POLITECNICO DI TORINO

Faculty of Engineering

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Foreign Direct Investments in Ghana: Determinants and effects on the local economy

Supervisor

Prof. Luigi Benfratello

Candidate

Josephine Whelmina Baidoo

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ABSTRACT

Foreign Direct Investment (FDI) can be a valuable tool for development.

The United Nations World Investment Report (UNCTAD, 1999) defines FDI as, “an investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise, affiliate enterprise or foreign affiliate)”.

FDI plays a pivotal role not only in transferring technology, but to provide complementary resources for those countries in which it is hosted. This is not possible without contribution of the multinational companies which have access to the latest technologies and are financially strong enough to provide the fund required for investment in a foreign country. In developing countries, governments have tried to reduce obstacles and provide incentives to motivate multinational companies to invest.

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1 FDI: A LITERATURE OVERVIEW

1.1 FDI: DEFINITIONS

Foreign Direct Investment (FDI) according to IMF definitions (International Monetary Fund 1993), is an investment in a foreign company where the foreign investor owns at least 10 percent of the ordinary shares, undertaken with the goal or objective of establishing a 'lasting interest' in the country, a long-term relationship and significant influence on the management of the firm. FDI flows include equity capital, reinvested earnings and other direct investment capital", which include new investments financing, retained earnings of subsidiaries, inter-firm loans and cross border mergers and acquisitions. FDI's are distinct from portfolio investments, which can be quickly divested and have no significant influence on a company's management.

A multinational or transnational enterprise is an enterprise(MNE) that engages in foreign direct investment (FDI) and owns or, in some way, controls value-added activities in more than one country. For this purpose, multinational enterprises pursue FDI to develop, acquire or grow a foreign subsidiary. Consequently, FDI is closely linked to the growth and expansion of multinationals, which in turn has been argued as a key determinant for the global economic growth and development (Dunning, 1993).

The main reason for multinational enterprises to invest abroad is to spread the company's activities among several countries Two issues become relevant when a company from another country invests in another country's business or wants to expand its scope in another country. One is how they should build up their business or presence in a foreign country to generate enough revenues and another is what is the most efficient strategies for FDIs. Methods of FDI can be divided into two broad categories: greenfield investments and brownfield investments. Greenfield investments are made when a company decides to build a new factory or assembly plant in a foreign country and finances the investments from domestic sources. This investment brings with it a pool of financial, technological and management resources. In contrast, brownfield investments are made when a company wants to invest and start operations in a new country, but does not want to incur high start-up costs

associated with greenfield investment. For this reason, brownfield investments are mainly made through merger and acquisitions or leasing of existing infrastructure. John Dunning (1977) developed a system known as the OLI framework which outlines a number of reasons why companies undertake foreign direct investments. Under the framework, companies agree to invest abroad if: they achieve market power by controlling the goods or production processes (O); they will take advantage of the location by placing their plant in a foreign country rather than at home (L); they can take advantage of the internalization of operations carried out by a wholly owned subsidiary rather than by means of arms-length arrangements on the market (I).

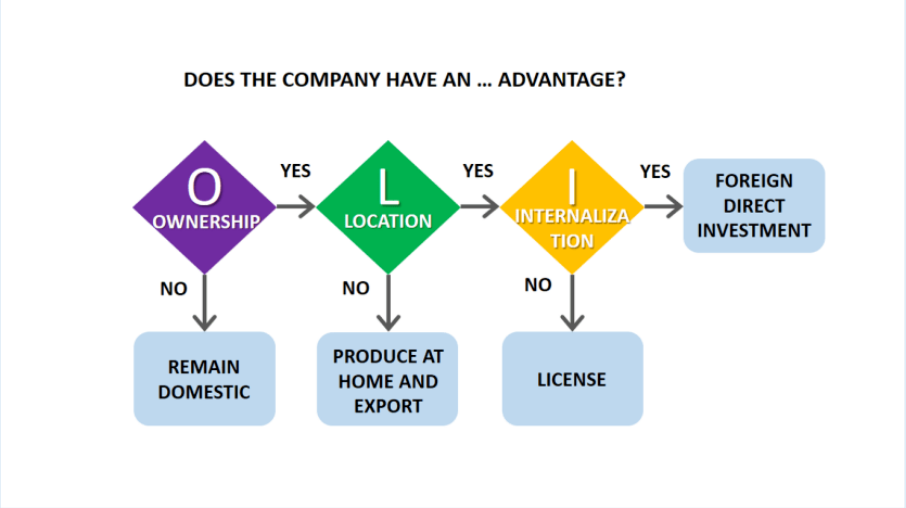

Figure 1: OLI framework, Source: Dunning (2001)

1.2 TYPES OF FOREIGN DIRECT INVESTMENT

The most frequently cited classification of FDI motivations is the one proposed by Dunning (1993) which is built upon his OLI paradigm/framework (Dunning, 1977). This classification is made up of four main categories of foreign direct investments: resource seeking, market seeking, efficiency seeking and strategic assets seeking investments.

a) Resource seeking: in this category, the main objective of the MNEs is to acquire certain types of resources which are not available at home (such as natural resources or raw materials) or which are available at a lower cost (such as

unskilled labour, which is offered at a cheaper price in relation to the home country);

b) Market seeking: in this case, MNEs invest for the possibility of access to the market of the host country, or to one or more of the neighbouring countries. Various reasons (apart from the search for and exploitation of new markets) lead to this choice of MNEs include: to follow up on suppliers or customers who have built foreign production facilities, to adapt goods to local needs or tastes, and to reduce the cost of serving the market from a distance.

c) Efficiency Seeking: they are considered to occur when a firm seeks the optimisation of production processes across the value chain. Access to a portfolio of geographically dispersed activities enables the source enterprise to make the most of the production factors and the different economic and political systems and policies. This motive partly justifies the great interest in developing economies, which represent an opportunity to carry out labour-intensive and low-tech activities at a much lower cost.

d) Strategic Asset Seeking: in this case MNEs obtain strategic assets (whether tangible or intangible) and competences that may be critical to their long-term strategy but are not available at home. This last category can be considered separate because these types of investments is to acquire and complement a new technological base rather than to exploit existing assets.

These motives can be related to an additional line of FDI theoretical literature that separates two other types of investment: horizontal FDI and vertical FDI.

Horizontal FDI as modelled by Markusen (1984), happens when MNEs replicate approximately the same production processes, with the exception of headquarters operations, in multiple countries. Horizontal FDI sets up similar assembly plants and manufactures the same final products as the home for the host industry, retaining headquarters and assembly plants on the home market. This form of FDI is motivated by a desire to reduce transport and import costs or tariff jumping. In particular, the organization must determine whether the costs are higher by starting up a foreign

plant or supplying the market by exporting. On the other hand, the goal of vertical FDI, as suggested in the early model by Helpman (1984), is to move part of the production chain abroad due to the lower cost of the development factors present in the host country. In this model, the capital-intensive stage of production occurs in the home country, whereas the labour-intensive stage of production is located in the host country where unskilled labour is abundant. There are different merits for each FDI type: Horizontal FDI, for instance, results in significant savings in export costs due to centralized output, however, it also involves considerable maintenance costs for the construction of new plants and stops the firm from leveraging economies of scale (prevents discovering areas of the business that can experience cost reduction). In contrast, vertical FDIs generate economies of scale across the fragmented activities and obtain factor price savings, but the fragmented activites creates costs in terms of coordination of activities and trade (Barba Navaretti et al., 2006).

There are situations where the relationship between the multinational company's plants cannot be easily traced back to a horizontal or a vertical one: an example is the export-platform of foreign direct investment, where a source firm makes an investment in a destination country for the specific purpose of exporting goods to a third country. Such forms of FDIs share aspects of market-FDIs, which are characteristic of HFDIs, and resource-seeking, typical of VFDIs, and have been studied primarily in the literature in the form of case studies, due to the difficulty of disassociating horizontal and vertical components (Ekholm et al., 2007).

1.3 IMPACTS OF FDI

Many countries, particularly, developing countries tend to provide incentives in order to attract and support foreign direct investments in their economies due to the fact that FDI is considered to have a positive impact on the host country, (Carkovic and Levine, 2002). The most common examples of special treatment granted to foreign investment are tax breaks, exemptions from import duties, the allocation of property for facilities and the promise of direct subsidies (Hanson, 2001). However, the

presence of negative effects of foreign direct investment, as suggested by the reality of the countries and by some studies, should not be ignored. These include: crowding out the influence of FDI, negative wage spillovers, repatriation of profits, dual economic impact, and environmental issues.

The processes by which FDI can have a beneficial impact on economic development can be classified into five main groups: the transfer of new technologies and know-how, formation of the human resources, integration into the global economy, increased competition in the host country, and firm's development and restructuring (OECD 2002). In addition, FDI can cause difficulties in implementing economic policies.

FDI EFFECT ON HOST COUNTRY	IMPACT	
	POSITIVE	NEGATIVE
Transfer of new technologies and know-how	X	X
Human resource formation	X	X
Integration into global economy	X	X
Increased competition	X	X
Firm's development and restructuring	X	
Difficulty in implementing economic policies		X

Table 1: IMPACT OF FDI ON HOST COUNTRY, OECD (2002)

1.3.1 TRANSFER OF NEW TECHNOLOGIES AND KNOW-HOW

Multinational enterprises are responsible for nearly half of the world's research and development expenditure (Borensztein et al.,1998), and are seen as also as a major source of technology dispersion owing to their existence in various parts of the world (Ford et al. 2008). For this reason, MNEs are often seen as more technologically advanced or developed firms. Lim (2001) argues that one of FDI's most significant achievements is its role in the transition of technologies from developed to developing countries. The country's growth rate can be demonstrated by the state-of-the-art technology it uses. In developing countries, economic growth relies on the introduction of more advanced technology by multinationals (Borensztein et al.,

1998). These new technologies are transferred in the form of training, technological assistance and other knowledge provided in order to improve production quality and quantity of products that the multinational purchases, provide support to their local suppliers in purchasing raw materials and intermediate products, and even in the improvement of its facilities.

However, the host country may become dependent on technologies introduced by multinationals which leads to the decline in local firms' interest in the development and production of new technologies (Vissak and Roolaht 2005). Multinationals may have an adverse reaction to host country research or transfer inappropriate technologies in order to maintain a technological advantage over local firms (Sen 1998). In these conditions, the reliance of the host country on foreign technologies will be perpetuated.

1.3.2 HUMAN RESOURCE FORMATION

FDI facilitates economic development in the host country by growing the productive capacity due to the enhancement of the workforce. This is achieved by providing training through the introduction of new methods, and production and management practices (De Mello, 1999). Due to the fact that FDI is a mechanism for the introduction of emerging technologies in the developing nation, it is important for the workforce to be able to utilize these technologies.

The use of high technology by multinational companies contributes to a forecast of the need for fewer workers than that used by local firms, and the likelihood of replacing such firms with fewer workers, contributing to a consequent increase in unemployment (OECD, 2002). Ford et al. (2008), also points out that since some host countries consider MNEs as a source of training, the host country increases the level of education in the country while reducing public spending on training. This results in workers with high education leaving the country, since there are no R&D activities that they can engage in the host country (Vissak and Roolaht, 2005).

1.3.3 INTEGRATION INTO GLOBAL ECONOMY

Blomström and Kokko (1998) clarify that the entry of local firms into the global market is also achieved by copying and acquiring knowledge retained by multinational companies. It is clear that multinationals have a higher level of internationalization knowledge because they have already gone through this process. Among the main competitive advantages held by multinationals are the experience in marketing, networking and the formation and growth of foreign lobbies. Connection or contact with a multinational or global brand is also useful in order to use the same networks as those already developed on the international market (Zhang, 2001a). Ford et al. (2008), suggest that multinationals prefer to include their suppliers in the international networks to which they belong, so that local firms are engaged in global trade by forming links with other international organizations. The OECD (2002)'s study refers to the trade associations, as significant sources to pass knowledge about the world market, because they are a centre for exchange of relevant experiences.

However, the continued integration into the global economy may have negative effects on the host country. Vissak and Roolaht (2005) note that FDI is the easiest cause of widespread economic problems that have occurred in the world, especially in multinational countries of origin. Host countries become more open economies and are more likely to undergo changes in the global economy. Ram and Zhang (2002) and Duttaray et. al (2008) show that the negative impact caused by the emptying of capital in the host country due to the repatriation of profits is higher than the positive impact of the initial investment. The negative impacts caused by these capital outflows can be extended if these funds are obtained through loans or credits received in the host country (Loungani and Razin, 2001).

1.3.4 INCREASED COMPETITION

Due to the competition it creates, FDI plays an important role in improving the factors of production and accumulation of capital in the host country (Lee and Tcha, 2004).

The entry of multinationals increases the supply in the host country market, so that local firms are encouraged to respond to this competition in order to maintain their

market shares. This results in an increase in productivity, lower prices and a more efficient allocation of resources (Pessoa, 2007). Increased competition leads to an increase in R&D expenditure by local firms and, in some cases, local firms benefit from the improvements made in order to gain more market share and also become multinational suppliers (Blomström and Kokko, 1998).

However, the increased competition caused by FDI does not only have positive effects on the host country. In fact, in a highly protected market situation, the multinationals already present will use their influence with the authorities to ensure that this situation does not change. In this way, multinationals maintain their market position, and do not experience an increase in host country capacity and therefore supply. This will maintain the use of existing resources and will not promote development through increased competition (Loungani and Razin 2001). This leads inevitably to the closure of some local firms that cannot follow the multinational firms due to the advantages multinationals have, and in turn these closures lead to increased concentration in the sector and decreased competition. Finally, another effect, recorded in a number of studies, caused by competition is access to credit due to the fact that multinationals tend to be partly financed by the financial markets in which local access do not have access to. Also, multinationals have an easier access to loans or credits in the host country as compared to local firms. The competition for funding as a result of low bargaining power with financial institutions consequently leads to the closure of local firms due to their inability to invest in developments of their firms.

1.3.5 FIRM'S DEVELOPMENT AND RESTRUCTURING

FDI is a source of change for host country firms. Two situations are identified in which local firms feel these changes in particular. Due to its superior capabilities, multinationals are in a position to enter into sectors with high entry barriers, in terms of local firms. The entry will reduce or eliminate existing monopolies in these sectors, which will change the structure of the national economy (Blomström and Kokko, 1998). The second situation is in the case of FDI being achieved by takeover or by a process of privatization (OECD,2002). Multinationals force their policies and

procedures to be adopted in the firms they acquire, and these measures are usually complemented by the incorporation of workers from other subsidiaries of the multinational head office. Changes are important if the practices used by the multinational are more efficient than the existing ones, which will generate efficiency gains. The structuring of local firms is also subject to change by copying the structures used by multinationals considered to be more efficient (Hansen and Rand, 2006).

