efficiency and competitiveness. OLI is a three-tiered appraisal framework that companies can follow when attempting to determine if it is beneficial to pursue FDI. This paradigm assumes that institutions will avoid transactions in the open market if the cost of completing the same actions internally, or in-house, carries a lower price.

The first consideration, which is ownership advantages, include proprietary information and various ownership rights of a company (Hibo, 2013). Dunning suggested that for a firm to engage in FDI it should have ownership advantages over other firms operating in the same market. These ownership advantages are firm-specific and exclusive to that firm, in the form of both tangible and intangible assets (Makoni, 2015). The intangibles may consist of branding, copyright, trademark or patent rights, plus the use and management of internally-available skills. Indeed, ownership advantages are typically supposed to give a competitive advantage (such as a reputation for reliability) over rival firms in the same industry.

Location advantage is the second necessary consideration. According to Dunning, there are some location advantages in using a firm's ownership advantages in a foreign country. Companies must assess whether there is a comparative advantage to performing specific functions within a particular host nation. Often unchanging in nature, these considerations apply to the availability and costs of resources, when functioning in one location compared to another (Chen, 2020). Location advantage can be categorized into economic benefits, political benefits, and social benefits (Abotsi, 2016). Location advantage may also refer to natural or created resources, but either way, they are generally fixed, requiring a partnership with a foreign investor in that location to be exploited to full benefit.

Finally, Dunning reasoned that it is beneficial to internalize those ownership advantages rather than use the market system to transfer them to foreign firms. Internalization advantages, signal when it is better for an organization to produce a particular product in-house, versus contracting with a third-party in a foreign land. At times, it may be more cost-effective for an organization to operate from a different market location while they keep doing the work in-house. If the business decides to subcontract the production, it may require negotiating partnerships with local producers. However, taking an outsourcing route only makes financial sense if the contracting company can meet the organization's needs and quality standards at a lower cost. Perhaps the foreign company can also offer a greater degree of local market knowledge, or even more skilled employees who can make a better product.

However, Dunning's theory has suffered criticisms by some scholars including Rugman (1980, 1981, 1982); Buckley and Casson (1976); Casson (1980); and Buckley (1982). Rugman for one has offered another integration

of partial theories via what he terms “internalization” – that is the development by the multinational corporations (MNCs) or enterprises (MNEs) of an “internal market” in response to “failures” or “deficiencies” in the external markets for goods and factors. The MNE is in the business of internalizing externalities. It is now time to recognize that internalization is a general theory of FDI and unifying paradigm for the theory of the MNE (Rugman, 1980, p376). All the above theories discussed are relevant to this study because they bring into the fore the compelling reasons why Africa has become attractive destination for investment by foreign firms particularly Chinese MNEs. They want to take advantage of cheap and available raw materials, access to open market, flexible trade and investment laws, relaxed legal environment, availability of skilled and unskilled labour, among others to invest.

BENEFITS OF FDI TO THE DESTINATION COUNTRY

Enhancement to International Trade

A study by Baldwin and Ottaviano presents a model where FDI and trade can be complementary or substitutes, (Baldwin and Ottaviano, 2001). Similar study by Whiteaker revealed that FDI and international trade are both drivers of the global economy, facilitating the cross-border transfer of goods, services and capital around the world which are more cost effective (Whiteaker, 2021). Furthermore, it promotes economic development by helping to improve productivity, growth and exports in the multinationals' host countries (Blomström, 1999).

While the empirical evidence of FDI's effects on host-country foreign trade differs significantly across countries and economic sectors, a common understanding is emerging that the FDI-trade linkage must be seen in a broader perspective than the direct impact of investment on imports and exports. The main trade-related benefit of FDI for developing countries lies in its long-term contribution to integrating the host economy more closely into the world economy in a process likely to include higher imports as well as exports. In other words, trade and investment are increasingly recognized as mutually reinforcing channels for cross-border activities.

Sharing of Technology, Knowledge, and Culture

The potential for technology spillovers from FDI is a positive outcome of FDI that destination countries aspire to benefit from. Blomström and Kokko (2003) suggest the possibility of a spillover of technological know-how as one of the major reasons host country governments try to attract FDI inflows. Some other scholars contend that for backward linkages where an MNE networks with a local supplier, the MNE has an interest in a spillover occurring so as to allow the supplier to provide the MNE with a first-class input (Javorcik, 2004). Glass and Saggi (1998) investigated how the worth of knowledge transferred from an advanced country to a less advanced one through FDI is connected to innovation and imitation.

Economic literature identifies technology transfers as perhaps the most important channel through which foreign corporate presence may produce positive externalities in the host developing economy. Haddad and Harrison and later Aitken and Harrison posit that when technology transfer occurs, it sure to have the potential to enhance the productivity of local firms and thereby boost economic growth (Haddad and Harrison, 1993; Aitken and Harrison, 1999). Since MNEs are the industrialized world's most important source of corporate research and development (R&D) activity, they are better endowed with higher level of technology than is available in less industrialized countries, so they have the potential to generate considerable technological spillovers. For instance, when a firm from China invests in another from Africa, it has a say in how the firm is run especially where the foreign firm has a controlling interest in the local one. What happens as a result is that useful techniques and unique corporate culture is also transferred alongside.

The Human Capital argument

The major impact of FDI on human capital in host countries appears to be incidental, occurring not primarily through the efforts of SMEs, but rather from government policies seeking to attract FDI via enhanced human capital (Michie, 2002). Studies have shown that once individuals are employed by MNE affiliates, their human

capital may improve further learning and on-the-job training. Foreign firms are assumed to own more advanced technology and to be able to motivate superior managerial performance compared to their local counterparts (Caves, 1996). Those affiliates may also have a positive influence on human capital development in local enterprises with which they develop links, including suppliers. In their study, Javorcik and Haskel both observed that once foreign firms enter a local market, the diffusion of ideas and transfer of technology resulting from interaction with those domestic enterprises occur both within and across industries (Javorcik, 2004; Haskel et al., 2007). Thus, the issue of human capital development is intimately interlinked with other, broader developmental issues

Competition

FDI and the presence of SMEs may exert a considerable impact on competition in host-country markets. However, since there is no commonly accepted way of measuring the degree of competition in a given market, few firm conclusions may be drawn from empirical evidence. The presence of foreign enterprises may greatly assist economic development by stimulating domestic competition and thereby leading ultimately to higher productivity, lower prices and more efficient resource allocation. On the contrary, the entry of SMEs also tends to raise the levels of concentration in host-country markets, which can hurt competition. This risk is aggravated by any of several factors: if the host country constitutes a separate geographic market, the barriers to entry are high, the host country is small, the entrant has an important international market position, or the host-country competition law framework is weak or weakly enforced.

Enterprise Development

FDI has the potential to significantly boost enterprise development in host countries. Several studies indicate a positive correlation between Chinese outward investments in Africa and the improvement in the enterprises in the host countries. As Chinese enterprises relocate to Africa, they would provide opportunities for local enterprises to learn from Chinese experience, to access the Chinese value chains and gain enhanced value-added access to global value chains in the global economy (Jing Gu, August 2009). Furthermore, the direct impact of FDI on the targeted enterprise includes the achievement of synergies from the spillover effects of the foreign MNE, efforts to raise efficiency and reduce costs in the host enterprise, and the development of innovative activities. In addition, efficiency gains may occur in unrelated enterprises through demonstration effects and other spillovers akin to those that lead to technology and human capital spillovers.

Available evidence points to a significant improvement in economic efficiency in enterprises acquired by SMEs, albeit to degrees that vary by country and sector. The strongest evidence of improvement is found in industries with economies of scale. Here, the submergence of an individual enterprise into a larger corporate entity generally gives rise to important efficiency gains.

Employment Effects

Trade benefits of FDI cannot be appreciated separately from the relationship between FDI and its concomitant effects on employment. Ekholm (2004) provides insight of employment effects of FDI flows. His research revealed that vertical FDI for instance results in shifts of production from source to host country in order to take advantage of factor price differentials. Brainard and Riker (1997) also studied the effects of foreign expansion on employment prospects of host nations. There is no denying that Chinese footprints in the economies of African countries have generated employment opportunities for both the citizens of host nations and the expatriate Chinese nationals.

Negative spillover Effects of FDI on host country

In spite of the positive spillover effects of FDI inflows on host nations, nonetheless, there can also be detrimental effects. An MNE may have a negative effect on competition and possibly force local firms out of business. Another fear is that MNE activities can result in environmental degradation (Lipsey, 2002). For instance, there

have numerous reported incidents of environmental degradation and pollution arising from activities of Chinese MNCs operating in African countries with Ghana not exception. There have been instances of labor and environmental violations by Chinese-owned businesses. These range from inhumane working conditions to illegal extraction of natural resources including timber and fish.

Chinese Business Enterprises in Africa – Empirical Framework

Between March 2016 and June 2017, three researchers namely: Kartik Jayaram, Omid Kassiri, and Irene Yuan Sun belonging to McKinsey & Company undertook a study into the Chinese economic engagements in Africa and published their findings in a report titled “Dance of the lions and dragons: How are Africa and China engaging, and how will the partnership evolve?”. The study involved field interviews with more than 100 senior African business and government leaders, as well as the owners or managers of more than 1,000 Chinese firms spread across eight African countries that together make up approximately two-thirds of sub-Saharan Africa’s GDP. Their findings revealed that since the year 2000, Africa–China trade has been growing at nearly 20 percent per annum while FDI has grown even more rapidly over the past decade, with an amazing annual growth rate of 40 percent. Even then their study revealed that this was a conservative figure: Kartik et al found that China’s financial flows to Africa are around 15 percent larger than official figures when nontraditional flows are included. The survey discovered again, that China is also a large and fast-growing source of aid and the largest source of construction financing compared with some traditional western development partners; these contributions have supported many of Africa’s most ambitious infrastructure developments in recent years.

In the eight African countries (including Cote d'Ivoire, Nigeria Ethiopia, Angola, South Africa, Zambia, Tanzania, and Kenya) in which the survey was conducted, the number of Chinese-owned firms identified was between two and nine times the number officially registered by China’s Ministry of Commerce (MOFCOM) which until now, the largest database of Chinese firms in Africa (refer to Table 1; Fig. 1). Generalized across the continent, their results suggested there were more than 10,000 Chinese-owned firms operating in Africa then (Kartik J et al). According to the survey, approximately 90 percent of these firms are privately owned—calling into debate the belief of a monolithic, state-coordinated investment drive by “China, Inc.” Although state-owned enterprises tend to be bigger, particularly in specific sectors such as energy and infrastructure, the sheer number of private Chinese firms working toward their own profit considerations suggests that Chinese investment in Africa is a more market-driven phenomenon than is usually understood. Chinese firms operate across many sectors of the African economy. “Nearly a third are involved in manufacturing, a quarter in services, and around a fifth each in trade and in construction and real estate”, the report revealed. In manufacturing in particular, the researchers projected that 12 percent of Africa’s industrial production—valued at some \$500 billion a year in total—is already handled by Chinese firms. In the case of infrastructure, Chinese firms’ dominance is even more pronounced, and they claim nearly 50 percent of Africa’s internationally contracted construction market (Kartik et al, 2017) (refer to Table 3; Fig. 3)

Table 1: Number of Chinese Firms Operating in 8 Selected African Countries as at 2017: MOFCOM Database vs. McKinsey Field Survey of Chinese Firms in 8 African Countries

	Country	No. of Chinese Firms	
		*MOFCOM Database	McKinsey Field Survey data
1	Cote d'Ivoire	30	274
2	Nigeria	317	920
3	Ethiopia	161	689
4	Angola	113	248

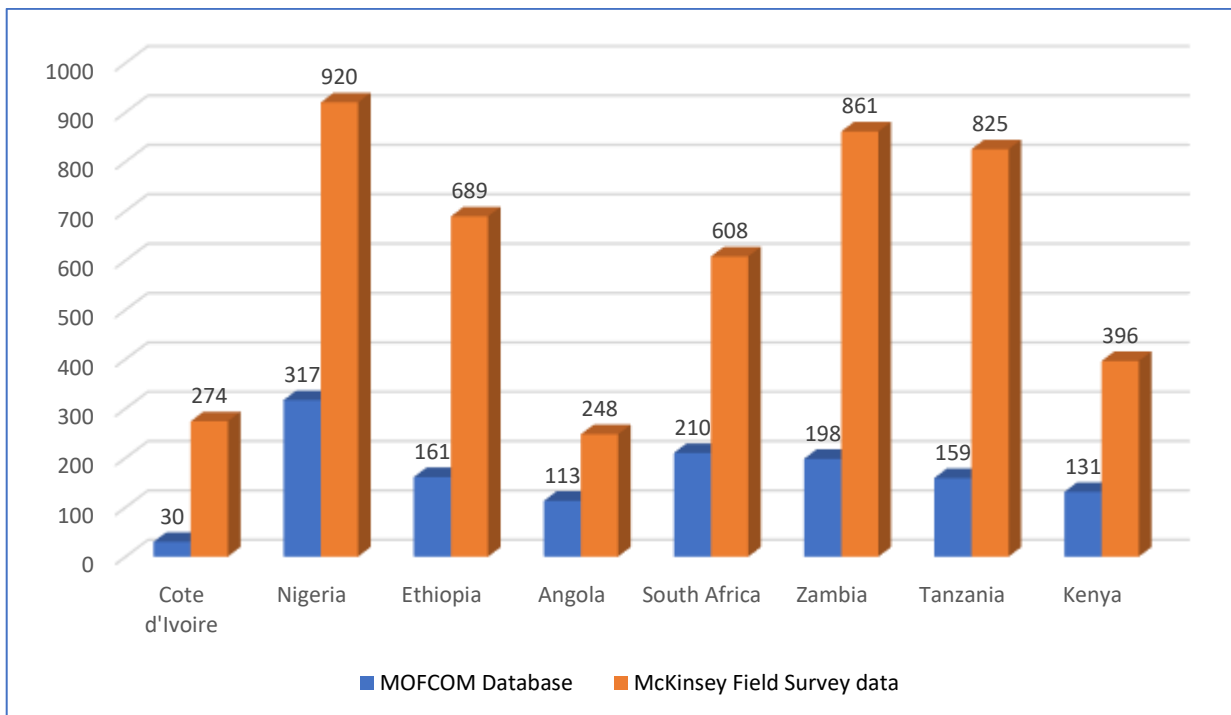
5	South Africa	210	608
6	Zambia	198	861
7	Tanzania	159	825
8	Kenya	131	396

Sources: MOFCOM database; McKinsey Field Survey of Chinese firms in 8 selected

African countries

Fig 1: A Bar Chart Showing the MOFCOM Database vis-à-vis McKinsey Field

Survey of Chinese firms in 8 selected African countries between 2016-2017



According to a study by Kartik et al, nearly one-third of the Chinese firms surveyed reported 2015 profit margins of more than 20 percent. An overwhelming 74 percent said they feel hopeful about the future. Reflecting this, most Chinese firms have made investments that represent a long-term commitment to Africa rather than trading or contracting activities.

