A Review of China's Role in Ghana's Economic Transformation

The African Center for Economic Transformation

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List of Acronyms

ACET – African Center for Economic Transformation
AICD - Africa Infrastructure Country Diagnostic
AGOA - African Growth and Opportunity Act
ATR – African Transformation Report
AWA - African World Airlines
BXC - Beijing Xiaocheng Company
CABC - China- Africa Business Council
CADF – China- Africa Development Fund
CARI – China Africa Research Initiative
CDB – China Development Bank
CPPB – China Petroleum Pipeline Bureau
EAC- East African Community
ECOWAS- Economic Community of West African States
FOCAC – Forum on China Africa Cooperation
FDI – Foreign Direct Investment
GDP – Gross Domestic Product
GBC - Ghana Bauxite Company
GIIF - Ghana Infrastructure Investment Fund
GNGC - Ghana National Gas Company
HIPC - Heavily Indebted Poor Countries
ICSID - International Centre for the Settlement of Investment Disputes
IDA - International Development Association
LDC – Least Developed Countries
MIGA – Multilateral Investment Guarantee Agency
MOFCOM - Chinese Ministry of Commerce
NDP - National Democratic Party
NPP - New Patriotic Party
ODA – Official Development Assistance
OOF – Other Official Flows
NTB – Non- Tariff Barriers
RULC – Relative Unit labour Costs
SACU - South African Customs Union
SME- Small and Medium Enterprises
UNCTAD - United Nations Conference on Trade and Development
WAGP - West African Gas Pipeline

1. INTRODUCTION

The various pledges the Chinese government has made through the Forum of China-African Cooperation (FOCAC) represent the actualization of China's strategic approach towards helping Africa develop. FOCAC is a multilateral platform, jointly established by Chinese and African leaders, seeking to enhance friendly cooperation to the mutual benefit of the two parties. The pledges are focused on various sectors, but for the purposes of this study special attention will be only on those related to aid, trade and investment because these are the most relevant to economic transformation.

Economic transformation is defined by the African Center for Economic Transformation (ACET) in a very specific manner and measured along what is called the 'DEPTH framework.' DEPTH is an approach which maintains that in order for African countries to achieve substantial, sustainable and broad-based growth, they must: **D**iversify production, enhance **E**xports competitiveness, increase the **P**roductivity of farms, firms, and government offices, and upgrade the usage of **T**echnology throughout the economy—all aimed at improving **H**uman well-being. This analysis on the extent to which China has impacted Ghana's economic transformation will loosely use this framework as a lens to examine the extent to which China-Ghana trade, investment and aid have promoted and supported economic transformation in Ghana.

Using data from the United Nations Conference on Trade and Development (UNCTAD) on trade, the Ghana Investment Promotion Centre (GIPC) on investments, China AidData on financial commitments as well as the China Africa Research Initiative (CARI) at the Johns Hopkins University, this report will review the hard evidence to make an assessment and present some recommendations for making China-Ghana economic relations more developmentally impactful. In addition to these data sources anecdotes and information collected through interviews with several stakeholders in Accra will also be quoted.

In terms of structure, this paper will follow the following flow: first the analysis will focus on China-Ghana trade trajectory, including a review of factors such as tariffs and nontariff barriers and value chain participation. Then, the report will pivot to Chinese investment in Ghana and its impact. Finally, Chinese economic and technical cooperation (this being the term that China prefers to use as a proxy for aid) will be examined for its impact.

2. TRADE

2.1 Ghana's Trade Trajectory

The rise of China from an agriculture-based economy in the late 1970s to a global powerhouse has had a tremendous impact on the trade mix and trajectory of many African countries, not the least of which is Ghana. Traditionally important trade partners from the West like the United Kingdom, United States of America, Italy and the Netherlands have lost dominance as trading partners, while the newly industrializing countries like China (25% of total trade), India (10%) and Nigeria (7%) became Ghana's most

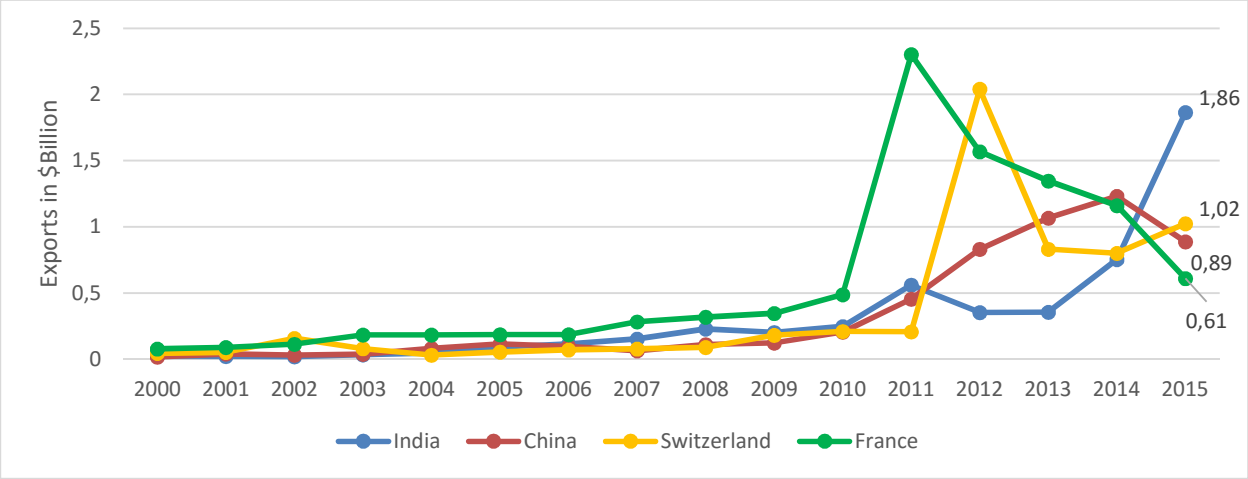
important trade partners in 2015.[1] Trade relations between China and Ghana represent the largest dimension in economic engagements between these two countries, eclipsing total investment and ETC. Since the turn of the millennium, the Ghanaian economy has witnessed an unprecedented growth in its Gross Domestic Product (GDP) as well as its international trade flows. While the country's GDP rose from $4.98bn in 2000 to $48bn in 2013, total trade flows increased with an average annual growth rate of 13.5% from $4.3bn in 2000 to $31.1bn in 2013.[2] Since 2013, however, Ghana's economy has stalled and the total trade volume decreased to $24bn in 2015. In addition, there has been an ever increasing trade imbalance, with Ghana's imports outpacing exports by a margin of about $7bn. This trade imbalance is symptomatic of deep-rooted and systemic problems in Ghana's economy and highlights areas of concern in the Ghana-China trade relationship.

Ghana's total exports to the world increased with an average growth rate of 13.44% from $1.67bn in 2000 to $8.78bn in 2015. Ghana's most important export destinations in 2015 were India (21% of exports), Switzerland (11%) and China (10%). Figure 2.1 shows the declining role of traditionally important export destinations like Switzerland and France and the steadily increasing role of India and China as Ghana's trade partners. Indeed, it is interesting to note the steep increase of exports to India over the past 3 or so years, an increase which means India has rapidly overtaken China as the primary recipient of Ghanaian exports. The rise in exports to India is to the largest extent explained by skyrocketing gold exports, from a value of $44mn in 2013 to $1.62bn in 2015, followed by fruits and seeds worth $117mn, giving gold an export share of 87% in 2015. Contrary to China, India does not import petroleum from Ghana. Gold exports to Switzerland and petroleum exports to France have decreased since 2012, explaining the overall decrease in Ghana's exports to these countries. Fluctuations in both world market prices and production levels for gold, cocoa and petroleum also explain the considerable volatility in export values since 2010.

[1] UNCTAD Data

[2] World Bank Data

Figure 2.1 Value of Exports to Top Export Partners 2000-2015 ($Billion)



Source: UNCTAD database

Though the volume/value of trade in itself is important, what is even more critical to realizing economic transformation is the composition of exports. And what is clear is that Ghana's export structure is poorly diversified. Primary products (51.45%) and unclassified products/gold (34.36%) represent more than 85% of Ghana's exports, pointing to very low levels of domestic value addition. Not only was the cumulated share of high, medium and low technology products less than 5% in 2015, but the shares of agro–based products and other resource-based products fell starkly between 2000 and 2015: from 19.06% to 5.69% and 15.21% to 3.6% respectively.[3] A comparison with other middle-income African countries highlights the low export diversification of Ghana's economy: only three products; gold (34.03%), cocoa (23.9%) and petroleum (20.67%) account for more than 75% of Ghana's exports. Conversely, 75% of exports are represented by 8 products in Côte d'Ivoire, by 30 products in Kenya and by 71 products in South Africa. China has considerably lower shares in the total exports of Côte d'Ivoire (1.05%) and Kenya (1.35%).

When one looks at trade from the side of Ghanaian imports, the situation does not look much better. Ghana's total imports from the world increased by an annual average of 13.95% between 2000 and 2015, going from $2.65bn to $15.72bn. Contrary to its exports, the structure of Ghana's imports is highly diversified with the top ten imported products from 2010-2015 constituting about 30% of the total.[4] What more, the most striking feature of Ghana's import structure is the tremendous rise of imports from China: rising from 4% share of total in 2000 to about 34% in 2015. This increase was to a large extent explained by an exponential rise in importation of construction material such as iron and steel bars, electrical installations and clay, and consumer goods such as furniture, articles of plastics and clothing. In as much

[3] Following Lall's (2000) Classification using UNCTAD Data

[4]Top Import goods in the past 5 years were: Petroleum Oil (8.19%), Crude oil (4.77%), Ships, boats and floating structures (3.52%), Civil engineering equipment (2.96%), Motor vehicles for Transport of persons (2.51%)

as construction materials contribute to greater infrastructure developing in Ghana, imports of such goods to Ghana could be said to have had a positive impact. On the other hand, however, it is well documented that the influx of cheap consumer goods from China has decimated certain local industries, the most prominent of which is the textile and garment sector. Given that this sector in particular tends to have a very high labour content, efforts will need to be made to protect the employment opportunities in Ghana as trade between Ghana and new trade partners increases.

2.2 China-Ghana Trade

At the inception of the first FOCAC meeting in Beijing in the year 2000, China played a negligible role in Ghana's trade, accounting for a total trade value of just $122m and a share of less than 3% of Ghana's total trade. Then, total trade ballooned to $6.2bn by 2015, making China by far Ghana's most important trading partner. The initial trade imbalance where 85% of total trade are represented by Ghanaian imports has persisted over time. (Figure 2.3)

Figure 2.2 Ghana – China Trading 2000 -2015 ($Billion)

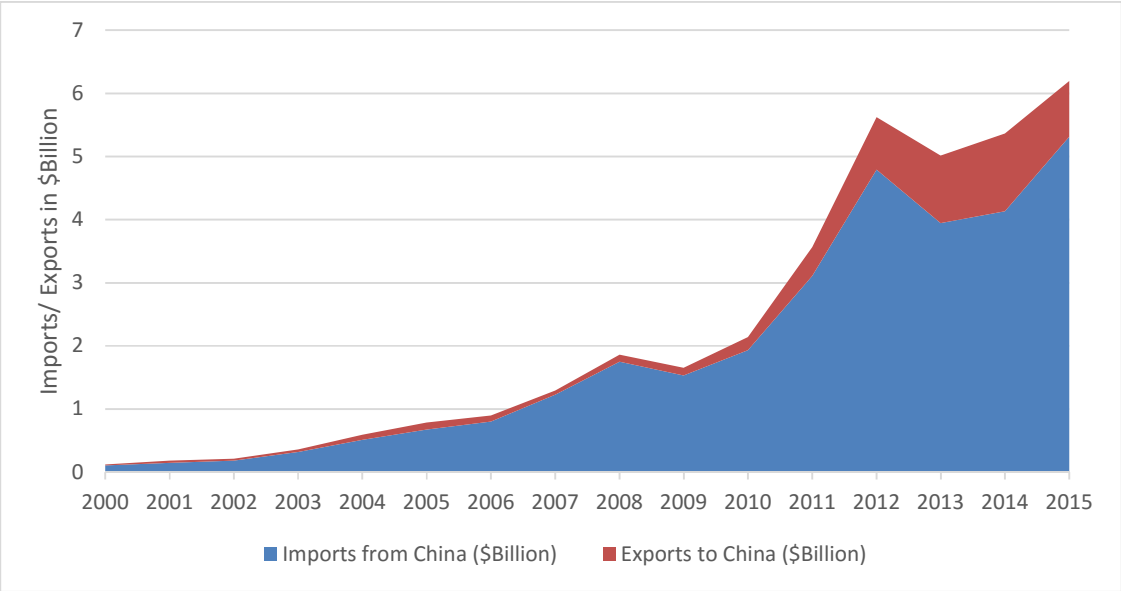


Source: UNCTAD Database

Ghana had recorded steady growth in terms of total trade since 2000, with the exception of a short period in 2008-2009 which corresponded with the global financial crisis. Since 2012, however, there has been a steady decline in Ghana's trade volume in large part because of a fall in the country's oil exports. In spite of the general decline in total trade, total trade with China has kept rising as shown in Figure 2.2.

As shown in Figure 2.3, China-Ghana trade is dominated by imports from China, which has implications for Ghana's trade deficit (depicted in Figure 2.5.)

Figure 2.3 Ghana –China Trading (Imports vs. Exports) 2000 – 2015 ($Billion)



Source: UNCTAD Database

The Trade Intensity Index measures whether the value of trade between two countries is higher or lower than would be expected on the basis of their importance in world trade. By this metric, an index of more than 100% indicates that a bilateral trade flow is larger than expected given the partner country's importance in world trade (Figure 2.4).[5] While Trade Intensity with China is relatively high for Sub-Saharan Africa as a whole, it is particularly high for Ghana and has increased tremendously since 2001. Figure 2.4 reveals that trade intensity for Ghana as it relates to China is higher than at the intensity between China and the region (ECOWAS) which could be attributable to the relative ease of doing business in Ghana as compared to other countries in the region.

