



**Politecnico  
di Torino**

**Politecnico di Torino**

MSc in Management Engineering

**Impact of Foreign Direct  
Investment on Employment in  
Ghana: a Sectoral Perspective**

**Candidate:**

Filippo Agostini

**Supervisors:**

Prof. Luigi Benfratello

Academic Year 2023/24

# Contents

<b>1 Foreign Direct Investments</b>	<b>7</b>
1.1 Classification . . . . .	13
1.1.1 Why firm decides to engage in FDI activities . . . . .	14
1.1.1.1 Market Seeking FDI . . . . .	14
1.1.1.2 Resource seeking FDI . . . . .	16
1.1.1.3 Efficiency seeking FDI . . . . .	17
1.1.1.4 Strategic Asset Seeking FDI . . . . .	18
1.1.2 Greenfield and Brownfield FDI . . . . .	18
1.1.3 Horizontal and Vertical FDI . . . . .	20
1.2 Determinants . . . . .	23
1.3 Effects of FDI . . . . .	28
1.3.1 Integration in the global economy . . . . .	29
1.3.2 Competitive landscape . . . . .	30
1.3.3 Transfer of new technologies and know-how . . . . .	31
1.3.4 Formation of human resources . . . . .	33
1.3.5 Local firms' development and reorganization . . . . .	34
1.3.6 Difficulty in the implementation of economic policies . . . . .	35
1.3.7 Environmental and Social Impact . . . . .	35
1.4 FDI in developing economies . . . . .	36

<b>2</b>	<b>Ghana</b>	<b>43</b>
2.1	Introduction . . . . .	43
2.1.1	Brief History . . . . .	44
2.2	Characteristics . . . . .	48
2.2.1	FDI determinants associated with the OLI paradigm . . . . .	48
2.2.1.1	Infrastructure . . . . .	49
2.2.1.2	Human Capital . . . . .	57
2.2.1.3	Economic Stability . . . . .	60
2.2.1.4	Production Costs . . . . .	78
2.2.2	FDI determinants associated with the Institutional Approach . . . . .	78
2.2.2.1	Corruption, political instability and institutional quality . . . . .	79
2.2.2.2	Taxation and Incentives . . . . .	81
2.2.3	FDI determinants associated with the New Theory of Trade . . . . .	83
2.2.3.1	Market Size . . . . .	83
2.2.3.2	Market Growth . . . . .	88
2.2.3.3	Openness of the economy . . . . .	90
2.2.3.4	Factor Endowments In Natural Resources . . . . .	92
2.3	FDI attraction in Ghana . . . . .	96
2.3.1	Requirements for Foreign Companies . . . . .	98
2.3.2	The position of the Trades Union Congress . . . . .	101
2.3.2.1	Interview . . . . .	102
<b>3</b>	<b>Analysis</b>	<b>105</b>
3.1	Data . . . . .	105
3.1.1	Data about FDI in Ghana . . . . .	105
3.1.2	Data about employment shares . . . . .	113
3.1.2.1	GLSS 4 . . . . .	115

3.1.2.2	Census 2000 . . . . .	117
3.1.2.3	GLSS 5 . . . . .	118
3.1.2.4	GLSS 6 . . . . .	120
3.1.2.5	GLSS 7 . . . . .	122
3.1.3	Data about import tariffs . . . . .	124
3.1.4	Data about Foreign Direct Investment in Africa . . . . .	125
3.2	Model and variables . . . . .	129
3.3	Results . . . . .	133
<b>4</b>	<b>Conclusion</b>	<b>140</b>
	<b>References</b>	<b>143</b>
<b>A</b>	<b>Codes Description</b>	<b>155</b>

# List of Figures

1.1	Value of FDI in developed economies and Africa <i>Source:</i> Own elaboration on UNCTAD data . . . . .	9
1.2	Value of FDI in developing economies <i>Source:</i> Own elaboration on UNCTAD data . . . . .	38
1.3	Value of FDI in Africa <i>Source:</i> Own elaboration on UNCTAD data . . . . .	40
1.4	Value of FDI in West Africa <i>Source:</i> Own elaboration on UNCTAD data . . . . .	42
2.1	Urban population growth (annual %). <i>Source:</i> Own elaboration on World Bank data . . . . .	47
2.2	Inflation, consumer prices (annual %). <i>Source:</i> Own elaboration on World Bank data . . . . .	63
2.3	Inflation, GDP deflator (annual %). <i>Source:</i> Own elaboration on World Bank data . . . . .	64
2.4	Unemployment (% of total labour force) <i>Source:</i> Own elaboration on World Bank data . . . . .	69
2.5	Unemployment by gender. <i>Source:</i> Own elaboration on World Bank data . . . . .	70
2.6	Youth unemployment (% of the total labour force ages 15-24). <i>Source:</i> Own elaboration on World Bank data . . . . .	72