Table 2: Employment & Training of Host Country Local Workers by Chinese Business Enterprises as 2015

	Hire Local Managers	Hire Local Employees	Run Apprentice or Professional Training Programs
SOEs	35%	81%	62%
Private	47%	92%	64%
Construction	33%	85%	72%
Mfg.	54%	95%	73%
Services	49%	85%	60%
Trade	34%	82%	47%
Average	42%	87%	63%

Source: McKinsey Field Survey of Chinese firms in 8 selected African countries (2017)

Fig. 2a: Graphical Illustration of Hiring of Local Managers by Chinese Business Enterprises In some selected Key Sectors (2015)

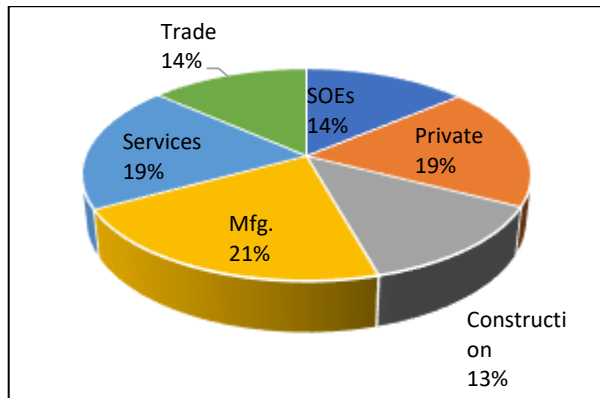


Fig. 2b: Graphical Illustration of Hiring of Local Employees by Chinese Business Enterprises in Six Key Sectors

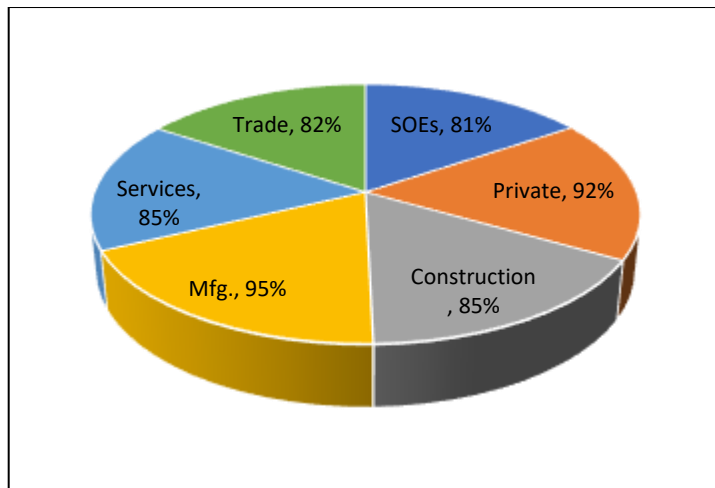
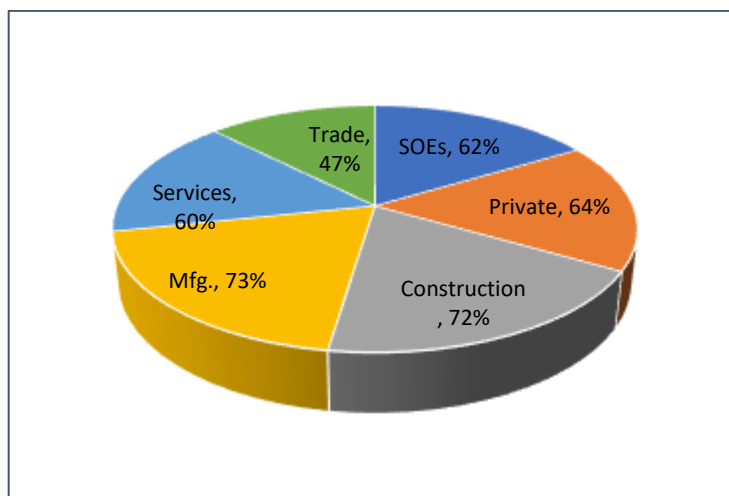


Fig. 2c: Graphical Illustration of Running of Apprentice or Professional Training Programs for Local Workers in Key Sectors



At the Chinese companies interviewed by Kartik and his team of researchers, 89 percent of employees were African, adding up to nearly 300,000 jobs for African workers. Scaled up across all 10,000 Chinese firms in Africa, this suggests that Chinese-owned businesses employ several million Africans. Moreover, nearly two-thirds of Chinese employers provided some kind of skills training (refer to Table 2; Fig. 2a, 2b, 2c). In companies engaged in construction and manufacturing, where skilled labor is a necessity, half offer apprenticeship training

which goes to support the view that FDI generates employment prospects for the citizens of the host nation (Ekholm, 2004; Brainard and Riker 1997).

Half of Chinese firms had introduced a new product or service to the local market, and one-third had introduced a new technology. In some cases, Chinese firms had lowered prices for existing products and services by as much as 40 percent through improved technology and efficiencies of scale confirming the existing literature about positive correlation between FDI and technology transfer (Blomström and Kokko, 2003; Glass and Saggi, 1998; Haddad and Harrison, 1993). African government officials overseeing infrastructure development for their countries cited Chinese firms' efficient cost structures and speedy delivery as major value adds (Javorcik, 2004). On balance, it can be stated unequivocally that China's growing co-operation is strongly favourable for Africa's economies, governments, and workers although, there are areas for significant improvement. For instance, the findings of the survey indicated that by value, only 47 percent of the Chinese firms' sourcing was from local African firms, representing a lost opportunity for local firms to benefit from Chinese investment.

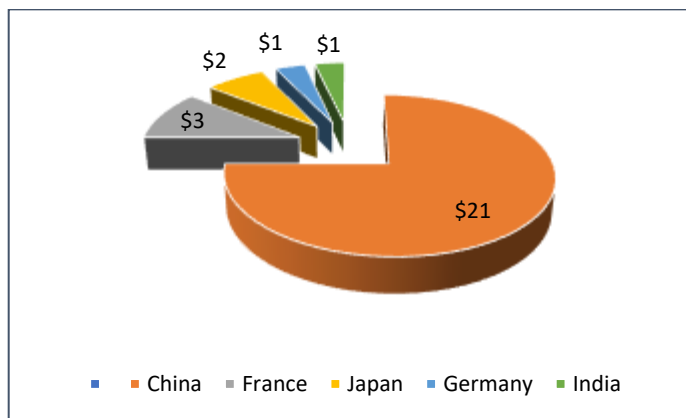
Only 42 percent (on the average) of local managers at the Chinese-owned companies surveyed were Africans (see Table 2), though some Chinese firms had driven their local managerial employment above 80 percent at the time of the survey.

Table 3: Infrastructure Financing (\$bn)

China	\$21
France	\$3
Japan	\$2
Germany	\$1
India	\$1

Source: McKinsey Field Survey (2017)

Fig. 3: Graphical Illustration of Infrastructure Financing (\$bn) per McKinsey Field Survey (2017)



Evolution and Growth of Chinese Enterprises in Africa

Gu (2009), has explained the evolution and phases of Chinese business enterprises in Africa during that last five decades. He identified five phases of the development and transformation process of Chinese enterprises engagement in Africa. According to Gu, the first phase which spanned 1949-1980s involved Chinese aid projects; the second phase which is 1980s to mid-1990s relate to large state-owned enterprises (SOE) trading companies closely associated with diplomatic agenda with only a few private companies; phase three spanning mid 1990s-2000 saw the entry of large SOE and private companies into manufacturing sector often linking resource and infrastructure investments. As a matter of fact, China's 'Going Out Strategy', that is, investing abroad, was a major step in China's economic and diplomatic expansion from the early 1990s, which reached a

new stage with the admission of China into the WTO in 2001 (Cai, 2006; Berger, 2008). Its aim was to encourage and support firms with comparative advantage to invest overseas. Phase four which is 2000-2005 witnessed the growth of spillovers from earlier three phases, and in the most recent stage i.e. from 2005 to present the entry of a cluster of small and micro scale private sector Chinese enterprises into Africa.

Chinese private investment in Africa is increasingly in manufacturing (Gu, 2009). An interview conducted by Gu with senior staff from Ghana Investment Promotion Centre (GIPC), Accra, 4 June 2008 for instance revealed that out of Ghana's 336 Chinese investment projects, more than 100 were in the manufacture sector. While in Ethiopia, about 66 per cent of Chinese companies were in the manufacture sector (Geda and Meskel, 2008). Gu identified the springing up of Chinese enterprises all over Africa, working across industries such as agriculture, forestry, food processing, fishing, furniture manufacturing, footwear, textiles and garment making, pharmaceuticals and services. He observed that the Chinese are not simply operating within the conventional sectors of oil and extractive industries associated with Chinese SOEs activity. By the end of 2006, China's FDI had already spread across 49 African countries and regions (Africa Invest Nets p. 17, 2008).

Although the proportion of Chinese investment in Africa remains a comparatively small (4percent in relation to investments from OECD countries), there has been a notable expansion in Chinese FDI to the African continent during the last two decades (Gu, 2009). However, the volume of Chinese investments in Africa is not as important as the sheer speed at which the investment is growing. Recent years have seen China's direct investment and trade with Africa rising fast. The volume of trade between China and Africa has risen very rapidly, surpassing US\$100 billion in 2007, an increase of almost 40percent year-on-year. This makes China the third-largest trading partner for Africa (People's Daily, 2007).

Since 2000, China's foreign direct investment (FDI) flows to Africa have grown at an average annual rate of 40 percent, overtaking for instance U.S. FDI in 2013 (Runde et al, 2021). A study by Runde revealed that in 2019 for example, FDI flows reached \$2.7 billion, with the top destinations being the Democratic Republic of the Congo and Angola, two mineral-rich nations. Chinese investments, primarily in the light manufacturing sector, have had a net-positive economic impact on job creation, built linkages to local suppliers and buyers, and boosted local subcontracting in Africa. China is also Africa's largest trading partner, although this relationship is not on equal footing, with African countries tending to export natural resources to China while buying manufactured goods. As of 2016, there were 400 Chinese-owned firms in Kenya, most of which were involved in light manufacturing, construction, tourism, and natural resource extraction. In addition, Chinese firms invested \$178.9 million in the metals industry, \$150 million in the communications industry, and \$68 million in the automotive manufacturing industry in Kenya between 2003 and 2015. In terms of trade, raw materials represent the majority of Kenyan exports to China, including animal hides and agricultural goods such as coffee and tea. In Kenya, 93 percent of Chinese-owned firms hire Kenyan workers, and 40 percent of Chinese-owned SMEs hire Kenyans (World Bank Report, 2016). In Tanzania, Chinese investment largely goes to light manufacturing sectors such as textiles and garments, followed by the plastics, construction, and agrobusiness sectors. According to the China Africa Research Initiative, nine manufacturing projects invested more than \$10 million in leather, textile, and plastics production. In the agribusiness sector, Chinese firms work with local Tanzanian suppliers and SMEs to procure their supplies; additionally, most Chinese plastic producers use locally recycled plastic waste. Nigeria hosts two "economic cooperation and trade zones" in partnership with Chinese consortiums, including the Lekki Free Trade Zone and the Ogun-Guangdong Free Trade Zone, which contain both Nigerian and Chinese companies. Chinese investment in Nigeria is concentrated in manufacturing, including of construction materials, furniture, food and beverages, cardboard and plastic packaging, and other assembly-line goods. In many of these sectors, such as the ceramic tile sector, Chinese firms have crowded out Nigerian SMEs, and most companies are Chinese-owned. However, much of the workforce is local. For example, in the Lekki Free Trade Zone, the labor force of Chinese firms was 70 percent Nigerian. Even though Nigerians are underrepresented in managerial positions. Chinese private capital and investors have a limited relationship with SMEs in Africa. Although most of China's financial support is directed toward providing governments with loans for infrastructure, there are a handful of Chinese programs designed to support African SMEs. In 2011, the China Development Bank (CDB) issued a \$1 billion loan to African SMEs to help them "acquire more financing, enhance local businesses' access to foreign currency exchanges, and improve Africa's industrial infrastructure." According to the China Africa

Research Initiative, the fund quickly exceeded its \$1 billion budget. By 2018, the CDB reported it had invested more than \$50 billion in Africa, enabling nearly 500 projects in 43 countries. As part of these efforts, it coordinated with South Africa's Absa Bank to provide \$100 million in funds for African SMEs in 2017. Per a May 2021 report by Business Daily Africa, through this fund, the Kenyan Branch of Absa Bank has lent over 35 billion Kenyan shillings (\$317 million) to more than 16,000 SMEs in Kenya, offering them loans of up to 10 million shillings (\$91,000) and local purchase order financing of up to 12 million shillings (\$109,000). According to Absa Bank, it also provides business development support to SMEs, runs incubation and mentoring programs, and helps SMEs connect to corporate and government value chains.

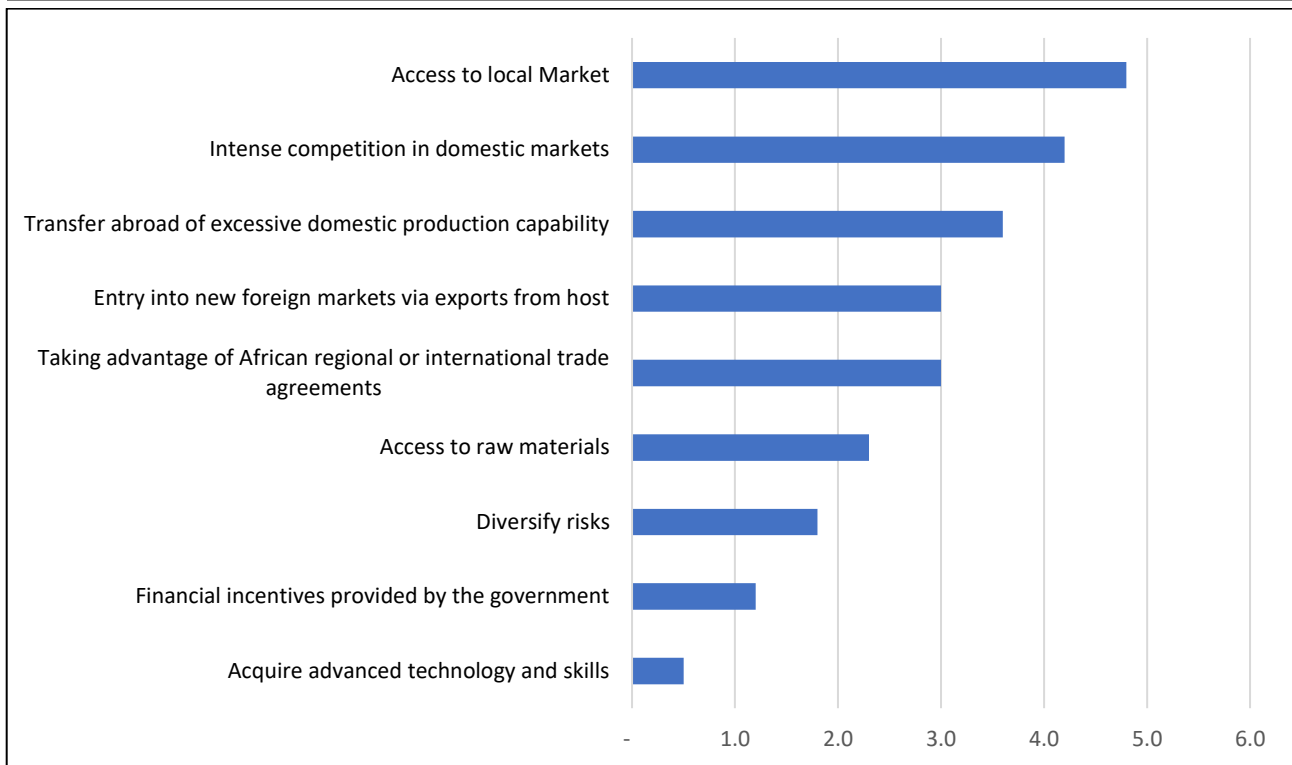
The China Africa Research Initiative (CARI) at Johns Hopkins University's School of Advanced International Studies found that the majority of Chinese investment in Ethiopia, Nigeria, Tanzania, and Kenya was in SMEs.

Factors that Influence Chinese Investment in Africa

Factors that influence investment decisions in foreign countries can be grouped into two – pull factors and push factors (Lee, 1966). Pull factors are those conditions that normally prevail in the investment destination or host country. They may include market size, availability of natural resources, cost of labor, cost of materials, technological know-how, competitor dynamics, quality of bureaucracy/rule of law, etc. The push factors are factors that are associated with the area of origin or home country. Examples include market size (especially in situations where market in home country is showing signs of saturation), cost of labour and availability - for example in situations where standards of living are rising in the home country resulting in demands for higher wages (China Labour Bulletin, 2015).