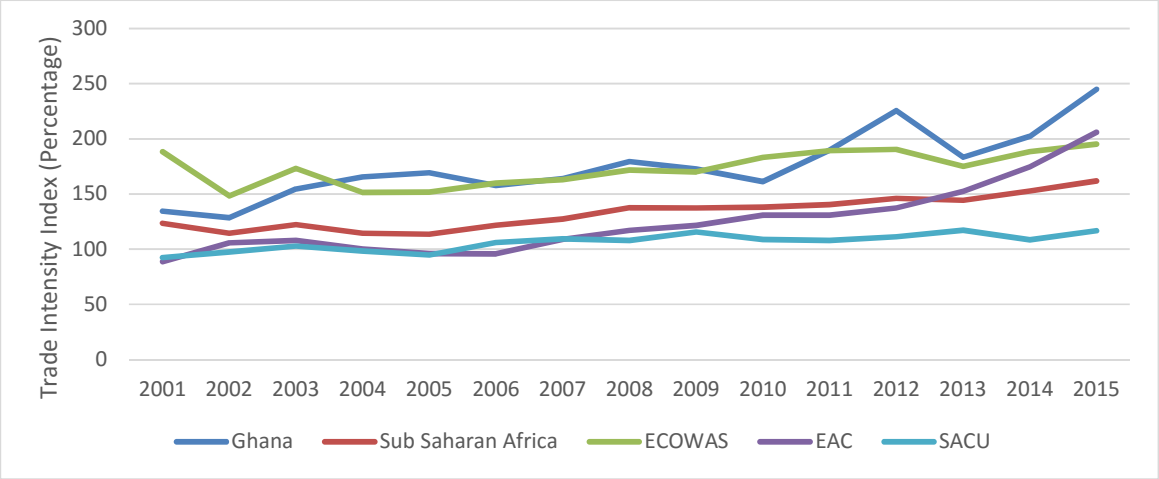
More evidence of the strong entanglement between China and Africa is given by Drummond and Liu, who have shown that a one percentage point increase (or decline) in China's domestic investment growth is associated with an average 0.6 percentage point increase (or decline) in sub-Saharan Africa's economy's export growth. Domestic investment in China significantly increases demand for natural resources such as fuels, ores and diamonds and thereby promotes growth of resource-rich African economies. Given this

[5] Pigato,M. and J. Gourdon. 2014. ''The Impact of Rising Chinese Trade and Development Assistance in West Africa'', Africa Trade Practice Working paper Series Number 4. Using the formula: $Tij = \frac{\frac{Xij}{Xit}}{\frac{Xwj}{Xwt}}$ where Xij and Xwj are the values of I's exports and world exports to j, Xit is i's total exports, and Xwt are total world exports.

relationship, as investments in China are expected to decrease in the upcoming years, this may have a negative effect on Ghana's economy as exports will drop. [6]

Openness to international trade is perceived as conducive to a country's economic growth but its effect on economic transformation depends on the composition of trade, which is why high trade intensity is no blessing per se. Ghana mainly exports primary commodities and imports manufactured goods from China, hence an overly high trade intensity with a strong Chinese economy has several downsides, particularly with regard to Ghana's economic transformation. Firstly, it makes Ghana highly dependent on the growth and structure of China's economy as well as the resource rents accruing from primary commodity exports and therefore impedes macroeconomic planning as well as it restricts the leeway for policy- making. Secondly, an imbalance in the trade composition threatens to manifest Ghana's poor manufacturing base and its reliance on unprocessed commodity exports. While China is Ghana's most important trade partner, Ghana plays only a very small role as a trade partner to China. Therefore, there is much more at stake for Ghana than for China and the composition of trade with China has a considerable impact on Ghana's ability to succeed in its economic transformation.

Figure 2.4 Trade Intensity Index with China



Source: ACET calculations based on UNCTAD database

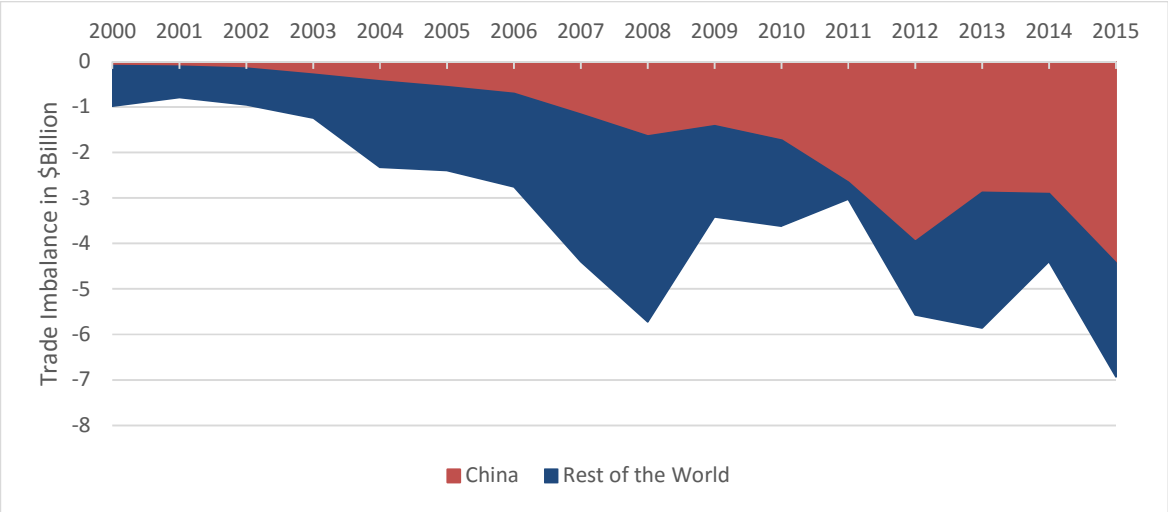
Two imbalances in the Ghana- China trade relation, one related to trade volume, the other to the trade composition, have recently given reasons for major concerns about the impact of trade with China on Ghana's economy, especially with regards to its economic transformation.

Firstly, despite an increase in exports to China with an average growth rate of 41.4% between 2000 and 2015, the exports could not keep pace with the even larger increase in imports, which lead to a tremendous trade deficit on the Ghanaian side (Figure 2.5). Part of this increased trade deficit are

[6] Drummond, P. and E.X. Liu. 2013. ''Africa's Rising Exposure to China: How Large are Spill-overs through Trade?''

explained by the strong demand for low-priced Chinese consumer goods such as footwear, articles of plastics and furniture from a local population with ever-increasing spending capacity. It must be noted that the aforementioned consumer goods were among the top 10 imports from China between 2009 and 2015. On the other hand, the import content requirements in grants and concessional loans by China lead to an increased demand for construction material. As a glimpse of the extent of the problem, in 2015, Ghana's trade deficit with China accounted for about 64% of Ghana's total trade deficit of $7bn.

Figure 2.5 Ghana's Trade Deficit with China and the Rest of the World 2000-2015 ($Billion)

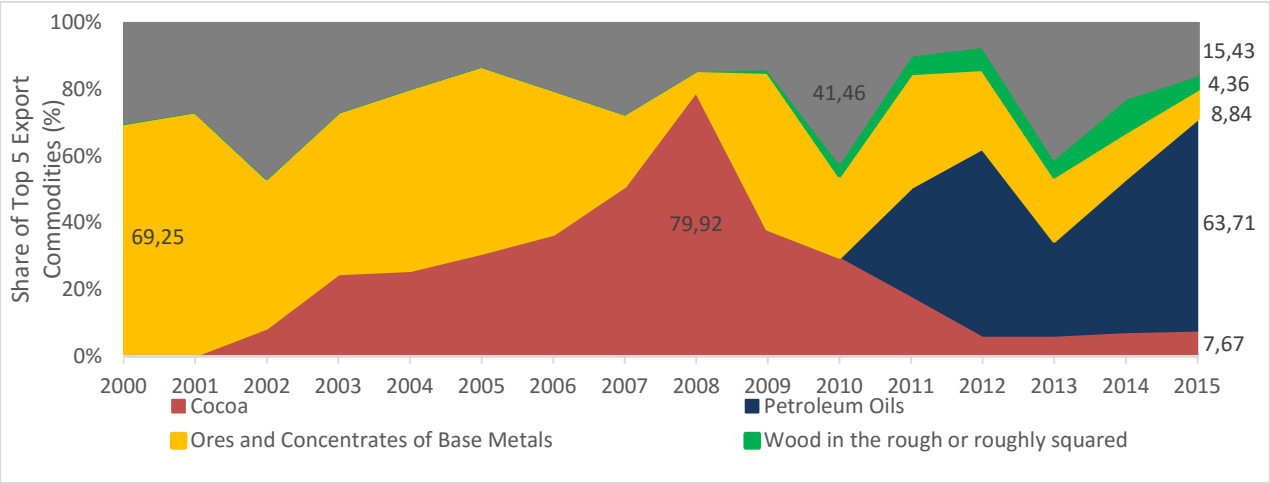


Source: ACET calculations using UNCTAD data

Secondly, China's exports to Ghana are highly diversified and include a large share of manufactured products (85% in 2015), while Ghana exports mainly primary commodities (Figure 2.6) that are highly dependent on international commodity prices.[7] The top export commodities to China from 2000 to 2015 were petroleum (38%), ores and concentrates of base metals (21.5%) and cocoa (12.99%).[8] This explains the volatility of Ghana's export values to China from 2000 to 2015 given the fluctuations in commodity prices. In 2015, Petroleum alone represented about 64% of Ghana's exports to China, underscoring the extent to which export diversification is low, especially when compared with exports to the rest of Sub-Saharan Africa (Figure 2.7).

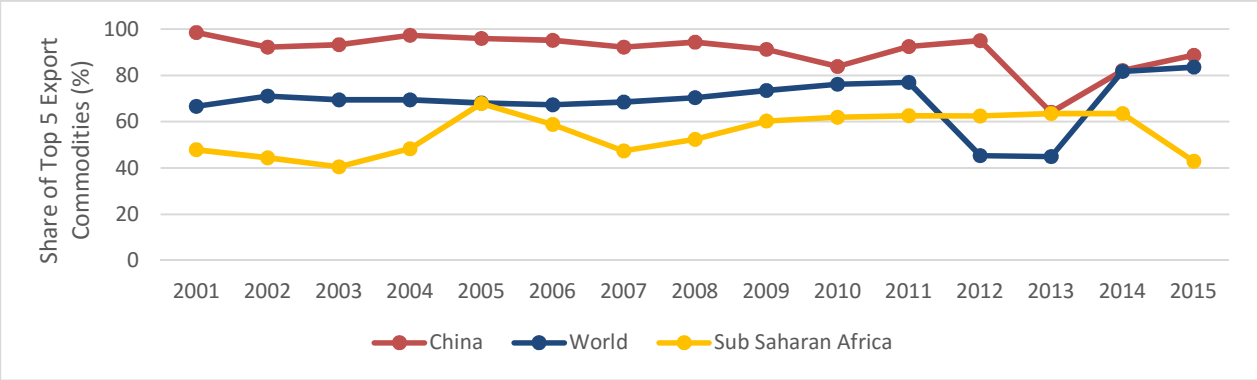
[7]The malfunctioning of the Volta Aluminium Company's (VALCO) aluminium smelter, disappointing cocoa harvest as well as decreasing cocoa prices and Ghana's first oil exports in 2011 lead to an even less diversified export structure
Ghana's imports from China consist of 43% Low Technology Manufacturing, 29% Medium Technology Manufacturing, 12% High Technology Manufacturing
[8]UNCTAD Data

Figure 2.6 Share of Top 5 Export Commodities in Exports from Ghana to China 2000-2015 (%)



Source: UNCTAD database

Figure 2.7 Share of Top 5 Export Commodities in Total Exports to Sub-Saharan Africa, China and the World 2000 -2015 (%)



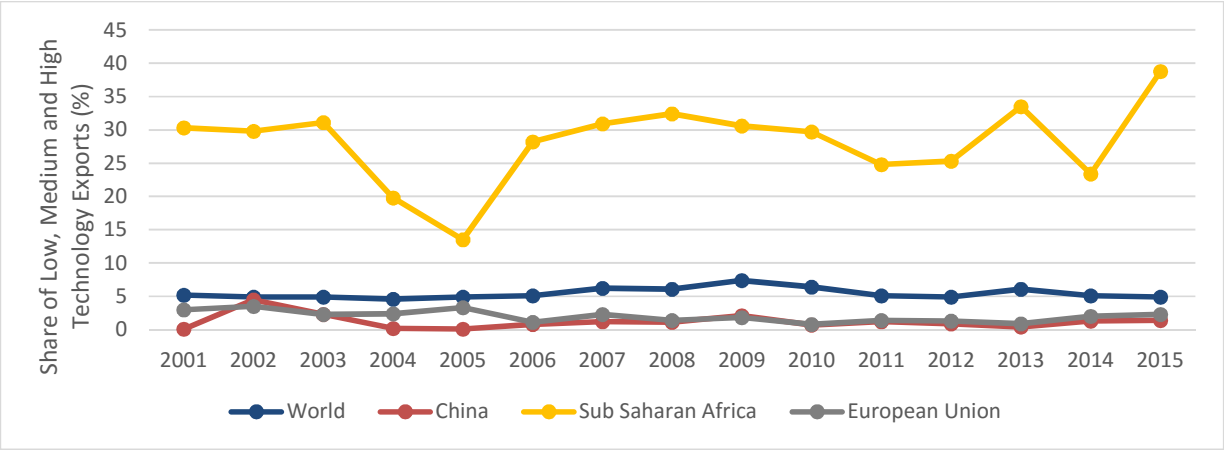
Source: UNCTAD database

While the structure of imports remained relatively stable over time, with slight increases in medium technology products and decreases in the resource based sectors, the export structure reveals an alarming trend. The share of primary products in Ghana's exports to China has more than tripled, from 22.5% in 2001 to about 78% in 2015.[9] Furthermore Ghana's main exports to China are neither highly linked with the Ghanaian economy, nor do they stem from labour-intensive sectors. For there to be a measurable impact on Ghana's economic transformation resulting from trade with China, this trend would have to change. It must be noted, however, that the share of technology intensive products in exports to China is

[9] Using Lall's Classification (2000)

only slightly lower than in exports to the European Union, but it is significantly lower than in exports to Sub- Saharan Africa (Figure 2.8). Supporting Ghana to increase its export of technology intensive products to both China and the rest of Africa would thus be a positive road for China to make in the long run.