2.7	Unemployment by level of education. <i>Source:</i> Own elaboration on World Bank data . . . . .	73
2.8	GDP (current Billion US\$). <i>Source:</i> Own elaboration on World Bank data . . . . .	84
2.9	GDP per capita (constant 2015 US\$). <i>Source:</i> Own elaboration on World Bank data . . . . .	86
2.10	GDP per capita PPP (constant 2017 international \$). <i>Source:</i> Own elaboration on World Bank data . . . . .	87
2.11	GDP growth (annual %). <i>Source:</i> Own elaboration on World Bank data	89
2.12	GDP per capita growth (annual \$). <i>Source:</i> Own elaboration on World Bank data . . . . .	90
2.13	GDP per capita growth after 1984 (annual \$). <i>Source:</i> Own elaboration on World Bank data . . . . .	91
3.1	FDI in Ghana from 1994 to 2019. <i>Source:</i> Own elaboration on GIPC data . . . . .	107
3.2	Number of FDI by Country . . . . .	108
3.3	Regional Differences. <i>Source:</i> Own elaboration on GIPC data . . . . .	110
3.4	Number of FDI in the Mining and Quarrying sector. It has been highlighted the year 2007. <i>Source:</i> Own elaboration on GIPC data . . . . .	111
3.5	Main FDI inflows in Manufacturing. <i>Source:</i> Own elaboration on GIPC data . . . . .	112
3.6	Main FDI inflows in ISIC category 46: Wholesale Trade. <i>Source:</i> Own elaboration on GIPC data . . . . .	113
3.7	Performances of the main sector by FDI inflows over the years. <i>Source:</i> Own elaboration on GIPC data . . . . .	114

3.8	Share of the workforce employed in major sectors in 1999 <i>Source: Own elaboration on GSS data</i> . . . . .	116
3.9	Share of the workforce employed in major sectors in 2000 <i>Source: Own elaboration on GSS data</i> . . . . .	118
3.10	Share of the workforce employed in major sectors in 2006 <i>Source: Own elaboration on GSS data</i> . . . . .	119
3.11	Share of the workforce employed in major sectors in 2013 <i>Source: Own elaboration on GSS data</i> . . . . .	122
3.12	Share of the workforce employed in major sectors in 2017 <i>Source: Own elaboration on GSS data</i> . . . . .	124
3.13	Distribution of FDI in Africa by sector <i>Source: Own elaboration on fDi market data</i> . . . . .	126
3.14	Distribution of FDI in Africa by country <i>Source: Own elaboration on fDi market data</i> . . . . .	128
3.15	Time distribution of FDI in Africa <i>Source: Own elaboration on fDi market data</i> . . . . .	129

# Chapter 1

## Foreign Direct Investments

In an increasingly interconnected world, the role of companies in crossing national boundaries is crucial and fascinating. Foreign Direct Investment (FDI) is one of the methods a firm can exploit to increase its opportunities and become in this way a multinational, or, according to the terminology, a foreign direct investor. According to the definitions provided by the Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF), FDI reflects a firm's desire to obtain a "lasting interest" in an entity resident in a different economy. The lasting interest takes two different forms, the first one is the long-term perspective of it, which is particularly desired by the states, and the second is the involvement in the management of the foreign firm, the direct investment enterprise, in which the investor held a significant degree of influence. Quantitatively, the investor should, with due exceptions, own 10% of the ordinary stocks of the direct investment. This threshold ensures the existence of substantial involvement in the decision process of the direct investment enterprise, highlighting that it is not necessary to exercise full control, but to be involved in the management. The lasting interest is the element distinguishing FDI from other flows such as portfolio investments, and its importance



depends on the transfers of know-how and management skills that are valuable for the growth of the economy.

It is important to note that in order to qualify a relationship as FDI an equity stake has to be involved, differentiating these from other types of transactions such as, for example, companies that may share lasting interests and functions with foreign firms without having a portion of the equity one of the other.