1.3.6 DIFFICULTY IN IMPLEMENTING ECONOMIC POLICIES

FDI inflows are sources of uncertainty due to the difficulty or even impossibility of predicting such flows (Vissak and Roolaht, 2005). This may destabilize the economic development of the country and hinder the implementation of the economic policies sought by local authorities (Sen, 1998; Vissak and Roolaht, 2005). Another adverse effect for the host country economy happens when capital inflows are sudden and strong, because the proportion of that inflow is likely to increase inflation (Sen, 1998). Another negative consequence of FDI in the host country is a reduction in the autonomy of local authorities (Duttaray et al., 2008). Large multinationals have power over assets and jobs, allowing them to influence the political and economic decisions of the host country authority (Zhang 2001b). Due to the size of multinationals and their impact on local economies, their strategic decisions will lead to significant changes in the host country, irrespective of the strategies of local authorities, and could even be counter to the desired national policies (OECD, 2002).

As explained in the previous subsections, theoretically it is clear there is an existence of benefits and costs for the host country economic growth caused by FDI. Generally, it is acknowledged that the positive impact of FDI on host countries ' economic growth depends on certain factors that exist or do not exist in those countries, such as human capital, the trading system, the degree of openness of the economy (Chowdhury and Mavrotas, 2003), economic and technological conditions (Hansen and Rand, 2006), legislation and political stability (Asheghian, 2004).

2 GENERAL FDI TRENDS

2.1 FDI GLOBAL TRENDS

2.1.1 FDI BEFORE THE 2007 FINANCIAL CRISIS

FDI stocks, measured as a percentage of GDP, did not grow significantly due to the complex political tensions that lasted from the Second World War to the Cold War, and the uneven and uncontrollable economic climate. The general vision for FDI was therefore rather negative, and FDIs were thought to be unhelpful to target countries (Te Velde and UNCTAD, 2006). Global FDI volume took off since the mid-1980s registering an exponential increase from $200bln to $1400bln between the 1990s and 2000s, with developing countries as the highest beneficiaries of FDI flows.

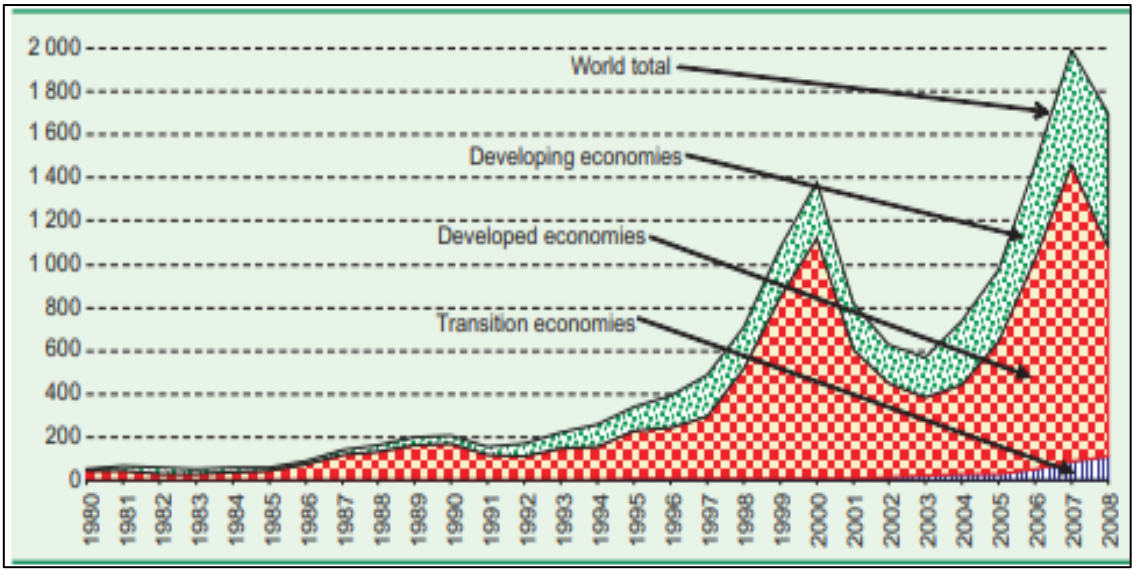

Figure 2: FDI inflows, global and by groups of economies. (Source: UNCTAD, 2009)

The financial crisis of 2007-2008 devastated international activity, especially for developed economies. The global financial crisis led to the collapse of foreign direct investment flows worldwide. After reaching a new historical record in 2007 of 2 trillion dollars as a result of four years of continuous growth, foreign direct investment fell by 14% globally in 2008 (UNCTAD 2009). Pre-and post-crisis (2007-2009) values corresponded to a 40% decrease in FDI inflows for developed economies, and only 6% overall for developing and transition economies (UNCTAD, 2008; UNCTAD, 2010).

2.1.2 FDI POST 2007 CRISIS TO PRESENT

Figure 3 graphically represents the trends of FDI inflows post financial crisis. The total value of FDI in 2018 was $ 1.3 trillion (UNCTAD, 2019*).* FDI flows declined sharply in developed and transition economies while those to developing countries remained stable, rising by 2%. As a result, developing economies accounted for a growing share of global FDI, at 54% in 2018, from 46% in 2017 (UNCTAD, 2019). FDI flows showed stable trends with the exception of the recession which started in 2014 due to a fragile global economy, uncertainty in policies for investors and increased geopolitical risks (UNCTAD, 2015). The decline from 2015 to 2018 can be attributed to weak economic growth and significant policy risks, as perceived by multinational enterprises, decrease in the value of cross-border mergers and acquisitions (M&As) and most recently due to high number of repatriations of accumulated foreign earnings by United States multinational enterprises (MNEs) following tax reforms introduced at the end of 2017 (UNCTAD: 2016,2017,2018,2019)

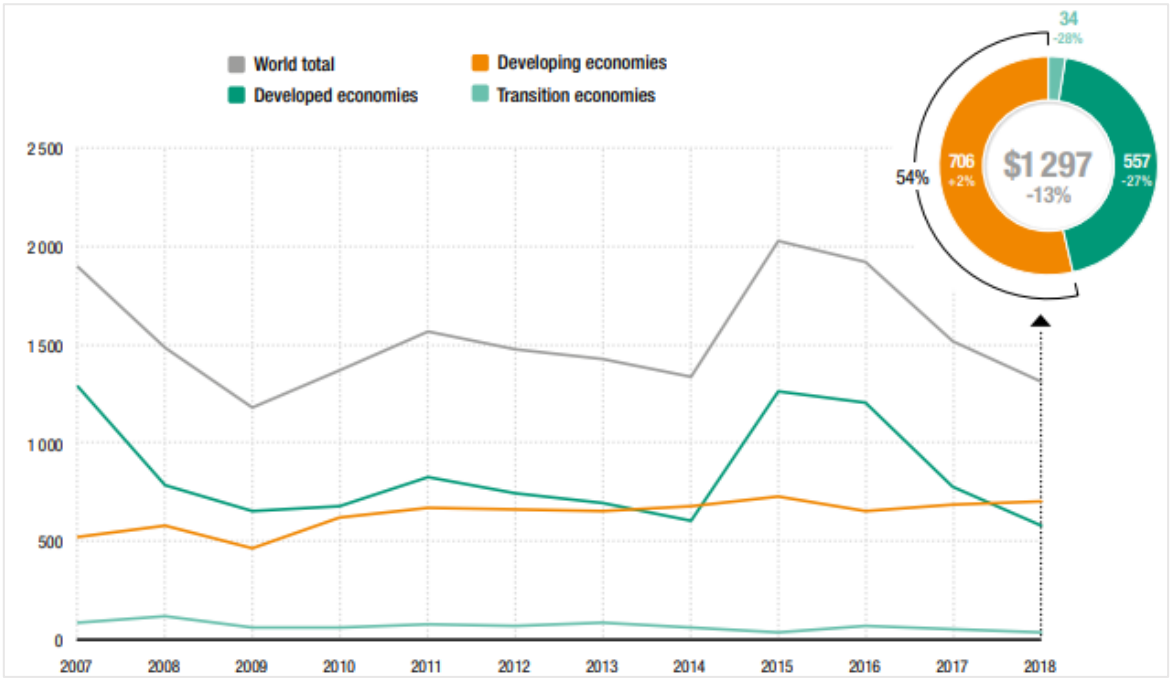

Figure 3: FDI inflows, global and by group of economies, 2007–2018 (Billions of dollars and per cent); Source: UNCTAD 2019)

2.2 FDI TRENDS IN AFRICA

Africa has never been a major recipient of FDI flows, so it lags behind other regions of the world when it comes to attracting FDI. This is due to the fact that the African continent has not taken adequate advantage of the opportunities to launch a solid industrialization process (Chen et al., 2015). The weakness of industrialization in Africa is evidenced by the trends in FDI flows. Since 1990, there has been a significant increase in FDI flows in Africa, which is similar to the rest of the developed economies (*see Figures 4 and 5*). The general decline in the years 2009-2012 is partly explained by the political upheaval in North Africa (UNCTAD; 2012).

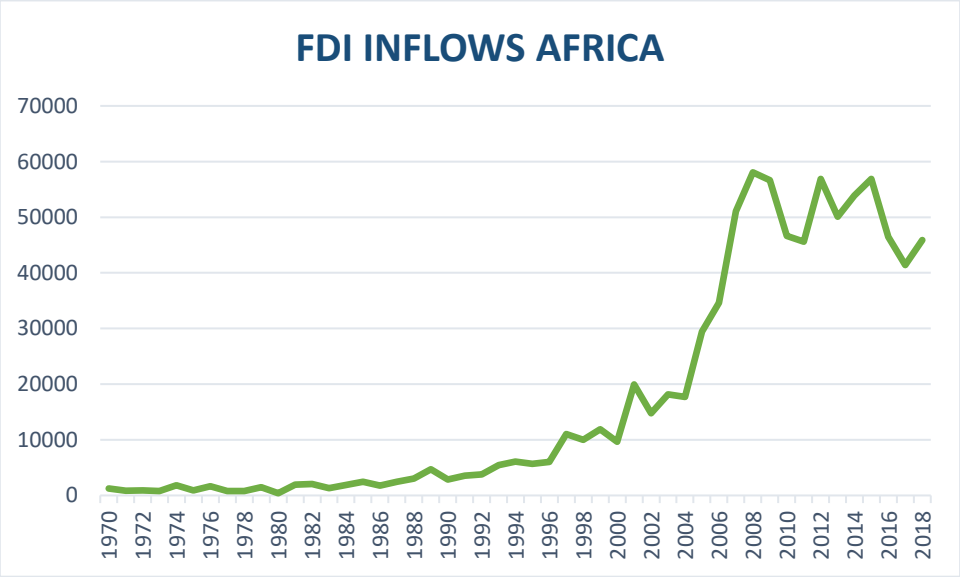

Figure 4: FDI inflows (millions of dollars) from 1990 to 2018 – Africa Source: Unctad Statistics Database

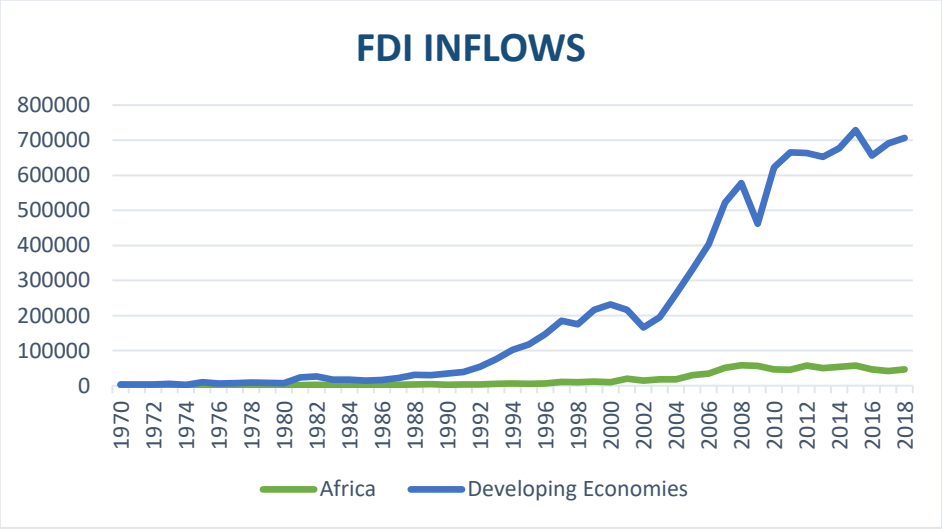

Figure 5: FDI inflows (millions of dollars) from 1990 to 2018 - Africa and Developing Economies

According to the world investment report of 2019, Africa accounted for 3.5% of the global share of FDI inflows in 2018, up from 2.9% from the previous year. FDI flows to Africa in 2018 defied the global downward trend and rose to US$46 billion, an increase of 11% from the previous year, following successive declines in 2016 and 2017. Increasing demand and prices for some commodities and sustained non-resource-seeking investments were largely responsible for higher FDI flows to the continent (UNCTAD 2019). *Figure 6 shows the top 10 investor Economies by FDI stock in Africa.*

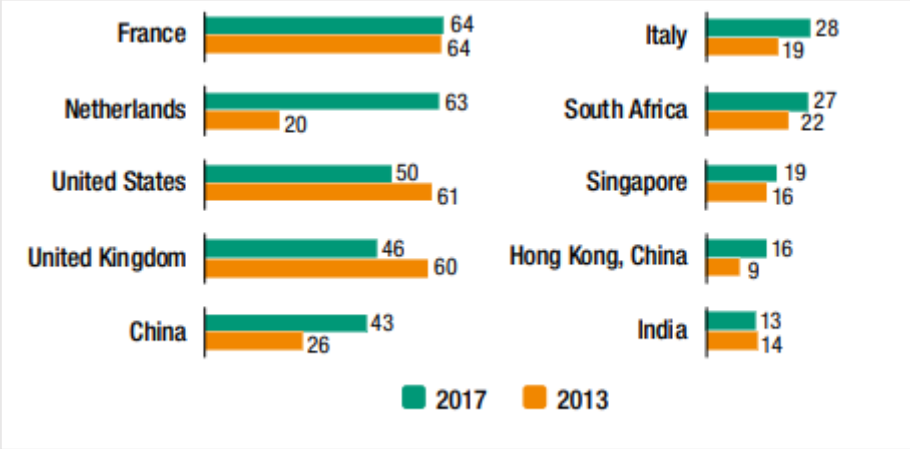

Figure 6: Top 10 investor economies by FDI stock, 2013 and 2017 (Billions of dollars); Source: UNCTAD 2019.