Figure 2.8 Share (%) of Low, Medium and High Technology Exports 2001 - 2015



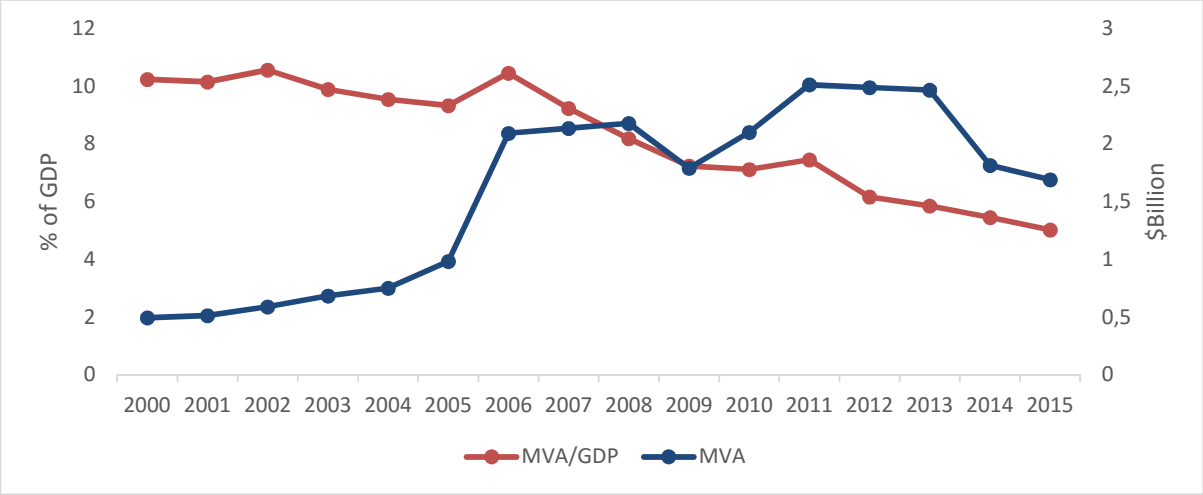
Source: Authors calculations using UNCTAD database and Lall Classification (2000)

These trade patterns reflect the sub-optimal development of Ghana's economy when viewed through the DEPTH lense. The latest African Transformation Report (ATR 2014)[10] has revealed the strikingly poor condition of Ghana's economy in terms of diversification, export competitiveness, productivity and technology and the country ranks 16th compared with 20 other states in economic transformation.[11] As is clear in Figure 2.9, over time Ghana's manufacturing sector has been shrinking in relative terms as both manufacturing value added (MVA) and manufacturing value added as a share of GDP have both fallen. This has bad implications for an economy's transformation, and Ghana is no exception. Arresting this trend should thus be a priority for Ghana's government and they should leverage their engagements with China to help achieve this goal.

[10] African Center for Economic Transformation; African Transformation Report 2014 'Growth with Depth'

[11] Diversification: 17th out of 21 selected transforming economies; Export Competitiveness: 7th out of 21; Productivity: 12th out of 21; Technology: 20th out of 21; Human well-being: 8th out of 21

Figure 2.9 Ghana's Real Manufacturing Value Added (MVA) and its share in GDP (MVA/GDP)



Source: World Bank Data; Manufacturing: ISIC divisions 15-37

2.3 Tariffs

Tariffs have a significant impact on the outcomes of trade. While other important trade partners and export destinations like the European Union, USA and the Economic Community of West African States (ECOWAS) have lowered import tariffs levied on Ghanaian imports considerably, Chinese import tariffs on Ghanaian products remain substantial.[12] This is due to the fact that Ghana does not belong to the group of Least Developed Countries (LDCs), which enjoy very substantial tariff exemptions as provided in the FOCAC pledges. Table 2.1 shows selected Product Sections, the relevant average import tariff imposed by China and the comparative advantage of selected products.

China's tariff policy towards Ghana may not do so explicitly, but does implicitly discourage manufacturing as there are relatively low tariffs on primary commodities like mineral fuels, unprocessed wood and lead, but higher tariffs on manufactured products. For example: while the tariff on raw hides and skins is 7.09%, it is 12.56% for articles of leather and 17.38% for fur skins, artificial fur and manufactures thereof. Moreover, average import tariffs on agricultural and agro-processed products are substantial, which is unfortunate since these are sectors which generally offer substantial growth prospects for African economies, including Ghana.

When questioned on the disincentives of the Chinese tariff structure on Ghanaian manufacturing, the commercial section of the Chinese consulate in Ghana suggested that one way to address this might be for the Ghanaian government to more aggressively and proactively negotiate lower tariffs. This implies

[12] European Union: Interims Free Trade Agreement before European Partnership Agreement (EPA) possibly comes into fruition assures tariff-free exports to the European Union
United States of America: African Growth and Opportunity Act gives preferential access to Ghana through low tariffs

that the published tariffs are just as guide and that China is amenable to discussions that lead to a mutually beneficial outcome. If indeed this holds true, Ghana could stand to benefit significantly by approaching tariff discussions with China more strategically. Though this information will be useful for Ghanaian policy makers to know, it is impossible to know outside the groups of individuals who negotiate trade deals whether there is, in actuality, as much leeway in negotiations as suggested. What is clear, though, is that China has always taken a long term view of its engagements with countries, being willing to make short term sacrifices if there was a larger prize on the horizon. As such, it may indeed be the case that tariffs could be flexible for Ghana even though the country is not an LDC.

Table 2.1 Products and Import Tariffs

Selected Product Sections	**Average Import Tariff[13]**	**Selection of Products with Revealed Comparative Advantage[14]/ Tariff**
Live Animals; Animal Products	11.99%	Fish (7.70 / 10.18%)
Vegetable Products	16.94%	Oil seeds and oleaginous fruits (14.57 / 2.72%) Fruits and nuts (5.02/ 14.50%)
Prepared Foodstuffs; Beverages, Spirits and Vinegar; Tobacco and Manufactured Tobacco Substitutes	17.53%	Cocoa and Cocoa Preparations (189.73/ 10.61%)
Mineral Products (incl. Mineral Fuels, Mineral Oils and Products thereof)	1.81%	Mineral Fuels, Mineral Oils and Products thereof (4.25 / 1.62%)
Wood and Articles of Wood	5%	Wood in the Rough or Roughly Squared (11.31 / 2.35%)
Textile and Textile Articles	11.62%	Cotton (2.35 / 12.27%)
Base Metals and Articles of Base Metal	6.1%	Lead (2.94 / 3.11%) Aluminium and Articles thereof (6.3/ 6.84%)

Source: International Trade Centre

2.4 Non- Tariff Barriers

Another determining factor in Ghana's trade with China is the existence of non- tariff barriers (NTBs) including licenses, quotas, product requirements and rules of origins. In the case of previous tariff

[13] Average of ad valorem equivalent tariff

[14] Following Balassa (1965) and calculated for each product as: $\frac{Product\ x\ share\ in\ Ghana's\ exports}{Product\ x\ share\ in\ World's\ exports}$

exemptions for African LDCs, it has been highlighted that their ability to benefit from preferential access has been partially hindered by NTBs such as inaccessible hygienic standards, cold chain sterilization requirements and discretionary import prohibitions. Furthermore Chinese rules of origin are stricter than those under the African Growth and Opportunity Act (AGOA, a US legislation to enhance trade between Sub- Saharan Africa and the USA).[15]

The Global Trade Alert database provides information on state measures related to foreign commerce and identifies the trading partners that are likely to be affected by these policies.[16] Table 2.2 compares the number of trade policy measures in China, the European Union and the USA that are likely to affect Ghanaian exports, where red measures are considered as 'almost certainly' discriminatory against Ghana's commercial interests. While amber measures affect Ghanaian exports with a lower likelihood or have only been announced, green measures are appraised as non-discriminatory or even conducive to Ghana's commercial interests. Based on this, it is clear that the EU and China have similar percentages of red measures which have the less benefit to Ghana's growth, but that the USA has significantly less red measures. That said, it is also the case that China has 3 times as many green measures, though the EU has about twice as many green measures as does China. Finally, China has more amber measures than both the EU and the US.

Table 2.2 Trade Policy Measures

Trade Policy Measures:	People's Republic of China	European Union	United States of America
Green Measures	11	21	3
Amber Measures	12	5	9
Red Measures:	14 (37.8%)	12 (31.6%)	2 (14.2%)
Total Measures:	37	38	14

Source: Global Trade Alert database

Among the red measures implemented by China affecting Ghana were newly introduced and increased VAT rebates for China's export products (food, textile, wood products etc.), import tariff increases on several consumer goods including food and beverages as well as import quotas for several agricultural products.[17] An official from the Ministry of Trade and Industry complained about discriminatory product requirements limiting Ghana's export potential, citing the example of shea products.

[15] Under Chinese regulation 40% of value must be added in the country; the AGOA (African Growth and Opportunity Act) framework stipulates a minimum of 35% value addition in the country

[16] The database is co- ordinated by the Centre for Economic Policy Research in London

[17] Comprehensive List of Red Policy Measures in the Annex

Particularly for high export potential items like shea products, Ghana and China should aim to implement measures that promote Ghanaian exports.

2.5 Trade Effects on Employment:

Increased trade engagements with China yield welfare gains for Chinese consumers through low priced commodity imports and have potential positive employment effects on Ghanaians active in retail and trading. Nevertheless, the high influx of consumer goods from China is likely to have pushed several Ghanaian producers out of operation with detrimental effects to the labour market. Key labour-intensive sectors such as textiles, clothing and furniture making are threatened by the influx of Chinese products, hence the overall trade effect on employment is likely to be negative. Similar to how China's imports of Ghanaian goods greatly protect the Chinese domestic labour market and pose little threat to Chinese employment, this should similarly be the aim for Ghana.

2.6 Trade Related FOCAC Pledges

China-Ghana trade and investment promotion has been an official objective since the first FOCAC meeting back in 2000. This section looks at trade related FOCAC pledges throughout the past fifteen years and assesses implementation as well as possible effects on Ghana's transformation. It must be kept in mind though that it is generally difficult to evaluate implementation against pledges in a specific country because the pledges are continental in nature and others are worded in such a way as to make a data driven/quantitative assessment against a pledge impossible.

Most trade facilitation measures and policies by the Chinese government focused on the group of 31 Least Developed Countries in Africa that have diplomatic relations with China.[18] Not belonging to this group, Ghana does not benefit from the most direct efforts of trade-focused FOCAC pledges in the form of import tariff reductions, such as the latest and most extensive from FOCAC in 2012:

- Zero- tariff treatment to products under 97% of all tariff items from the African LDCs having diplomatic relations with China. According to the 2008 volume of trade statistics, the 4,762 tariff lines of zero-tariff goods accounted for 98.2% of the African LDCs exports to China. Previous tariff pledges for LDCs included the following and demonstrate the willingness to intensify trade:
  - FOCAC II (2003): Grant tariff-free access to some commodities from LDCs
  - FOCAC III (2006): Increase number of zero- tariff export items from 190 to 440 for African LDCs
  - FOCAC IV (2009): Duty and quota- free treatment for 95% of products from African LDCs

[18] African Least Developed Countries as defined by the United Nations include the following 34 countries: Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, DR Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea- Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia
Burkina Faso, Gambia and São Tomé and Principe have diplomatic relations with Taiwan and are therefore not granted tariff exemption from China

- Trade facilitation pledges possibly affecting the creation of chambers, associations and exhibition centers to increase trade and provide trade-related policy, regulation and business information. The objectives were to:
    - Ensure operation of Investment and Trade Promotion Centers by China in Africa and assist African States to set up similar entities in China (FOCAC I, 2000)
    - Establish China-Africa Joint Business Council (FOCAC I, 2000)
    - Create China-Africa Products exhibition Center in China (FOCAC I, 2000)

  The Ghana Chinese Chamber of Commerce was established in 1994 and includes enterprises which are fully or partly owned by Chinese with the aim to promote common interests. In November 2014, Chinese traders in Ghana under the leadership of the Embassy established the 'China Traders Chamber of Commerce' and other entities such as the Ghana Chinese Traders Association and the China-Ghana Joint Committee of Economics and Trade.

  The China-Africa Business Council (CABC) is a chamber of commerce that was established in October 2006 with the aim of enhancing economic cooperation between China and Sub-Saharan countries. The Council organizes business visits, provides members with information on project feasibility, local investment policy and develops strategic partnerships with domestic and international financial institutions. CABC works primarily from China with little to no infrastructure in African countries.

- Properly implemented export processing zones or special economic zones can be a promising pathway to increased productivity, exports and an enhanced manufacturing base. These economic zones played a crucial role in China's own development trajectory and now stand in line with the country's recent go-global policy as reflected by a pledge from the third FOCAC summit in 2006 to establish 3 to 5 trade and economic cooperation zones in Africa within 3 years. The government of China has selected and developed seven special economic zones in six African countries.[19] As of 2016, there are no known plans for any special economic zones in Ghana.

- Several further 'best endeavour' measures are aimed at improving cooperation in customs, taxation, inspection and quarantine. These pledges also focus on developing logistics centers to ameliorate trade challenges, promote greater cooperation in standards, certification, and e- commerce; and settle bilateral trade disputes through mutually agreed mechanisms.

- Set up a China- Africa production capacity / industrial cooperation fund, with initial pledge of $10 billion (FOCAC V; Johannesburg 2015). There is yet no indication this fund has been established or any funds disbursed.

[19]Algeria, Egypt, Ethiopia, Mauritius, Nigeria(2), Zambia

Despite the presence of these trade-related pledges and the implementation of various measures to improve Ghana-China trade, Ghana does not benefit from the most significant trade facilitation measures, namely the abolishment of tariffs and the creation of export processing zones. Not only are these measures the most powerful steps to deepen trade but they are the only trade related FOCAC policy pledges which are likely to promote Ghana's economic transformation through export diversification as well as productivity and technology spill-overs in crucial sectors such as agriculture, agro-processing and manufacturing. It would thus be prudent for both Chinese and Ghanaian governments to address this lost opportunity directly, especially since anecdotal evidence from discussions with Chinese officials in Ghana hints at there being more flexibility than one would initially assume.

2.7 Value Chain Participation

Increasing labour wages in China have resulted in many Chinese producers relocating production out of China in recent years.[20] Specifically, lower-skilled, labour-intensive manufacturing has begun moving to developing countries in Asia and in Africa. Given the additional advantage Ghana has over China in terms of geographical proximity and lower tariff barriers to third markets like the United States (through AGOA) and the European Union (through an interim FTA between EU and Ghana before the EPA is ratified) one would expect increased African (and specifically, Ghanaian) integration into Chinese product value chains.[21] Participation in global value chains is said to induce employment creation as well as knowledge and technology spill-overs and thereby promotes productivity and global competitiveness. Despite increased Chinese labour wages, Ceglowski et al. point out that relative unit labour costs (RULC, a ratio of wages to productivity) remain higher in Ghana compared to China.[22] Furthermore, redundancy costs drag down Ghana's labour market efficiency. Due to a lack of regional integration, physical distance and infrastructure deficiencies, Ghana has so far not managed to greatly scale up its' participation in China's value chains. This may likely be because logistical and infrastructure challenges still pervade in Ghana that would hinder the ability of Chinese manufacturers to set up in Ghana, however, wherever possible, it should be the priority of Ghana to facilitate this transition for the broader benefit of the economy.