Based on the degree of interest the direct investor owns, three types of direct investment enterprises can exist: subsidiaries, associates and branches. Subsidiaries exist in two cases: when the owner controls the majority of the board or more than half of the voting power of the second and when the company is a subsidiary of another company that is in turn a subsidiary of the owner. Different is the case of associates, in which the investor expresses no full control of the foreign enterprise owning voting rights valid for less than 50% of the full power. Lastly, branches are defined as unincorporated enterprises in the host country where, for simplicity, the host country's investment existence is directly connected to the main firm, therefore if it is a permanent establishment or office of the investor, a partnership or joint venture in which the investor take part of or a material asset directly owned.

The importance of FDI in the world economy can be understood from the data: global FDI flows reached \$1.5 trillion in 2021 after the low level of 2020 due to the COVID-19 pandemic (Azémar & Giroud, 2023), and still recovering from the peak of \$1.54 trillion in 2019 (Giroud & Ivarsson, 2020). FDI flows can be of different nature depending on the sector in which they occur, and so require different approaches. As an example, in developing countries, they represent a major source of external financing and are crucial for the growth of tangible assets. In contrast, FDI flows in developed countries yield a larger financial component and are thus more volatile, particularly influenced by factors such as stimulus packages and inflation.

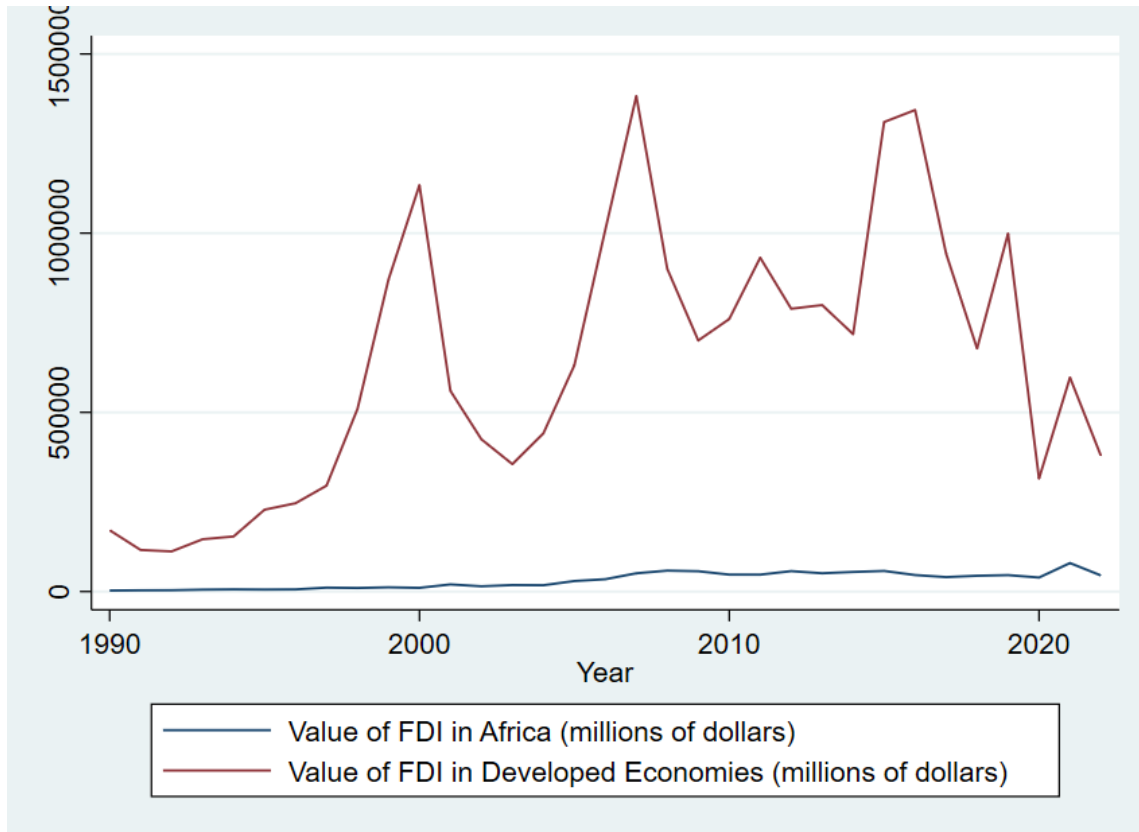


Figure 1.1: Value of FDI in developed economies and Africa *Source:* Own elaboration on UNCTAD data

Various theoretical models try to explain the existence of FDI (Faeth, 2009). All of them point out that FDI exists due to market imperfection (Dunning, 1977) (Agarwal, 1980) and the competition between governments and between firms that translate into separate markets. Accordingly, their existence is directly linked to an imperfect good market, and so to the existence of product differentiation, or to an imperfect factor market, composed of managerial expertise, new technology or patents, information asymmetry, or to an imperfect competition, with all the differences in culture, consumer tastes, risks, different legal systems and obligation and other regulations (Faeth, 2009), of which a special role in history has been played

by protectionism (Nunnenkamp, 2002).