The key regions attracting FDI in Africa according to the EY Africa attractiveness report of 2019 is shown in *figure 7,* North Africa accounting for the largest share of FDI inflows in the region, followed by Southern, East and finally West Africa.

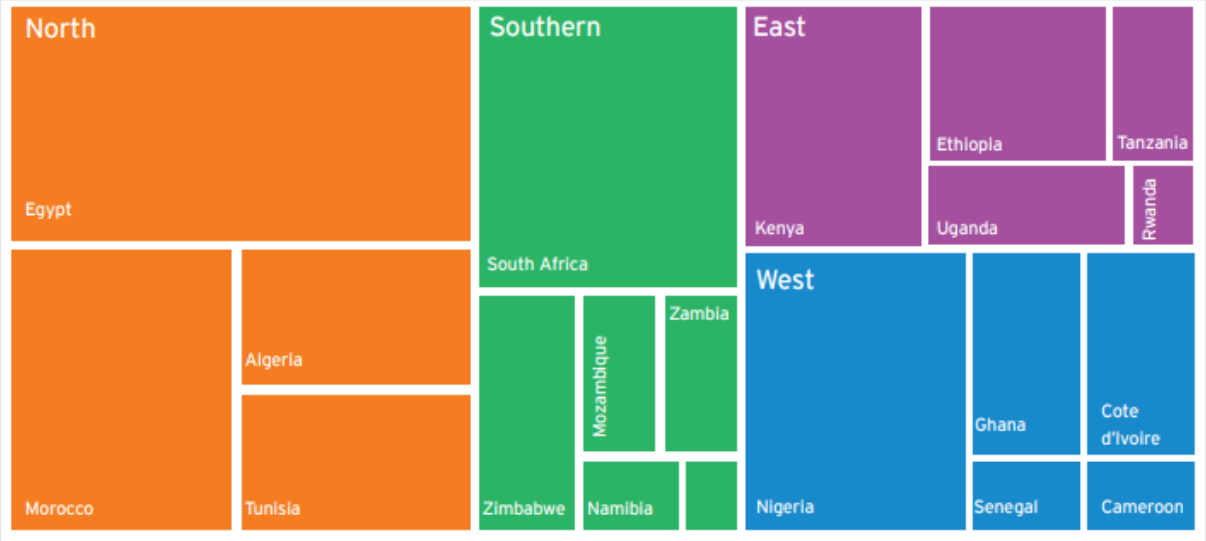

Figure 7: Regional FDI based on 3 criteria (projects, jobs and capital), Source: EY Attractiveness 2019

3 GHANA: AN OVERVIEW

This section gives general information about Ghana and highlight the economic structures in the country.

3.1 GHANA AT A GLANCE

Ghana is a democratic country located on the west coast of Africa with an estimated population of about 29.7 million (in 2018). It was the first sub-Saharan African country to become independent of British colonial rule in 1957. Ghana is consistently ranked among the top three countries in Africa in terms of freedom of speech and freedom of the press. Government changes in the four-year election cycles have been noted to impede long-term planning for development.

The continent of Africa is made up of two main regions: North Africa and Sub-Saharan Africa (SSA). The six northern states–Algeria, Djibouti, Egypt, Libya, Morocco, Tunisia and Tunisia–are part of the MENA "Middle East and North Africa" geographical zone due to the greater similarity in cultures, faith and culture with the countries of the Middle East. "Sub-Saharan Africa" (SSA) is referred to as the remaining 48 states situated in the Southern Sahara Desert of which Ghana is included. In the period from 2008 to 2018, the average annual population growth rate of Ghana was around 2.4%, compared to 2.7% in SSA.

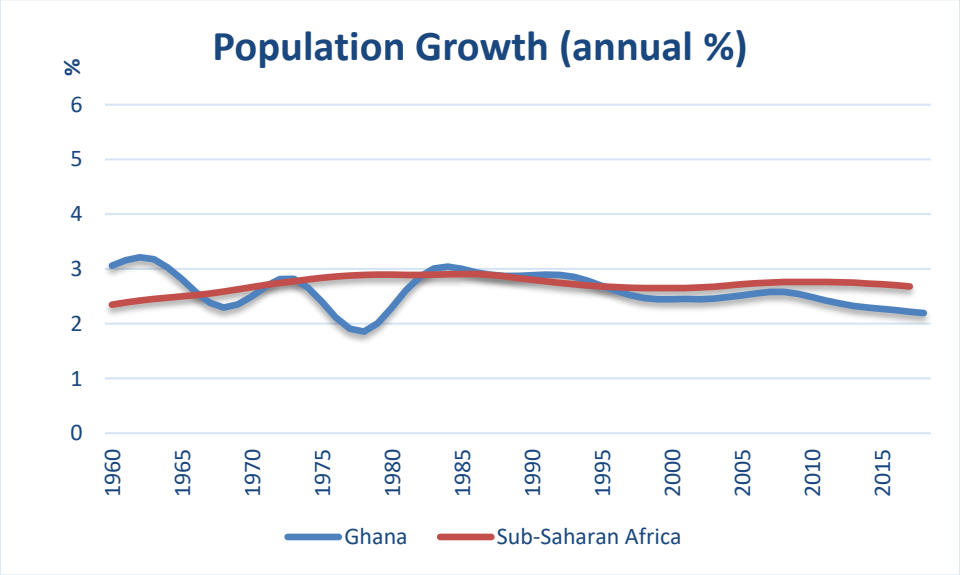

Figure 8:Population growth (annual %) - Ghana, Sub-Saharan Africa. (Source: World bank 2018)

Gross domestic product of the sub-Saharan African region amounted to US$1.71 trillion in 2018 with Ghana contributing US$65.556 billion (World Bank data). *Figure 9* depicts the trend of GDP for Ghana and its contribution to the total GDP of the region. It is quite evident that Ghana's contribution to the GDP of the region is not as much compared to the top contributors.

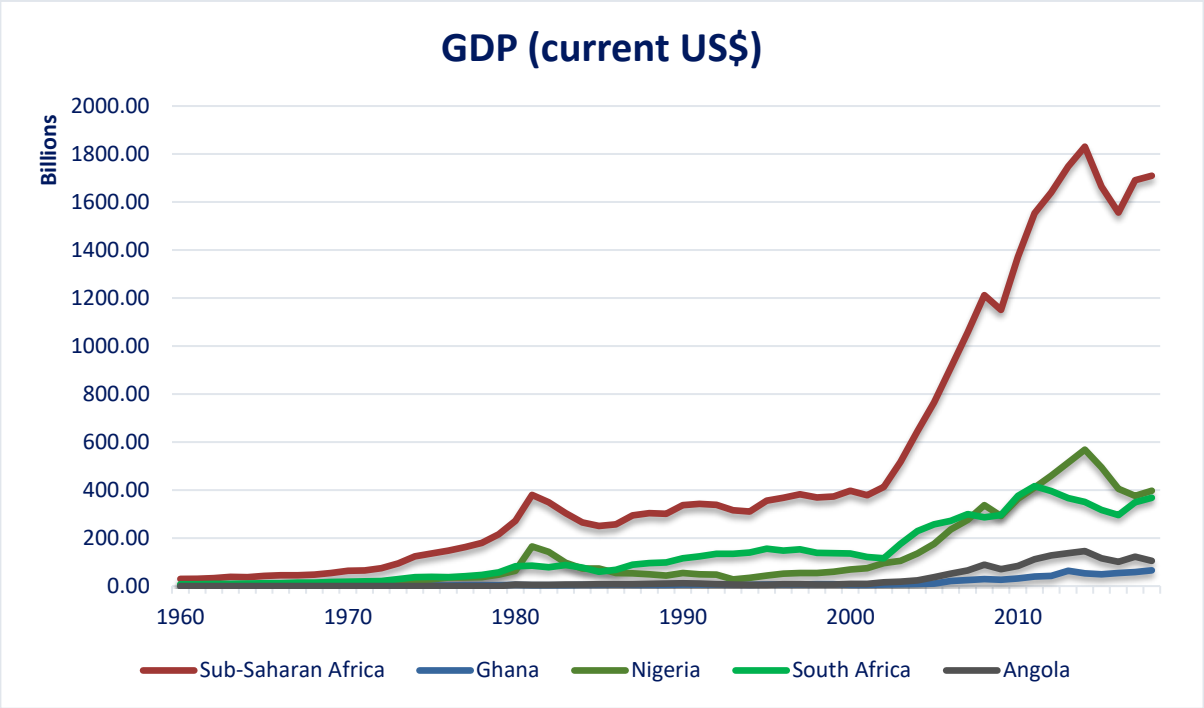

Figure 9:GDP (current US$, billions), Ghana Comparison, from 1960-2018, Source: World Bank Data.

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In view of population growth trends, GDP per capita (and its growth rate) is an important indicator of economic growth. The latest figures published by the World Bank (2018) show that the average GDP per capita in current US dollars for the Sub-Saharan Africa region is $1,642 while that of Ghana was $1729 (*obtained from world bank database average function with chosen period of 2008-2018*).

3.2 ECONOMY OVERVIEW

3.2.1 ECONOMIC GROWTH

Real GDP growth is a key indicator of a country's macroeconomic efficiency. Ghana's growth record was somewhat volatile and on average before the mid-1980s. This was a result of weak policy decisions and missed opportunities (Killick, 2010). Many years of negative growth coincided with a time of extreme political turmoil and external

shocks. The first negative growth occurred a year after the first military coup in 1966, while the period 1972, 1979 and 1981-1982 coincided with military intervention. The lowest negative growth of 12.9% occurred in 1975 following a weak response to the oil price shock of 1973 (*see figure 10*), as Ghana was unable to enter foreign capital markets to find bridge funding for domestic spending. Misleading economic policies in the form of inflationary financing and domestic borrowing have also been blamed for the negative growth reported in the 1970s and early 1980s. The extreme drought in the early 1980s, and what economic historians point out to the return of some one million Ghanaians from Nigeria, added stress to the already overburdened economy (Alagidede et al., 2013). Nevertheless, this trend of growth shifted from the mid-1980s when Ghana began implementing the Economic Recovery Program (ERP).

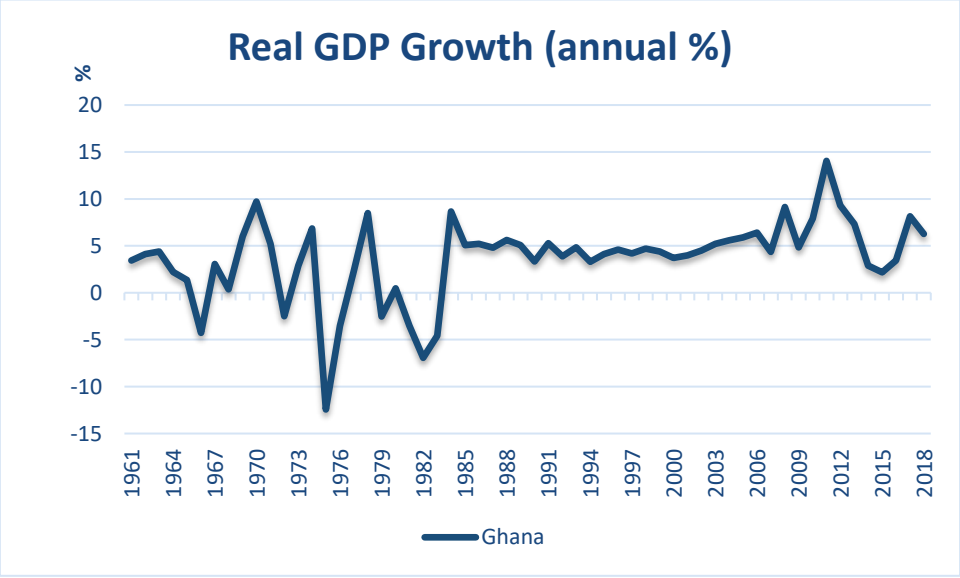

Figure 10: Real GDP Growth, Ghana-1961-2018, Source: World Bank

The liberal economic policies under the sponsorship of the World Bank and the International Monetary Fund (IMF) targeted the correcting of a number of structural imbalances to ensure a sustained healthy economic growth and coupled with aid inflows contributed to high levels of public spending mostly on infrastructure such as roads, schools and hospitals. The response of the economy to the paradigm change from state regulation to liberalized economic governance was highly positive, with a strong growth rate of 8.6% in 1984 and has since continued after 1984 and picking up strongly in 2001. The decline in GDP growth from 2011 to 2015 is attributed to the

fiscal crisis which began with a dramatic increase in the budget deficit in 2012. The deficit was due to government interest payments, which ballooned as the government debt, mostly issued domestically, grew and interest rates increased (Younger, 2016). After two years of slow growth from 2014 to 2016 (*see figure 10*), real GDP growth recovered to 8.5% in 2017 and was expected to be 6.2% in 2018, driven mainly by the oil sector boom (African Economic Outlook,2019). The World Bank classifies a country with per capita Gross National Income (GNI) (a metric that is equivalent to GDP) from US$ 976 to US$ 11,905 as a middle-income economy. On this basis, Ghana became a middle-income nation in 2007, when the re-based[1] per capita GDP of US$ 1,100 fell within this range for the first time.

3.2.2 RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

According to the world bank estimates, Ghana's economy continued to expand in 2019 as the first quarter gross domestic product (GDP) growth was estimated at 6.7%, compared with 5.4% in the same period of last year. The relatively high quarterly growth was driven by a strong recovery in the services sector. Ghana's economy continued its expansion in 2019, with real GDP growth projected at 7.1%. High growth momentum since 2017 has consistently made Ghana one of Africa's 10 fastest-growing economies (African Economic Outlook,2020). Under high debt and low public and private savings, the government's main recourse for financing its economic transformation agenda is foreign direct investment. Such financing would require increased focus on sustaining achievements in macroeconomic stability and the business environment. Complementing these gains with enhanced domestic revenue mobilization would expedite the path to debt sustainability and increase fiscal space for further government capital and social spending.

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1 The accuracy and comparability of national accounts figures across countries depends on timely revisions to GDP data and its components. These revisions are typically limited and are based on additional knowledge provided during the year. Nonetheless, in some cases, substantial revisions are required due to new methodologies and improvements to the base year. The new base year will reflect the regular functioning of the economy— it should be a year without significant shocks or anomalies. (World Bank Definition).