In 2007 and 2008, The China-Africa Project Survey (under the auspices of MOFCOM) interviewed senior central and provincial government officials, peak business association representatives and corporate executives, comprising 65 in-depth interviews in China. Similar survey was extended to Africa, where interviews were conducted between May – June 2008 in Ghana, Nigeria and Madagascar, involving a total number of 30 interviews with Chinese corporate executives and 15 senior African government officials, Chinese and African peak business association representatives and inter-governmental organization representatives operating in these countries. The survey of Chinese private firms sought to identify the factors leading them to invest and operate in Africa. Each corporate respondent was asked to indicate, and rank in order of importance, those factors that were decisive in its investment decision. The top five motives for investing identified by these firms were: (1) Access to local market; (2) Intense competition in domestic markets; (3) Transfer abroad of excessive domestic production capability; (4) Entry into new foreign markets via exports from host; (5) Taking advantage of African regional or international trade agreements (Gu, 2009). The results are indicated in Figure 4 below:

Figure 4: Reasons for Chinese Firms Investing in Africa



Source: China-Africa Project Survey

The findings of the survey indicated that in general, Chinese enterprises employ most of the local workers in the host countries in direct production, while they normally keep their expatriates in managerial positions. The proportion of the local labour force is however, high. For example, in the Haitian Suitcase and Baggage Company in Nigeria, the study revealed that some 93 per cent of its workforce is local Africans. Likewise, 91 per cent of the labor force of the Songlin Company in Ghana consists of local employees. Again, 90 per cent of the workforce of the Glory Garment Co. Ltd in Madagascar is local. Chinese firms generally benefit from moving their businesses to Africa, partly because of affordable cost. The survey discovered that real wages in the Chinese manufacturing sector have increased by 10 percent between 2003 and 2016 and are much higher than those in Africa. The seemingly high preponderance of local African workforce can also be attributed to the existing African labour laws that tend to favour the employment of the indigenous people at the expense of foreign expatriates. Some companies interviewed said that they would have wished to have more managerial staff from China, but they cannot get the work permits for them because of these regulations. Hence, the role of the African governments is critical in ensuring that laws that protect local labour in particular and employment in general are strictly enforced.

The survey also identified increasingly strict environmental regulations and compliance (particularly in the plastics and ceramics sectors in China) as one of the push factors that drives Chinese firms to Africa. However, the assurance of growing markets and middle-income populations in countries like Nigeria was another pull factor for Chinese firms. Finally, duty exemptions for trade to the United States and European Union attract export-oriented Chinese producers to Africa to benefit from this trade law.

Aid

According to Lancaster (2006), foreign aid is “a voluntary transfer of public resources, from a government to another independent government, to an NGO, or to an international organization with at least a 25 percent grant element, one goal of which is to better the human condition in the country receiving the aid”. Kenton also defines foreign aid as any type of assistance that one country voluntarily transfers to another, which can take the form of a gift, grant, or loan (Kenton, 2021). However, the Development Assistance Committee (DAC) of the OECD defines foreign aid under the blanket term Official Development Assistance (ODA) “as government aid that promotes and specifically targets the economic development and welfare of developing countries”

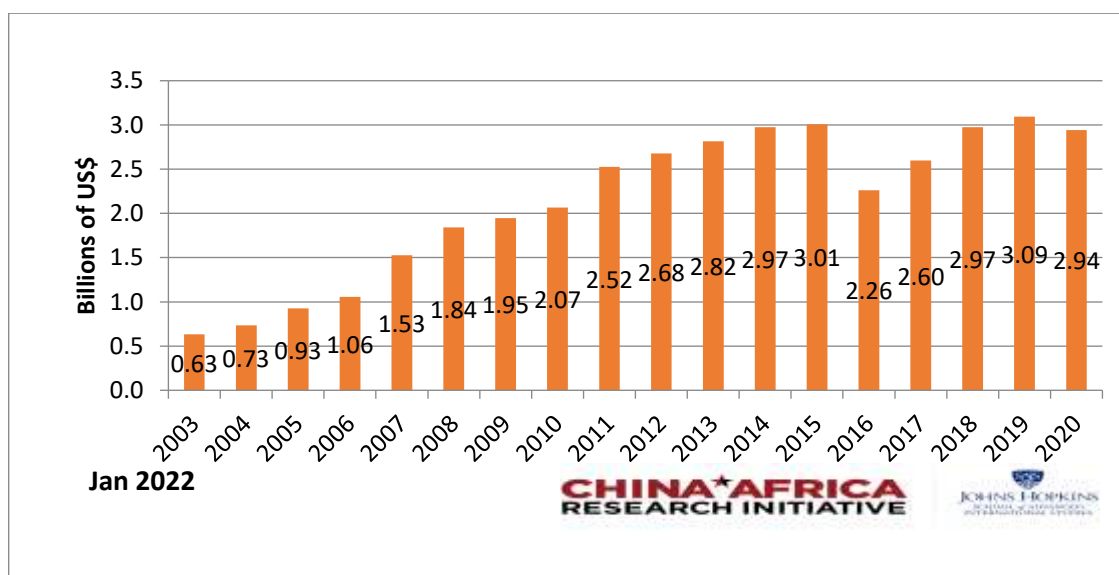
(<https://www.oecd.org/>). However, China's definition of "foreign aid" differs from "official development assistance" (ODA) as defined by the OECD's DAC because of lack openness of China's official aid programme which usually includes military assistance (Bräutigam, 2011, p.752).

In their article titled "China's Foreign Aid – History, Current Situation and Challenges," (Lixia et al, 2013) stated that China is a "rising star" in the field of foreign aid (Woods, 2008; McCormick, 2008). China's foreign aid is usually categorized into three main forms – i) grants, ii) interest-free loans, and iii) concessional loans (source: CARI 2022). Development and humanitarian assistance such as scholarships, deployment of medical teams and volunteers (in times of emergency and natural disasters), are also classified as aid (State Council, 2014). Indeed, China seldom gives aid in physical cash (Bräutigam, 2009, p.125).

According to a 2021 white paper on China's international development co-operation published by the State Council of the People's Republic of China, grants are used to help other developing countries build small and medium-sized social welfare projects, human resource development co-operation, technical co-operation, material assistance, South-South co-operation assistance funds, and emergency humanitarian assistance. Interest-free loans on the other hand, are principally used for public facilities and improving people's livelihood. However, Concessional loans are provided for projects that can bring about economic and social benefits, large- and medium-sized infrastructure projects. (Source: CARI 2022). Whereas grants and interest-free loans are administered by the China International Development Cooperation Agency (CIDCA), Concessional loans are offered and managed by the Export-Import Bank of China (Li, 2013).

Chinese official aid - unlike most major nation-state sources of aid - is not regulated and measured under the OECD's protocols for official development assistance (ODA). According to OECD estimates, 2020 official development assistance from China increased to US\$4.8 billion. However, according to China's 2021 White Paper on International Development Co-operation, China increased its allocations of aid from US\$14.2 billion between 2010–2012 to US\$42.69 billion between 2013–2018 (Mulakala and Ji , 2021). However, China's actual aid expenditure globally between 2003-2019 totaled approximately US\$39bn according to China's Ministry of Finance data published in CARI's January 2022 report (Figure 5). It is instructive to note that since the 2014 white paper, China has also increased the grant portion of its portfolio from 36.2percent to 47.3percent and reduced the concessional loan portion from 55.7percent to 48.52percent.

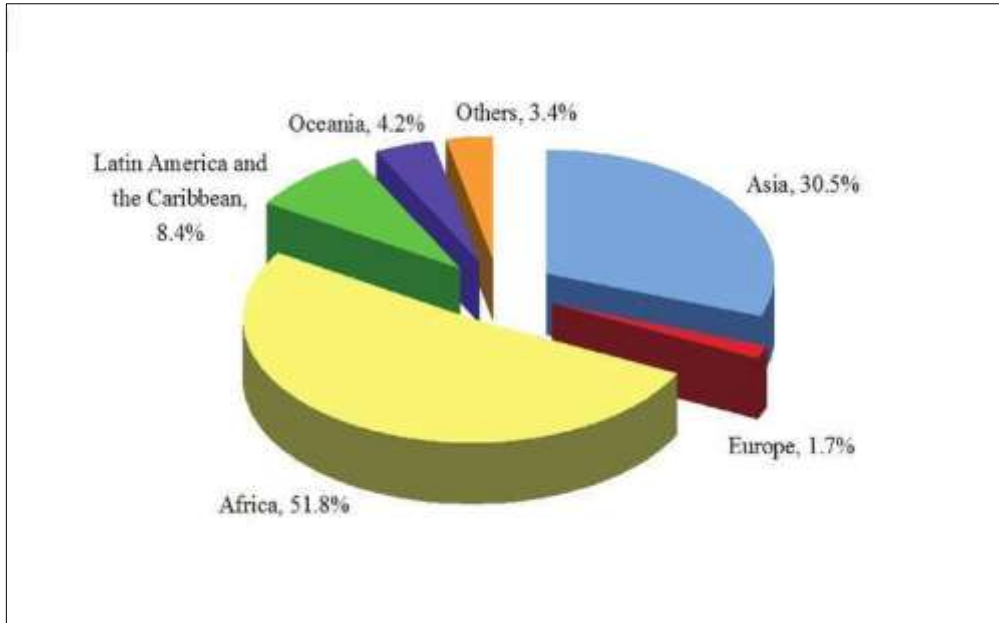
Fig. 5: Chinese Global Foreign Aid Expenditure, 2003-2019



It is easily discernible from Figure 5 that China has committed to supporting Africa in terms of aid and other foreign assistance. The Ministry of Finance data represents actual expenditure (as against pledges or budget

estimates) incurred by the People’s Republic of China government as far as foreign aid is concerned during the period indicated. Until 2016 where aid support to Africa decreased to around US\$2.26bn, China’s assistance has been increasing on yearly basis between 2003-2015. Increases in aid support resumed from US\$2.97bn in 2017 to US\$3.09bn in 2019 before dropping slightly to US\$2.94bn in 2020 (Fig. 5). The data is a testament to China’s unwavering commitment to assisting African countries to overcome their developmental challenges through various forms of aid.

Fig. 6: Continental Distribution of China's Foreign Assistance Funds, White Paper on China's Foreign Aid, 2014



Source: Francois Jackman Ministry of Foreign Affairs and Foreign Trade of Barbados ·Embassy of Barbados to the People's Republic of China

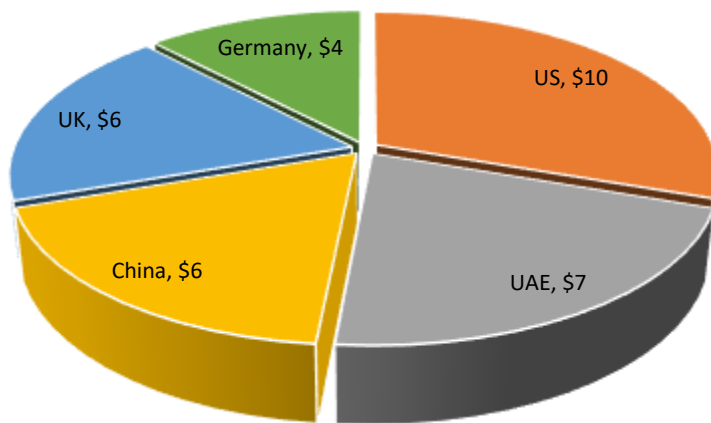
The White Paper on China’s Foreign Aid released in 2014 indicated that Chinese foreign aid to Africa was more than half the combined assistance to 5 other continents within the same period (Figure 6). This data again is an indication of the level of commitment of China to the cause of Africa. Furthermore, in 2017, McKinsey, a United States of America-based management consulting company did a field survey with findings that indicated that in 2015 China was third (US\$6bn) behind the USA (US\$10bn), and United Arab Emirates (US\$7bn) when it comes to major aid donors to Africa (refer to Table 4; Figure 7). The data further confirms the significant role China plays in the area of foreign aid to Africa.

Table 4: Aid Flow to Africa as at 2015 (\$bn)

US	\$10
UAE	\$7
China	\$6
UK	\$6
Germany	\$4

Source: McKinsey Field Survey (2017)

Figure 7: Graphical Illustration of Aid Flow to Africa as at 2015 (\$bn)



Summary of Chinese Foreign Aid to Africa (2010-2012)

Developing Foreign Assistance

Between 2010-2012, fifty-one African countries benefited from various forms of Chinese development assistance according to Chinese Foreign Aid 2014 Report. This assistance was purposed for undertaking whole projects, providing goods and materials, conducting technical cooperation and human resource development, dispatching medical teams and volunteers, offering emergency humanitarian services.

Debt relief: From 2010 to 2012 China forgave nine African countries namely, Tanzania, Zambia, Cameroon, Equatorial Guinea, Mali, Togo, Benin, Cote d'Ivoire and Sudan, 16 maturing interest-free loans totaling 1.42 billionyuan equivalent of \$0.23bn (Acker et al, 2021).

Acker et al, did some study at the Johns Hopkins School of Advanced International Studies (SAIS) China-Africa Research Initiative (CARI) and discovered that China has contributed greatly in helping African countries to manage their debts. They identified sixteen cases of debt restructuring to the tune of \$7.5 bn in ten African countries from 2000-2019. China also wrote off the accrued arrears of at least ninety-four interest-free loans amounting to at least US\$3.4 bn. However, interest-free loans make up less than 5percent of China's lending to Africa. According to Jubilee Debt Campaign (a United Kingdom-based charity which campaigns for the cancellation of poor countries' debt) October 2018 report, nearly 20percent of African government external debt as at 2017 was owed to China. Various accounts estimate Chinese loans to be more than US\$ 140 billion in Africa alone. This has become a major cause for disquiet due to their reported lack of transparency. About 17percent of African government external interest payments are made to China.

Helping Improve People's Livelihood

Agricultural Projects: From 2010 to 2012, China-assisted agricultural demonstration centers were completed in 17 countries, including Benin, Mozambique, Sudan, Liberia, Rwanda. For instance, the demonstration center in Liberia encouraged hybrid rice and corn planting in areas of closely 1,000 hectares, and trained over 1,000 local agricultural researchers and farmers. The demonstration center in Rwanda researched, experimented on, and demonstrated the adaptability of paddy rice and fungi in the context of the local traditional agriculture, and provided technical training to women's associations, paddy rice growers' associations and other organizations in Rwanda. In addition, Chinese agricultural experts were dispatched from China to assist in the agricultural planning of the recipient countries. The expert team dispatched to Benin provided technical know-how for the drafting of the country's Agricultural Law and Agricultural Administration Law. The expert teams sent to Botswana and Guinea-Bissau participated in the formulation of the two countries' agricultural development plans. Chinese experts assisted recipient countries in promoting their agricultural development.

Education: From 2010 to 2012, China continuously intensified its efforts of foreign assistance in education by way of constructing and maintaining school buildings, providing teaching facilities, training teachers, offering more government scholarships for foreign students to study in China, and assisting with the development of vocational and technical education, for the purpose of helping other developing countries. From 2001 to 2012, China dispatched over 400 teachers to Ethiopia to train the local teachers working in agricultural vocational and technical education. A total of 1,800 teachers from agricultural vocational schools and 35,000 agricultural technicians received training.

Provision of Public Welfare Facilities: China helped drill 200 fresh water wells in Kara and Centrale of Togo respectively and 38 wells in Darfur, Sudan and Kator of Juba, South Sudan, all of which were equipped with submersible pumps and generator sets. The China-assisted water-supply project in Zinder, Niger has solved the problem of drinking water for hundreds of thousands of local residents. China funded the construction of Gabon's 40,000-seat stadium Stade d' Angondje, which hosted the competition final and closing ceremony of the 28th Africa Cup of Nations in 2012. China assisted the construction of the 20,000-square-meter Grand National Theater in Senegal, one of the largest theaters in Africa.