Foreign Direct Investment is not the only means that a company can exploit to increase its presence in foreign markets. On the contrary, it faces two other different possibilities to do so: exporting its goods or services, or licensing foreign firms to produce its products. The choice between the three is all but trivial. There are various reasons why the company can take the strategic decision to become a multinational or to increase its presence in foreign markets via FDI and not the other options. From the international business research, two main approaches appear to explain FDI: the eclectic paradigm, developed by Dunning, and the transaction cost approach as delineated by Buckley and Casson.

The eclectic paradigm (Dunning, 1988) indicates that when the company owns some competitive advantage and it is unsafe licensing for the property right protection, the company will proceed with FDI as long as the building capacity in the host country has some advantages, called ownership advantages, to the simple export. These advantages that are specific to the nature or nationality of the firms have to be sufficient to compensate for the additional cost with respect to the one faced by host country firms in setting up and operating the new facility. Ownership advantages can be categorized into three types: privileged access to particular income-generating assets, the experience in the field gained by the company and so the technology and knowledge broadly defined, and lastly the consequences of diversification and multinationality: economies of learning, scale and scope, and privileged access to financial capital (Dunning, 1988). The crucial condition is obviously the presence of potential profits for the company in using these advantages in collaboration with factors outside the country of origin. As the internalisation of selling goods and services becomes more and more beneficial, the usage of licensing or franchising contracts becomes less appealing (Denisia, 2010).

Buckley and Casson (2020) expanded existing economics theories to improve the

quality of the International Business theory, that tries to understand the dynamics behind the internalization of companies and how they make their decisions, without many assumptions considered in economics such as rationality in all the aspects of the decision process. For example, managers may have an “irrational bias to internalization” due to the prestige that may be granted to them by leading a MNE. In this case, the benefits of internationalization may be not counter-balanced by the gains, and, while according to economics the business should have not started engaging with FDI activities, it may have done so. The theory can be modified accordingly: managers could not be focused on increase profits, but shareholder value. Shareholder value is an indicator that summarize not only profits, but also size, if bigger firms are valued more by shareholders, and thus managers’ salaries. In this way the existing theory can explain and cover closely the reality. Thus, international business should learn from the already developed economic theories, but considering other aspects that may be lead to different results that are crucial for the subject. They specifically say that the existing theories should be “formulated in a more explicit manner in order to increase their predictive power”.

The economic research followed the approach started by international business, and the main contribution appears to be the proximity-concentration trade-off as developed by Helpman in 2004, that is the main lens through which horizontal FDI are examined. The proximity-concentration trade-off introduces another determinant of the choice between exporting and moving to another country. Accordingly, firms invest abroad after balancing trade costs and the costs of maintaining structures in multiple markets. When the former outweighs the latter, it is beneficial for the firm to engage in FDI activities. Therefore, trade frictions and economies of scale determine if a market is served by exports or FDI sales. Not only, sectors which involve greater firm heterogeneity experience larger FDI sales relative to exports thanks to the induced size distribution (Helpman, Melitz, & Yeaple, 2004). The type of costs the firm

face consequently are different: FDI involves lower variable costs while exporting involves lower fixed costs due to the avoidance of maintaining a local capacity and transaction cost between the host country firm and the investor. Meanwhile, plant-level returns to scale have to be taken into account. If they are low, it is more convenient for a firm to create capacity abroad. A new plant, however, comes with different threats: transferring knowledge may be difficult and the organisational costs enter as an offsetting force in the ability to exploit economies of scale.

The companies that start engaging with FDI activities have also to have some strength as pointed out by the model proposed by Helpman et al. (2004). The most important one is relatively high productivity, crucial to start as only highly productive firms are capable and have the resources to do so. As a consequence, the firm should have a relatively strong market position in the home country. They theoretically demonstrated that firms rank according to their productivity with the ones characterised by a lower one, if able to survive, serving only the domestic market while the best ones internationalising their activities.