3.2.3 SECTORAL COMPOSITION OF GDP IN GHANA

The trend of economic growth in Ghana has varied considerably across industries, with the agricultural sector traditionally being a major sector of the Ghanaian economy contributing to GDP, exports and employment. The pattern of change in the contribution of the various sectors to GDP can be clearly seen in *fig. 11*. In particular, the rise in the share of the service sector in GDP since the early 1990s can be discerned from the chart. Within the services sector, significant gains have been made in transport storage and communications, wholesale, retail, restaurants and hotels, and finance insurance, real estate and business services in that order. These sub-sectors have helped to increase the importance of the services sector. Also, the share of industry decreased over the years despite record gold prices over the last few years, but the start of oil production in commercial quantities in 2011 contributed to the increase in the share of the industry sector (Osei, 2012).

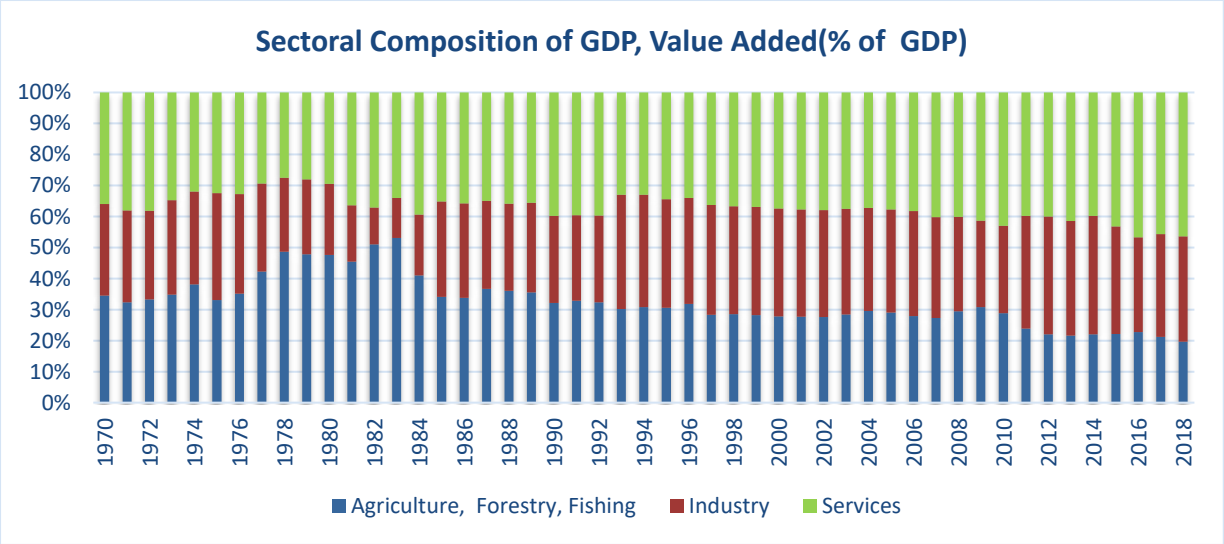

Figure 11: Sectoral Composition of GDP (% of GDP), Source: UNCTADSTAT; World Bank Database

3.2.4 LABOUR and EMPLOYMENT

3.2.4.1 LABOUR FORCE

Labour market developments generally reflect activities in the real economic sector. There is, however, evidence that Ghana's employment growth has not kept pace with economic growth. The total labour force in 2019 was estimated to be 12,844,477. The

employment-to-population ratio[2] has decreased over time as is evidenced in *figure 11,* although more than half (62.8%,) of the working age population are in employment.

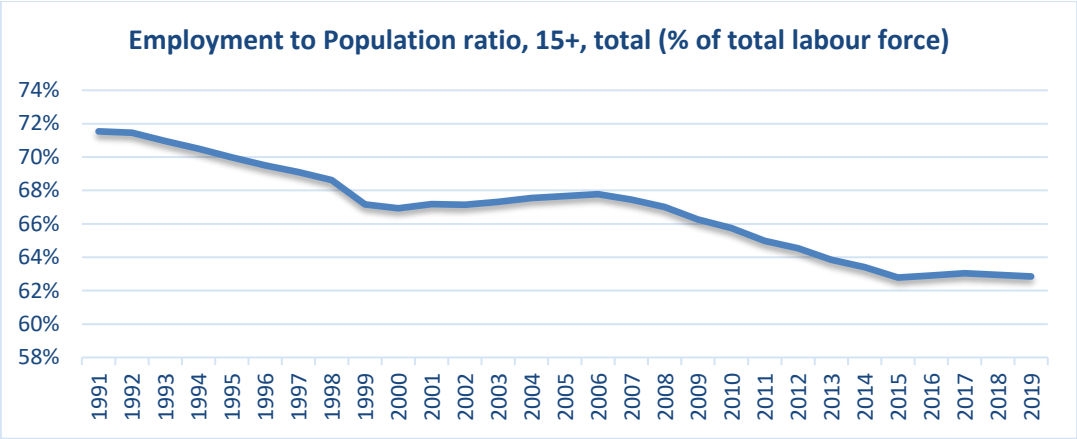

Figure 12: Employment to population ratio, ILO Estimate, Source: World bank Database

In 2019, unemployment rate[3] for Ghana was 6.78 %. Before the rate started to increase to reach a level of 6.78 % in 2019, it went through a trough reaching a low of 4.6 % in 2007 from a high of 10.35% in 2000. The slow employment growth can be attributed to the limited capacity of the Ghanaian economy to provide adequate employment for the increasing working age population (Alagidede et al., 2013).

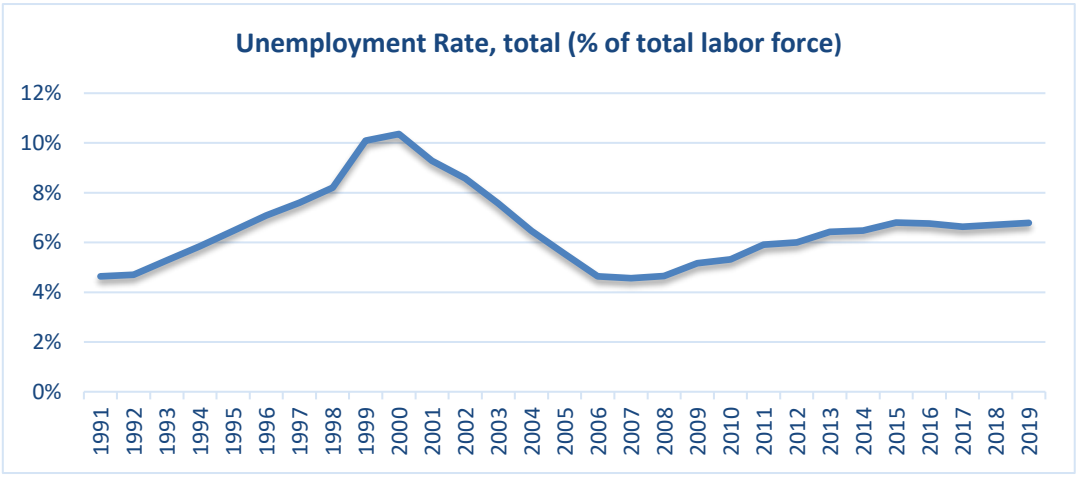

Figure 13: Unemployment Ratio, ILO Estimate, Source: World Bank Database

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2 Employment to population ratio is the proportion of a country's population that is employed. Employment is defined as persons of working age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit, whether at work during the reference or not at work due to temporary absence from a job, or to working-time arrangements. Ages 15 and older are generally considered the working-age population (International Labour Organization (**ILO**) DEFINITION).

3 Unemployment Rate refers to the share of the labour force that is without work but available for and seeking employment.

3.2.4.2 EMPLOYMENT BY SECTOR

Historically, the agriculture sector has been the major employer of the labour force. However, since the early 1990s, the service sector became the most important sector in the country which resulted in the shift in sectoral dominance from agriculture to services. As stated in the section of sectoral composition of Ghana's GDP, the growth in the services sector is largely due to the big increases in the transport storage and communications, wholesale, retail trade, restaurants and hotels, and finance insurance, real estate and business services. The industry sector largely remained unchanged but with a slight increase from 2014 which can be attributed to increases in construction, electricity and water, and mining (Osei,2012).

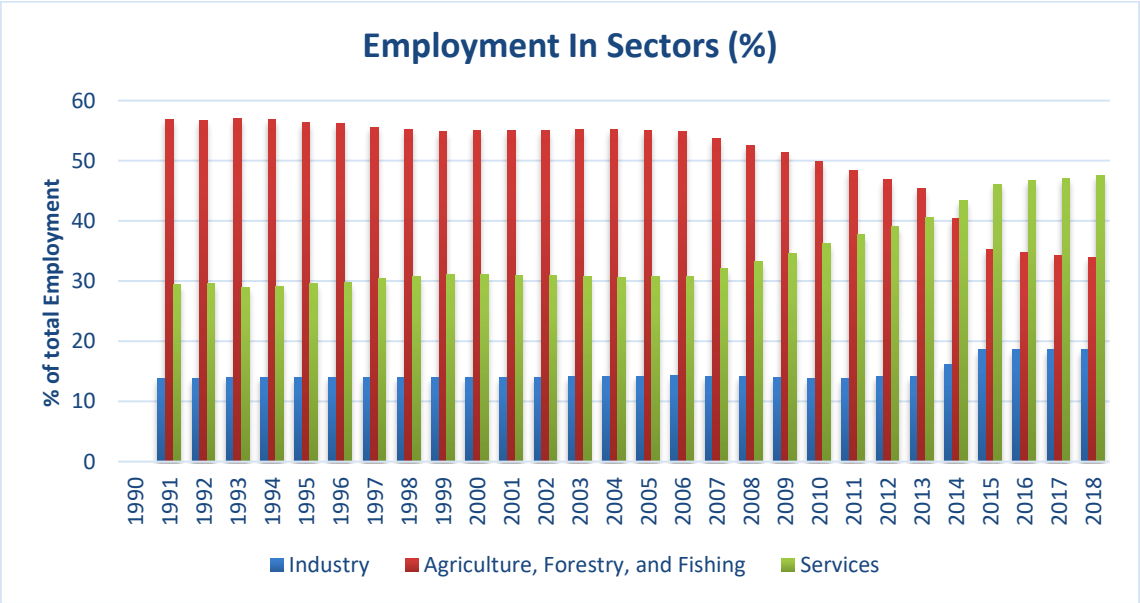

Figure 14: Employment by sector, Source: World bank database

3.3 INVESTMENT IN GHANA

The data for this section is information which has been obtained from the Ghana Investment Promotion Centre (GIPC), a governmental organization responsible for investment activities in Ghana.

3.3.1 INVESTMENT SECTORS

3.3.1.1 AGRICULTURE and AGRO-PROCESSING

Agriculture (forestry and fishing sectors included), is an important contributor to Ghana's export earnings, a key source of input for the manufacturing sector, a potential source of employment and the improvement in the country's GDP growth

rate. Ghana is currently exporting excess maize, sorghum, cowpea, plantain and yam to Burkina Faso and Cote d'Ivoire. The Government is also implementing the Rearing for Food and Jobs programme to facilitate growth in the livestock sector.

- **Investments Opportunities**
    - **Production**: agro-chemicals, agricultural products, fish farming, processing of some agricultural produce, establishment of pulp paper and panel industries and wood plantations.
    - **Technological and Supporting Services:** Provision of farming equipment and machinery, field and laboratory equipment for quality assurance, agro-processing and packaging equipment or plants, suppliers and financiers of factory building technology, technological and consulting services and research and agriculture development services
    - **Marketing and Distribution:** Post-production services (transport, packaging, storage facilities and cold vans), distribution of agricultural products and agro-chemicals and marketing processed foods in international markets.

3.3.1.2 ENERGY

The objective of government policy in the energy and oil sector in Ghana is to push for a significant increase in its energy resources to become a net exporter of both power and fuel. The sector is divided into two main sub-sectors; the Oil and Gas and Power sub-sectors.

1. **Oil and Gas Sub-Sector**

   This sector involves upstream and downstream activities. Upstream activities include the exploration, development, processing, procurement and refining of crude oil, and downstream activities include the processing, distribution and selling of petroleum products and the pre-mixing of petroleum products for industrial purposes. The distribution of petroleum products in Ghana is dominated by

multinational oil companies. The number of oil marketing companies has increased to include several local companies after the government's deregulation policy.

- **Investments Opportunities:**
    - Upstream**:** geophysical prospecting, geochemical and geographical studies, geochemistry, reservoir engineering and equipment supply.
    - Downstream**:** Opportunities within the sector are related to the refining, storage, marketing, distribution and transport of petroleum products.
    - Gas Sector**:** Production, transmission, distribution of Natural Gas

2. Power Sub-Sector

The focus of this subsector is on expanding energy production to meet the needs of consumers of electricity and ensuring the extension of electricity to all areas of the country. The power sub-sector includes the generation, transmission and distribution of electrical energy for industrial, commercial and domestic.

- **Investments Opportunities:**

  Identification and development of renewable energy sources to boost energy supply in Ghana.

3.3.1.3 FINANCIAL SERVICES

The financial services industry is dominated by the banking sector, although insurance, pension and capital markets have recently emerged as a result of past reforms in the financial sector. The implementation of the Financial Sector Strategic Plan (FINSSP) in 2003 promoted the development of various financial sector institutions that have emerged to meet the diverse financial needs of the population. The operating financial intermediaries include major foreign and local banks, Rural and Community Banks (RCBs), Savings and Loans Companies (SLCs) and other finance and leasing companies.

- **Investments Opportunities:**

  universal banks, development banks, insurance companies, mortgage finance institutions, leasing companies, venture capital companies, hire

purchase companies, export finance companies ,investment banks, mutual funds, investment trusts and savings and loans companies

3.3.1.4 PROPERTY DEVELOPMENT

This sector is on the rise, benefitting from increased demand for residential and office accommodation, as well as hospitality services reflecting the growth of the middle-income class. Ghana's property development sector is divided into three (3) areas: *Public Sector Real Estate Development*; *Private Sector Real Estate Development* and *Private individuals*, and are facilitated by the banks and the primary mortgage market. The Real Estate industry is however dominated mainly by residential construction firms and private individuals, commercial real estate developers and property management companies.