Humanitarian Aid: provided on three occasions a total of RMB440 million worth of emergency food aid to the countries of the Horn of Africa, such as Ethiopia, Kenya, Djibouti and Somali. In 2012, the Chinese government provided RMB70 million worth of emergency food aid to Chad, Mali, Niger and other countries in the Sahel. In March 2012, a series of blasts occurred in the north of Brazzaville, the capital of the Republic of Congo. China assisted the construction of settlements for people displaced from their homes and actively supported reconstruction after the explosions.

Improving Infrastructure: China helped build the third section of the Sika Highway that connects Kenya's capital Nairobi to its economic hub Sika, thus making a contribution to the road network that links up Kenya, Ethiopia and Tanzania. The Bui Hydropower Station built by China in Ghana boasts the capacity of hydroelectricity generation, farmland irrigation, fisheries development and local tourism. Its completion has not only powered economic and social development in Ghana, but also benefited other areas in Western Africa. The China-assisted power transmission, transformation and distribution grids in Dakar, Senegal now provide power to 150,000 local residents, effectively ensuring power supply to the city, which had been troubled by its ageing grid and sudden blackouts until recently. The telecommunication projects assisted by China in Turkmenistan, Togo and Eritrea provide high-quality and steady telecommunication systems to these countries, and the number of users has grown exponentially. The optical cable transmission networks assisted by China in Cameroon and Tanzania have effectively promoted the application of fiber cables in African nations. Giving support to infrastructure construction and integrated development. Infrastructure has always been the focus of China's assistance to Africa. The Tanzania-Zambia Railway is a landmark project in China's early assistance for cross-border infrastructure construction in Africa.

Extensive technical cooperation: In a technical cooperation program, Chinese experts taught 500 Liberians to weave bamboo and rattan into marketable products. This program has not only created jobs, brought the locals more income and lifted them out of poverty, but also boosted the bamboo and rattan industry in the country.

The active role of volunteers: A Chinese volunteer to Liberia successfully rescued a newborn with gastroschisis, and was awarded the African Star medal. Volunteers to Ethiopia improved the planting method for melons, and local fruit farmers harvested much more than usual that year; the volunteers also taught the locals to build biogas pits so that they could use clean energy more efficiently.

Providing Materials: China proactively promoted South-South cooperation on addressing climate change, and signed the Memorandum of Understanding on Complimentary Supplies for Addressing Climate Change with nine countries: Grenada, Ethiopia, Madagascar, Nigeria, Benin, Maldives, Cameroon, Burundi and Samoa. Under the framework, China donated more than 500,000 energy-efficiency light bulbs.

Providing assistance in capacity building: During the three years, China carried out technical cooperation with countries like Ethiopia, Burundi and Sudan, and helped these countries improve their utilization and management of solar power, hydro power and other clean energy.

Promoting medical and health care cooperation: Currently, there are 43 China's medical teams in 42 African countries. China assisted the construction of 30 hospitals and 30 malaria prevention and control centers, provided 800-million-yuan worth of medical equipment and supplies and anti-malaria drugs, and trained over 3,000 medical staff for African countries. China-assisted Tappita Hospital in Liberia, boasting complete and advanced medical equipment, is jointly operated by China, Egypt and Liberia, which is a meaningful step towards its sustainable operation.

Capacity building: China built 150 primary and secondary schools in Africa, and trained a total of 47,000 people of various professions. In 2012, China announced its African Talents Program: to train 30,000 personnel in various sectors for Africa in three years and offer 18,000 government scholarships. In that year alone, China offered 6,717 government scholarships to African countries.

Concessional Loans

Concessional loans are provided for projects that can bring about economic and social benefits, as well as large- and medium-sized infrastructure projects. (CARI, 2022 Report). Concessional loans are offered and managed by the Export-Import Bank of China (Li, 2013). The most wide-ranging data on loans to African governments from China comes from CARI. According to CARI, there have been \$143 billion of loans from Chinese state institutions, and Chinese private banks, to African governments between 2000 and 2017 (CARI, 2018 Report). Of the data CARI provides, not less than 80percent of these loans are from entities owned by the Chinese state, but approximately 20percent could be from private companies. These loans increased up to 2013, then fell back, before a sharp increase in 2016. The Forum on China-Africa Co-operation (FOCAC) fin September 2018 announced a budget of \$60 billion of aid, investment, and loans to Africa, the same amount as pledged during the 2015 summit. Shown in Table 5 below is the breakdown of country-by-country debt some African countries owed China as at 2017 per the Chinese Foreign Aid 2014 Report covering: 2010 – 2012.

Table 5: Country-by-Country Cases of Debt owed to China as at 2017

Country	Debt Amount (US\$ bn)
Ethiopia	7.48
Sudan	3.20
Zambia	2.64
Cameroon	2.53
Ghana	2.06
Mozambique	1.60
Zimbabwe	1.11
Djibouti	1.10
Central African Republic	0.40
Mauritania	0.34
Burundi	0.33
Cabo Verde	0.23
Chad	0.22

South Sudan	0.10
Sao Tome and Principe	0.01

Source: China-Africa Research Initiative at John Hopkins University (CARI). Data reproduced by Jubilee Debt Campaign (JDC)

Chapter Summary

This chapter reviewed the theoretical and empirical literature of China's co-operation with African countries with emphasis on trade, investment and aid. Under trade, the chapter discussed the various theories of trade spanning from the era of protectionism under the mercantile philosophy through the liberalized model championed by the likes of Adam Smith, David Ricardo, Heckscher, Steffan, Raymond, and Porter and concluded that all the trade theories are relevant to this study as far as China-African trade co-operation is concerned. The role of international trade in facilitating economic growth and development among nations; the introduction of a variety of new products (Romer, 1990); as well as ensuring efficient resource allocation and generating employment in the economies involved (especially those in Africa arising from China-Africa co-operation); was also highlighted. This chapter also looked at FDI; the various theories underpinning or explaining why FDI takes place. I pointed out that some of the theories emphasize on macroeconomic factors (which are country specific such as the type of investment policies and the tax system prevalent in that particular country); and microeconomic factors (which are firm specific such as type of ownership, internalization benefits, market failures or imperfection faced by the firm as propounded some scholars).

I referenced Hymer, an FDI theorist who argued that some form of market distortions or market failure must be present to enable the realization of FDI. However, I emphasized Dunning's "eclectic paradigm theory" of international production as the most striking and convincing reason why FDI takes place based on his OLI framework. I indicated that according to John H. Dunning, FDI will occur if there are firm ownership advantages, firm location advantages, and the ability of the firm in question to internalize the various challenges happening outside the firm to its advantage. I also indicated in general, that key determinants of FDI in Africa in particular include natural resources, market size, low labor cost, openness to trade, relatively low tax incentives, relative political stability, favorable investment regulations and trade policies among others. I made reference to existing, empirical impacts on Chinese investment in a number of host African countries namely: Cote d'Ivoire, Nigeria Ethiopia, Angola, South Africa, Zambia, Tanzania, Ghana, and Kenya to include: enterprise development ((Jing Gu, 2009); employment effects (Ekholm, 2004); enhancement of international trade (Baldwin and Ottaviano, 2001); human resource development through training (Michie, 2002); technology transfer (Blomström and Kokko (2003); stimulation of domestic competition and resultant effect on efficient factor utilization, and enhanced productivity. The evolution and growth of Chinese enterprises in Africa was also discussed in this chapter. Five stages of growth were identified as follows: stage 1 (1949-1980s) involved Chinese aid projects; stage 2 (1980s-mid 1990s) involved mainly SOE trading companies with few private participation; stage 3 (mid 1990s-2000) involved large SOE and private companies venturing into the manufacturing and infrastructure investments. Stage 4 (2000-2005) witnessed the growth of spillovers from earlier three phases, while stage 5 (2005 to present) involved the entry of a cluster of small and micro scale private sector Chinese enterprises into Africa. I referenced (Gu, 2009) to indicate that Chinese private investment in Africa is increasingly in manufacturing. In the same vein, Gu indicated that out of Ghana's 336 Chinese investment projects, more than 100 were in the manufacture sector. A similar research in Ethiopia revealed that, about 66 per cent of Chinese companies were in the manufacture sector (Geda and Meskel, 2008). A survey by Gu of Chinese private firms identified top five motives for investing in Africa. They included (1) Access to local market; (2) Intense competition in domestic markets; (3) Transfer abroad of excessive domestic production capability; (4) Entry into new foreign markets via exports from host; (5) Taking advantage of African regional or international trade agreements (Gu, 2009).

The concluding segment of this chapter looked at Chinese foreign aid to African countries. Per the DAC's (of the OECD) definition, aid is "any form of development assistance that promotes and specifically targets the economic development and welfare of developing countries". However, Chinese definition of aid includes

military assistance and the deployment of medical teams and volunteers especially during emergency situations. Studies by scholars and researchers indicate that I referenced some authorities to indicate the categorization of Chinese foreign aid into grants, interest-free loans, and concessional loans. Although there exists empirical evidence that points to an overwhelming Chinese assistance to African countries (US\$14.2 billion between 2010–2012 to US\$42.69 billion between 2013–2018) in areas such as the provision of public welfare facilities, infrastructure development, capacity building, humanitarian aid, education, agricultural projects, promotion of medical and health care co-operation, and many more (under its grant and interest-free loan programme), studies by economic think-tanks such as CARI, and international charity organizations such as Jubilee Debt Campaign estimate Chinese loans (both from Chinese government and China-based private organizations) to Africa alone to be over US\$ 140 billion. This has put African countries in perpetual debt trap and has become a major cause for consternation within the international community. Although Jubilee Debt Campaign noted in their October 2018 report that there were 16 cases of debt restructuring by China to the tune of \$7.5 bn in 10 African countries from 2000-2019 as well as the write-off of the accrued arrears of at least 94 interest-free loans amounting to at least US\$3.4 bn, those gestures were not enough to alleviate the sufferings of the affected African countries. With the emergence of China as a growth pole in the world economy, it is expected that investment in key strategic sectors of African countries like the consumer, agricultural, extraction and manufacturing sectors will impact on growth and development in the affected countries.

METHODOLOGY

Introduction

This chapter looks at the research approach and design, sources of data, justification for the selection of case study, approach and strategy adopted for data analysis, and the ethical considerations of the study.

Research Approach and Design

This research was undertaken using both qualitative and quantitative approaches towards data collection, analysis, and interpretation. The qualitative technique focused basically on descriptive analysis and interpretation of data obtained from credible sources. The qualitative analysis sought to review and infer from published works and juxtapose them to the selected case study to see any pattern that could help explain the phenomenon being studied. Accordingly, the published works of scholars and experts in the fields of international trade; foreign direct investment flows (both outward and inward); and foreign aid (including debt accumulation and management) between China and Africa with focus on Ghana were reviewed and analysed to see the extent to which they address my research questions as well as meet the research objectives.

Data Requirements and Sources

The quantitative data – which is wholly secondary –involved actual, confirmed, data obtained from credible, official sources such as the Ministry of Trade & Industries (MOTI); Ghana Statistical Service (GSS); Ministry of Finance; the Ghana Investment Promotion Council (GIPC); the Ministry of Commerce of the People's Republic of China (MOFCOM); the Ministry of Finance of the People's Republic of China; Organization of Economic Development and Co-operation (OECD); statista (<https://www.statista.com/>); China Africa Research Initiative (CARI); IMF official website; and other internet links. I chose a time series of 10 years spanning 2010-2020 for all three research areas (i.e. Trade, FDI, and Aid) where data was available. The main advantage for using secondary data is its cost effectiveness (<https://www.intellspot.com/>) and its ability to help in establishing an understanding of the research problem (Bhasin, 2020). More specifically, the following sets of data type and corresponding sources were adopted for my analysis:

- 1) Ghana's total Exports globally, (in USD): 2010 – 2020 (year by year; source: MOTI/GSS)
- 2) Ghana's total Exports to China alone (in USD): 2010 – 2020 (year by year; source: MOTI/GSS)
- 3) Ghana's total Imports globally, (in USD): 2010 – 2020 (year by year; source: MOTI/GSS)
- 4) Ghana's total Imports from China alone (in USD): 2010 – 2020 (year by year; source: MOTI/GSS)

- 5) Ghana's 6 highest merchandise Exports to China by value (in USD): 2010 – 2020 (year by year, source: MOTI/GSS).
- 6) Ghana's 6 highest merchandise Imports from China by value (in USD): 2010 – 2020 (year by year; source: MOTI/GSS)
- 7) The value of Ghana's total global FDIs flow (in USD): 2010 – 2020 (year by year; source GIPC)
- 8) The value of Ghana's total FDIs from China alone (in USD): 2010 – 2020 (year by year; source: GIPC)
- 9) Six (6) most important flow of FDIs (by type and value) from China to Ghana: 2010 – 2020 (year by year; source: GIPC).
- 10) Data on number of Chinese multinationals operating in Africa/Ghana as at 2015 (source: MOFCOM/McKinsey Field Survey)
- 11) Survey data on reasons for Chinese firms investing in Africa (source: China-Africa Project Survey)
- 12) China's total aid to Africa (in USD): 2010 – 2020 (year by year; source: Ministry of Finance China/CARI.
- 13) Country-by-Country Case of Debt owed to China as at 2017 (source: CARI/JDC)
- 14) China's total aid to Ghana (in USD): 2010 – 2020 (year by year source: Ministry of Finance of China/CARI/statista
- 15) Aid flow to Africa as at 2015 (source: McKinsey Field Survey, 2017)
- 16) Geographical Distribution of China's Foreign Assistance Funds (source: White Paper on China's Foreign Aid, 2014).
- 17) Chinese Global Foreign Aid Expenditure (source: Ministry of Finance of China/CARI)
- 18) Various sectors in Ghana's economy which have benefitted from Chinese aid or where Chinese aid has had some impact (2010-2020).

Justification for the Selection of Case Study

Rather than looking at the broader picture of China-Africa relationship which involves bilateral co-operation between China on one hand, and a host of individual African countries on the other, it was imperative to focus on just one country; that is Ghana. Ghana was selected because of the ideological and historical bond between her and China dating back to the early 1960s when Ghana and China established diplomatic ties that witnessed Ghana (under the presidency of Dr. Kwame Nkrumah) supporting China's reinstatement to the United Nations as well as mediating between China and India over their border dispute in 1962 (ABS Contributor, 2013).

In contemporary times too, bilateral agreement between the two countries have been enhanced resulting in improvements in trade, outward FDI (from China to Ghana), and Chinese foreign assistance (i.e., aid) to Ghana. It is on the basis of the above considerations that Ghana was selected as my case study to mirror the Sino-African relationship within the broader African context. In selecting Ghana, I was also mindful of the prevailing factors such as: the availability of natural resources in the extractive industry specifically mining; conducive investment climate characterized by tax incentives; relatively stable political environment (compared with what prevails within the West African sub-region in general); availability of cheap labour – both skilled and unskilled; plus friendly regulatory environment which are some of the pull factors (Lee, 1966) that have attracted Chinese investments into Ghana. In addition to the above, several Chinese SMEs have been established here in Ghana and are in full operation. Selecting Ghana as my case study therefore, was anchored on the understanding and belief that, data and information would be easily available to enable me do an informed, in-depth analysis of the various variables necessary to answer my research questions and also achieve my research objectives.

Approach and Strategy Adopted for Data Analysis

Trade data obtained from the MOTI/GSS, as well as outward foreign direct investment from China to Ghana data obtained from the GIPC; and data on Chinese foreign assistance (i.e. aid) obtained from MOFCOM; plus data from all other credible sources were tabulated and analyzed using line/bar graphs and pie charts. Import and Export data as well as FDI data were used because those are about the closest variables to measure the impact of trade and FDI flows to Ghana respectively.