When all these advantages are present, the firm has to proceed with the choice of the best location, a choice that has to be made by comparing different aspects such as political, social, economic and demographic ones. Briefly:

- Economic advantages include market size, telecommunications costs, transportation costs, both quantitative and qualitative production aspects, etc.;
- Political advantages consist of common and specific government policies that have an impact on FDI flows;
- Social advantages relate to the distance between the home and host countries with respect to cultural differences, attitudes toward foreigners etc.

## 1.1 Classification

FDI flows aggregate very different kinds of transactions and are thus useful to be classified for understanding the dynamics inside, the impact that will have on markets and economies and, in general, to help having a deeper understanding in the subject. Many classifications are possible, but a starting point is to understand how a firm enters a foreign market, and why and how it is willing to integrate the host country firm in its activities and value chain. First of all, the decision to expand and cover a new market can be associated with the seeking of the company for something that it believes is valuable. According to the Eclectic Theory of Dunning (1980), there exist four different types of FDI based on the reason behind the choice of the company: market seeking, resource seeking, efficiency seeking and strategic assets seeking. After the company has taken the decision of entering a foreign market it has to choose how to do so and they envisage two paths: starting a new business from the ground or acquiring an already existing and operating firm. Based on this decision, FDI can be classified as greenfield, in the first case, or brownfield, in the latter. Lastly, the firm has to choose how the activities in the foreign country should be integrated into its value chain. Indeed, it can duplicate part of its activities opting for what it is called a horizontal FDI with the aim of increasing its production capacity, gaining privileged access to the foreign market or bypassing possible limitations on trade. Neglecting the latter case, the focus should be on lowering all the costs related to the liability of foreignness. Differently, vertical FDI aims to integrate the host firm into the global value chain of the company transferring some stage of production in the foreign country with the aim of exploiting particular resources or capabilities that may be available at lower costs or greater quality abroad.

### **1.1.1 Why firm decides to engage in FDI activities**

As said, according to the eclectic theory of Dunning (1980), FDI flows can be characterised by the reason behind the choice of a firm to enter into a new market. Based on this distinction, it is possible to identify four types of FDI: market seeking, resource seeking, efficiency seeking and strategic assets seeking. How they play a role in shaping the purposes of MNEs took a different shape over time and globalization deeply reconfigured them. Indeed, as noted previously, companies have now a wider range of choices on how to serve new markets in foreign economies. Host countries now are evaluated on more subjects than before to assess their desirability and the classification framework as provided by Dunning has to be read with more flexibility than before.

#### **1.1.1.1 Market Seeking FDI**

The research of new markets in which finding new customers for the company's produced goods and services can have different explanations. Investing in foreign companies allows the firm to reach and increase its customer base providing an opportunity to increase sales and revenues. The company may have saturated the home market or the competition in the same reached an equilibrium that challenged its ability to grow. Not only, but the company can also believe that its offers are superior in some way, for quality or costs, than the ones provided by competitors in the host country and therefore there is space for the firm's entry into the market. This entry can also translate into the creation of competitive advantage, as this kind of FDI indeed enables companies to better understand local market dynamics, and consumer preferences and adapt their goods or services following customer tastes. This may result in an advantage over competitors that have not established a local direct presence and conditionate potential rivals' decision to compete in the market. Consequently,

a physical presence should help in the process of penetrating the market. Market-seeking FDI aims at entering and fostering the firm growth within the local markets of host countries and is usually connected with various indicators such as market size, per capita income, market growth, access to regional and global markets, consumer preferences and lastly structure of the domestic market (Wadhwa & Reddy, 2011). Since FDI increases the coordination complexity of a company, the investment needs an appropriate scale to be worth it. Market size and its impact in determining market-seeking FDI can be measured with various indicators. The simpler one is the GDP that Agarwal (1980) has found to be the most popular reason behind the decision of a company to invest in a host country and particularly when accounting for FDI flows into developing economies. Per se, GDP can be used as an indicator of the market size but this measure can be refined with indexes that explore the country's capability to grow. Fast economic growth is indeed able to attract more market-oriented FDI (Wadhwa & Reddy, 2011). Evidence found a positive correlation between GDP and FDI supporting the hypothesis that market-seeking FDI plays a primary role in the world of FDI. The size of the market and its desirability however is not linked only to the size of the economy but also to the GDP per capita and so the population. This latter indicator can in fact be considered as a proxy for market size (Nunnenkamp, 2002). Actually, at least in countries with similar average purchasing power of citizens, total consumption is a multiplication factor of the population. Namely, population growth denotes the likelihood increase in the market size in the future. Nunnenkamp (2002) found that population has a stronger correlation with FDI than the one owned by GDP. Lastly, some authors found a negative relationship between exports and market-seeking FDI that should indeed displace exports from the home to the host country (Wadhwa & Reddy, 2011). Market-seeking MNEs subsidiaries may however develop a dependency on their parents to better manage the uncertainty and risks that arise in volatile contexts like the ones of developing coun-