[20] Dinh et al 2012

[21] United States: African Growth and Opportunity Act; European Union: Interims FTA before European Partnership Agreement

[22] Ceglowski et al.

In conclusion, the status quo of Ghana's trade with China has the following characteristics:

- **Unprecedented growth rates in the trade volume between Ghana and China, making China the most important trading partner for Ghana**
- **A profound and ever increasing trade imbalance to Ghana's disadvantage**
- **Highly diversified imports to Ghana with a focus on manufactures at the same time as there are very concentrated exports to China with a focus on primary commodities**
- **A tariff structure that discriminates against processed and value added products and several non- tariff barriers hurting Ghana's export potential**
- **Trade related FOCAC pledges focusing on deepening trade instead of diversifying it**

With these characteristics in place, the question is then "what are the actual effects and benefits of Ghana-China trade?" Generally, economic literature observes a positive relationship between increased trade with China and GDP growth in African countries.[23] Several papers by the African Economic Research Consortium (AERC) indicate, that Ghana's economy as an exporter of oil (China absorbed 12% of Ghana's oil exports between 2011 and 2015) and ores and metals (30% of Ghana's exports between 2001 and 2015 went to China) benefitted considerably from China's resource hunger during the 2000s.[24] Nevertheless, extractive economic growth spurred by primary commodity exports by itself does not alleviate poverty and is likely to be detrimental to economic transformation.

The price volatility of primary commodities increases the difficulties the country faces in achieving stable macroeconomic management. Export revenue is an important determinant for Ghana's balance of payment, its levels of saving and investment as well as its tax revenues. The fluctuations experienced impede long-term planning and reliable debt servicing, as well as frustrate investment efforts as they increase uncertainty about the overall economic situation and returns on investment.[25] Additionally, through worsened terms of trade and enclave effects, this volatility is detrimental to the manufacturing sector.

As 2015's 28% decrease in Ghana's exports to China has shown, the high trade intensity with China based on low value added primary commodity exports is a double- edged sword. Recently, the turn towards a consumption-driven economy in China is connected with lower investments and hence lower export potential to China. Combined with an outlook on decreasing global commodity prices it becomes evident: The rents of China's resource hunger are not everlasting and economic restructuring is inevitable, if Ghana is to achieve economic transformation.

Though the influx of cheap Chinese products yields welfare gains for Ghanaian consumers as well as access to a wider variety of products, it comes at a price to certain sectors in the economy. And while

[23] Broadman 2007, Chaponnière 2009, Ajakaije et al. 2009, Renard 2011

[24] Ademola, Bankole, Adewuyi 2009

[25] UNCTAD 'Economic Development in Africa – Trade Performance and Commodity Dependence'

cheap consumer goods imports open up opportunities for Ghanaian traders to expand their businesses, which are reflected by the increasing number of Ghanaians travelling to China for business purposes, even the resulting importation of machinery for construction and mining contributes little to Ghana's industrialization as it plays a subordinate role to that of consumer goods.[26] .

2.7 Trade Related Policy Recommendations and Potential Sectors

Overall, Ghana's trade with China in its current form promotes Ghana's economic growth but is harmful to the country's economic transformation as it fails to create employment and linkages in crucial sectors such as agriculture and manufacturing which are the engine of an economy. The existing trade imbalance needs to be understood as a mix of latent trade barriers on the one hand and a generally low and decreasing manufacturing capacity in Ghanaian on the other.[27] Still these trade patterns are not set in stone and several policies can make intensified trade mutually beneficial and help to achieve Ghana's long-term objective of economic transformation.

In order to maximize on the benefit of Ghana and China's trade relationship, Ghana's government must effectively deploy macroeconomic policies to manage inflation and exchange rates, and increase infrastructure investment to reduce production costs. Among other measures, these would profoundly strengthen the ability of domestic producers to produce competitively for export. Hedging to shield against the impact of volatile commodity prices would also be key. As the policies relate to China, the Government should identify the areas in which they wish to more aggressively promote value added exports and engage in negotiations with China to facilitate this. Ghana must also become more educated about what would be required to draw manufacturing capacity away from China to Ghana.

China, for their part, can contribute to a process of trade diversification through tariff reduction and a reformulation of its non- tariff measures. China can also spur Ghana's economic transformation with long-term committed investments through joint ventures in the key sectors of agriculture, manufacturing and other labour intensive industries. Moreover, China can provide crucial financing for infrastructure and energy generation, as well as support Ghanaian SMEs to tap into the Chinese global value chain with support from through CADF. All these efforts would over time serve to strengthen the trade partnership between the two countries and increase the impact that such trade has on driving economic transformation in Ghana.

[26] Ademola;2009

[27] A tariff scheme that discriminates against processed and value added goods and favours unprocessed primary commodities as well as several non- tariff barriers to agricultural/ agro- processed exports

3.Investment

3.1 Investment Climate and Chinese Foreign Direct Investment (FDI)

FDI is widely perceived as a crucial factor for a country's economic growth and development, although recent research suggests that this is not unconditional and depends on sectors and policy frameworks.[28] In the Ghanaian context, FDI into the manufacturing sector is much more likely to reap transformational benefits.[29] Ghana's investment policy is relatively liberalized with few barriers for foreign investors in the form of registration fees and high minimum equity contributions.[30] The country is a member of the Multilateral Investment Guarantee Agency (MIGA) and the International Centre for the Settlement of Investment Disputes (ICSID) and has ratified investment promotion and protection agreements with several countries, including China.[31]

Chinese investment provides much-needed capital, boosts Ghanaian employment and leads to infrastructure improvements with noticeable economic impacts. Ideally, these investments additionally diversify Ghana's exports and improve Ghanaian firms' efficiency through technology spill-overs and increased productivity. On the downside these investments could crowd out domestic firms as well as other foreign investors.[32] In order to maximize the benefits to Ghana, a well-formulated policy framework is necessary to incentivize joint ventures and promote local capacity building.

Before delving into an analysis of Chinese investment in Ghana, it must first be noted that data on Chinese investments in Ghana needs to be treated with caution. There is considerable variation between the different sources as non-Chinese sources tend to overestimate Chinese investments in Africa while Chinese sources often fail to include Chinese capital coming from offshore financial centers such as British Virgin Islands and Hong Kong. Another source of confusion stems from the fact that data from the Chinese Ministry of Commerce (MOFCOM) does not conform to OECD data on FDI as it includes investments from both, private and state-owned enterprises, while OECD data includes only private investments. The underlying data for this study from the GIPC is extensive and includes details on costs, sectors and employment generation.[33] All foreign investors are legally obligated to register with the GIPC and to indicate activities and amounts of investment. That said, given the time- consuming registration process, non- compliance with the duty to register with the GIPC cannot be excluded.

While China's engagements on the African continent in the early 2000s were almost exclusively limited to construction, infrastructure and natural resource extraction by state owned enterprises (SOEs) and their subsidiaries, increased competition, a decreasing rate of return on capital and increased wages in

[28] Rodrik 1999; Moran ; Alfaro 2003

[29] Marfaing and Thiel; Baah, Aryeetey

[30] Minimum equity contributions depending on type of ownership/ activity: Joint Venture with local partner (200,000 $); 100% foreign owned business (500,000 $); Trading enterprise (1,000,000 $)

[31] Tsikata, Fenny, Aryeetey 2010

[32] Tsikata, Fenny, Aryeetey 2010

[33] Established by the 1994 Ghana Investment Promotion Act (Act 478) to encourage and facilitate foreign investment in Ghana

China have led many private enterprises to seek their fortunes abroad.[34] The increased investments in service and manufacturing in recent years partially reflect a general paradigm change in China's Africa policy with a stronger emphasis on African Industrialization supported by the FOCAC framework. These investments are often made with either full or partial support from the China Africa Development Fund (CADF). There are also plans for investments to be supported through the Small and Medium Enterprises Fund - a fund that supports African SMEs in agriculture, forestry and animal husbandry – but this fund is yet to be established in Ghana.

Interviews with various government and private sector actors confirmed that Chinese investors appreciate Ghana for its relatively well functioning institutions, political stability and a sizeable, consumer oriented domestic market. Furthermore, Ghana's investment policy incentivizes investments in manufacturing and agro-processing through tax holidays and the absence of capital requirements. According to the Chinese embassy in Accra, by 2016 more than 400 Chinese small and medium enterprises (SMEs) are active in the Ghanaian market. Many of these SMEs act independently of their government and its financial support scheme.

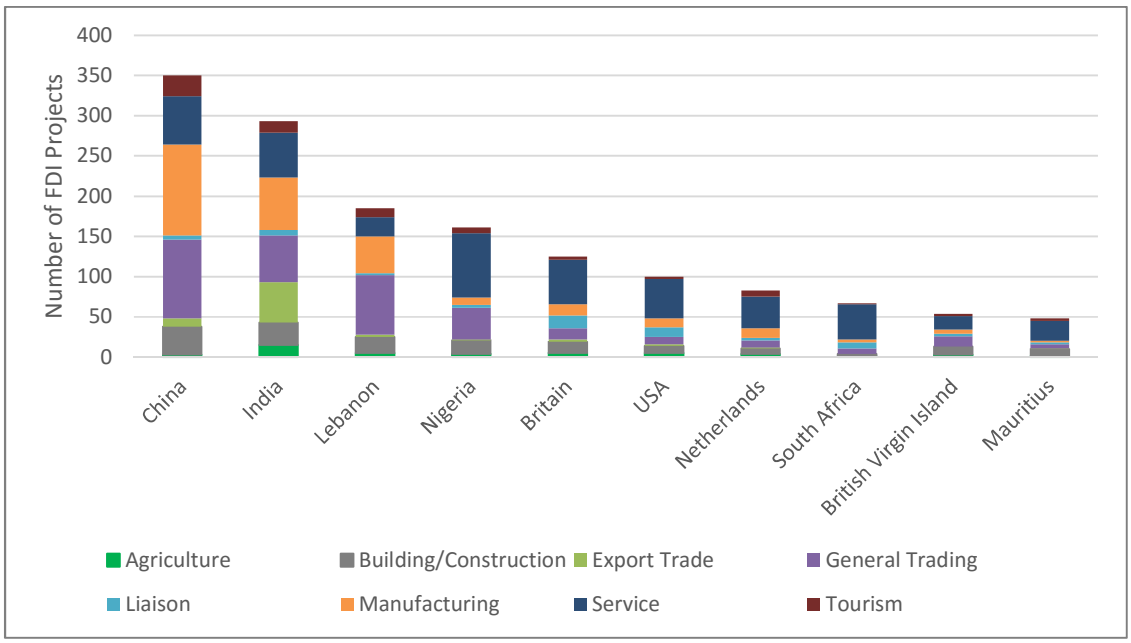
3.2 Comparison of Top 10 Sources of Foreign Direct Investments

China is the top source of FDI to Ghana when considering the number of projects (Figure 3.1). Between 1994 and 2008 China led this list with 383 projects followed by India (379) and Lebanon (279). In the six years between 2009 and 2015, China again outpaced investment from any other country by registering 350 projects (compared to 293 and 185 from India and Lebanon respectively). With an estimated FDI value of $2.225Bn, China ranks second as source of FDI when considering the project values (Figure 3.2). The only country to have a higher FDI value in Ghana is South Korea, with $4.991Bn invested, 98% of which was in Construction. The USA came in third with $1.887Bn invested in Ghana. Given that China ranked 6th during the period of 1994 to 2008 with an estimated FDI value of $277m, it is clear that China had a steep increase in FDI to Ghana in a very short time. From 1994 to 2014, China's cumulative FDI to Ghana accounted for 9.23% of total FDI to Ghana in that period, ranking 4th only after UK, the Republic of Korea and the USA. According to Chinese statistics, China's FDI to Ghana reached $230 million in 2014, making Ghana the second most important investment destination for Chinese investments all over Africa.[35]

[34] David Dollar, Xiaofeng Chen, Gu 2009

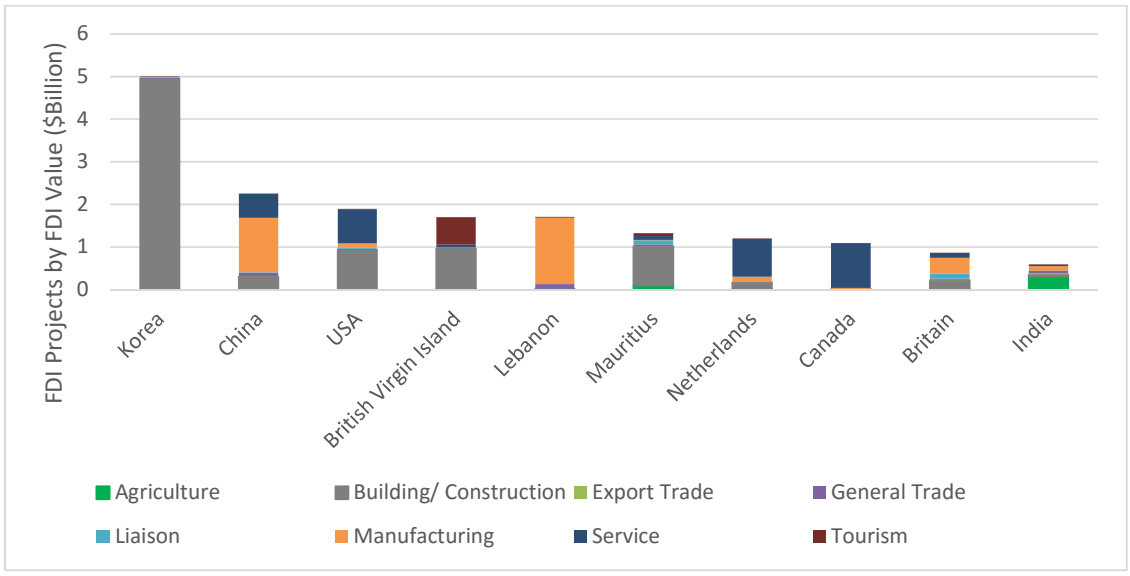
[35]China- Ghana Economic & Trade Cooperation Forum Information Brochure