These data are deemed reliable, accurate, and easily verifiable for the kind of qualitative and quantitative analysis I wanted to do. Consequently, a comprehensive literature review – both theoretical and empirical – was done which enabled me draw a link between the China-Africa co-operation and the impact thereof on the economies of African countries with Ghana in focus. This was necessary because among the arguments that have been advanced against China-Africa relationship is the fact that it has been more exploitative, imperialistic (in favour of China) than its being mutually beneficial (Uchegara, 2009a; Edoho, 2011). So, the sourcing of this data and analysis of same was to test and confirm or otherwise, the empirical correctness of this negative assertion regarding China-Africa co-operation.

Strategy for Analysis

For trade and FDI data, I grouped and tabulated both the data from Ghana and Africa separately and graphically presented them in line/bar graphs and pie charts. Analysis was then done showing the relationships between the two different sets of data of Ghana and Africa to see the performance of Ghana in relation to Africa as a whole. In the case of data on Chinese foreign aid to Ghana, in addition to graphical presentation, I did qualitative analysis of various sectors where the aid has had some impact including: education, infrastructure, agriculture, humanitarian assistance, mining, technology, capacity building, etc. within the period being considered.

Ethical Considerations

Not oblivious of the qualitative and quantitative approach to the study where there is the temptation and high risk of falling into plagiarism trap, I have duly acknowledged and referenced all my sources of information including published books, articles, and internet links.

AN OVERVIEW OF CHINA-GHANA CO-OPERATION FOCUSING ON TRADE, FDI, AND AID

Introduction

This chapter discusses the overview of China-Ghana co-operation with emphasis on Trade, FDIs, and Aid. The roles played by both Ghana and Chinese governments, as well as private sector businesses (especially, SMEs from China) to influence the selected areas of interest in Ghana's economy will also be highlighted. Empirical data on Trade, FDI, and Aid obtained from credible, official sources will be analysed quantitatively, using graphs and pie charts to generate findings that will allow for the drawing of the necessary conclusions; and proffering of recommendations in my final chapter.

Data Analysis and Interpretation of Findings

Trade

The Trade between both countries continues to rake in millions of dollars yearly. The import and export rate between China and Ghana has increased significantly since the establishment of Chinese companies in Ghana, thereby pushing Chinese companies to secure the top spots in the FDI in Ghana (Source: <https://pricesghana.com/chinese-company-in-ghana/>). The main objective of this section is to analyze the size, composition and significance of trade – both exports and imports – between China and Ghana (based on the standard international trade classification; and MOTI of Ghana classification) during the last decade; and draw useful, empirical findings thereof.

Findings From Export Trade

As indicated in Table 7; Figure 9 below, in reality the findings show that China's share of total exports from Ghana has been generally low. Save the brief intervening years of 2017, 2018, and 2019, the ratio has been

consistently less than 10 percent of the total during the period under consideration. The lowest level was registered in 2010, when China's share of Ghana's total exports was less than 1 percent. However, comfort is drawn from the fact that generally, the percentage share of China has never been stagnant. It has either been showing a stable; or growing trend. Between 2014-2017 for example, China's share of Ghana's export increased steadily from 5.4 percent in 2014 to 16.6 percent in 2017 before dipping to 11.9 percent in 2018. It however, recovered to 16.7 percent in 2019 but again declined greatly to 6.0 percent in 2020. The steep decrease in 2020, could be attributed to the impact from Covid-19 pandemic which incidentally originated from China. The steep decline was a testament that the pandemic adversely affected the export trade between Ghana and China most significantly. Overall, China's share of Ghana's total global exports during the 10-year data series averaged 7.5 percent, well below 10 percent.

Table 7: The Value of Ghana's Total Exports Vs Exports to China

Year	Ghana's Global Exports (US\$'bn)	Exports to China (US\$'bn)	Ghana's Exports to China as a percentage of Total Global Exports
2010	6.0	0.1	0.9%
2011	21.7	0.3	1.2%
2012	17.8	0.6	3.5%
2013	13.6	0.5	3.4%
2014	15.5	0.8	5.4%
2015	13.9	1.1	8.1%
2016	11.0	1.0	8.7%
2017	14.4	2.4	16.6%
2018	17.0	2.0	11.9%
2019	16.7	2.8	16.7%
2020	11.7	0.7	6.0%
Total	159.2	12.2	7.7%
Average	14.5	1.1	7.5%

Source: Ministry of Trade and Industry (MOTI) and

Ghana Statistical Service (GSS)

Fig. 9: Graphical Illustration of Value of Ghana's Total Exports Vs Exports to China (US\$'bn)



Composition of Export Trade

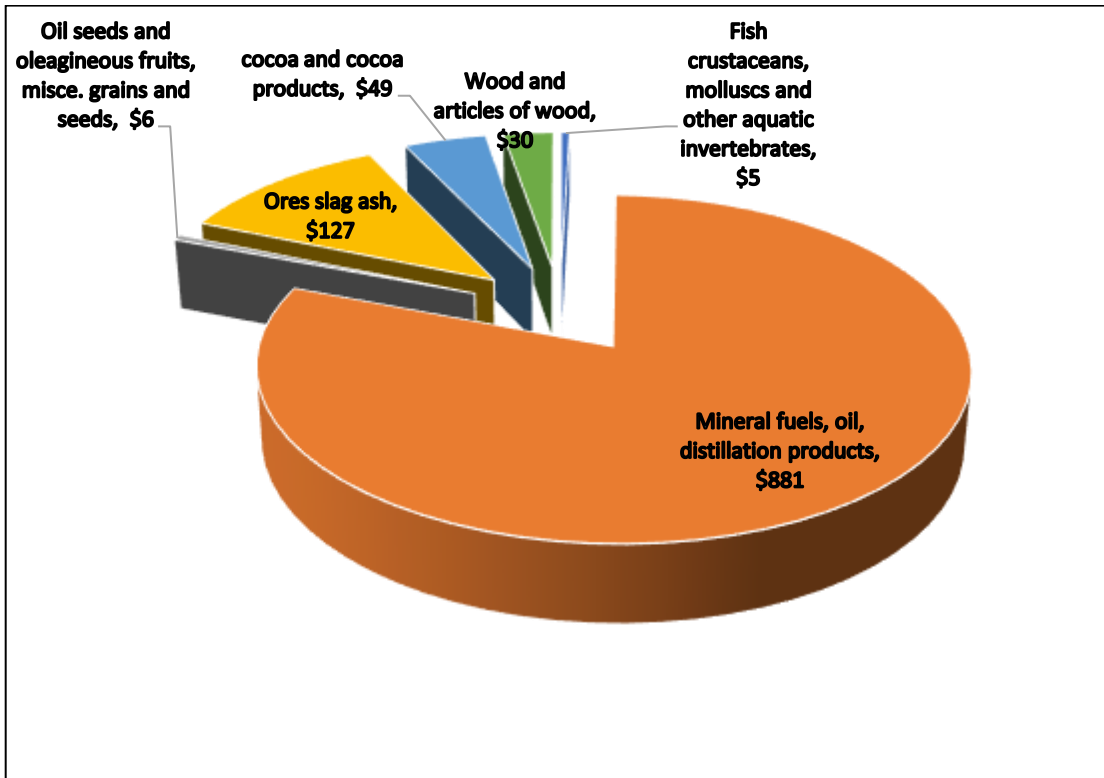
Shown in Table 8; Figure 10 below is the top six (6) merchandise exports from Ghana to China. The values indicate 10-year (2010-2020) averages for each category of commodities. I used averages instead of actuals so as to eliminate erratic movements along the trajectory for the period under consideration. The mineral fuels, oil, distillation products category was the most exported products category to China with an average value of US\$881m, accounting for over 80 percent of the total average. This was followed by ores slag ash with average value of US\$127m (11.6 percent); and cocoa beans and cocoa products, US\$49m (4.4 percent). The product category with the least export value was fish crustaceans, mollusks and other aquatic invertebrates with average value of US\$5m (0.45 percent). The findings indicate that non-traditional exports dominated the merchandise goods traded with China, an indication that this category of exports seems to be gaining ground relative to traditional exports such as cocoa beans and cocoa products which together with wood and wood products, accounted for US\$79m (7.1 percent) during the period under consideration. These findings are graphically illustrated with a pie chart in Figure 10.

Table 8: Average Value of Top Six (6) Ghanaian Exports to China (2010-2020)

Selected Top Six Export Commodities	Average Value (US\$'m)	Percentage share of each Category
1. Mineral fuels, Oil, Distillation products	881	80.4%
2. Ores slag ash	127	11.6%
3. Cocoa and Cocoa Products	49	4.4%
4. Wood and articles of wood	30	2.7%
5. Oil seeds and oleaginous fruits, miscellaneous grains and seeds	6	0.5%
6. Fish crustaceans, mollusks and other aquatic invertebrates	5	0.45%
Total Average	1,097	

Source: Ministry of Trade and Industry (MOTI) and Ghana Statistical Service (GSS)

Fig. 10: Graphical Illustration of Average Value of top Six (6) Ghanaian Exports to China (2010-2020)



Findings From Import Trade

Again, based on Standard International Trade Classification (SITC); and MOTI classification, my findings of Ghana-China co-operation in the area of import trade are presented in Table 8; Figure 10 below. Overall, the findings follow similar trend as exports trade however, with much higher ratios. Apart from 2020 where 2.7 percent was recorded as China's share of Ghana's total import trade, all years reported ratios above 10 percent, resulting in average share of 14.4 percent during the period under consideration. The highest share of 18.2 percent was recorded in 2019, of course prior to the period when Covid-19 became much intensified. Indeed, there is evidence to show that except the brief intervening years of 2013 and 2014, Ghana's imports from China as a percentage of total imports increased steadily from 11.1 percent in 2010 to 18.4 percent in 2016, the highest level ever throughout the entire 10-year period.

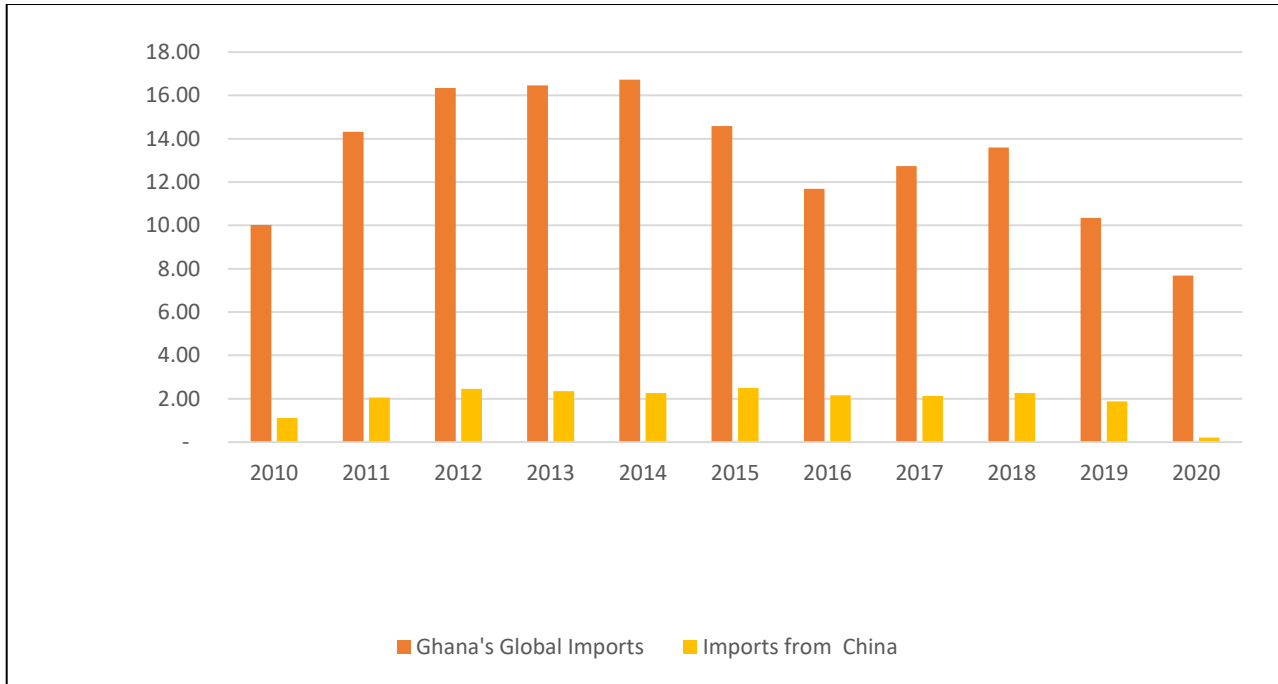
Table 8: The Value of Ghana's Total Imports Vs Imports from China (US\$'bn)

Year	Ghana's Global Imports	Imports from China	Ghana's Imports from China as a percentage of Total Imports
2010	10.02	1.11	11.1%
2011	14.32	2.06	14.4%
2012	16.35	2.46	15.1%
2013	16.47	2.36	14.3%
2014	16.73	2.27	13.6%
2015	14.59	2.51	17.2%
2016	11.69	2.15	18.4%
2017	12.74	2.13	16.7%
2018	13.60	2.26	16.6%
2019	10.34	1.88	18.2%

2020	7.69	0.21	2.7%
Total	144.53	21.40	14.8%
Average	13.14	1.95	14.4%

Source: Ministry of Trade and Industry (MOTI) and Ghana Statistical Service (GSS)

Fig. 10: Graphical Illustration of Value of Ghana's Total Imports Vs Imports from China (US\$'bn)



Composition of Import Trade

My findings indicate that the top six (6) commodities Ghana imported from China during the period under consideration included machinery, nuclear reactors and boilers; electronic equipment; vehicles; miscellaneous chemical products; iron & steel; and plastics (Table 13; Figure 15). Machinery, Nuclear reactors and boilers category topped the import list with a 10-year average value of US\$277m, constituting 28 percent; followed by electronic equipment US\$262m (26.6 percent); and vehicles US\$135m (13.7 percent). Importation of plastics averaged US\$74m in value (7.5 percent), the least ranked import commodity. These data is graphically illustrated with a pie chart in Figure 15.