- **Investment Opportunities:**
  - Residential (low cost housing, high rise luxury apartments, retirement villages)
  - Industrial (light industrial parks, warehousing facilities)
  - Commercial (regional shopping centres, office accommodation, storage)
  - Production and marketing of construction equipment and building materials

3.3.1.5 SERVICE SECTOR

1. Health Service

The health sector in Ghana is structured at three key levels: national, regional and regional. Health services are bundled at each level and are distributed to the respective clinics and hospitals. The health industry comprises all firms(both public and private) directly involved in the production and promotion of health care. The sector incorporates prevention, promotion and curative services and is overseen by the Ministry of Health as the policy guardian for the quality and fairness of access to the health services. It also manages the human resources.

- **Investment Opportunities**

- Medical education and training
- Infrastructural projects: Construction of hospitals and clinics.
- Diagnostic and laboratory facilities and referrals (histopathology)
- Drugs Drug procurement and pharmaceutical supplies management.
- Quality assurance at port of entry, Healthcare Equipment, ICT Hospital management, Hospital waste management, Emergency response and Ambulance services, Rehabilitation and physiotherapy centres, Dialysis centres, Multidisciplinary cancer treatment centres, Services for maintenance and repairs of medical equipment.

2. Tourism and Hospitality

In recent years, Ghana's tourism sector has seen significant investments in projects and programs designed to increase investment, improve existing infrastructure and also increase the number of tourist visits, both domestic and foreign. Over the last four years, the sector has attracted more than US$ 600 million in investment and continues to be the 5th largest foreign exchange earner in Ghana. The Ministry of Tourism has developed a four-year tourism development programme to strengthen the tourism enabling environment, develop tourist sites and destinations as well as to provide support to tourism enterprises.

- **Investment opportunities**

a. The establishment of 4-5 star hotels, restaurants and beach resorts in the marine drive enclave, a 241-acre development.
b. The Akwaaba Hotels project, an initiative of the Ministry of Tourism to build and operate quality and affordable accommodation in tourist sites.
c. 3-5 star hotels in major cities and tourist sites are in demand.
d. Specialized tourism companies to develop and operate packages such as adventure tourism, eco-tourism, culture tourism and heritage tourism.

3.3.1.6 MANUFACTURING

The Ghanaian economy is made up of three main sectors; they are agriculture, industry and services sectors. The industrial sector comprises of manufacturing, mining and quarrying, utility services and construction). The manufacturing sector is a subsector of Industry which is further divided into two sub sectors (i.e. heavy manufacturing and light manufacturing).

1. **Heavy Manufacturing**
   a. **Metal Production**: aluminium, iron and steel, and fabricated metal sectors. **Investment opportunities:**
      - development of nucleus foundry making precision castings,
      - mining of iron ore to supply the existing steel mills
      - production of sponge iron for mills and production of steel products.
   b. **Chemicals**: the chemical industry produces basic chemicals, petrochemicals, fertilizers, paints, gases, pharmaceuticals and dyes.
   c. **Construction**: the government is the major sponsor of infrastructure projects (building and construction) and dominates the sector. Foreign firms dominate the industry due to their size, capacity and technical expertise, which is well suited to large-scale projects such as major road construction and infrastructure projects. Local construction companies are mostly medium or small in size.
   d. **Cement and Quarrying:** rapid growth of the construction sector has led to increasing demand for cement over the past decade.
2. **LIGHT MANUFACTURING**
   2.1. Pharmaceuticals
   The sector is made up of approximately 30% locally produced products and 70% imported products; the latter originating mainly from India and China. Ghana serves as the regional hub for pharmaceutical manufacturing and distribution to the over 300 million people who live within the Economic Community of West African States (ECOWAS).
   Investment opportunities:

- drug manufacturing
- provision of modern family-planning services
- manufacture of medical equipment and sundries
- processing of herbal medicines.
- production of vaccines, antibiotics and vitamins.

2.2. Wood Processing

The downstream segment of the wood industry (furniture production) is dominated by small enterprises that lack the capacity to produce export-grade furniture or to achieve the large volumes required to serve international markets. The formal sector produces a wide range of wood products and furniture parts for export with only a fraction of its products sold on the local market. The main sources of local demand for wood are the furniture and construction industries, which account for 75% and 24%, respectively, of the market.

Investment opportunities:

- Finished and semi-finished furniture and components
- Kiln dried rough or machined lumber
- Upgrading current plant and equipment, improving management practices, and increasing the range of products offered.

2.3. Textiles

This sector creates jobs for people in the rural areas and generates revenue and income for both government and persons involved in the weaving and production of textile products. The sector has shown signs of potential growth prospects by promoting high-quality, traditionally designed fabrics such as' Made in Ghana' to niche markets, in particular the US. Today, Ghana's textile industry includes vertically integrated mills, horizontal weaving mills and traditional textile manufacturing firms involved in spinning, hand-weaving and textile manufacturing.

Investment opportunities:

- Marketing and Distribution
- Supply of raw materials

- Technological and Supporting Services
- Suppliers and financiers of factory building technology.

3.3.1.7 ICT SECTOR

This sector is a crucial agent in the development agenda in the country. Telecommunication services are needed for information delivery where access to roads and power is non-existent. There are considerable investment opportunities in the ICT sector due to the lack of ICT Facilities and Infrastructure on a broad scale across the nation.

Investment opportunities:

- Extension of the broadband network to reach the whole country
- Technological and other support related services such as the supply of quality and high-tech telecommunications equipment, ICT Equipment and Office and Network Equipment.
- Education in the area of software development, networking, VSAT, telecommunication and IT Engineering
- Production of Business Solution (software and networking services)
- Business Processing Outsourcing
- Back Office Operations (especially for the Financial Institutions)
- Provision of Broadband Facilities and Services, VSAT services
- Transaction Processing
- Manufacturing, assembling and supply of computers and accessories
- E-commerce and Legal Database Services
- Logistics Management and Medical Transcription Services

3.3.1.8 MINING SECTOR

Ghana is globally renowned for four valuable mineral resources (gold, diamond, manganese and bauxite) which represent an important portion of the economy.

Investment opportunities in this sector are in two main areas: exploitation or production and industrial processes.

Investment opportunities:

- industrial minerals for both local and international consumption
- Applications/processing of industrial minerals
- Companies to set up refinery facilities to serve the local industry for value-added products.
- Companies to produce clinker for the mining industry
- Companies to exploit the extensive deposit of granite for production purposes.
- Companies to produce dimension stones for the building industry
- Engineering and Support Services: including contract drilling, assay laboratories, contract mining and geological consultancies to mining companies in the country.
- Companies to set up manufacturing plants and machinery for the mining industry.
- Companies to set up downstream production facilities to manufacture key input for the mining industry. Examples, mill balls, drill bits, cyanide and activated carbon.

4 FDI IN GHANA

The main goal of this dissertation is to examine the main determinants of foreign direct investments (FDI) to Ghana and their impacts on the local economy. This section gives a summary of studies done by researchers on the determinants of FDI to Ghana, a descriptive analysis of registered projects and its impact on the regions of the country.

4.1 DETERMINANTS OF FDI IN GHANA

Ghana has made considerable efforts in attracting foreign direct investments starting with the implementation of the Economic Reform Program (ERP) in 1983, the adoption of the Mining Code in 1986, the implementation of the Investment Code in 1994 and the Free Zone Act in 1995 as well as the establishment of the Ghana Investment Promotion Centre (GIPC) which is responsible for encouraging, promoting, and the facilitation of investments within and into the country.

Asiedu, 2002, provided the first solid evidence on the difference in FDI determinants for Sub-Saharan Africa with respect to the rest of developing economies: the study utilized cross-sectional data from 71 developing countries to test the differential impact of regressors for the African continent. The econometric regressors included measures for return on investments, infrastructure development, openness, political risk, and some variables to test for robustness (namely financial depth, size of public sector, economic stability, and GDP growth). The result of the empirical analysis (Asiedu, 2002) revealed the following:

a. On average, countries in the SSA have received less FDI than countries in other regions due to their geographical location ("being an African Country"). This negative effect was due to the fact the continent was considered as inherently risky by investors (Haque et al,2000).
b. Higher return on capital promotes FDI to non-SSA countries, but has no major impact on FDI flows to SSA countries due to the region being considered as a risky environment. The inherent risk was attributed to the uncertainty in government policies in the region (i.e. policies being easily reversed upon change in governments).

c. Trade openness has a positive impact on FDI flows in both SSA and non-SSA countries. However, FDI to SSA is less sensitive to changes in openness than FDI to other regions. Investors perceive reforms to improve trade openness as not credible because the reforms are subject to reversal when a change in government occurs. Lending credibility to the region being considered as risky.
d. Infrastructure development promotes FDI , but has no significant impact on FDI flows to SSA countries explained by the fact that most FDI to this region tends to be resource-seeking.

In the context of determinants of FDI to Ghana, Barthel et al (2008), combined qualitative and quantitative methods in their analysis with their data partly based on the World Bank's 2007 Enterprise Survey, and partly on their survey of 54 multinational enterprises operating in Ghana. In their analysis, they concluded that the number of employees capturing firm size, the level of training of managers and the proportion of bank credit in working capital had a positive impact on foreign ownership. In other words, firms with a higher percentage of foreign ownership tended to have higher numbers of employees, have higher-education managers because firms can afford to pay; in addition, they tended to attract local bank credit to support working capital. According to their results, the most important factors (figure 15) influencing the choice of Ghana as an investment destination:

- macroeconomic and political environment: political stability, economic growth performance, exchange rate regime, access to credits and inflation rate
- market potential: potential for markets to grow, market size and export base for neighbouring markets
- natural and physical resources (most important for mining companies).

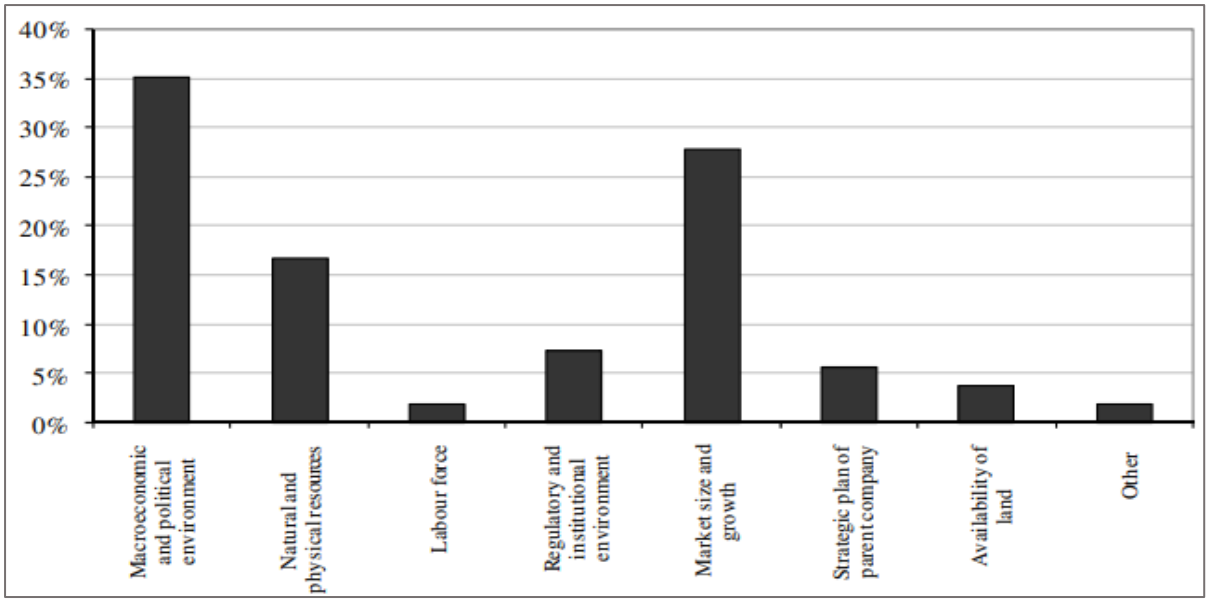

Figure 15: Factors Influencing firms' decision to invest in Ghana, Source: Barthel et al., 2008.

Additionally, Yakubu et al.,2019, also made a sectoral analysis of determinants of foreign direct investments in Ghana using six selected variables (figure 16) and the model used for their analysis (figure17).

- FDI: dependent variable representing value of FDI by sector
- Market Size, Exchange Rate, Trade Openness, Inflation, Labour Cost and Infrastructure as independent variables.
- α is the intercept, β_1 to β_6 as regression parameters and ε as the error term.

Variable	Definition
FDI	FDI by individual sector
Market Size	Gross Domestic Product (GDP)
Exchange Rate	The real exchange rate
Trade Openness	The summation of imports and exports divided by GDP for a period
Inflation	Consumer price index
Labour Cost	The average wage rate
Infrastructure	The number of internet users per 100 people

Figure 16: Measurement Variables, Source: Yakubu et al., 2019

$$FDI = \alpha + \beta_1 MSize + \beta_2 WR + \beta_3 TOP + \beta_4 INFR + \beta_5 EX + \beta_6 INFL + \varepsilon$$

Figure 17:Model used for the analysis, Source: Yakubu et al., 2019

The results obtained by Yakubu et al., 2019, (figure 18) indicated that the variations in FDI in the three sectors was explained by the independent variables.

	(Agricultural Sector)	(Services Sector)	(Manufacturing Sector)
(Constant)	(0.587) 0.573	(-0.002) 0.998	(-1.716) 0.124
Market Size	(2.927) 0.0191*	(1.654) 0.137	(-0.956) 0.367
Exchange Rate	(-0.816) 0.438	(-4.397) 0.002*	(1.921) 0.091
Trade Openness	(0.684) 0.513	(6.484) 0.000*	(0.562) 0.589
Inflation	(-0.111) 0.914	(0.301) 0.771	(-0.076) 0.941
Labour Cost	(-2.700) 0.0271*	(-1.166) 0.277	(0.278) 0.788
Infrastructure	(2.001) 0.0804	(1.383) 0.204	(0.935) 0.377
R^2	0.649	0.959	0.564
Adjusted R^2	0.385	0.928	0.238
DW Statistic	2.18	2.90	2.44

Figure 18: Result of analysis of determinants in the sectors, source: Yakubu et al.,2019

- **Agriculture sector**: market size, trade openness, and infrastructure development had positive coefficients indicating a positive and direct relationship with Agriculture sector. A significant growth in these variables will lead to more FDI inflows in the sector. Exchange rate, inflation, and labour cost were found to be negatively related to the Agriculture sector FDI and will have an opposite effect on FDI inflows with an increase in the amount of these variables.
- **Services sector:** positively related to market size, trade openness, inflation, and infrastructure development with exchange rate and trade openness being the most significant determinants of FDI in this sector.
- **Manufacturing sector:** positive connection with exchange rate, trade openness, labour Cost, and infrastructure development. On the other hand, market size and inflation related negatively with Manufacturing sector FDI.