Figure 3.1 Top 10 Sources of Registered FDI Projects by the Number of Projects / Sectors 2009-2015



Source: GIPC

Figure 3.2 Top 10 Sources of Registered FDI Projects by FDI Value ($Billion)/Sectors 2009-2015



Source: GIPC

3.3 Sectoral Distribution of Registered Chinese Projects

Table 3.1 Registered Chinese Projects by Sectoral distribution 2009 - June 2016

Sectors:	Number of Chinese Projects	% of total Projects	Estimated Cost ($Million)	% of total Estimated Cost	Average Estimated Cost per Project ($Million)
Agriculture	6	1.63	2.48	0.09	0.41
Building/ Construction	37	10.08	526.25	18.69	14.22
Export Trade	13	3.54	8.94	0.32	0.69
General Trading	95	25.89	86.90	3.09	0.91
Liaison	5	1.36	10.39	0.37	2.08
Manufacturing	121	32.97	1583.49	56.23	13.09
Service	65	17.71	589.11	20.92	9.06
Tourism	25	6.81	8.55	0.3	0.34
Total	367	100.00	2816.11	100.00	7.67

Source: GIPC

Most remarkably, Chinese FDI in Ghana is not targeted at the extractive sector as Ghana's investment law includes strict local content rules for the petroleum sector.[36] Manufacturing constitutes about one third of all Chinese projects from 2009 to June 2016.[37] This covers several industries such as iron and steel, processing of food and beverages, fishing, textiles and salt production[38]. General trading follows manufacturing with 25.9% and service with 17.7% of all projects. Considering the estimated value of projects, the share of manufacturing reaches a substantial amount of about 56% of projects. Investments in agriculture have been remarkably small with only 6 projects from 2009 to June 2016 and an estimated investment of $2.4, accounting for 0.09% of the total Chinese FDI. There were 25 projects in tourism with a share of 0.3% of FDI. While China's state owned enterprises dominate the building and construction sector and often manage the large infrastructure projects, the SMEs focus on manufacturing, service and trade. Reportedly, the majority of investments are green field investments, with mergers & acquisitions being rather exceptional.[39]

[36]Ghana Investment Climate Statement 2015

[37]The very high share of manufacturing investments in GIPCs database should be treated with caution because:

1. Manufacturing includes projects in energy generation
2. The entrance barriers for manufacturing investments are lower than for other sectors, giving an incentive to initially declare a business in manufacturing to move into other sectors afterwards

[38] Ghana and China: Opportunities for Growth

[39] Tsikata, Ferry, Aryeetey 2010

3.4 Ownership Structure of Chinese Investments

Table 3.2 Ownership Structure of Chinese registered projects: 2009 – June 2016

	Wholly Foreign Owned	Joint Venture	Total
No. of Projects	271	96	367
Estimated Cost ($MM)	660	2156	2816
Total Equity($MM)	484.8	730.3	1215
Share Local Equity (%)	0.5	38	23.1
Total Loan($MM)	175.2	1425.8	1601
Share Local Loan (%)	16.4	0.02	1.81

Source: GIPC

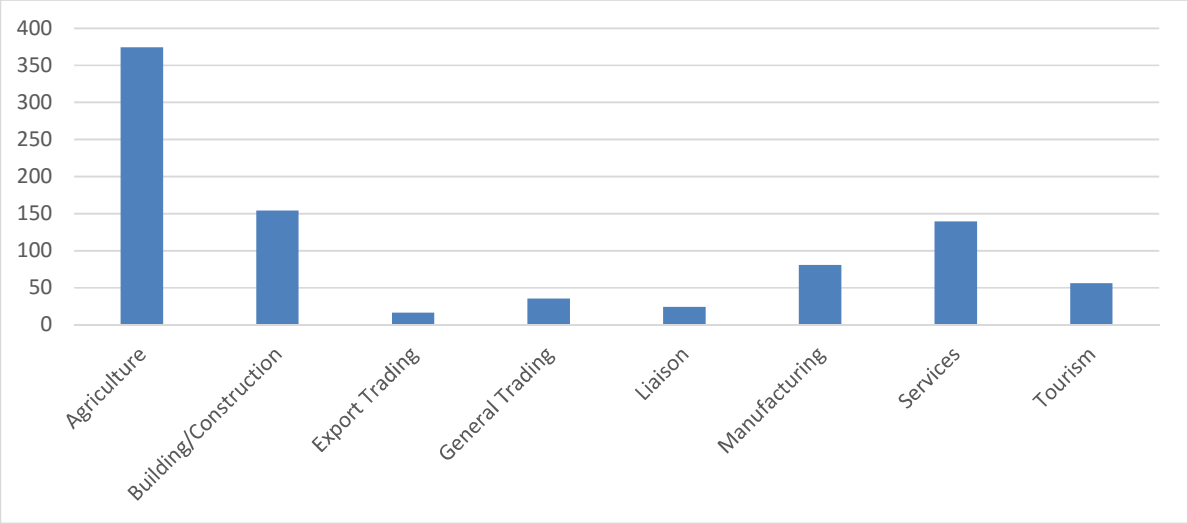
Equity is the preferred investment vehicle of Chinese investors. The 271 wholly foreign owned projects were financed with 73.5% equity and 26.5% loans. Ghanaian participation in wholly Chinese owned companies is negligible. Ghanaian equity constituted only 2.4% of investment in Chinese firms. The share of Ghanaian loans in total loans is 16.4%, higher than the share of equity but still moderate. Overall, foreign equity and foreign debt account for 95% of the total value of investments. The 96 joint ventures have a local equity share of 38% and a miniscule 0.02% share of local loans. The high reliance of Chinese firms on non- Ghanaian sources of capital means that profits earned in Ghana tend not to be retained in country but rather are mostly expatriated to China.[40] Several respondents linked the rise in foreign owned ventures to cultural differences, language barriers and differences in business sophistication.

3.5 Investment Effects on Employment:

Using data on employment by the GIPC for the past five years allows one to draw conclusions on employment generation through FDI in different sectors (Figure 3.3). These are the official figures, with likely very little verification available, however, they are still useful for discussion and can provide some indicative idea of the conditions on the grounds.

[40] ACET 2009b

Figure 3.3 Average Number of Jobs Created for Ghanaians per FDI Projects 2011-2015



Source: GIPC

FDI into agriculture, building/ construction, services and manufacturing had a strong positive effect on employment, though the overall numbers are still very low. On the contrary, FDI into export trading, general trading and liaison, however, created little employment for the local population. It is also not clear for these figures whether the jobs created where highly skilled ones, or whether there would be the type to have an aspect of capacity building which of course would be ideal. With specific reference to Chinese firms operating in the building/construction industry in Ghana, majority of the high-skilled, top-level positions like engineers, consultants and managers of the project are occupied by Chinese. About 1000 - 2000 Ghanaians are employed during construction especially during peak season. During operations, local artisans employed receive training beforehand; hence there is at least modest skill transfer.
Given the positive impact on transformation as well as the relatively higher jobs created in those sectors, both Ghana and China should push for more investment projects to be realized in agriculture, construction, manufacturing and services. Indeed, Ghana might propagate more preferential policies to incentivize such investment.

3.6 Investment Related to FOCAC:

In 2007, following a pledge from the FOCAC summit in 2006, the CADF was established to promote and expand Chinese investments across Africa. CADF investments range from $5m to $50m per project, with the aim of exiting after 5-8 years. The fund is currently China's largest private equity fund, and has invested in 87 projects in 36 countries across the continent. Investments are relatively diversified with the biggest shares in infrastructure, manufacturing, agriculture and livelihood as well as mineral resources. In an interview, a CADF official in Ghana emphasized the will to localize investments as much as possible,

although specific requirements for local-content use do not exist. During FOCAC VI in 2015, it was pledged that the CADF would expand from $5bn to $10bn. By the end of 2016, the CADF anticipates it will be operating 4 offices in Africa, including one in Ghana to monitor private entities that received funds and initiate future investment projects. [41]

To date, the CADF has invested in two projects in Ghana, but there are other investments which have happened outside of CADF which are also of note. The CADF investments are the Sunon Asoli thermal power plant and African World Airlines:

Sunon Asogli Thermal Power Plant:
The Africa Infrastructure Country Diagnostic (AICD) reports that Ghana's 'most pressing challenges lie in the power sector, where rapid demand growth and periodic hydrological shocks leave the country increasingly reliant on expensive oil–based power generation'. The report further states that 'the solution is to diversify the generation portfolio towards gas-fired plants that can deliver backup thermal power for around $0.07 per kilowatt-hour'.[42] On this premise, the Sunon Asogli Power (Ghana) Limited, jointly owned by Shenzhen Energy Group Company Ltd (60%), and the CADF (40%) in co-operation with a Ghanaian business entrepreneur, sought to supply Ghana with the aforementioned remedy.

The venture invested $200Mn to construct a 560 megawatt gas steam combined cycle generation power plant in Tema to mitigate the tension of the intermittent power shortage occasionally hitting the country.[43] Since its completion this year, it contributes around 14% of the total power supply in Ghana when in full operation.[44] The power plant management have, however, noted that due to gas supply shortages from the West African Gas Pipeline (WAGP), production has at times stalled, causing the temporary shut down of the plant on several occasions. This accounts for the plant's inability to work at its maximum capacity at all times. To address this challenge, the China Petroleum Pipeline Bureau (CPPB) is currently constructing a gas storage facility in Tema.

African World Airlines
African World Airlines (AWA) is a joint-venture between Hainan Airlines, CADF, SAS Finance Group and the Ghana's Social Security and National Insurance Trust (SSNIT). AWA commenced operations in September 2012 with an investment value of $50M and a staff of over 200. Currently, the airline operates scheduled domestic and international flights to Kumasi, Tamale, Takoradi (all in Ghana); and Lagos (in Nigeria). The airline seeks to bridge the gap in Ghana's air transportation as several airlines such as Afra

[41] Founded in 2011
[42] Africa Infrastructure Country Diagnostic (AICD); 2010
[43] Other sources estimate the investment to be only US$135M
[44] http://constructionreviewonline.com/2015/06/asogli-power-ghana-resumes-power-generation/

Airlines, CTK-CiTylinK, Ghana Airways and Antrak Air are no longer in operations in Ghana. According to the Chinese Embassy in Ghana, the company began to make profit after only 3 years of operation.

3.7 Non-CADF Investments by Sector

3.7.1 Manufacturing

Though not orchestrated through the CADF, there are other investment projects in Ghana that have been realized by China ad which have had a significant and positive impact on driving economic transformation. For example, the Beijing Xiaocheng Company invested $30M to provide Ghana with its first large- scale power plant with a producing capacity of 20 MW connected to the national grid and thereby paving the way for renewable energy in Ghana.[45] Not only did this contribute to electricity generation but also to technology transfer and increasing electricity capacity by serving 20,000 homes when fully operational.[46]

Another example in manufacturing is the Sentuo Steel company which has 75% Chinese ownership and 25% Ghanaian ownership through the Social Security and National Insurance Trust (SSNIT). It produces 300,000 tons of steel annually and employs up to 600 people, having overtaken several key domestic steel producing companies in its productivity over the past 4 years. Recently, the factory expanded after an investment injection of $53M for the second phase of the project - the first of its kind in West Africa – which will allow the company to produce 500,000 tons of manufacture coils and employ up to 700 people. Furthermore, the firm plans to invest $80M into a ceramic tiles factory as well as $60M in a cement factory.[47]

The Sanbao Ghana Pharmaceuticals company responds to the increasing demand for pharmaceuticals in Ghana and all over West Africa and produces primarily intravenous infusions. The company has recently invested $15M to increase its production capacity and intends to augment the number of employees from 50 to 100.[48] J.Q Packaging Ltd invested $11M for its production site in Tema's heavy industrial area and produces about 40 million corrugated boards and 30 million corrugated cartons annually. These are just some examples of medium to large scale manufacturing investment made by China in Ghana which is bolstering the economy and should be models to be replicated across the country.

[45] The Ghanaian government underlined its desire to build its renewable energy industry with a commitment of $230Million in 2015 to implement the Scaling- up Renewable Energy Program (SREP) Investment Plan

[46] http://www.africa-eu-renewables.org/2015/11/23/20mw-solar-plant-in-ghana-takes-trial-run/
http://www.pv-magazine.com/news/details/beitrag/largest-pv-plant-hooked-up-in-ghana_100024163/

[47] http://www.steel-technology.com/news/sentuo-steel-limited-in-ghana-to-break-into-west-african-market
http://www.globaltimes.cn/content/925273.shtml

[48] https://www.newsghana.com.gh/sanbao-ghana-pharmaceuticals-limited-to-expand-its-production-capacity/

3.7.2 *Agriculture and Agro- Processing*

Although the agriculture sector contributes more than 40% to Ghana's GDP and employs about 65% of the total population, it is characterized by low productivity and the usage of substandard technology. The country spends more than $1bn annually on food imports, predominantly on rice and meat.[49] Agricultural exports are mainly unprocessed and therefore vulnerable to volatile world market prices. Increasing productivity in the agricultural sector has the potential of reducing poverty remarkably and as such the Government of Ghana has identified agro-processing as a priority sector with a special focus on cocoa, palm oil, shea and cashew nuts, cotton and horticulture.[50] FDI into agro-processing can also potentially boost technology transfer, increase productivity and therefore help to reduce import dependency and increase value added exports.

As an example of technology upgrades resulting from Chinese investment in agriculture, the Aveyime Harvest Farm run by ChinaGeo in the Volta Region makes use of advanced Chinese farming techniques such as solar-powered irrigation systems and advanced food conservation methods to feed cattle during the dry season. Also, in 2012 Wynca Sunshine Agric Products & Trading Company built a factory with four production lines doing Glyphosate auto-formulation. As a result, the company currently now offers more than 20 products of herbicides, insecticides, fungicides and construction materials. What more, with a 35% domestic market share in glyphosate, the company exports to other ECOWAS states. Wynca also trains local farmers to use insecticides scientifically and has recently built a local manufacturing plant in Kumasi.