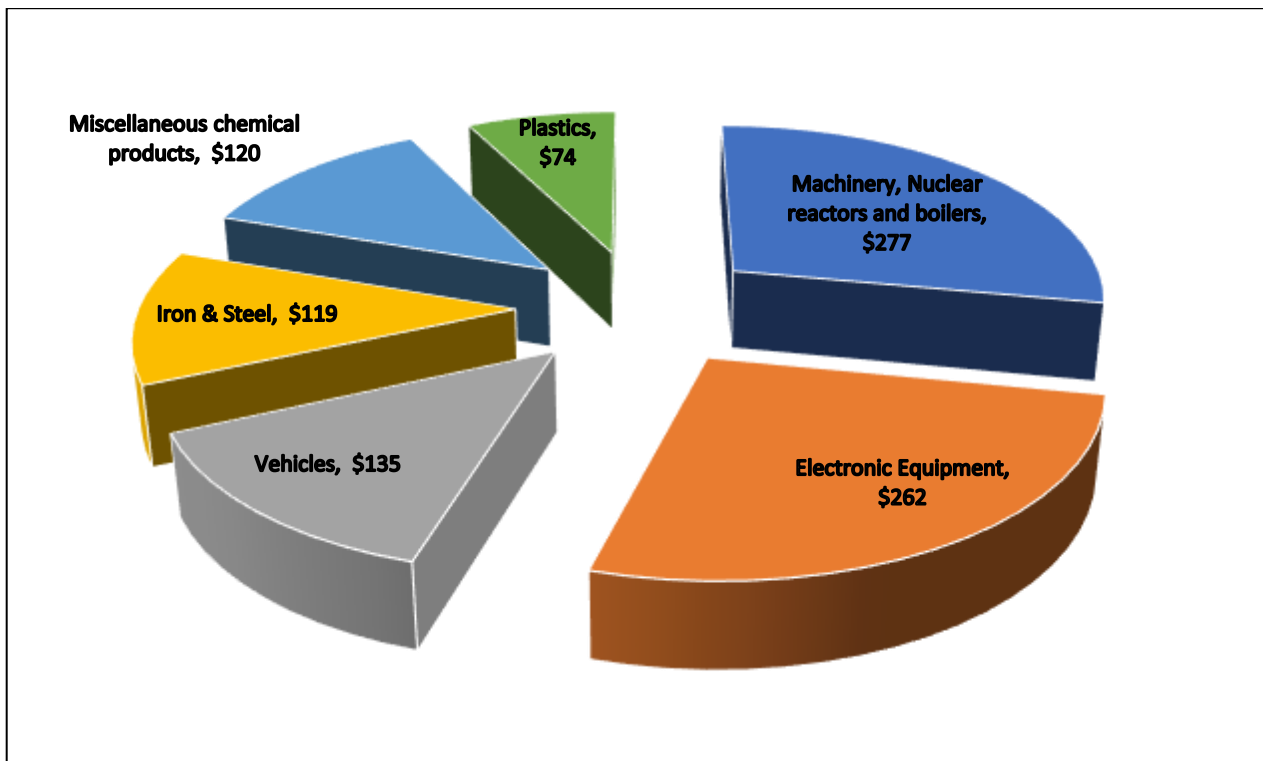
Table 13: Average Value of top Six (6) Ghanaian Imports from China (2010-2020)

Selected Top Six Import Commodities	Average Value (US\$'m)	Percentage share of each Category
1. Machinery, Nuclear reactors and boilers	277	28.0%
2. Electronic Equipment	262	26.6%
3. Vehicles	135	13.7%
4. Miscellaneous chemical products	120	12.1%
5. Iron & Steel	119	12.1%
6. Plastics	74	7.5%

Total Average	987	16.7%
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Source: Ministry of Trade and Industry (MOTI) and Ghana Statistical Service (GSS)

Fig. 15: Graphical Illustration of Average Value of top Six (6) Ghanaian Imports from China (2010-2020)



It is easily verifiable from the trade data that, whereas Ghana's exports to China focused largely on raw materials or semi-processed goods, imports from China were mostly manufactured products whose values were relatively higher than their export counterparts from Ghana because of value addition. It is thus, little wonder that the balance of trade between the two countries has always favoured China at the expense of Ghana. Balance of trade is discussed in detail in the next section.

Balance of Trade

Having analysed the findings of trade – both exports and imports – between Ghana and China and the share of China in both cases, I now move further to determine the balance of trade. Balance of trade (BOT) is the difference between a country's total exports and total imports for a given period (Kenton, 2021). In this case, I am particularly interested in the difference between Ghana's total exports to China on one hand, and total imports from China on the other hand. BOT can either be a surplus or a deficit. It is surplus if total exports exceed total imports in a particular year; and deficit if total imports exceed total exports. This statistic measure is important if we need to know which of the two countries is gaining or losing from the trade co-operation. Whereas China buys from Ghana mainly raw materials – minerals and metals, aquatic foods, wood – Ghana imports mostly the finished products ranging from machinery and electrical goods to plastics and rubber from China. Although ordinarily, such trade arrangement is supposed to benefit both parties, it is more often seen as China exploiting Ghana's raw materials to feed its industrial production. At the same time, by exporting manufactured goods to Ghana, local companies not only become less competitive but they also become constantly reliant on China. Situations such as this fuels the cynicism of China's exploitation, as the partnership between them and countries such as Ghana, in relation to trade, does not appear to be equal. Indeed, my findings give credence to the perception of Ghana-China partnership being exploitative. The data indicates that China, in general, gained more from their international trade transactions with Ghana than Ghana did during the period under consideration (Table 9; Figure 11). With the notable exceptions of 2017, 2019, and 2020 where Ghana's total exports to China exceeded total imports by US\$1.08bn, US\$4.76, and US\$2.80bn respectively, all other years witnessed Ghana's

imports from China exceeding her exports thereby indicating deficit trade balance. It can be conjectured that the prevailing Covid-19 situation in both 2019 and 2020 contributed in slowing down Ghana's import trade activity from China while increasing the export side of the equation at the same time.

Notwithstanding this obvious, gross trade imbalance in favour of China, the co-operation between Ghana and China as far as trade is concerned can be said to have been mutually beneficial rather than being exploitative (in favour of China). This assertion is reinforced by the disclosures by Mr. Chai Zhijing, one time Chinese Economic and Commercial Counsellor at the Chinese Embassy a few years ago during the opening of the 2018 China Trade Week in Accra. Mr. Zhijing revealed that Ghana had climbed to become the 7th trading partner of China in Africa. He further disclosed that trade deals between Ghana and China increased greatly hitting over \$6bn in 2017, up by 11.69 percent from 2016 levels (Zhijing, 2018). According to Mr. Zhijing, in terms of export and import between the two countries, China's export to Ghana recorded \$4.8bn and import from Ghana was about \$1.8bn which showed an increase by 3.37 percent and 41.3 percent respectively. Furthermore, Mr. Zhijing indicated that China had taken steps to increase its import from Ghana, in a bid to support its National Export Strategy policy, which aims to drive Ghana as a world class exporter of products and services. Encouraging Ghanaian businesses to showcase Ghanaian products at China's Expositions, as proposed by Mr. Chai Zhijing to break into the Chinese market is one of the initiatives being taken to promote Ghanaian made products. Although these disclosures by Mr. Chai Zhijing could not be verified independently at the Ministry of Trade and Industry, I have no doubt that coming from Chinese diplomatic sources, they are credible. Plans by China to increase importation of goods from Ghana and the initiative to encourage Ghanaian exports to China, could be steps in the right direction towards driving economic development and mutual benefits in the bilateral relations. To that extent, it can be argued that the trade partnership between Ghana and China is far from being exploitative. Fact is there is empirical evidence to suggest that the trade co-operation between the two countries has been a win-win situation, i.e. both Ghana and China have shared benefits though not on equal terms.

According to literature, to exploit someone is to take unfair advantage of them; it is to use another person's vulnerability for one's own benefit (Zwolinski, 2016). Zwolinski further postulates that, exploitation may not always be harmful but can also be mutually beneficial where both parties walk away better off than they both were before the collaboration. Harmful exploitation involves a partnership whereby one party becomes worse off than previously. It is relatively easy to come up with instinctively convincing cases of unfair, exploitative behaviour. However, providing a logical, philosophical analysis to support and advance those intuitions, has proven more challenging. The most obvious difficulty is agreeing on the parameters under which a transaction or institution may be said to be unfair. On the basis of the above arguments, I am quick to dismiss any debate to the effect that China-Ghana trade co-operation has been exploitative in favour of China. On the contrary, the co-operation has been mutually beneficial even if on unequal terms. Accordingly, Edoho's (2011) argument that China-Africa co-operation is exploitative may not hold in this specific case per my findings and analysis. This analysis therefore sufficiently addresses my research question regarding whether China-Ghana co-operation has been truly mutually beneficial to both parties or exploitative in favour of China. It also answers the research question regarding the extent to which China-Ghana co-operation has impacted on Ghana's economy in area of Trade.

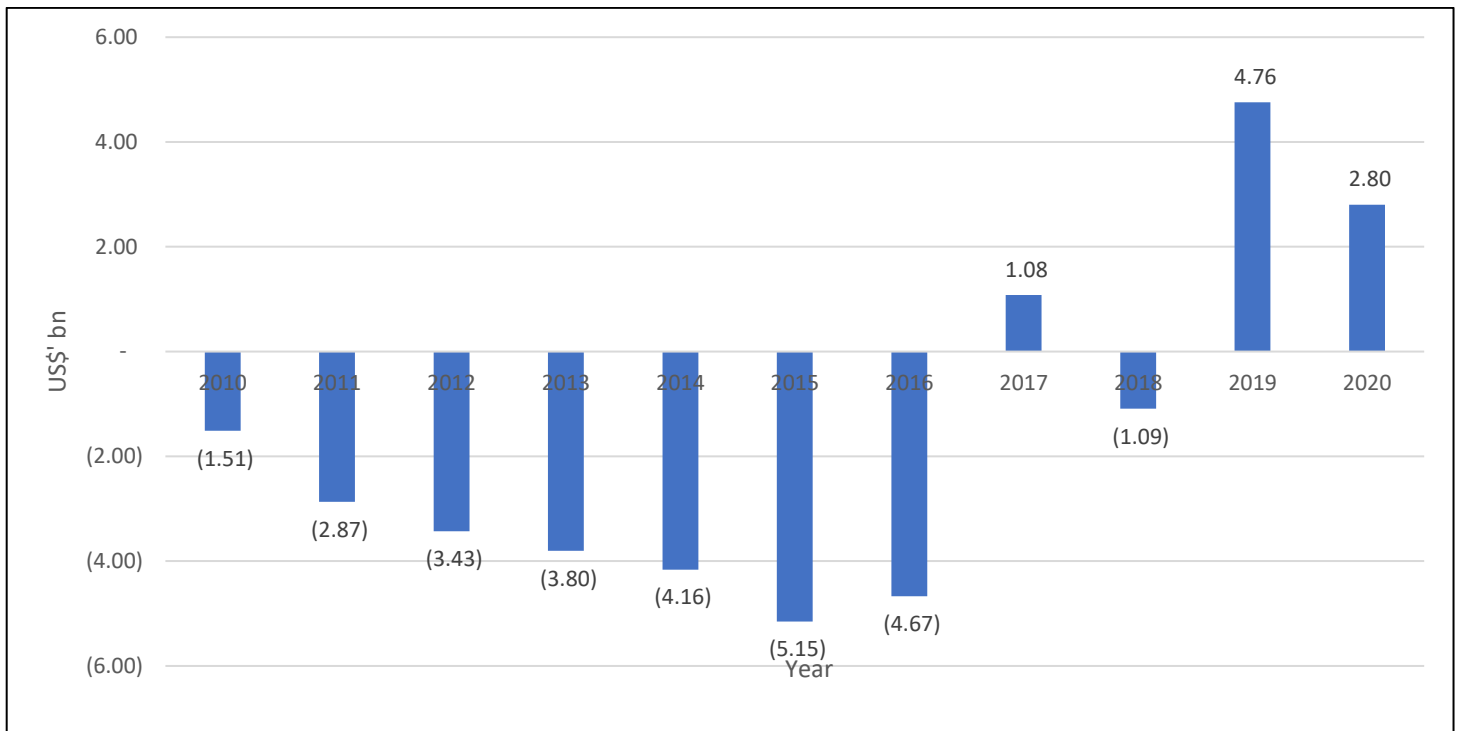
Table 9: Balance of Trade between Ghana and China

	(US\$'bn)
2010	(1.51)
2011	(2.87)
2012	(3.43)
2013	(3.80)
2014	(4.16)

2015	(5.15)
2016	(4.67)
2017	1.08
2018	(1.09)
2019	4.76
2020	2.80

Source: Ministry of Trade and Industry (MOTI) and Ghana Statistical Service (GSS)

Fig. 11: Graphical Illustration of Balance of Trade between Ghana and China: 2010-2020 (US\$bn)



FDI

I proceed to demonstrate in this section the size, composition and significance of Chinese investment in Ghana and provide a sectoral breakdown of these investments according to Ghana Investment Promotion Centre's standard classification.

FINDINGS

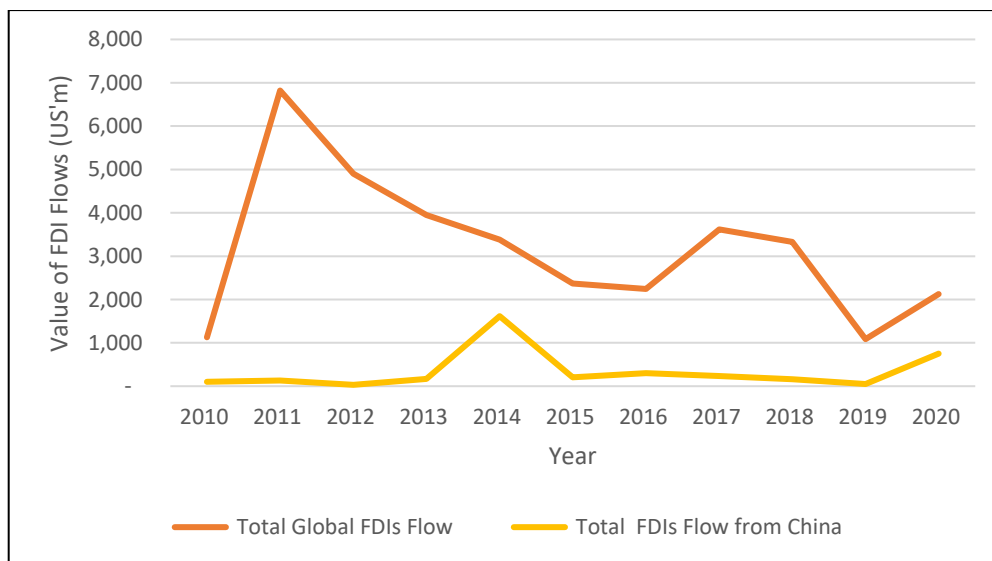
Overall, the findings indicate that growth in Chinese investment has been erratic during the period under consideration (i.e. 2010-2020). Between 2010-2013, the share of Chinese FDI of total FDI flow to Ghana was less than 10 percent (Table 10; Figure 12). The least share of 1 percent (valued at US\$31m) out of the total of US\$4,900m was recorded in 2012. The highest share was 48 percent (US\$1,615m) registered in 2014, followed by 35 percent (US\$755m) in 2020 and then 13 percent (US\$302m) in 2016. Apart from these years, all other years recorded shares below 10 percent particularly in the succession years of 2017, 2018, and 2019. However, on the average, the share of Chinese FDI to Ghana was 12 percent with a value of US\$340m for the period under consideration, which is deemed to be moderate in the face of the “pull factors” at play in Ghana.