A noteworthy point which was common to the analysis done by both Barthel et al., 2008, and Yakubu et al.,2019 was the significance of market size as a major determinant of FDI inflows in Ghana. It is therefore imperative that the government implement strategies that will enhance the growth of the Gross Domestic Product of the country.

4.2 FDI TRENDS IN GHANA

The need to attract FDI into the Ghanaian economy was one of the major reasons for the implementation of the Economic Reform Programme (ERP) in 1983, the Mining

Code in 1986, Investment Code in 1994, and the Free Zone Act in 1995, which greatly improved the business environment for foreign and domestic investors (UNCTAD 2003). The establishment of a multi-party democratic system in 1992, helped to guarantee a key requirement for attracting FDI, namely political stability. Though FDI inflows increased in the 1990s, they started from a very low level in the previous decade (Figure 19). Between 1993 and 2005, annual FDI inflows fluctuated between US $50 million and US $250 million. The fluctuations in the level of FDI reflect erratic levels of investment and inflows linked to privatisation (Barthel et al.,2008). FDI inflows into the economy has expanded rapidly over the past 15 years as much effort has been done by the government to create a business-friendly environment to entice potential investors. According to the world investment report of 2019, Ghana became the largest FDI recipient in West Africa, a value of US$3 billion. Most of the FDI is geared towards gas and minerals, with the largest greenfield investment project coming from Eni Group, which is set to expand the Sankofa gas fields. The largest M&A was the acquisition by Gold Fields Ltd (South Africa) of a 50 per cent share in Asanko Gold Ghana Ltd, a Greater Accra-based gold mine operator, for US$185 million.

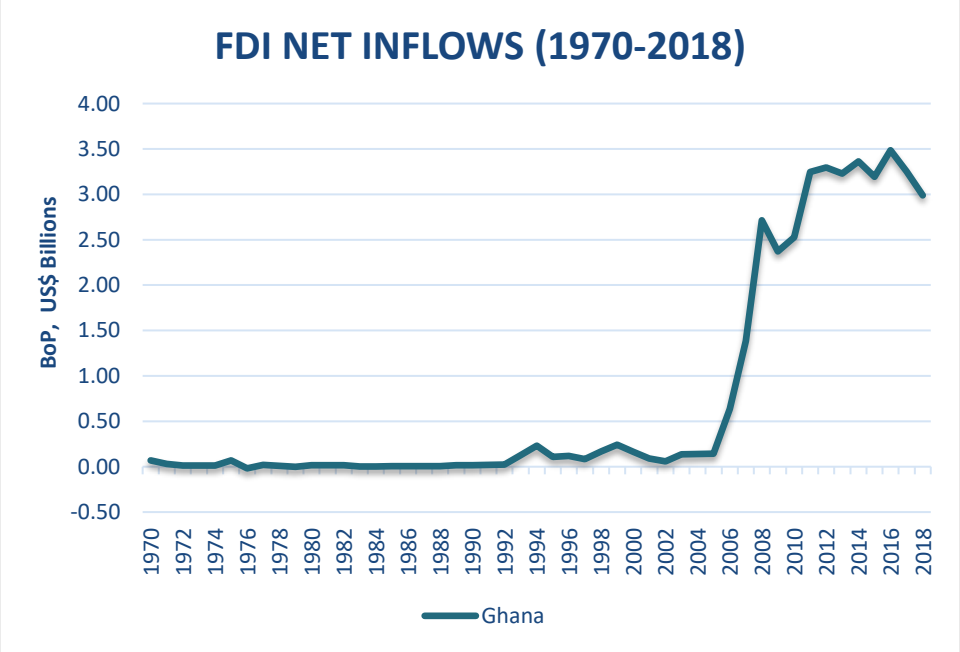

Figure 19: Adapted from World Bank Database for FDI inflows to Ghana

4.3 FDI: SECTORS AND REGIONS

4.3.1 DESCRIPTIVE ANALYSIS OF FDI PROJECTS IN GHANA

This section will highlight information on the trend of investments in projects with respect to the total number of investments, value, origin, sectors, activities within the sectors and the distribution among the sectors. The data was obtained from 'fDi Markets', a service from the Financial Times with a comprehensive online database of cross border investments, covering all countries and sectors.

4.3.1.1 TOTAL TRENDS

According to the data available from the database the total capital investments on projects amounted to 43341.851 million US dollars, total jobs created amounting to 83,823 and total number of 438 projects in the time period of 2003 to 2017. The highest value of capital investment in the time period was in 2017 with total capital investments amounting to 9102.95 million US dollars (figure 20).

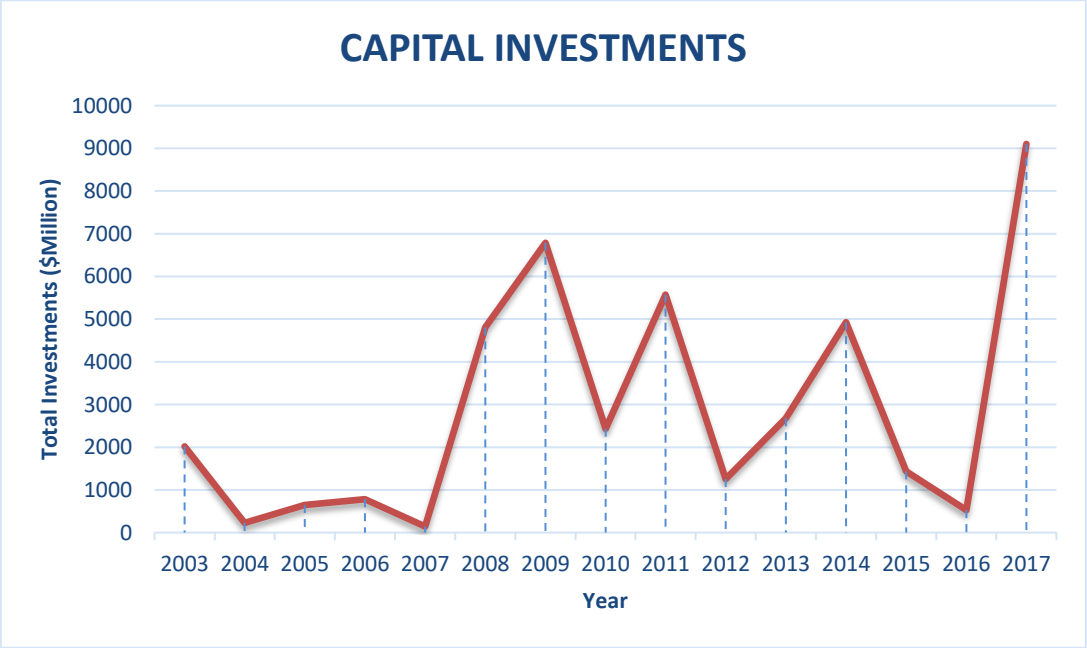

Figure 20: Adapted from fDi Markets Database

The fluctuations in capital investments is reflected in the trend in the number of jobs created (figure 21). Although not always the case in each year of the time period, a higher capital investment sometimes translates to a higher number of jobs created.

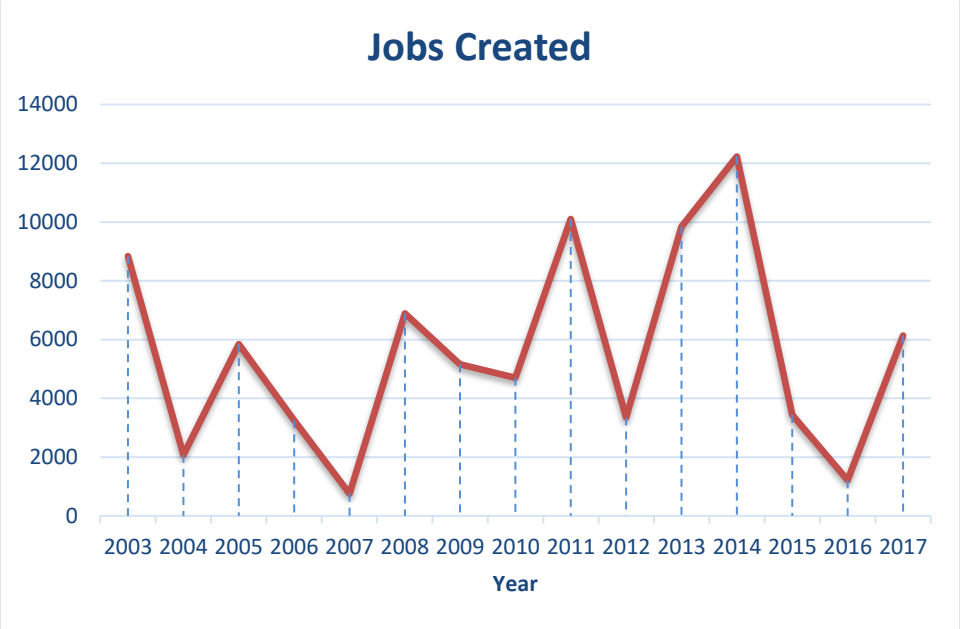

Figure 21: Figure 22: Adapted from fDi Markets Database

Figure 23 represents the project type (new and expansion) and its composition with respect to jobs created and total investments in the project type. It is quite evident that new projects have a significant share of both capital investment and jobs created.

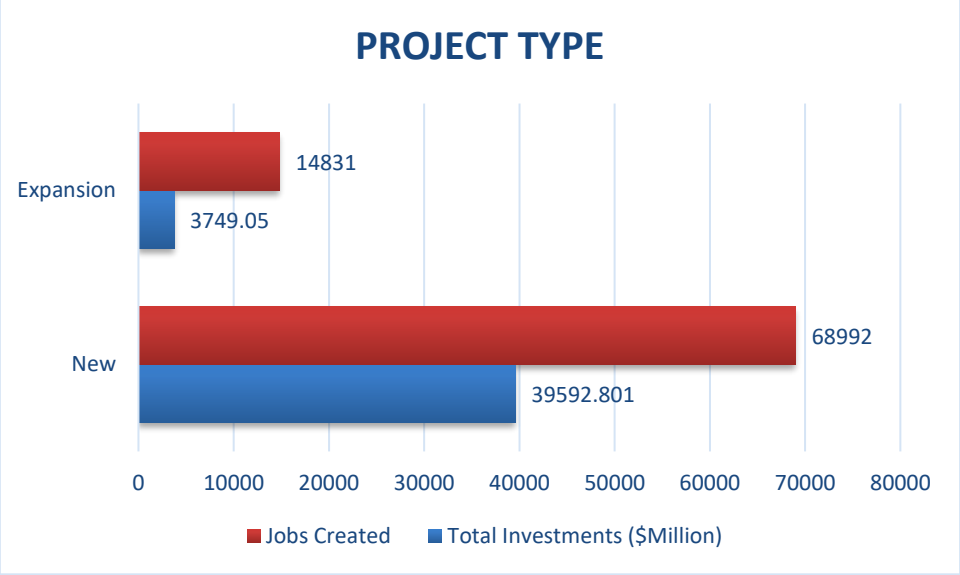

Figure 23: Adapted from fDi Markets Database

The largest source of capital investments in the time period was from Europe, followed by Africa, Asia then North America with South America and Australia accounting for

the lowest (figure 24). Tables 2 and 3 gives detailed information on the source of capital investments by country of origin (sorted to show the highest capital source).

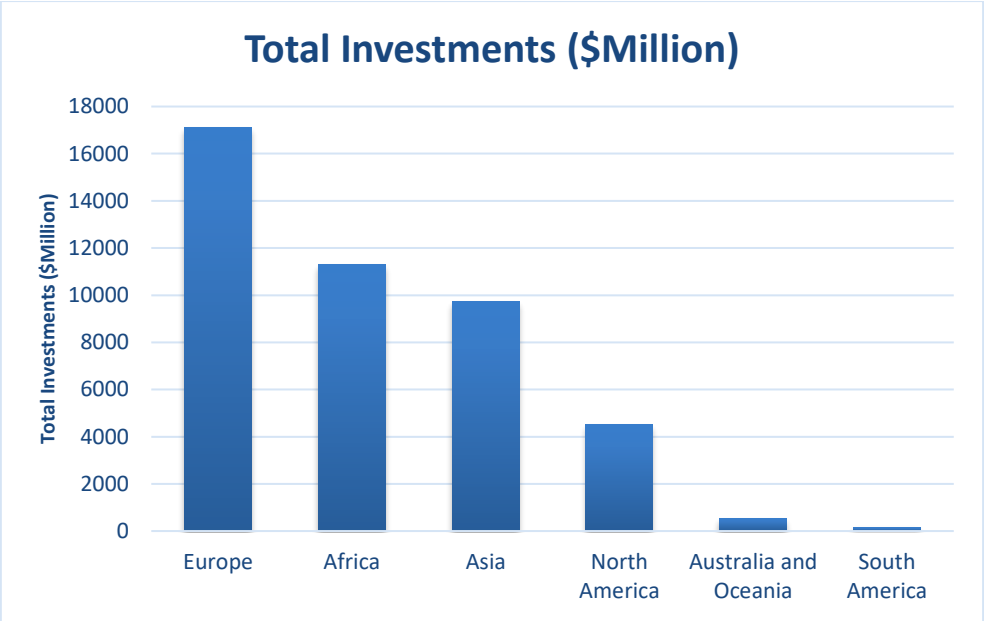

Figure 24: Adapted from fDi Markets Database

Table 2: Capital Investments by origin- Europe, Africa, Australia and Oceania

EUROPE		AFRICA	
COUNTRY OF ORIGIN	**TOTAL CAPITAL INVESTMENT (US$ Millions)**	**COUNTRY OF ORIGIN**	**TOTAL CAPITAL INVESTMENT (US$ Millions)**
Italy	7964.6	South Africa	9025.05
United Kingdom	5068.79	Nigeria	1325.1
Denmark	1505	Mauritius	408.5
Luxembourg	625.4	Morocco	192.231
Ireland	531.8	Cote d'Ivoire	159
Germany	330.3	Togo	55
Spain	272.1	Angola	45.1
France	257.9	Egypt	41.8
Norway	198.2	Kenya	20.5
Switzerland	145.6	Zambia	16.6
Belgium	66.3	Botswana	6.8
Netherlands	44.7	Tanzania	5.8
Finland	42		
Serbia	25.3	**Australia and Oceania**	
Slovenia	15.3	Australia	528.1
Sweden	7.9	New Zealand	11
Turkey	0.3		

Table 3:Capital Investments by origin- Asia, North and South America

ASIA		NORTH AMERICA	
COUNTRY OF ORIGIN	**TOTAL CAPITAL INVESTMENT (US$ Millions)**	**COUNTRY OF ORIGIN**	**TOTAL CAPITAL INVESTMENT (US$ Millions)**
Hong Kong	4053.2	United States	3940.8
India	2172.72	Canada	518.1
China	1482.3	Cayman Islands	32
UAE	507.11	Haiti	7.5
Bahrain	420	Jamaica	2.9
Israel	380.3		
Malaysia	155.5		
South Korea	105.7	SOUTH AMERICA	
Japan	103.7	Brazil	168.2
Lebanon	71.6		
Saudi Arabia	66.4		
Jordan	62		
Kuwait	45.7		
Singapore	39.75		
Iran	29.6		
Vietnam	20.7		
Philippines	11		
Sri Lanka	3		

4.3.1.2 DISTRIBUTION AMONG SECTORS

Distribution among the sectors as shown in Table 4, details the total amount of investments received for each sector in the time period. It is evident that the coal, oil and natural gas sector as well as the metals sector receive the largest share of capital investments. Furthermore, the activities conducted in each sector with respect to job creation, number of projects and capital investments is detailed in Table 5.