These examples are very promising and should encourage other Chinese investors to consider agriculture investments in Ghana. However, the reality is that the overall value of Chinese investment in agriculture remains low. Indeed, only 6 projects with an estimated value of $2.48M, accounting for 0.09% of total Chinese investment, have been realised in this sector since 2009. According to the China Africa Research Institute (CARI) at Johns Hopkins University, there were only four privately-owned Chinese commercial farms in Ghana as of 2015. An insightful case study on 'Afienya Farm' by CARI suggests the difficulty in acquiring land titles as one of the major obstacles to further Chinese investments in this sector.[51] And indeed this was echoed by officials as the commercial section of the Chinese embassy who say that there are several other countries in Africa providing the same level of opportunity in agriculture without the complexity in land tenure issues.

3.7.3 Minerals and Extractives

For a number of reasons which vary based on perspective, China has only a small share of investments in Ghana's extractives sector. In 2000, Chongqing Bosai Mineral Group acquired 80% of Ghana Bauxite Company (GBC), turning into a joint venture in which the Government of Ghana owned 20% of the shares. The company has further invested in plants and intends to build an aluminium industry value chain in

[49]The Africa Report 2011
Estimated cereal yield of 1689 kilograms per hectare in 2010
[50] NDC 2016 Manifesto
[51] CARI Policy Brief No.5;2015

Ghana. This investment is of strategic national importance to China, as the country has faced supply constraints in aluminium in recent years. In 2014, 900,000 tons of raw bauxite was exported, underscoring the challenge of exports with little or no domestic value addition and the need for pragmatic measures to increase Ghana's gains from its natural resources.

An area of large concern and the biggest source of resentment in Ghana's relationship with China is the artisanal and small-scale gold mining in Ghana. Although foreigners are legally banned from activities in this sector, many Chinese citizens are reportedly active and have, through the introduction of machinery and advanced technologies, significantly changed the face of the sector. According to the International Growth Centre (IGC), the share of small-scale mining in Ghana's total gold production has increased from 11% in 2005 to 36% in 2013, with highly detrimental effects on local populations and the environment. The Shaanxi Mining Company entered the Ghanaian market in 2008 before the introduction of the ban on foreigners in this activity. As a result, the company has gained notoriety as it circumvents the law. The company constructed an underground mine with a large processing plant in close proximity. Employing about 450 people, the company has been accused for several labour rights violations with regard to its workers safety. In the peak years of 2012 and 2013, 40,000 to 50,000 illegal Chinese miners were recorded to be operating in Ghana.

Though it is easy to wholeheartedly blame the Chinese counterparts, it must be said that illegal mining could not be sustained without the participation of Ghanaians citizens, traditional leaders and even members of the Ghanaian government.[52] Some Ghanaians sell parcels of land to Chinese miners without thorough considerations to the laws governing artisanal and small-scale mining. Artisanal and small- scale mining could have harmful effects on Ghana's economy, the environment and the relationship between both countries.[53] Given the complexity and bilateral involvements in these illegal activities mutual cooperation on the highest level is crucial to prevent further damage.

3.8 Impact of Chinese FDI, Challenges and Policy Recommendations

Chinese investments have several positive effects on Ghana's economic transformation and have the potential to serve as a long-term remedy to the significant trade imbalances (both in terms of volume, value and mix).[54] Overall, the benefits that have accrued through Chinese investment include:

1. Infrastructure improvements with considerable economic impact, such as the Sunon Asogli Thermal Power Plant.
2. Reduced import dependence as several Chinese firms produce capital and consumer goods in-country.
3. Chinese companies bring crucial capital, technology and know- how to produce goods.

[52] IGC: Impact of Chinese involvement in small scale mining
http://www.todaygh.com/residents-call-for-closure-of-shaanxi-mining-company/

[53] According to an Afrobarometer survey 25% of Ghanaians say that China's influence is 'very negative' compared to 1.8% in Nigeria, 2.3% in Tanzania and 3.1% in Uganda saying that

[54] Channels identified by Tsikata, Fenny and Aryeetey

4. The data on employment generation suggests high shares of local employment; hence skill transfers are likely to happen, although they are hampered by culture and language barriers.
5. The country's export portfolio is diversified because of new products produced in Ghana.
6. Increased productivity and use of best practice can help Ghana to become a leader in agro-processing and light manufacturing within the ECOWAS region.
7. Value addition as several Chinese firms use local input factors to produce their goods especially observed in the food processing and the wood processing industry.[55]
8. Investments in General Trading have decreased compared to the period from 2000-2008 where it made for 56% of all investments. This leaves more leeway to Ghanaian traders in selling imported goods.
9. Increased government revenue through taxation

According to Kragelund, critical factors for positive effects of Chinese FDI on Sub-Saharan economies are the investment motives of firms, time horizons of the investment, the extent of linkages to other firms in the economy and the capacity of local firms to absorb spill-overs and face competition.[56] While FDI from many Western countries is dominated by risk averse private firms with little long-term commitment, Chinese investments are in the majority made with the intention of establishing deepened relationships, which is also due to an encompassing support frame, that links trade, investment and finance.[57] This gives reason to expect that the Chinese top-level commitment to Ghana's industrialization will trickle down to the private sector, which is likely to be more focused on SMEs in active in telecommunications, business services and manufactured goods as funding support for small to medium sized projects becomes available.[58] Specifically, the Small and Medium Enterprises Fund run through the China Development Bank should establish operations in Ghana as a top priority and set high targets for identifying and supporting Chinese AND Ghanaian businesses jointly or individually involved in investment projects in Ghana.

There are, however, some areas in which Chinese investment in Ghana should be reviewed and possibly modified. Firstly, the equity structure of firms with Chinese involvement is highly imbalanced and suggests that a big share of profits flow back to China. Ghana should incentivize more parity in equity and also joint ventures to increase profits for Ghana's financial sector and avoid repatriation and pressure on Ghana's currency.[59] Secondly, several domestic producers, particularly in textiles and clothing have been pushed out of the market due to strong competition from imported cheap and low-quality products. This has been detrimental to Ghana's employment situation. FDI in the trading sector need to be questioned with regard

[55] Tsikata, Fenny, Aryeetey
[56] Kragelund, 2007
[57] Besada 2008
[58] Kaplinski and Morris, 2009
[59] ACET 2009

to their benefits to Ghana's economic transformation. The good news for Ghanaian textile and clothing manufacturers is that the share of Chinese FDI to Ghana this sector has diminished in recent years.

The main impediments to Chinese investments should be eliminated to increase FDI in key sectors, such as manufacturing and agriculture. According to scholars, these impediments include customs and trade regulations, quality of electricity, transportation and volatility in inflation and exchange rates.[60] The process of establishing a business in Ghana remains lengthy and complex, involving five government agencies.[61] Moreover, investors face several risks because of unclear land titles and a lack of protection towards intellectual property rights, especially in software and pharmaceutical industries.[62]A well- defined investor targeting strategy can help to incentivize investments in sectors seen as key drivers of Ghana's economic transformation.

Better regulation is needed to ensure that Chinese firms actually do operate in the sectors registered to operate in to prevent trading companies from free-riding on tax holidays and exemptions directed to manufacturing investments. Chinese firms in Ghana should perform due diligence to respond to accusations about disrespecting national labour and environmental laws to ameliorate their reputation. The Chinese Embassy and the various chambers and associations should continue to support these efforts through information and surveillance.

4. Economic and Technical Cooperation:
As President Xi Jinping made clear in his address at the opening ceremony of the Johannesburg Summit of FOCAC in 2015, China sees three major bottlenecks hindering African development, namely:

- **Inadequate Infrastructure**
- **Lack of Professional and Skilled Personnel**
- **Funding Shortage**

The World Economic Forum in its 'Global Competitiveness Report 2016' buttresses this. Ghana ranks particularly poor in infrastructure, macroeconomic environment as well as higher education and training. Access to financing is identified through surveys as one of the most problematic factors for doing business.[63] Infrastructure improvements in power generation, roads and ports will ameliorate challenges related to freight and logistics and reduce costs considerably, making the sector a main driver of economic growth and transformation. Capacity building and skills training will enable more Ghanaians to use advanced technologies and increase productivity. Moreover, social infrastructure projects in as health, housing and education can improve people's livelihood and human well-being. Channels such as these

[60] Gu 2009

[61] According to the 'Ghana Investment Climate Statement 2015': GIPC, Registrar General Department, Ghana Revenue Authority (GRA), Ghana Immigration Service and Social Security and National Insurance Trust (SSNIT)

[62] Ghana Investment Climate Statement 2015;

[63] World Economic Forum – '' The Global Competitiveness Report 2016/2017''

provide opportunities to China in making valuable and change-oriented contribution to enhance Ghana's economic transformation. The following section gives an overview of China's financial commitments towards Ghana, points out opportunities as well as challenges and concludes with recommendations to enhance mutual benefits.

Next to incentivizing FDI as shown in the previous section, the Government of China intends to mitigate the development challenges of Ghana through strategic use of financial commitments including Official Development Assistance (ODA) and Other Official Flows (OOF) as shown in Figure 4.1. Major stakeholders in China's financial commitments to Ghana are MOFCOM, China Exim Bank and CDB. The importance of China's financial commitments towards Africa is well reflected by the numerous financial commitments during FOCAC summits throughout the years, with an unprecedented growth in recent years. This becomes evident when comparing finance related FOCAC pledges from the FOCAC III summit in 2006 with those from last year's FOCAC summit in Johannesburg.

FOCAC III 2006 (Beijing):

- Provide $3bn in concessional loans, $2bn as preferential buyer's credits within three years
- Cancel matured interest- free loans due in 2005 owed by Heavily Indebted Poor Countries (HIPC) and LDCs

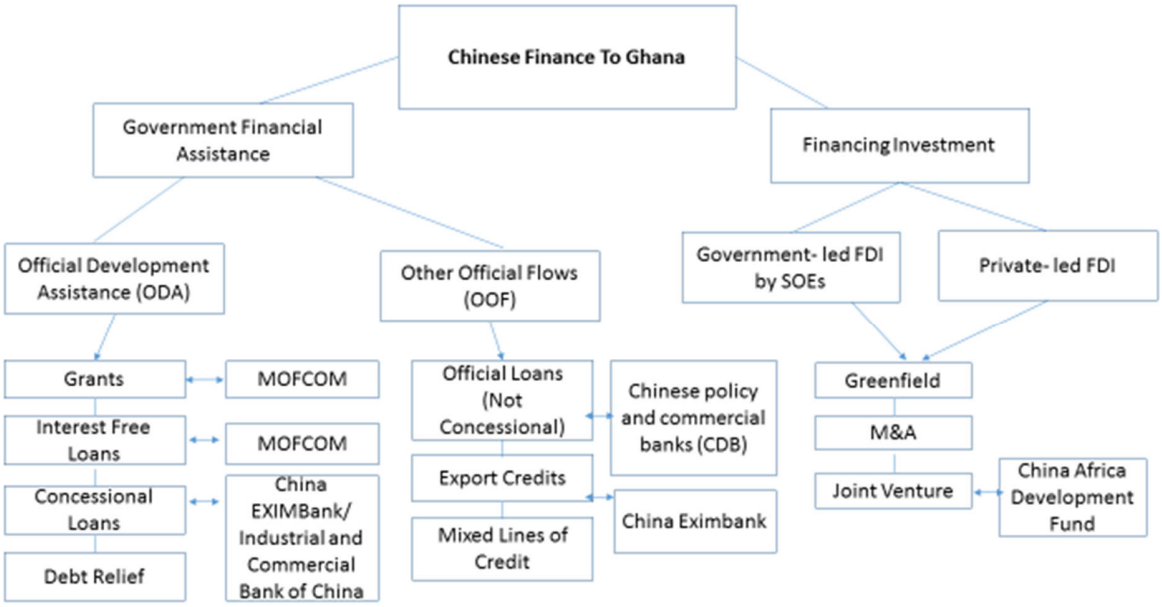
FOCAC VI 2015 (Johannesburg):

- Offer African countries $35bn of concessional foreign aid loans, preferential loans and non-preferential export credits
- Provide $5bn in grants and zero- interest loans[64]

Moreover, China is committed to tackle the lack of professional and skilled personnel through capacity building measures in the form of educational facilities, training programs and scholarships, all also reflected in several FOCAC pledges.

[64] Other finance related FOCAC pledges were:
FOCAC IV,2009: Provide $10billion in concessional loans; Provide $1billion for African SME (small and medium enterprises); Cancel debt associated with interest- free government loans due to mature by the end of 2009

Figure 4.1 Chinese Finance to Ghana



Source: Adapted from Pigato and Tang

Government Financial Assistance includes ODA and OOF. ODA includes grants and interest-free loans (through MOFCOM), concessional loans (through China Exim Bank) and debt relief. OOF comprises official loans (through Chinese policy and commercial banks), export credits (through China Exim Bank) and mixed lines of credits.

Grants have diminished relative to loans and China prefers to give debt reliefs from time to time in order to increase its leverage. Debt relief is part of the FOCAC strategy as expressed during the latest summit in Johannesburg 2015 where it was announced that China would 'cancel overdue portion of zero-interest loans'.[65] According to AidData, China has written off Ghanaian debt three times – though there is discrepancy about the amounts of debt cancelled. The following is thus a directional of China's debt forgiveness ventures: 1) In 2002, China wrote off $53.5m or 85% of Ghana's debt to China;[66] 2) In 2003, The Chinese Government cancels $66m debt owed by Ghana;[67] and 3) in 2002, both countries agreed on

[65] Previous FOCAC pledges on debt relief were:
FOCAC I,2000: Debt cancellation of up to RMB 10billion for HIPC and LDC countries within 10 years
FOCAC III,2006: Cancel matured interest- free loans due in 2005 owed by HIPC and LDCs
FOCAC IV,2009: Cancel debt associated with interest- free government loans due to mature by the end of 2009
[66] http://china.aiddata.org/projects/1462
[67] http://china.aiddata.org/projects/34574

a debt cancellation of $126m.[68] As there has been an increased privatization of Chinese finance in Africa through private investment vehicles such as the CADF, the Small and Medium Enterprises Fund (CDB) and the China–Africa Production Capacity/ Industrial Cooperation Fund, attaining accurate information on debt forgiveness has become more challenging.