Table 10: The Value of Ghana's Total Global FDI Inflow Vs FDI Inflow from China (2010 – 2020) US\$m

Year	Total Global FDI's Flow	Total FDI's Flow from China	Percentage Share of Chinese FDI to Ghana's Global
2010	1,126	99	9%
2011	6,821	132	2%
2012	4,900	31	1%
2013	3,946	169	4%
2014	3,377	1,615	48%
2015	2,370	202	9%
2016	2,241	302	13%
2017	3,614	233	6%
2018	3,326	160	5%
2019	1,085	46	4%
2020	2,127	755	35%
Total	34,933	3,744	11%
Average	3,176	340	12%

Source: Ghana Investment Promotion Council (GIPC)

Fig. 12: Graphical Illustration of Ghana's Total Global FDI Inflow Vs FDI Inflow From China (2010 – 2020) US\$m



The sector breakdown, and the corresponding average investment cost outlays between 2010-2020 are shown in Table 11 with a graphical illustration in Figure 13. In general, the Manufacturing sector got the largest share of investments from China (averaging 27 percent); followed by Export Trade, 15 percent; and General Trade, 13 percent. China's share as a percentage of total investments in the Agricultural and Tourism sectors was paltry 1

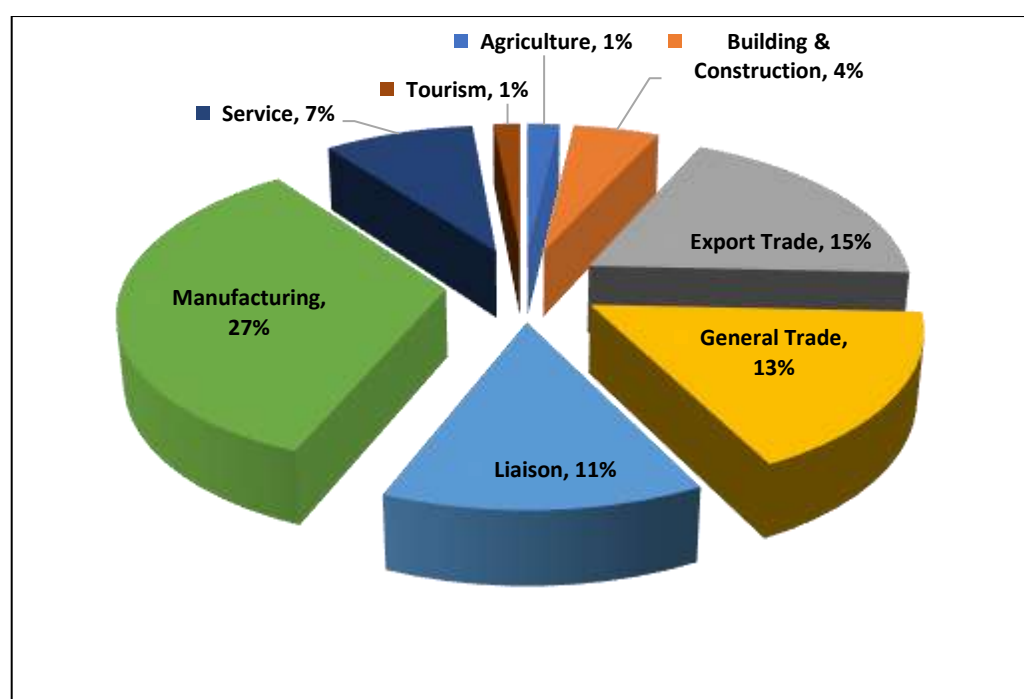
percent apiece. However, overall, the share of Chinese FDI in the eight selected sectors of Ghana's economy together averaged US\$45m, representing 11 percent of the total average for the entire ten-year period under consideration.

Table 11: Average Sectoral Distribution of FDI Flow by Capital Investment: Ghana's Global vs Chinese Flow (2010-2020)

Sector	Ten-year Average FDI Flow to Ghana (2010-2020) US\$m	Ten-year average FDI Flow from China (2010-2020) US\$m	Percentage Share of Chinese FDI
1. Manufacturing	842	223	27%
2. Export Trade	17	3	15%
3. General Trade	98	13	13%
4. Liaison	163	18	11%
5. Service	911	62	7%
6. Building & Construction	977	38	4%
7. Agriculture	104	2	1%
8. Tourism	100	1	1%
Total	3,212	360	
Average	402	45	11%

Source: Ghana Investment Promotion Council (GIPC)

Fig. 13: Graphical Illustration of Average Sectoral Distribution of FDI Flow by Capital Investment ((2010-2020): Percentage Share of China FDI



The above findings indicate that Chinese companies during the ten-year data series invested largely in the Manufacturing; and Export Trade sectors of the Ghanaian economy. There are obvious implications for those trends. Whereas some stakeholders in the value chain are most likely to lose, others would certainly gain or

benefit from such highly skewed, uneven investment distribution. Admittedly, it will be quite challenging to obtain a scientific data to determine the fallouts from those trends in terms of their direct and indirect impacts on the Ghanaian economy in general. Nonetheless, it can be surmised that the concentration of Chinese companies' investments in the manufacturing sector could produce a number of positive outcomes. For instance, the creation of job opportunities for the unemployed in the manufacturing value chain – raw material suppliers, drivers, factory hands, supervisors, technicians, and many more; technology transfer and the use of basic, affordable infrastructural set-ups can be recognized as some of these benefits. On the contrary, there is the likelihood of some of these Chinese SMEs competing out or displacing existing and emerging local producers with great potential to grow and expand. This could possibly happen where the Chinese companies enjoy some peculiar advantages over local competing firms within the same manufacturing industry under Dunning's triangular OLA framework of ownership benefits; location benefits; and internalization benefits. Not only local Ghanaian manufacturing firms could be victims; there could also be relocation by other foreign investors who are unable to compete with these Chinese companies. In the case of transfer of technical know-how, local manufacturers can only benefit if they are equipped with the requisite resources and exposure to do so. However, the emphasis of these Chinese firms on the Export Trade sector is gratifying because of its potential to generate foreign exchange for Ghana even if a large portion of this foreign currency is most likely to be spent outside the country. My findings from the actual, raw data from the GIPC indicate that Chinese firms investment in the Manufacturing sector continues to show positive trend. For example, their combined capital investment cost increased astronomically from US\$34.89m in 2019 to US\$726.45m in 2020 (Appendix 8) with a high potential to increase further. Overall, the shift of the structure of FDI away from General Trading towards Manufacturing and Export Trade is very heart-warming because of the value addition element along the production value chain. Consequently, these findings under FDI just like Trade, defeat Edoho's (2011) argument that China-Africa co-operation is exploitative. At least, the GIPC data and my analysis thereof do not support Edoho's position.

Sampled Chinese Companies in Ghana

At a press conference in Accra somewhere in August 2021, Mr. George Aboagye, the CEO of GIPC disclosed that per their official data, there were relatively a large number of Chinese enterprises registered in Ghana compared with other foreign companies. He further disclosed that Chinese companies top the list of companies registered in terms of Foreign Direct Investment (FDI) in Accra. According to the GIPC boss over 200 Chinese firms were established in Ghana between the 1st and 3rd quarters of 2019 alone (source: <https://pricesghana.com/chinese-company-in-ghana/>). He said majority of these companies are into manufacturing activities while the rest are spread within the services, real estates, agro-processing, and trading sectors. Chai's assertion affirms the GIPC data indicated in Appendix 9. That majority of the Chinese companies are engaged in manufacturing activities is a welcoming strategy as the Chinese investors begin to shift focus from trading to manufacturing. Indeed, there are several arrays of Chinese enterprises that are flourishing in Ghana at the moment, a testament to beneficial effects of increased China-Ghana co-operation. Prominent amongst these are construction firms, plastic production/packaging firms, restaurants, fast food businesses, fishing companies, steel production companies, solar power companies, pharmaceutical companies, wig manufacturing companies, IT related companies, railway companies, and many more. Whereas a greater proportion of these companies are privately-owned SMEs, a few of them operating in Ghana are state-owned. However, unlike the SMEs, the state-owned multinationals tend to be involved in turnkey projects in energy, building and construction, and engineering services which are usually financed by China's state-owned banks such as the Exim Bank and the central bank of China. In spite of this there have been criticisms against some of the processes leading to Chinese companies obtaining contract to execute projects as lacking transparency since they tend to favour the strategic interests of China. For instance, there have been instances whereby China home government directly intervenes in the awarding process to ensure that companies from China secure contracts or are able to access vital resources at the expense of their local Ghanaian counterparts (Idun-Arkhurst, 2008). However, in all fairness, some Chinese state-owned companies are better resourced and technologically better positioned to undertake some specific turn-key projects. A classic example is how the Sino Hydro Group Ltd; a Chinese state-owned transnational construction company spearheaded the construction of the Bui hydroelectric Dam in addition to several other important development projects in Ghana. Another example is how a Chinese state-owned telecom giant, Huawei Ltd won a contract to build the National Fibre Optic Network that set the

pace for Ghana's digitalization and digitization revolution. Again, the construction of the Burma Hall Complex – a military facility – at Burma Camp, (Ghana's foremost military base) was also undertaken by China State-owned Hualong Construction Co. Ltd through a US\$1.2 million Chinese government grant, which was supplemented by resources from Ghana's peacekeeping account (Idun-Arkhurst, 2008).

Apart from the above-mentioned state-owned Chinese transnational companies, Shandong Zhonghu Oceanic Fisheries Co. Ltd. is another dominant state-owned fishing company that has been operating in Ghana's trawl-fishing sector. Although this company has been reported by Environmental Justice Foundation (EJF) as exploiting and concealing aquatic resources, as well as using unfair fishing practices within Ghana's maritime boundaries (Orirere, 2021), the company is noted for offering employment opportunities to many Ghanaians and contributing to tax revenues of the country. Another Chinese state-owned company is the IT giant and China's leading cloud computing company, Inspur Group Co. Ltd. This company made the move to establish a headquarters in Ghana in 2018 to serve the West African sub-region. In terms of technology, official data stated that Ghana received corporate and financial aids from Chinese organizations, thus making them emerge as key players in the infrastructure sector. Also worthy of mentioning is the China Shandong International Ltd (CSI), located in Accra. It is one of the most successful Chinese construction companies registered in Ghana which operates in the real estate's sector. They rank high and has so far delivered flawless construction services on real estate, highway construction and maintenance, housing, hotel development, railways and bridge construction amongst others. For example, by the year 2018, CSI had handled several construction and development projects in Ghana and they look forward to further executing more development projects in the country.

Notable Chinese Companies in Ghana

Indicated below are some of the names of Chinese companies (both state and private-owned enterprises); that can be found in the records of the Registrar General's Department and GIPC official data (source: <https://pricesghana.com/chinese-company-in-ghana/>):

1. Alayi Chinese Restaurant Ghana
2. Asterion Construction
3. Bambo Chinese Food Fusion Ltd
4. Barita Chinese and Pizza Food joint
5. CG Minerals GH Ltd
6. Chang Wei.Com Ltd
7. Charkieh Plastic and Packaging Co. Ltd
8. Cheng Gong Ghana limited
9. Cheng Hua Company
10. Cheng Sing Company Limited
11. Chiang Hui GH limited
12. China Company Limited
13. China Geo-Engineering Corporation Ghana Ltd
14. China Gold Ghana Resources co. Ltd
15. China Harbour Eng. Company
16. China Hualong Construction GH
17. China Jiangxi Eng. Limited
18. China Mall Spintex
19. China Petroleum China Ltd
20. China Railway Eng. Gh limited
21. China Shandong International Ghana limited (CSI)
22. China State Construction Eng. Corp
23. China Trading Ltd
24. Chinese House Fast Food
25. F International Ltd

26. Ghana Chinese Chamber of Commerce.
27. Golden Chopsticks Ltd
28. Imperial Peking Chinese food ltd Mankata Ghana
29. Inocon Group Limited
30. Inspur Group Co. Ltd.
31. Joshob Construction Ltd
32. Leo+Lee ltd
33. LMI Holdings
34. NINGBO MH Industry Co. ltd
35. Noble House Restaurant
36. Palace Chinese Food Ltd
37. Rebecca Wig Ltd
38. Regal Chinese Food ltd
39. Rider Steel Ltd
40. Sanbao Pharmaceutical GH
41. Shandong Tianshang Machinery Co. Ltd-lulu
42. Shiangxi Electric Power Group Ltd
43. Sinohydro Group Ltd.
44. Tianboa (solar viva) Limited

Governance Issues and Regulatory Framework towards Attracting FDI

To be able to address the research question regarding the mechanisms successive governments of Ghana have put in place to attract investments into Ghana, it is imperative to highlight the existing investment policies and laws that regulate our investment environment.

First and foremost, it must be acknowledged that Ghana's strong policy performance on governance issues is a key factor for attracting FDI. It must be emphasized that although in general, there are some administrative bottlenecks in the delivery of quality service at the public sector level, nonetheless Ghana's performance over the years in governance issues has largely been satisfactory. International ranking agencies including Transparency International (TI), and World Bank Doing Business Report have scored Ghana high marks on all key indicators of good governance and economic policy management in recent years. Few examples in the schedule below will suffice:

<u>Measure</u>	<u>Year</u>	<u>Index/Rank</u>	<u>Website Address</u>
US. FDI in partner			
Country (US\$m			
Stock positions)	2017	US\$1,698	http://www.bea.gov/international/factsheet/
World Bank GNI			
Per capita	2017	US\$1,880	http://data.worldbank.org/indicator/NY.GNP.PCAP.CD
Global Innovation			
Index	2018	107 of 126	http://www.globalinnovationindex.org/analysis-indicator
Transparency			
International			

Corruption

perception index 2018 78 of 180 http://www.transparency.or./research/cpi/overview_

World Bank's Doing

Business Report 2019 114 of 190 <http://www.doingbusiness.org/en/rankings>

Source: <https://www.state.gov/reports/2019-investment-climate-statements/ghana/>

The above Investment Climate Statements (that measure policy performance and governance issues) provide eloquent indication of Ghana's resolve to pursue the path of transparency in governance issues which is sine qua non for attracting FDI. Indeed, Ghana is one of the economies within the SSA enclave that is more open to foreign equity ownership. Most of its major sectors are fully open to foreign capital participation (source: <https://www.state.gov/reports/2019-investment-climate-statements/ghana/>). Foreign investments are treated equally without discrimination irrespective of the origin; whether US, Europe or Asia including China. Per GIPC Act 2013, (Act 865) Sections 28 (1 & 2) foreign investments are subject to minimum capital requirement of US\$200,000 for joint ventures with a Ghanaian partner that should have at least 10 percent of the equity; US\$500,000 for enterprises wholly owned by a non-Ghanaian; and US\$1 million for trading companies (firms that buy or sell imported goods or services) wholly owned by non-Ghanaian entities (source: GIPC Act 2013; Act 865). According to the Act, the minimum capital requirement may be in cash or trading goods relevant to the investment.

Also stipulated in the Act is the requirement of foreign trading companies to employ at least 20 skilled Ghanaian nationals. Furthermore, under Section 32 of the same Act, subject to Foreign Exchange Act 2006 (Act 723), a foreign enterprise shall through an authorized dealer bank guarantee unconditional transferability outside Ghana in freely convertible currency of dividends or net profits attributable to the investment made in the enterprise. In some cases, a foreign investment may enjoy certain tax incentives under the law or additional benefits if the project is deemed important to the country's development.

Also, the existence of a flexible legal environment serves as a 'Pull factor' (Lee, 1966) in attracting FDI. For instance, Section 33 (1 & 2) of the GIPC Act 2013, (Act 865) provides avenues for dispute resolution between a foreign investor and the government of Ghana through arbitration in accordance with United Nations Commission on International Trade Law. The law provides that where in respect of disagreement between the investor and the government of Ghana, the method of dispute settlement shall be by mediation under the Alternative Dispute Resolution Act, 2010 (Act 798). The GIPC has created a website to enable prospective interested foreign entities to obtain specific information about setting up a business in Ghana. The website is: <http://www.gipcghana.com/invest-in-ghana/doing-business-in-ghana.html>. Registering business is a relatively easy procedure and can be done online through the Registrar General's Department at <https://egovonline.gegov.gov.gh/RGDPortalWeb/portal/RGDHome/eghana.portal>. Unlike before it takes 8 procedures and approximately 14 days to establish a foreign-owned limited liability company that wants to engage in international trade in Ghana (source: World Bank Doing Report 2019). More information on investing in Ghana can be obtained from GIPC's website: www.gipcghana.com.

The existence of all the above regulatory and legal framework has provided adequate incentives for Chinese entities to invest in Ghana over the years.

Aids

This section discusses the China-Ghana co-operation in the area of aid (including technical assistance, loans, infrastructural development, education, health & medical support, humanitarian aid, etc.) within the selected time series (i.e. 2010-2020). I will demonstrate the size, composition and significance of Chinese foreign aid to Ghana; and provide a sectoral breakdown of where this assistance has had some impacts.

The range of Chinese foreign assistance to Ghana is multi-sectoral. It has covered key sectors including: agriculture, manufacturing, telecommunication, road and railway, social services such as health, education, and tourism. In addition, China has more recently, ventured into a strategic partnership with the Ghanaian private sector to develop the airline, energy, automobile, chemical and food processing industries. Key among these investments are the Africa World Airlines - AWA (which operates airline services within Ghana and the West African subregion); and Sunon Asogli Power (Ghana) Ltd which contributes approximately 760MW to Ghana's national grid. (Source: http://gh.china-embassy.org/eng/sgxw/202103/t20210313_9937121.htm).