Table 4: Distribution of Investments among the sectors

Industry Sector	Total Investments ($Million)	Source Country
Coal, Oil and Natural Gas	19795.5	USA, China, UK, Norway, South Africa, Japan, UAE, Italy,
Metals	7140.9	Canada, USA, South Africa, Australia, UK, Turkey, Hong Kong, India, China, Spain, Lebanon, Jordan,
Communications	2856.9	Luxembourg, South Africa, UK, India, China, Israel, Belgium, South Korea, USA, Finland, Haiti, Bahrain, Lebanon
Chemicals	2055.8	Spain, Norway, China, France, Germany, South Africa, USA, India, Brazil

Real Estate	1988.929	China, USA, UK, Saudi Arabia, Luxembourg, South Africa, Morocco
Warehousing & Storage	1750	Denmark, Nigeria
Food & Tobacco	1597.05	France, Denmark, Singapore, Iran, South Africa, USA, Japan, Mauritius, Zambia, Brazil, Switzerland, UK,Singapore
Financial services	1439.1	France, Nigeria, UAE,Norway, New Zealand,India, South Korea, South Africa, UK, Netherlands, Kenya, USA,Togo
Alternative/Renewable energy	1389.61	Luxembourg, Germany, China, UAE, Ireland, Malaysia, Israel
Automotive OEM	494.5	India, China, Brazil, Japan
Transportation	438	Germany, Switzerland, Nigeria, South Africa, Kuwait, UAE, Slovenia, China, UK, Canada, Japan
Building & Construction Materials	404.002	Germany, Nigeria, Switzerland, France, Morocco, South Korea
Business Services	286.75	Nigeria, UAE, India, Canada, South Africa, UK, Netherlands, Kenya, USA, Australia, Botswana, Ireland, Japan
Software & IT services	266	Nigeria, USA, India, Tanzania, Canada, Belgium, Japan, South Africa, Mauritius
Industrial Machinery, Equipment & Tools	260.8	Japan, UK, India, Canada, Australia, China, Spain,Sweden, USA,Denmark, Brazil

Table 5: Activities conducted in each sector

Industry Sector	Industry Activity	Capital Investments ($Million)	Jobs Created	Total Investments ($Million)	Total Jobs Created	Total No. of projects
Alternative/Renewable energy	Electricity	1047.81	264	1389.61	373	8
	Sales, Marketing & Support	311	44			
	Headquarters	30.8	65			
Automotive Components	Sales, Marketing & Support			4.6	52	2
Automotive OEM	Logistics, Distribution & Transportation	0.3	2	494.5	4328	8
	Maintenance & Servicing	6.1	27			
	Manufacturing	478	4261			
	Sales, Marketing & Support	10.1	38			

Beverages	Manufacturing			147.6	642	5
Building & Construction Materials	Manufacturing			404.002	1542	7
Business Machines & Equipment	Maintenance & Servicing	2.5	64	104.3	802	5
	Manufacturing	68.6	558			
	Retail	30.6	122			
	Sales, Marketing & Support	2.6	58			
Business Services	Business Services	240	536	286.75	1388	42
	Customer Contact Centre	4.5	335			
	Design, Development & Testing	9.1	105			
	Education & Training	23.15	75			
	Shared Services Centre	10	337			
Chemicals	Design, Development & Testing	10.3	35	2055.8	2497	12
	Sales, Marketing & Support	25.3	61			
	Logistics, Distribution & Transportation	13.2	28			
	Manufacturing	1986.6	2310			
	Research & Development	20.4	63			
Coal, Oil and Natural Gas	Business Services	4.4	46	19795.5	6563	19
	Electricity	1386	197			
	Extraction	11661.9	4553			
	Headquarters	30.7	163			
	Manufacturing	6601.5	1334			
	Sales, Marketing & Support	111	270			
Communications	Business Services	2.8	24	2856.9	4806	49
	Customer Contact Centre	10.5	657			
	Design, Development & Testing	60.5	123			
	Headquarters	73.8	160			
	ICT & Internet Infrastructure	2496.1	1589			
	Maintenance & Servicing	420	410			
	Manufacturing	18.8	868			
	Retail	83.2	663			

	Sales, Marketing & Support	52.5	112			
	Technical Support Centre	16.7	200			
Consumer Electronics	Retail	24.6	194	28.5	214	3
	Sales, Marketing & Support	3.9	20			
Consumer Products	Headquarters	16.6	85	248.89	1645	12
	Logistics, Distribution & Transportation	37.6	295			
	Manufacturing	38.29	513			
	Retail	147.6	716			
	Sales, Marketing & Support	8.8	36			
Electronic Components	Manufacturing	23.6	314	32.3	347	5
	Sales, Marketing & Support	8.7	33			
Engines & Turbines	Manufacturing			30	148	1
Financial services	Business Services	1067	1746	1439.1	2770	107
	Customer Contact Centre	9.7	225			
	Headquarters	180.4	364			
	ICT & Internet Infrastructure	138.8	71			
	Sales, Marketing & Support	43.2	364			
Food & Tobacco	Manufacturing	1486.85	20981	1597.05	22079	28
	Retail	83	885			
	Sales, Marketing & Support	20.1	63			
	Shared Services Centre	7.1	150			
Healthcare	Business Services			10.72	132	4
Hotels & Tourism	Sales, Marketing & Support			0.9	13	1
Industrial Machinery, Equipment & Tools	Maintenance & Servicing	16.1	84	260.8	1896	15
	Manufacturing	221.4	1675			
	Sales, Marketing & Support	23.3	137			
Leisure & Entertainment	Construction			25.3	108	1
Metals	Extraction	2272.7	10185	7140.9	19286	34
	Manufacturing	4862.6	9083			
	Sales, Marketing & Support	5.6	18			
Paper, Printing & Packaging	Manufacturing			109.8	152	2
Pharmaceuticals	Headquarters	34.1	96	118.2	742	6

	Research & Development	41.1	486			
	Manufacturing	34.6	80			
	Sales, Marketing & Support	8.4	80			
Real Estate	Business Services	35.9	20	1988.929	3153	7
	Construction	1864.729	2715			
	Manufacturing	60	400			
	Sales, Marketing & Support	28.3	18			
Rubber	Manufacturing	212	868	214.8	880	5
	Sales, Marketing & Support	2.8	12			
Software & IT services	ICT & Internet Infrastructure	146.3	85	266	660	15
	Sales, Marketing & Support	102.7	353			
	Technical Support Centre	17	222			
Textiles	Manufacturing	5.2	1718	102.1	2423	12
	Retail	95.2	688			
	Sales, Marketing & Support	1.7	17			
Transportation	Design, Development & Testing	24.7	138	438	664	21
	Logistics, Distribution & Transportation	183.8	376			
	Sales, Marketing & Support	229.5	150			
Warehousing & Storage	Logistics, Distribution & Transportation			1750	3518	2

4.3.1.3 DISTRIBUTION AMONG THE REGIONS

The geographical landmark of Ghana is made up of ten regions (this is before the 2018 referendum which changed the number of regions from 10 to 16). The allocation and distribution of registered projects are usually based on the economic zones and the market size of the regions. From figures 25, 26 and 27, it can be seen that the allocation of registered projects, capital investments is not evenly distributed among the regions. The Greater Accra region received the highest number of projects (56%) with the highest number of jobs created. The second highest receiver was the Western region then followed by the Ashanti region. The remaining regions received a smaller allocation of investments, job creation and projects. The reason for this uneven distribution is because of the large population density in Greater Accra and the Ashanti region. This leads to many people moving from other regions to settle in these two

major regions with a job-seeking motivation. Large infrastructural development is already taking place in the Greater Accra area (with the Greater Accra being the capital of the country), which results in this region being the most chosen region. In the case of the western region, capital investments and job creation improved with discovery of oil and gas in the region.

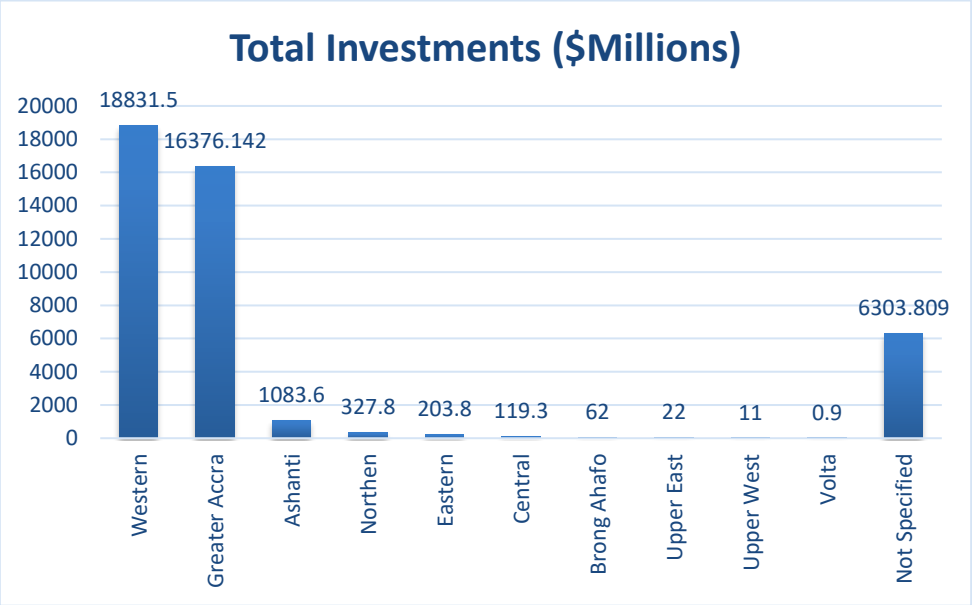

Figure 25: Capital investments by region, Adapted from fDi Markets Database

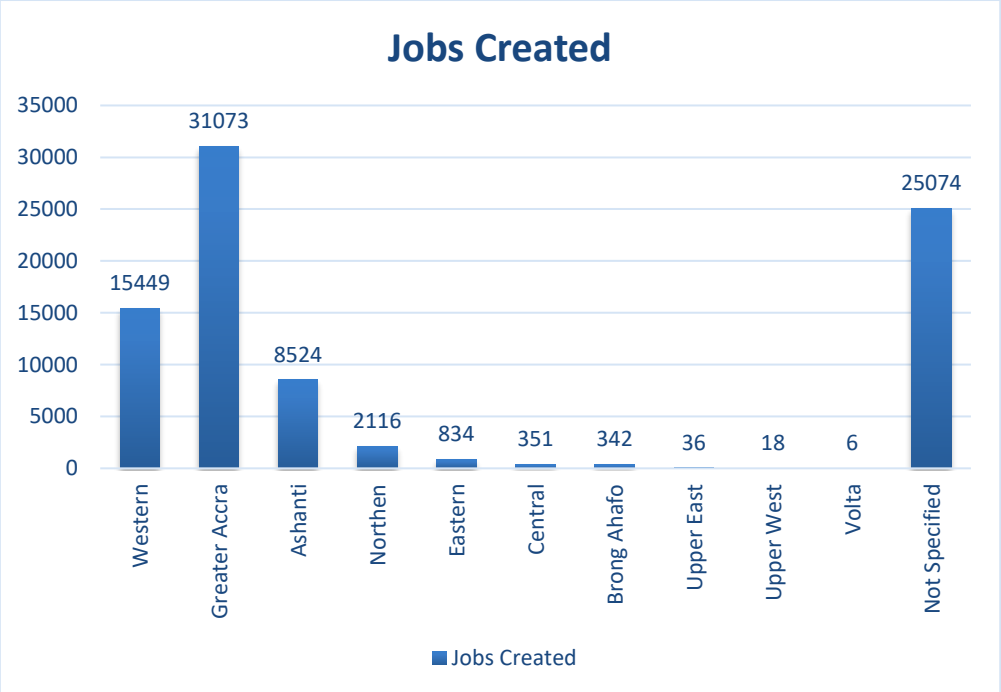

Figure 26:Jobs created by region, Adapted from fDi Markets Database

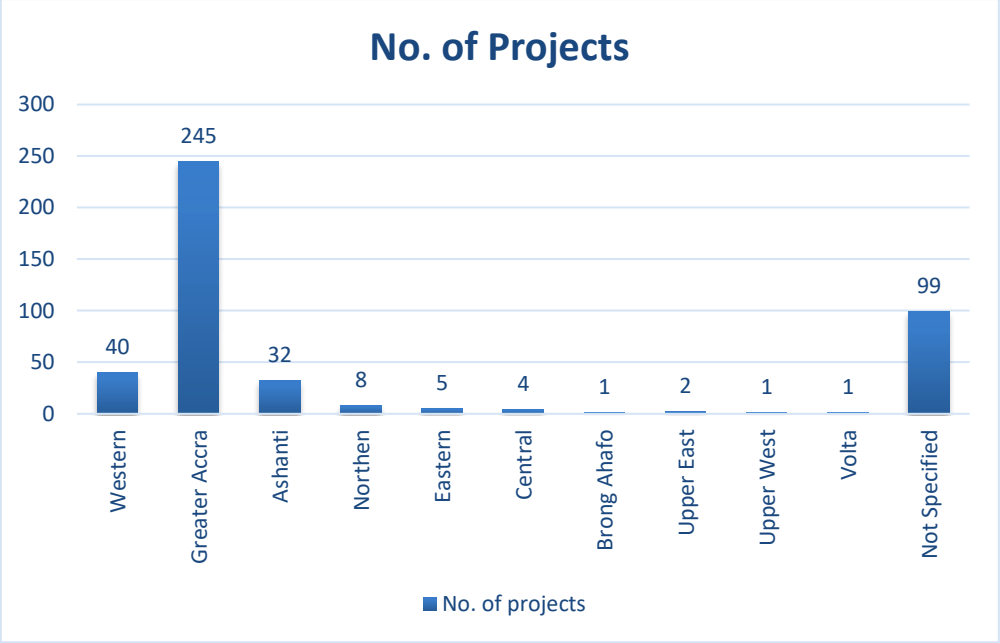

Figure 27: Number of Projects by region, Adapted from fDi Markets Database

4.4 IMPACT ON THE LOCAL ECONOMY

The relationship between FDI and economic growth in developing countries was empirically examined by Borensztein et al.,1998 which showed that FDI allows for technology transfer and for higher growth when the host country had a minimum threshold stock of human capital. Their results also indicated that the main way for FDI to increase economic growth is by increasing technological progress, rather than by increasing total capital accumulation in the host country. They used gross FDI, which refers only to inflows, and used the growth rate of income as the average annual rate of real GDP per capita over each decade for economic growth. Their results show that for host countries with very low levels of human capital, the direct effect of FDI on growth is negative, otherwise positive. The impact of FDI on the Ghana economy was studied by Tee et al.,2017. The study assessed the degree of relationship between FDI and economic growth as measured by real GDP with other variables, such as inflation and government consumption added to the regression. The sample size of the data they used was from 1980 to 2012

$$GDP = \beta_o + \beta_1 FDI + \beta_2 INF + \beta_3 GSP + \varepsilon$$

Figure 28: Regression Model for Impact analysis, Source: Tee et al., 1998

- GDP = Real Gross Domestic Product (dependent variable)
- FDI = total Foreign Direct Investment in Ghana
- Inf = Inflation
- GSP = Government Spending