4.1 Infrastructure Development

According to the Ghana Infrastructure Investment Fund (GIIF), Ghana has an annual infrastructure gap of $3.8bn to 4.7bn. AICD estimates this gap to be worth $0.4bn per year, mostly related to water and power.[69] Since the Ghana reached Middle Income Status in 2011, access to the International Development Association's (IDA) and other international donors' concessional lending is gradually being lost. With regard to these developments and the focus on infrastructure projects, China's role as a principal financier in Ghana's infrastructure is becoming increasingly evident and gaining considerable importance. This is a role China is willing to fill as expressed during the FOCAC 2015 summit in its ten cooperation plans with Africa:

'we will implement the China- Africa infrastructure plan. China will step up mutually beneficial cooperation with Africa in infrastructure planning, design, construction, operation, and maintenance. We support Chinese enterprises' active participation in Africa's infrastructural development, particularly in sectors such as railways, roads, regional aviation, ports, electricity and telecommunications, to enhance Africa's capacity for sustainable development. We will also support African countries in establishing five transportation universities.' - President of the People's Republic of China, H.E. Xi Jinping

Several representational buildings and social infrastructure projects have been implemented with grants from the MOFCOM. Representational examples are the National Theatre, the Kumasi Youth Center, the Ministry of Defence as well as the Cape Coast Stadium, all of them constructed by Chinese companies.[70]

An interest- free $28m loan was given out in 2003 for the construction of the 16.9 km Ofankor- Nsawam section of the Accra–Kumasi N6 highway, completed and commissioned in 2006 by China Railway Engineering Group Company. Another interest-free loan of $16m was linked with the construction of a new office complex for the Ghanaian Ministry of Foreign Affairs and Regional Integration, constructed in 2013.

4.1.1 Construction Contracts

Numerous Chinese state-owned construction enterprises that entered the Ghanaian market in the past when implementing a Chinese financed infrastructure project have gained a foothold in the market, later winning other competitive bids. The American Enterprise Institute 'Global Investment Tracker'

[68] http://china.aiddata.org/projects/1778

[69] AICD 2010

[70] See Annex for comprehensive list

database lists a total contract value of $6.7bn signed by Chinese companies from 2007 to 2015.[71] The most successful companies were Three Gorges, China Railway Engineering and Sinopec, constructing projects in Transport, Energy and Utilities. Between 2007 and 2012, Chinese firms won 7 Millennium Challenge Corporation (MCC) construction contracts with a total contract value of $111.7m, which represents 22% of the total value of MCC contracts in Ghana. The construction of a part of the N1 Highway in Accra accounted for 40% of these contracts.[72] Respondents who are engaged in building/construction are optimistic about business perspectives in Ghana and mentioned stable political atmosphere, market size and a relatively business friendly environment as advantages of Ghana. However, the major issues of doing business in Ghana are difficulties in finding reliable partners and clients, administrative burdens, corruption, exchange rate volatility as well as cultural differences and language barriers. Construction contracts are often financed by Chinese loans, a way for the Chinese government to develop infrastructure in Ghana while at the same time promoting its domestic construction firms.

The following is an estimate from various sources of Chinese loans to Ghana between 2000 and 2014.

Table 4.1 Loans to Ghana by Chinese Banks from 2000-2014:

Bank	**Loans ($Million)**	**Main purpose**
Eximbank China	1955	Infrastructure
China Development Bank	1428	Investments / Infrastructure
Suppliers Credit Bank	450	Mixed
Industrial and Commercial Bank of China	102	Power Infrastructure
Other	225	Mixed
Total	**4160**	

Source: ACET Calculations using data from China Aiddata and CARI (see Annex for comprehensive list)

China Exim Bank was established in 1994 to implement state policies in the areas of industry, foreign affairs and trade. Hence, the bank promotes Chinese exports and construction in combination with development assistance through concessional loans and export credits specifically in the infrastructure sector. As such, most of its projects include roads, power plants, pipelines or telecommunications.[73] Loans by the China Exim Bank to Ghana follow this pattern and have been concentrated on infrastructure development, precisely power generation (Bui Dam; Rural Electrification Project), Water (Kpong Water Supply Expansion Project) and Communications (National Fibre Backbone Project, E – Governance Project; Fibre Optic and E- Governance Projects). The Kpong Water Supply Expansion Project implemented by China Gezhouba Group Corporation produces 80 million gallons of water per day and thereby increases supply of water to households and communities around Accra considerably. The National Fibre Backbone

[71] https://www.aei.org/china-global-investment-tracker/

[72] Case Studies of U.S. and Chinese Economic Engagement in Angola, Ghana, and Kenya - GAO

[73] Wang 2007

Project, carried out by Huawei Technologies, connected Ghana's regional capitals and several towns to the internet in 2006.

Similarly, CDB was established in 1994 to support macroeconomic policies and to effect structural changes in China's economy. Initially with a domestic focus on infrastructure, energy and transportation, the Bank became an increasingly important stakeholder in financing international projects. In 2010, the CDB and GoG agreed on a $3bn loan that was supposed to finance major infrastructure projects.

Oftentimes, content requirements ensure that the projects are implemented by Chinese firms and prescribe the use of Chinese construction material and inputs. Moreover, several loans are commodity backed, in the example of Ghana through cocoa and petroleum. A more precise look at two substantial loans, firstly the concessional loan for the Bui Dam Hydropower Project by China Exim Bank and secondly the $3bn non- concessional loan from the CDB to Ghana will be considered to get a better understanding of Chinese finance to Ghana and teaches lessons about flaws and possible improvements. It is by pure chance that the afore mentioned loans represent the only two commodity backed loans China has given to Ghana.

4.1.2 Bui Dam Hydropower Project

Although plans for the construction of the Bui Dam date back to 1925, the Chinese company Sinohydro, a subsidiary of PowerChina, approached GoG in 2005 together with funding from China Exim Bank to execute the project, for which the GoG could not find bidders beforehand. The project was financed by the GoG ($60M) and two separately negotiated loans from China Exim Bank, one of them a commercial export buyers' credit of $292m, the other one either concessional or a preferential export credit of $270m. Aiddata estimates the grant element to be 18.59%. Upon completion in 2014, the dam increased Ghana's electricity generation capacity by 400MW or about 20%. The loans were guaranteed through a cocoa sales agreement between Genertec Corporation of China and the Ghana Cocoa Board which stated that 40,000 tons of Cocoa would be sold annually for the 20 years of the loan.[74] The project has been contentious as it had considerable effects on humans as well as nature and wildlife in the region. In an interview held with Sinohydro, an official insisted that the resettlement project of up to 1,200 people was implemented successfully and even increased human well-being in the rural communities because of the provision of better housing and infrastructure in the newly constructed resettlement town Bui City.

4.1.3 China Development Bank $3bn Loan

This loan agreement was initiated during a visit of former President John Atta Mills and approved by the Ghanaian parliament in February 2012 after highly controversial debates between civil society, oppositional New Patriotic Party (NPP) and the National Democratic Party (NDP), mainly due to dissatisfaction with the loans' terms and conditions, particularly the collateralization of Ghana's oil.

Twelve projects were deemed as eligible for the loan, all of them related to infrastructure improvements in ports, irrigation, roads, gas processing and pipelines. Projects to be implemented were to be financed

[74] http://china.aiddata.org/projects/183

85% with the loan and the Government of Ghana had to contribute the remaining 15% of it. The loan was split in two equally sized tranches of $1.5bn, while Tranche B turned out to be irrelevant, as was been cancelled in 2014 following several problems with the disbursement as well as the oil price downfall.[75] Tranche A had the following conditions: A repayment period of 15 years, a grace period of 5 years and an interest rate of LIBOR plus 2.95%. Furthermore, an upfront fee of 0.25% of the loan and a commitment fee of 1% per year. Apparently not a concessional loan, Aiddata estimates the grant element to be 36.08%. The most controversial parts of the loan were the 60% Chinese content requirement, which ensured that projects were to be implemented by Chinese firms and particularly the use of Ghana's petroleum to back the loan.[76]More precisely, Unipec Asia signed an off-taker agreement with the Ghana National Gas Company (GNGC), comprising 13,000 barrels of crude oil daily.

The first project to be funded with this loan was the 'Western Corridor Gas Infrastructure Development Project' (WCGIDP) including a 45 km offshore pipeline, a Gas Processing Plant and a 110 km onshore pipeline connecting the gas processing plant with power plants around Takoradi. The project was completed one year behind schedule, partly due to the slow disbursement of the loan.[77] The falling oil price lead to renegotiations of terms and raised major concerns about Ghana's unsustainable national debt, resulting in the cancelation of the second tranche.

4.2 Impact and Recommendations on Chinese Finance

China's financial commitments have had a highly positive impact on Ghana's infrastructure. The established projects in power generation have increased the country's electricity generation capacity by more than 30%. Gas processing facilities, communication infrastructure as well as rural electrification projects allow the country to benefit more from its economic resources and improve rural livelihood.

Insufficient infrastructure is still mentioned by the majority of corporations as an impediment to doing business. Relative unit labour costs, which include wages as well as logistical costs, can be diminished considerably through better infrastructure. Therefore, China's financial commitments to Ghana certainly contribute to the country's economic transformation. Capacity building measures have also improved qualifications and skills of numerous Ghanaians, although quite difficult to trace the precise effects of these measures on Ghana's economic transformation.

Further concerns lie in the possibility of unsustainable national debt Ghana is risking to take on through Chinese loans, especially when collateralized with natural resources as oil or other primary commodities as cocoa beans. This possibly reduces future benefits from world commodity markets and demonstrates political near-sightedness. A lack of transparency and opaquely formulated contracts also lead to suspicions and resentment and must be addressed.

[75] http://uk.reuters.com/article/uk-ghana-china-loans-idUKKBILLION0FL1WY20140716

[76] http://china.aiddata.org/projects/2034
This is in several ways inconsistent with Ghana's petroleum revenue management (PRM) law

[77] CARI Policy Brief 10/2016 gives more detailed information on the loan

4.3 Capacity Building:

China has committed itself to capacity building in Ghana through several projects, implemented with grants as well as concessional loans. Grants were used to construct the University for Health and Allied Sciences (UHAS) in Ho, an institution dedicated to the training of health professional physicians, nurses and biomedical science specialists. The New Century Career Development Institute intends to implement the Chinese model for vocational training. The Chinese government supports several training programs in the fields of customs, health, agriculture and ICT. China most likely has a positive impact on Ghana's future workforce skills, as the country has supported primary education and the use of ICT in schools and universities. In 2016, according to Chinese Ambassador to Ghana Madame Sun Baohong, more than 4,600 Ghanaian students are studying in China, an increasing trend the country supports with scholarships.

On the downside, strict local content requirements reduce benefits for Ghana immensely as they exclude the possibilities of capacity building and linkages with local industries, which could create valuable business relations. Generally, the nature of China's financial commitment as tied-aid often leads to accusations that business interests of the donor country are prioritized over the needs of the recipient. As Chinese loans rarely involve competitive bidding for project implementation, concerns also persist about the quality of projects executed especially since these contracts rarely include a maintenance component.

Ghana should implement local content parameters to guarantee local capacity building and the involvement of local industries. China should endeavour the implementation of transparency measures and the Paris Declaration Standards. This would not only increase fairness in negotiations but allow researchers to evaluate effects. Furthermore, commodity backed loans have led to resentment among the Ghanaian population and it is questionable whether future financial cooperation should make further use of this finance method.

Chinese construction firms have without an exception implemented the numerous infrastructure and construction projects funded or financed by the Chinese government or its policy banks. Although some employment has been generated, the shares of Chinese workers in these projects are reportedly substantial. Furthermore, these jobs are rarely created for the long term and accusations about noncompliance with Ghanaian labour laws has been a problematic issue ever since.

5. Impact on Engagements with China on Employment Generation

Despite a remarkable growth performance in the last decade, employment response to growth has been weak in Ghana.[78] With regard to the approximately 400,000 young people entering the Ghanaian labour market every year employment generation is one of the most pressing policy objectives in the upcoming decade. Further issues to be tackled are the high share of vulnerable jobs and a high working

[78] Ghana's has an estimated employment elasticity of output of 0.47, which means that a 1% increase in economic growth yields only 0.47% growth of total employment as shown by Aryeetey and Baah-Boateng in 2016

poverty rate.[79] Growth in high labour absorption sectors like agriculture and manufacturing are considered as the most promising remedies to the aforementioned issues.

A major concern about Chinese investments in Africa is the allegedly low rate of employment generation. Our data from the GIPC gives weak support to this claim. As average share of non- Ghanaian employment in the time from 2000- June 2016 is 14.42% and in total, in more than 15 years only 4769 jobs for non- Ghanaians were created. Overall employment generation for Ghanaians from 2000 to mid-2016 is estimated to be 28,294, while employment generation has enjoyed a considerable increase since 2000 (Table 5.1).

Another concern, which cannot be assessed with the data from GIPC at hand but was confirmed in our survey, is the lack of Ghanaian labour in leading positions. The majority of Chinese interviewees punctuated their will to extend local employment, increase the share of Ghanaians in leading positions and build capacity through sharing of knowledge, skills and technologies. However, many of these Chinese firms find it difficult to find skilled personnel and others mentioned cultural differences as well as communication problems as further barriers.

The GIPC's quota allows foreign investors to hire one foreign national for investments between $50,000 and $250,000, two for investments between $250,000 and $500,000, three for investments between $500,000 and $700,000 and up to four for investments over $700,000. Additional foreign labour can be brought in if technical expertise in unavailable locally but this must be justified.[80] Trading enterprises are legally obligated to employ at least 20 skilled Ghanaians. All interviewees punctuated their will to localize employment and share knowledge and technologies.

Table 5.1 Employment Generation through Chinese Foreign Direct Investment (2000-June 2016)

Year	Ghanaian Employment	Non- Ghanaian Employment	Total Employment Generation	% of Non-Ghanaian Employment
2000-2005	3023	469	3492	13.43
2006-2010	9568	1804	11372	15.86
2011-June 2016	15703	2496	18199	13.72
Total	28294	4769	33063	14.42

Source: GIPC

The overall employment effect of Ghana's engagement with China is very likely to be positive, due to positive employment effects through investments and construction projects. Furthermore, as increased engagement with China is likely to spur economic growth it generates employment indirectly.

[79] 7 out of 10 jobs in 2010 are classified as vulnerable jobs
1 out of 5 employed people belong to poor households
[80] GIPC 2008

6. Conclusion

In summary, Ghana and China's economic engagements appear to be moving in only one direction: up in volume and in value. There is no reason to believe this will change, and as such, the focus of both governments should be on maximizing the social as well as economic returns to both countries. Indeed, for Ghana that is a country facing many development challenges, the emphasis should be on promoting and implementing projects that have a direct and positive impact on driving economic transformation. This means that engagements that promote diversification, exports, productivity increases, technology transfer and human wellbeing (as explained through the DEPTH framework) are far preferable to others.