In the area of humanitarian assistance, China's support to Ghana during the heat of the Covid-19 pandemic for instance has been phenomenal. Example is the role played by China in providing funds through WHO to produce key videos on COVID-19 to demystify the propaganda and negative publication about the side effects of the scientifically proven vaccines in dealing with the pandemic. China offered assistance through the building of the capacity of the Ghana Health Service to develop a robust website for effective COVID-19 communication to counter the negative media reportage (source: <https://www.ghanahealthservice.org/covid19/latest.php>). Furthermore, in order for the Eastern Region to respond effectively to the pandemic and reduce community transmission, the WHO again with funding from the government of China assisted the Eastern Regional Health Directorate to train a 240-member Rapid Response Team and Contact Tracers to build capacity to early detect COVID-19 cases and conduct effective contact tracing. Onsite technical support was also provided to 10 selected districts on sample collection, contact listing and transportation of samples to the laboratory. The Chinese government donated materials to the University of Ghana Medical Center, Greater Accra Regional Hospital, Korle-Bu Teaching Hospital, and LEKMA Hospital. Also, diagnosis equipment was provided to Noguchi Memorial Institute for Medical Research through WHO etc. China again donated living and health supplies to the orphanage and women and children in the northern region in collaboration with international organizations such as UNICEF. Meanwhile, the Chinese medical team had been working in the forefront with their Ghanaian counterparts. In addition, COVID-19 frontline health workers from 26 hospitals were trained on case management, Infection prevention and Control practices. (source: <https://www.ghanahealthservice.org/covid19/latest.php>). Still on Covid-19, Ghana was selected by China as a transit nation for the delivery of medical supplies donated by China for onward distribution to eighteen African countries in support of efforts to fight the COVID-19 pandemic. The items included nose, eye and surgical masks, protective clothing, disposable medical gloves, shoe covers, and forehead thermometer guns with a promise to provide more supplies. Ghana also benefited from a large quantity of Covid-19 vaccines supplied by China to help Ghana win the war against Covid-19. (Source: <https://www.afro.who.int/news/government-china-supports-strengthening-covid-19-response-ghana>). Furthermore, to bolster efforts being made by the Government of Ghana in response to the COVID-19 pandemic, China donated US\$1m grant to help improve newborn care and child health, prevent, detect and treat severe acute malnutrition among infants. Indeed, Ghana is one of six countries that received financial support within the framework of the China-UNICEF co-operation against COVID-19 through China's South-South Co-operation Assistance Fund (source: <https://www.unicef.org/ghana/press-releases/china-supports-government-ghana-efforts-improve-child-health-and-reduce-malnutrition>).

In the area of infrastructural development, China has supported Ghana in delivering a number of signature projects in the road sector in particular. China is supporting the construction of roads and interchanges across the country under Ghana's flagship programme dubbed "Year of Roads". This massive infrastructure programme involves US\$2bn Master Project Support Agreement (MPSA) signed between Ghana and China in 2018 to address major infrastructure challenges in the country. As part of a memorandum signed between the two nations in 2018, China was expected to finance \$2 billion worth of rail, road and bridge networks, and in exchange, China will be granted access to 5% of Ghana's bauxite reserves (source: <https://www.cnbc.com/2019/11/21/chinas-2-billion-ghana-deal-fears-over-debt-influence-environment.html>). Furthermore, as part of the Sinohydro deal, each of Ghana's 16 regions is expected to benefit from a number of projects including: rural electrification, health facilities, construction of court and residential buildings for the Judicial Service, landfill sites and industrial parks.

At the moment, a number of trunk roads, interchanges and traffic signal systems are being built across the country under the Sinohydro deal. For instance, the busy Accra-Nsawam section of the Accra-Kumasi Highway is being constructed under the Sinohydro deal to improve mobility. The Obetsebi Lamptey, Tamale, and Takoradi interchanges, were completed at a combined cost of \$289 million. The interchange project undertaken by Sinohydro Corporation Limited, also included a 684-meter-long main bridge, whose completion has since improved significantly, the traffic situation in the city center of Accra. (<https://www.peacefmonline.com/pages/local/news/202107/448187.php>).

In spite of the proposed benefits from the MPSA deal, some political and environmental critics, as well as financial experts of global standing have warned of the negative consequences of the deal. For instance, some conservationists believe that mining in the country's key forest covers at Akwatia and Nyinahin in the Eastern and Ashanti Regions respectively would pose significant environmental risks to flora and fauna populations.

Also, a Duke University report warns the cost of the proposed aluminium industry projects linked to the Sinohydro agreement would outweigh the potential benefits. (source: <https://www.scmp.com/news/china/diplomacy/article/3126260/ghanas-bauxite-infrastructure-deal-chinas-sinohydro-faces>). Furthermore, a report from risk consultancy EXX Africa has criticized the deal citing lack of transparency and increasing threat to debt sustainability (source: <https://www.cnbc.com/2019/11/21/chinas-2-billion-ghana-deal-fears-over-debt-influence-environment.html>).

In the telecommunication sector too, China has partnered Ghana through the provision of grants and concessionary loans to establish a robust ICT infrastructure that has launched Ghana into a digital revolution. For instance, China provided a concessionary loan of \$30 million to facilitate the establishment of the Phase I of Ghana's National Communication Backbone and e-Government Project (source: <https://nita.gov.gh/projects/jurong-logistics-hub/>). Under the e-Government network built by Huawei, a Chinese telecom firm, the network was programmed to reach up to 1,050 sites around the country; 550 locations via wireless last mile access networks and an additional 500 locations via any other means with the ultimate objective to reaching all the then 10 regions and 170 districts in Ghana. In addition, China is helping to build the infrastructure necessary to facilitate the expansion of ICT to rural areas through its support for rural electrification to improve the transmission and distribution of electricity to rural Ghana. The government of Ghana has also signed a memorandum of understanding (MoU) with China to develop the Rural Technology Project, which includes the expansion of rural telephony (Idun-Arkurst, 2008). Thus, through China's assistance, these projects have laid a solid foundation for Ghana's industrialization and digital revolution.

Summary of Chinese foreign assistance in selected sectors is indicated in the Table below:

Table 12: Summary of Chinese Foreign Assistance in Selected Sectors

Sector	Project/Policy Initiative	Assistance type	Amount US\$'m	Period	Status
Infrastructure (roads, bridges, interchanges, etc.)	Master Project Support Agreement (MPSA) between Sinohydro Corporation Ltd. of China and Government of Ghana totaling US\$2.0bn Phase I: • Accra Inner City Roads	Deferral of Payment under Engineering, Procurement, & Construction (EPC)	\$94.15m	2018	Ongoing

Sector	Project/Policy Initiative	Assistance type	Amount US\$'m	Period	Status
	• Kumasi Inner City Roads		\$95.78m	2018	Ongoing
	• Tamale Interchange		\$46.40m	2018	Completed
	• PTC Roundabout, Interchange, Takoradi		\$68.94m	2018	Ongoing
	• Adenta-Dodowa Dual Carriage		\$84.08m	2018	Completed
	• Sunyani Inner City Roads		\$57.96m	2018	Ongoing
	• Western Region and Cape Coast Inner City Roads		\$46.97m	2018	Ongoing
	• Upgrading of Selected Feeder Roads in Ashanti/Western Region		\$53.68m	2018	Ongoing
	• Rehabilitation of Oda-Ofoase-Abirem Roads		\$39.98m	2018	Ongoing
	• Hohoe-Dodi Pepesu Road		<u>\$58.65m</u>	2018	Completed
	Phase I Total		\$646.63m		
Social Infrastructure	• Cape Coast Sports Stadium Construction Project	Grant	\$30.0m	2013-2016	Completed
	• Phase I: Science Laboratory, lecture halls, libraries, hostels, etc. for the University of Health and Allied Sciences in Ho (UHAS)	Grant	\$16.0m	2015	Completed
	• Phase II: Central Administration Block, School of Nursing and Midwifery of (UHAS)	Grant	\$60.0m	2019	Completed
	• New Century Career Training Institute (NCCTI) Expansion Project in Accra	Grant	\$6.55m	2013	Completed

Sector	Project/Policy Initiative	Assistance type	Amount US\$'m	Period	Status
	The Kpong Water Supply Expansion Project	Commercial loan	\$273.0m	2012-2015	Completed
Railway Infrastructure	Included in the Master Project Support Agreement (MPSA) between Sinohydro Corporation Ltd. of China and Government of Ghana totaling US\$2.0bn. project is ongoing.				
Telecom	Phase I of a telecommunications project to link all ten regional capitals and 36 towns in Ghana with fiber optic cables	Concessional loan of	\$30.0m	2011	Completed
Energy	The 400-megawatt Bui Hydro-electric Dam	Concessional loan of \$270m; Commercial loan of \$292m	\$622.0 m	2007-2013	Completed
	Atuabo Gas Project	Concessional loan	\$1.00bn	2011-2015	Completed
	The Atuabo–Aboadze Gas Pipeline	Concessional loan		2019	Completed
	Phase I of the Sunon Asogli Power Plant (200MW)		\$340	2010	Completed
	Phase II of the Sunon Asogli Power Plant (360MW)		\$360m	2016	Completed

Sources: <http://www.ejolt.org/wordpress/wp-content/uploads/2015/07/FS-25.pdf>

<https://www.uhas.edu.gh/en/public/news/china-aided-construction-of-phase-ii-of-uhas-to-commence-soon.html> ; <https://www.aiddata.org/>

<http://www.coursesghana.com/colleges/1269-new-century-career-training-institute.aspx>;

<https://www.theafricareport.com/6818/chinese-firm-begins-ghanas-gas-processing-project/>

Besides infrastructure development, agriculture, health and medical support, defense, energy, debt cancellation, and many more, education and capacity building is also another area that has benefited from the co-operation. For example, there is evidence that between 2010-2014 China offered scholarship to over 1,500 Ghanaian students to study in various tertiary institutions in China (source: <https://www.muse.jhu.edu/article/454292>). Addressing the gathering at the Chinese Government Scholarship Award Ceremony on the 20th of August 2018, the Ambassador of the People's Republic of China, Shi Ting Wang indicated that there were 1,076 Ghanaian students who had won the Chinese Government Scholarship in 2018 alone to pursue further studies in China. He underscored that cumulatively, 6,500 Ghanaian students were studying in China as at 2018, ranking first among

all African countries for four consecutive years (i.e. 2014-2018) while nearly 1,000 Ghanaian professionals also received training in various fields including: trading, communication, energy, auditing, agriculture and fisheries operation in China in 2017 alone. (Source: http://gh.china-embassy.gov.cn/eng/zjgx/jylx/201808/t20180828_6900019.htm).

This chapter did an overview of China-Ghana co-operation focusing on Trade, FDI, and Aid. Using empirical data from MOTI; GIPC; and GSS supported with graphical illustrations, I was able to explain the relative benefits that accrue to both Ghana and China as far as their trade relations; investment flows to Ghana in particular; and Chinese foreign support in the form of aid are concerned. Using empirical data – both quantitative and qualitative – this chapter was able to successfully address all three-point research questions namely:

1. To what extent can we say that China-Ghana co-operation truly provides mutual benefits to both parties in the area of trade rather than it being exploitative whereby only China benefits at the expense of Ghana?
2. What is the *raison d'être* or motivation of Chinese multinational corporations and private-owned enterprises trooping to Africa to invest their capital, technology and other resources in economies of these African countries?
3. To what extent has foreign aid from China impacted on Ghana's economy in terms of infrastructural development (e.g. roads and railways); social services (e.g. sports, health and medical support, education and capacity building, etc.); agriculture; defense; energy, debt cancellation, etc.?

SUMMARY, CONCLUSIONS, AND POLICY RECOMMENDATIONS

Introduction

The study attempted to evaluate the implications of China's rising influence in Africa during the past few decades using Ghana as case study where the focus was on three key interest areas namely: Trade, investment (FDI) and Aid. Using a ten-year data series spanning 2010-2020 from MOTI; GSS; GIPC; Embassy of the Republic of China in Ghana websites; and other credible internet links, the study found that on the balance of probabilities, the relationship between China and Ghana has been net positive in favour of Ghana. Not only that but also it has been progressive; and mutually beneficial to both China and Ghana. This is contrary to the school of thought that holds that the China-Ghana co-operation had been exploitative (Edoho, 2011; Uchehara, 2009a); or has had underlying neo-colonialist tendencies as reasoned by former Zambian leader, Michael Sata (Langan 2017: p95).

Conclusion

Using graphical illustrations, I was able to demonstrate the relative benefits that accrue to both Ghana and China from their partnership. More specifically, the study was able to arrive at the conclusion that the footprints of China in the three research areas of interest (i.e. Trade, FDI, and Aid) have brought about visible impacts on the Ghanaian economy such as technology transfer, increased employment opportunities, enhanced value-addition (through increased manufacturing activities); infrastructure development, capacity building through scholarship award schemes and professional training; humanitarian support; and many more which reinforces the assertion that China-Africa co-operation with Ghana as a case study has been largely rewarding.

The study also found out that the influx of Chinese investments to Ghana is not by accident, rather it has been by Ghana government's deliberate policy over the years to attract foreign investments through systematic promulgation of relevant regulations to attract and retain investments from foreign countries particularly China.

Based on the available data; and per my findings from the analysis of same, I can conveniently conclude without any equivocation, that China-Ghana co-operation in the area of Trade, FDI, and Aid has been on win-win basis. My findings thus neither support the exploitation arguments advanced by Edoho (2011); and Uchehara (2009a); nor the neo-colonialism thought as reasoned by former Zambian leader, Michael Sata (Langan 2017: p95).

Recommendations

On the basis of my findings, the study makes the following recommendations:

1. As a strategy to attract more Chinese investments, the Government of Ghana through the Ministry of Trade and Industry (MOTI) and other relevant agencies should sustain and even consolidate the various investment policies that have served as 'pull' factors in attracting Chinese investors.
2. The unfavourable balance of trade situation (which most of the times goes against Ghana) should be addressed through the encouragement of Ghanaian local businesses to focus more on value added commodities by processing wood; cocoa; Oil seeds and oleaginous fruits, fish, for example instead of exporting them in their raw form.
3. Just as foreign investors including the Chinese are given certain incentives such as tax reliefs, similar incentives must be extended to their Ghanaian counterparts to ensure equity and fairness in the competitive environment. This will introduce efficiency, cost effectiveness, competitiveness, and increased profitability among the Ghanaian enterprises.
4. Bureaucratic obstacles that impede smooth registration of businesses which often contribute to high cost of doing business should be eliminated completely; or minimized considerably to engender confidence among prospective foreign investors.
5. The Ministry of Finance and the relevant Ministries such as Road and Highways, Works and Housing, must ensure that there is value for money in all infrastructural projects executed by Chinese state-owned or transnational corporations. The Sinohydro deal under the Master Project Support Agreement (MPSA) is a case in point.
6. There should be a tripartite understanding between the Government of Ghana represented by the Ministry of Environment, Science, and Technology; Ministry of Lands and Natural Resources on one hand; the Sinohydro Group Limited on the other hand; and the affected communities where the nation's bauxite deposits are expected to be mined (as part of the conditions under the US\$2bn Sinohydro deal) to address all environmental concerns raised by those communities and environmentally-oriented civil society organizations to engender harmony and allay the fears of the citizenry.
7. Finally, it is recommended that a joint ministerial committee involving the Ministry of Education; the Ministry of Labour Relations; and the Scholarship Secretariat be constituted to find a common ground in lobbying the Government of the People's Republic of China through its Embassy in Accra to increase the number of beneficiaries awarded Chinese scholarships as well as sponsored to undergo technical and vocational training in China each year. It is believed that the enhanced capacity building of Ghanaians through this medium is critical in contributing to the achievement of Ghana's digitization drive.

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