Regression Statistics	
Multiple R Multiple R	0.924892
R square	0.855426
Adjusted R square	0.84047
Standard Error	299.8057
Observations	33

Table 6: Regession Statistics (FDI and GDP), Source: Tee et al.,2017

The r-square value of 0.885 for the model implied that only 14.5% of the variation of the model for GDP was unexplained while the remaining variation of the model was explained by FDI and the other variables.

	Coefficients	P-Value
Intercept	390.306	0.152702
FDI	151.5551	7.32E-06
GSP	46.41276	0.008734
INF	-497.154	0.011518

Table 7: Variable Output, Source: Tee et al.,2017.

The result indicated that FDI has a significant impact on economic growth in Ghana. Therefore, FDI will have a positive impact on economic growth when the host country has a very good initial level of gross domestic product. Also, government spending on infrastructure and technological developments will aid in attracting more FDI inflows. The coefficient of inflation was negative implying an inverse relationship between high levels of inflation and economic growth.

The impact of FDI on economic growth was also studied by Antwi et al.,2013, also found the relationship between FDI and GDP as positive, hence an increase in FDI will result in economic growth.

5 CONCLUSIONS

Foreign investments have helped in the development of the Ghanaian economy. It should be noted that the vast majority of FDI in Ghana is focused in the mining sector. Even though this sector has provided additional jobs and foreign exchange through increased exports as well as royalties and taxes, extensive technology spillovers has

not had a high occurrence. Moreover, Ghana has not received much efficiency-seeking FDI in manufacturing and assembly sectors, which have a higher positive growth effect. It could be useful to develop a national technology strategy that focuses on key sectors of development and involves all parties concerned with science and technology as this could raise awareness of the value of technological knowledge. This could be done by starting with an analysis of current strengths and weaknesses, identifying priority sectors and establishing an action plan that mobilizes resources and enhances stakeholder engagement. Also, Ghana should invest in infrastructure development to further attract more FDI. In conclusion, Ghana has great potential to attract more FDI and to make better use of foreign investment to promote development. With the country's natural resources, relative political stability and an excellent geographical position, it is an appropriate place for foreign investors. However, policy makers should continue and strengthen the reform agenda (Barthel et al, 2008).

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Annexes

Foreign direct investment (FDI) overview, selected years
(Millions of dollars and per cent)

FDI flows	2005-2007 (Pre-crisis annual average)	2015	2016	2017	2018	as a percentage of gross fixed capital formation			
						2005-2007 (Pre-crisis annual average)	2016	2017	2018
Africa									
Inward	**38375**	**56874**	**46482**	**41390**	**45902**	**14.0**	**9.8**	**8.7**	**9.4**
Outward	**7103**	**9654**	**9497**	**13252**	**9801**	**2.5**	**2.0**	**2.8**	**2.0**
North Africa									
Inward	18768	12256	13833	13353	14307	17.4	8.4	8.9	9.3
Outward	2275	1364	1514	1384	2218	2.1	0.9	0.9	1.4
West Africa									
Inward	7909	10185	12721	11194	9565	14.6	12.1	11.3	9.4
Outward	784	2224	2188	2171	2367	0.8	2.0	2.2	2.3
Central Africa									
Inward	2898	8307	5390	9102	8848	18.8	18.6	32.1	28.5
Outward	65	333	290	291	171	0.4	1.0	1.0	0.5
East Africa									
Inward	2864	6873	7694	8665	8966	12.9	11.1	11.3	11.2
Outward	105	353	196	347	254	0.5	0.3	0.5	0.3
Southern Africa									
Inward	5935	19254	6844	-925	4217	8.0	6.5	-0.8	3.6
Outward	3875	5379	5308	9058	4791	5.3	5.0	7.6	4.0
World									
Inward	1414425	2033803	1918679	1497371	1297153	11.4	10.2	7.5	6.0
Outward	1450912	1682584	1550129	1425439	1014173	11.7	8.3	7.1	4.7

Source: UNCTAD, World Investment Report 2019

Foreign direct investment (FDI) overview, selected years
(Millions of dollars and per cent)

FDI Stock	1995	2015	2016	2017	2018	as a percentage of gross domestic product			
						1995	2016	2017	2018
Africa									
Inward	**88633**	**760397**	**813834**	**891246**	**894678**	**13**	**37.5**	**40.7**	**38.6**
Outward	**32601**	**220613**	**246244**	**353248**	**318116**	**5.2**	**12.6**	**17.8**	**15.1**
North Africa									
Inward	33385	244841	257841	276224	284137	16.4	36.2	43.8	42.7
Outward	1808	33511	34229	35407	37276	0.9	5.2	6.1	5.9
West Africa									
Inward	23523	159714	171121	186230	194605	11.7	29.3	32.6	31.6
Outward	4 626	19705	21761	24491	26608	2.0	3.8	4.3	4.4
Central Africa									
Inward	3362	68012	73128	82232	90986	7.2	56.8	59.8	60.8
Outward	1611	3086	3350	3784	3954	3.6	2.8	3.0	2.9
East Africa									
Inward	2611	67113	74494	83149	91537	6.0	29.3	30.1	30.5
Outward	322	2477	2667	2920	3156	1.6	2.2	2.2	2.2
Southern Africa									
Inward	25752	220715	237250	263411	233413	13.7	48.6	45.7	39.7
Outward	24234	161834	184 237	286647	247122	13.4	37.9	50.0	42.2
World									
Inward	3564447	26312743	28243023	32623557	32272043	11.1	37.3	40.7	38.1
Outward	3993274	26259583	27620617	3238 049	3 974932	12.9	36.8	40.8	36.9

Source: UNCTAD, World Investment Report 2019

Cross-border merger and acquisition[4] overview, 2005–2007 average, 2016–2018
(Millions of dollars)

Region/economy	Sales (net)				Purchases (net)			
	2005–2007 (Pre-crisis annual average)	2016	2017	2018	2005–2007 (Pre-crisis annual average)	2016	2017	2018
Africa	**8306**	**9684**	**3452**	**1570**	**13495**	**7161**	**1967**	**3651**
North Africa	4186	- 580	611	1143	6642	635	827	- 94
West Africa	1807	910	- 119	407	143	131	- 45	- 49
Central Africa	38	1	-	-	- 20	-	37	-
East Africa	344	599	2549	629	231	517	1868	205
Southern Africa	1931	8752	410	- 610	6499	5 877	- 719	3590
World	729177	886901	693962	815726	729177	886901	693962	815726

Source: UNCTAD, World Investment Report 2019

[4] Cross-border M&A sales are calculated on a net basis as follows: Sales of companies in the host economy to foreign TNCs (-) Sales of foreign affiliates in the host economy … The data cover only those deals that involved an acquisition of an equity stake of more than 10 … Data refer to the net sales by the region/economy of the immediate acquired company

Africa Announced greenfield investment project overview, 2005–2007 average, 2016–2018
(Millions of dollars)

Region/economy	As destination				As source			
	2005–2007 (Pre-crisis annual average)	2016	2017	2018	2005–2007 (Pre-crisis annual average)	2016	2017	2018
Africa	62201	91523	83044	75722	6504	10763	5278	8579
North Africa	35280	54671	43225	27800	3105	6561	1618	2347
West Africa	8739	9230	16269	14644	230	601	239	473
Central Africa	4302	1995	1550	1973	4	19	126	45
East Africa	4138	10716	7133	11131	168	1 041	386	1289
Southern Africa	9741	14911	14 867	20175	2997	2541	2909	4425
World	748044	806779	697734	980669	748044	806779	697734	980669

Source: UNCTAD, World Investment Report 2019

Ghana: Foreign direct investment (FDI) overview, selected years
(Millions of dollars and per cent)

FDI flows	2005-2007 (Pre-crisis annual average)	2015	2016	2017	2018	as a percentage of gross fixed capital formation			
						2005-2007 (Pre-crisis annual average)	2016	2017	2018
Ghana									
Inward	**545**	**3192**	**3485**	**3255**	**2989**	**11.9**	**23.5**	**26.8**	**22.3**
Outward	**-**	**221**	**15**	**16**	**81**	**-**	**-**	**0.1**	**0.6**
Angola									
Inward	-745	10028	-180	-7397	-5 732	-7.0	-0.7	-26.1	-25.9
Outward	441	-785	273	1352	3	4.1	1.0	4.8	-
Senegal									
Inward	187	409	472	587	629	7.6	10.6	11.7	10.3
Outward	9	31	224	82	73	0.4	5.0	1.6	1.2
West Africa									
Inward	7909	10185	12721	11194	9565	14.6	12.1	11.3	9.4
Outward	784	2224	2188	2171	2367	0.8	2.0	2.2	2.3
Africa									
Inward	38375	56874	46482	41390	45902	14.0	9.8	8.7	9.4
Outward	7103	9654	9497	13252	9801	2.5	2.0	2.8	2.0
Developing Economies									
Inward	419 126	728 814	656 290	690 576	706 043	11.5	7.2	7.0	6.8
Outward	195 414	407 000	419 874	461 652	417 554	5.4	4.6	4.7	4.0
World									
Inward	1414425	2033803	1918679	1497371	1297153	11.4	10.2	7.5	6.0
Outward	1450912	1682584	1550129	1425439	1014173	11.7	8.3	7.1	4.7

Source: UNCTAD, World Investment Report 2019

Ghana: Foreign direct investment (FDI) overview, selected years
(Millions of dollars and per cent)

FDI Stock	2005-2007 (Pre-crisis annual average)	2015	2016	2017	2018	as a percentage of gross domestic product			
						2005-2007 (Pre-crisis annual average)	2016	2017	2018
Ghana									
Inward	**826**	**26397**	**29882**	**33137**	**36126**	**7.9**	**54.3**	**56.2**	**55.4**
Outward	**-**	**351**	**366**	**382**	**463**	**-**	**0.7**	**0.6**	**0.7**
Angola									
Inward	2921	32312	29184	29436	23704	52.7	28.9	24.1	22.1
Outward	-	3629	4313	6023	5130	-	4.3	4.9	4.8
Senegal									
Inward	374	3431	3772	4916	5304	7.7	19.9	23.3	22.1
Outward	94	379	580	748	784	1.9	3.1	3.5	3.3
West Africa									
Inward	23523	159714	171121	186230	194605	11.7	29.3	32.6	31.6
Outward	4626	19705	21761	24491	26608	2.0	3.8	4.3	4.4
Africa									
Inward	88633	760397	813834	891246	894678	13.0	37.5	40.7	38.6
Outward	32601	220613	246244	353248	318116	5.2	12.6	17.8	15.1
Developing Economies									
Inward	842659	8541117	9087389	10303717	10678872	13.0	31.0	32.7	32.0
Outward	311970	5500006	6002697	7227297	7523731	5.2	20.9	23.4	23.0
World									
Inward	3564447	26312743	28243023	32623557	32272043	11.1	37.3	40.7	38.1
Outward	3993274	26259583	27620617	32383049	30974932	12.9	36.8	40.8	36.9

Source: UNCTAD, World Investment Report 2019

Ghana: Cross-border merger and acquisition overview, 2005–2007 average, 2016–2018
(Millions of dollars)

Region/economy	Sales (net)				Purchases (net)			
	2005–2007 (Pre-crisis annual average)	2016	2017	2018	2005–2007 (Pre-crisis annual average)	2016	2017	2018
Ghana	41	-	74		130	181	-	-
Angola	83		-	-	30	-	-	-
Senegal	27	-	9		-	-	7	9
West Africa	1807	910	-	119	407	143	131	-45
Africa	8306	9684	3452	1570	13495	7161	1967	3651
Developing economies	82005	75485	112350	124265	105810	171139	201302	96383
World	729177	886901	693962	815726	729177	886901	693962	815726

Source: UNCTAD, World Investment Report 2019

Ghana: Announced greenfield investment project overview, 2005–2007 average, 2016–2018 (Millions of dollars)

Region/economy	As destination				As source			
	2005–2007 (Pre-crisis annual average)	2016	2017	2018	2005–2007 (Pre-crisis annual average)	2016	2017	2018
Ghana	524	567	8 937	837	-	39	29	24
Angola	2742	259	2 383	4 554	14	-	264	170
Senegal	458	199	754	319	-	-	7	10
West Africa	8739	9230	16 269	14644	230	601	239	473
Africa	62201	91523	83044	75722	6504	10763	5278	8579
Developing economies	415395	502271	358462	572479	169659	316215	193307	343529
World	748044	806779	697734	980669	748044	806779	697734	980669

Source: UNCTAD, World Investment Report 2019