It is clear that there are still many opportunities for deepening China's role in Ghana's growth and transformation. Trade between the two partners is growing but revealing a number of very deep-seated problems of resource extraction, low value addition, and minimal employment gains. There is also need to revisit the tariff and non-tariff barriers to increased Ghanaian exports to China. Investments in Ghana have been few, but have had significant positive impacts on the economy by their focus on manufacturing and on addressing Ghana's chronic infrastructure challenges (most notably in power and roads). The positive role that China in this aspect is invaluable and more efforts should be taken – both through government initiatives and by encouraging the Chinese private sector - to scale this up.

Economic and trade cooperation benefits to Ghana have been visible, but not all sustainable. The most prominent example of this was in the $3bn loan to Ghana which was not able to be concluded due to structural issues and the challenge of pegging loan repayments to the sale of primary products like cocoa. Also, whereas financing mechanisms like CADF have been directly focused on facilitating China-Ghana projects, these are often limited by the fact that they favour the largest projects, thus making them almost impossible for SMEs to access and deploy. Kick starting the planned SME financing facility in Ghana should thus be a priority. And what more, Chinese financing support should be more flexible on the requirement that procurement for projects overwhelming favour Chinese firms. Where capacity and skills and available, Ghanaian firms should be encouraged to bid for portions of contracts being led by Chinese contractors in Ghana. This would also serve to increase the number and depth of partnerships between Chinese and Ghanaian companies.

In conclusion, China's role in Ghana, and specifically in her path towards economic transformation, has been positive, but with room for significant improvement. These improvements will need to come both from the Ghanaian side in terms of how they pursue and structure engagements with China, as well as on the Chinese side in terms of shifting focus away from primary goods extraction and more towards fair and sustainable financing and investment.

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Annex:

Revealed Comparative Advantage of Ghana and Chinese Import Tariffs

Product (Product Classification)	**Revealed Comparative Advantage**	**Chinese Import Tariff**
[072] Cocoa	189,73	10.61%
[971] Gold, non-monetary (excluding gold ores and concentrates)	17,86	N/A
[269] Worn clothing and other worn textile articles	14,99	14.69%
[223] Oil seeds & oleaginous fruits (incl. flour, n.e.s.)	14,57	2.72%
[247] Wood in the rough or roughly squared	11,31	2.35%
[287] Ores and concentrates of base metals, n.e.s.	8,77	0.07%
[037] Fish, aqua. invertebrates, prepared, preserved, n.e.s.	7,70	10.18%
[285] Aluminum ores and concentrates (incl. alumina)	6,30	6.84%
[057] Fruits and nuts (excluding oil nuts), fresh or dried	5,02	14.50%
[333] Petroleum oils, oils from bituminous materials, crude	4,25	1.62%
[593] Explosives and pyrotechnic products	3,68	7.86%
[248] Wood simply worked, and railway sleepers of wood	3,32	2.35%
[231] Natural rubber & similar gums, in primary forms	3,14	11.84%
[422] Fixed vegetable fats & oils, crude, refined, fractioned	2,98	10.76%
[634] Veneers, plywood, and other wood, worked, n.e.s.	2,94	2.35%
[685] Lead	2,94	3.11%

[263] Cotton	2,35	12.27%
[245] Fuel wood (excluding wood waste) and wood charcoal	2,23	2.35%

Non- Tariff barriers (NTBs) as listed by the Global Trade Alert database:

Red:

Title	**Inception**
Increased import tariff on numerous consumer goods	2016
State Aid to Lingyuan Iron & Steel Co.	2015
New VAT rebates for exporters of 246 products	2015
Import tariff quota on wheat, corn, rice and cotton	2013
Export Quota for agricultural and industrial products in 2012	2012
Business tax incentives to support IC and software industry	2011
Export tariff increase for fertilizers	2010
Increased import VAT on several minerals	2009
VAT rebates for more than 2600 products	2009
VAT rebate of 15% for textile products	2009
Increased VAT rebates for 553 products	2009
Increased VAT rebates for exports	2009
Increased VAT rebates for food, textiles, wood products, metals, chemicals and machinery	2008
Increased VAT rebates for exports of food, mineral, chemical and wood products	2008

Source: Global Trade Alert database

Chinese labour:

The China- Africa Research Initiative uses several Chinese sources to estimate the following numbers for Chinese workers at the end of each year in African countries.

	Ghana	Angola	Nigeria	Zambia	Kenya	Africa	Ghana share(%)
2011	3482	53444	11948	8616	6563	305.665	1.14
2012	4708	62509	10017	7315	4942	280.545	1.68
2013	4051	49350	8934	10614	4286	243.922	1.66
2014	3217	53113	10994	7325	3754	252.059	1.28

Source: China Africa Research Initiative

Grants:

Source: China Aiddata

www.china.aiddata.org

Chinese Grants/Aid to Ghana:

Project	Type:	Commitment Year	Value of Project (in Million $)	Construction / Implementation	Sector
China Grants Ghana 3.6 Million U.S. Dollars	Grant	2001	6.026 (2009)	Monetary	Unclear
Stadium Disaster Fund	Grant	2001	34.90 (2001)	Unclear	Emergency Response
Fireworks for Ghana Anniversary Celebration	Grant	2001	26.14 (2001)	-	Social Infrastructure and Services
Military District Hospital	Grant	2002	8 (2002)	Untied project	Health
National Theatre Rehabilitation	Grant	2003	2.42 (2003)	Chinese Export and Import Plant Group (COMPLANT)	Social Infrastructure and Services
Construction of Burma Hall Complex	Grant	2003	1.2 (2003)	China State Hualong Construction Limited	Social Infrastructure and Services
Kumasi Youth Center	Grant	2004	1.4 (2004)	Jiangsu Construction Company	Social Infrastructure and Services
Office Complex of Ministry of Defence	Grant	2004	5 (2004); 7.53(2009)	Qingdao Construction Group Corporation.	Government and Civil Society
Fireworks	Grant	2004	-	-	Social Infrastructure and Services
Donation of General Goods	Grant	2004	0.0625 (2004)	-	Unspecified

Chinese Embassy Donation to University of Ghana	Grant	2004	0.0065 (2004)	-	Education
Computer Labs at 2 Ghanaian Universities (UoG,KNUST)	Grant	2004	-	-	Education
Provision of Boreholes in Accra	Grant	2004	-	Unclear if ever completed	Water Supply and Sanitation
Grant Agreement between Ghana and China	Grant	2004	2.4 (2004)	Supposed to be used for projects to be agreed upon	Unspecified
Grant for Economic and Technical Projects	Grant	2005	3.6 (2005)	Supposed to be used for projects to be agreed upon	Unspecified
Chinese Grant to Ministry of Finance	Grant	2005	0.061 (2005)		Government and Civil Society
Mosquito net donation	Grant	2006	-	-	Health
Donation for the purpose of malaria drugs	Grant	2006	25 (2006)	Unclear if funds were used and if medicine was disbursed	Health
Economic & Technical Cooperation Grant	Grant	2006	3.75 (2006)	Supposed to be used for projects to be agreed upon	Unspecified
Delivery of Yaxing Buses	Grant	2006	-	150 buses added to the 650 buses fleet	Transport and Storage
Malaria Prophylactic Therapeutic Demonstration Centre	Grant	2006	-	In the Korle Bu Teaching Hospital	Health
Primary Schools in Ghana	Grant	2006	2.2 (2006)	-	Education
China donates Anti-Malaria drugs	Grant	2007	0.236 (2007)	-	Health
Technical Cooperation	Grant	2008	7.4 (2008)	Supposed to be used for projects to be agreed upon	Unspecified

Provision of Anti-Malaria Drugs	Grant	2008	0.25 (2008)	Unclear if ever implemented	Health
Rehabilitation of Peduase Presidential Lodge	Grant	2008	1.34 (2008)	Bank of India provided $30 Million to fund the rest	Government and Civil Society
Donation of Language Books	Grant	2008	-	Recipient: University of Ghana	Education
2Language Professors Teaching at UoG	Grant	2008	-	Recipient: University of Ghana	Education
Economic and Technical Cooperation	Grant	2009	4.4 (2009)	Unclear how funds were used /untied	Unspecified
Economic and Technical Cooperation	Grant	2009	8.79 (2009)	Unclear how funds were used /untied	Unspecified
Malaria Treatment and equipment to hospital	Grant	2009	0.447 (2009)	Recipient: Ghana Ministry of Health	Health
Office Equipment to Ministry of Foreign Affairs	Grant	2009	0.004 (2009)	Chinese Embassy	Government and Civil Society
Teshie (Lekema) Hospital in Accra	Grant	2009	7.28 (2009)	China Geo-Engineering Corporation	Health
Rural Electrification	Grant	2010	300 (2010)	-	Energy Generation and Supply
Donation to assist Northern Ghana's flood victims	Grant	2010	0.05 (2010)	Recipient: National Disaster Management Organization	Emergency Response
Book donation to UoG	Grant	2010	-	Recipient: University of Ghana	Education
Medical Equipment and Drugs to Korle-Bu Teaching Hospital	Grant	2010	-	-	Health
Medical Equipment to Ghana	Grant	2011	0.11 (2011)	Recipient: Korle Bu Teaching Hospital	Health

Chinese Embassy Donates Sport Equipment to Ghana	Grant	2011	-	Recipient: Ministry for Youth and Sports	Social Infrastructure and Services
Supply of Irrigation Equipment	Grant	2011	11.05 (2011)	-	Water Supply and Sanitation
Office Complex of Ministry of Foreign Affairs	Interest-Free Loan	2011	16 (2011)	Yanjian Group	
Rural Community Poverty Alleviation Pilot Project	Grant	2012	1.5 (2012)	-	Education
Cape Coast Stadium	Grant	2012	30 (2012)	Jiangxi Corporation	Social Infrastructure
Chinese Medical Team donates to Korle Bu	Grant	2012	0.3 (2012)	-	Health
Building of two schools	Grant	2012	1.7 (2012)	-	Education
Donation of Sewing Machines	Grant	2013	-	-	Government and Civil Society
Confucius Institute at the University of Ghana	Grant	2013	0.8 (2013)	-	Education
Construction of Medical University in Ho	Grant	2013	20 (2013)	-	Education
Assistance in developing renewable energies	Grant	2014	-	-	Energy Generation and Supply
Medical Supplies to Ghana for Ebola Outbreak	Grant	2014	5 Million CNY	-	Emergency Response
Medical Supplies for Ebola outbreak	Grant	2014	0.83 (2014)	-	Emergency Response
China's Red Cross donates for Cholera outbreak	Grant	2014	0.05 (2014)	-	Emergency Response

Total	Grants	2000-2014	534 Million (300 Million for Electrification Project)		

Source: China Aiddata

Loans:

Chinese Loans to Ghana from 2000 -2014 (Million US-$)

Year	Loans to Ghana	Loans to Africa	Ghana's share in loans (%)
2000	26	133	19.57
2001	0	264	0
2002	0	699	0
2003	26	1622	1.58
2004	22	798	2.73
2005	0	2879	0
2006	111	4778	2.32
2007	636	5030	12.65
2008	238	6333	3.76
2009	6	6410	0.09
2010	0	5905	0
2011	542	9849	5.5
2012	317	11055	2.87
2013	1274	16917	7.53
2014	0	13597	0
Total	3198	86269	3.71

Source: China Africa Research Initiative

Bank	**Projects/ Commitment Year**	**Loan Value ($Million)**	**Flow/Loan Type**	**Construction/ Implementation**	**Grant Element:**	**Sector:**
Eximbank China	Electrification Project/2000	36.78 (2000)	Concessional	International Water and Electric Corporation	36.64%	Energy Generation and Supply

	Construction of Ofankor- Nsawam Highway/2003	28 (2003)	Interest- Free	China Railway Engineering Group Co., Ltd.	-	Transport and Storage
	Rural Electrification of Ghana/2006	162 (2006)	Non-Concessional	Hunan Constructing Engineering Group Corporation	22.89%	Energy Generation and Supply
	National Fibre Backbone Project	30 (2006)	Concessional	Huawei Technologies Co., Ltd.	44.6%	Communications
	Bui Dam/2007	562 (2007) 152 (2012)	Vague Concessional	Sinohydro Corporation	18.59% 54.08%	Energy Generation and Supply
	University of Ghana Distance Education ICT Project/ 2008	8.2 (2008) 31.95 (2012)	Vague Concessional	Unisplendour Software Company	- 53.09%	Education
	E- Governance Projects /2009	120 (2009)	-	-	25.68%	Government and Civil Society
	Fibre Optic and E-Governance Projects/2009	30 (2009)	Concessional	-	25.68%	Government and Civil Society
	Kpong Water Supply Expansion Project /2010	273 (2010)	Concessional	China Gezhouba Group Corporation(CGGC)	54.08%	Water Supply and Sanitation
	Nkwanta – Oti Damango Road/2010	400 (2010)	-	China State Construction Engineering Corporation	-	Transport and Storage
	Loan for Dedicated Security Information System/2013	129 (2013)	Vague (Official Finance)	ZTE	-	Communications
	Total:	1955,67				

China Development Bank	Western Corridor Gas Infrastructure Project	1000	Loan	Sinopec International Services Ltd/ Aecom	Part of $3billion loan	Energy Generation and Supply
	Volta Lake Waterways Development	314	Loan	China Shipbuilding & Offshore International Company		
	Grant for African Management School Project	1.243 (2009)	Loan	China Europe International Business School		Education
	Construction of Oil Enclave Roads / 2009	112.74 (2009)	Loan	Unclear		Transport and Storage
	Total:	1427.983				
Suppliers Credit Bank	**Total:**	469				
Industrial and Commercial Bank of China	Northern Regional Electrification Project (2012)	102 (2009)	Concessional Loan	-	54.65%	Energy Generation and Supply
Total:		**3954.653**				

Source: China Aiddata

Interview partners:

- Chinese Embassy in Accra
- China- Africa Development Fund – Accra Representation
- China- Africa Development Fund Annual Investment Conference- Infrastructure
- China Petroleum Pipeline Bureau in Accra
- Sinohydro (Subsidiary of Powerchina)
- Ministry of Trade and Industry of the Republic of Ghana
- Tang Palace Hotel in Accra
- Jiangxi Corporation (Constructor of Cape Coast Stadium)