tries, leading to a dependency of the country on the performance of the others. The parent-subsidiary links thus directly impact both firms' performances, as the logic of resource dependence theory explains how these links are able to alleviate the threats arising from an uncertain environment. This foreign market is seen as a "source of scarce resources sought by competing MNEs" (Luo, 2003) and dependency situations are created when crucial local resources are controlled by local possessors. The interaction with the parent firm may help in taking advantage of the opportunities while curtailing the threats.

#### **1.1.1.2 Resource seeking FDI**

The resource-seeking FDI aims to seek, secure and exploit different kinds of resources or factors of production. Key input for the production process of the firms can be available indeed with greater quality or lower costs in the host country. Common resources desired by the companies are natural resources, raw materials, lower unit labour cost of the unskilled labour force, the pool of skilled labour, physical infrastructure, and the level of technology (Wadhwa & Reddy, 2011). Not only, but organisational and managerial capabilities or technological competencies are also sought by MNEs to promote their growth in their home and host country. Good infrastructures, that translate into the presence in the country of ports, roads, power, and telecommunication with all the various degrees of effectiveness and comprehensiveness, play a crucial role in attracting this kind of FDI as it enhances the productivity of investments. For categorising an FDI as a resource-seeking investment authors such as Wadhwa and Reddy (2011) use variables such as internet users and road pavements. One of the key factors to look at in resource-seeking FDI is imports, as noted by Dunning (1980). Wadhwa and Reddy (2011) notes that like for exports, imports have a controversial relationship with FDI. Considering the case in which the companies

used to export in the host country before starting to engage in FDI activities, imports and FDI should show a substitute relationship because there is no need for these transactions anymore since the production started also in the host country. In this case, therefore, the relationship between imports and FDI will be negative. On the contrary, in the case of resource-seeking FDI imports and FDI can be complementary. If the aim of the FDI is indeed seeking for particular resources to be available in the production process or if there is the need for some production factors not available in the host country, such as specific technology, then the production will lead to an increase in imports and the link between FDI and imports should be positive.

#### **1.1.1.3 Efficiency seeking FDI**

A third type of FDI is the efficiency-seeking one. Their aim is to create new sources of competitiveness for firms to take advantage of the beneficial peculiarities different countries possess thanks to the rationalisation of production in order to exploit economies of scope and specialisation across or along value chains. As noted by the World Bank they are particularly important for countries that want to get more involved in the global economy (Fruman, 2016). Macroeconomic instability may affect this kind of FDI, as Wadhwa and Reddy (2011) notes, indeed, stability in the inflation rate attracts more FDI, which prefers a low rate and low volatility. A common indicator is the volume of trade between home and host country as they should increase it (Wadhwa & Reddy, 2011). In the process of rationalising the value chain, firms integrate the host-country firms into their international corporate network, a process that should be beneficial for the host country's whole economy (Nachum, 1999). The World Bank notes how efficiency-seeking FDI may be critical for the creation and growth of technology-intensive industries in developing countries, as it has been for the case of the aerospace industry in Mexico or the light manufacturing in Honduras

(Fruman, 2016). Summarising, the principal economic determinants are the cost of resources and assets adjusted for labour productivity, all the other input costs and the possibility to establish a regional corporate network thanks to the host country's membership in a regional integration agreement conducive to that scope (Mallampally & Sauvant, 1999).

#### **1.1.1.4 Strategic Asset Seeking FDI**

The last type of FDI, sometimes neglected by the literature, is the strategic asset-seeking one. It aims at advancing a company's global or regional strategy into foreign networks of created assets like technology, organisational abilities and markets (Faeth, 2009). Firms may indeed invest abroad in order to sustain their competitive positioning by accessing crucial resources and competencies. Other examples of strategic assets sought through FDI include intellectual property, marketing capabilities, distribution networks and research and development facilities.

#### **1.1.2 Greenfield and Brownfield FDI**

When entering a new market the firm has to choose if starting a business from the ground or acquiring an already existing firm operating in that economy, and so its mode of entry. Literature gives the name *greenfield FDI* to the former and *brownfield FDI* to the latter. Greenfield FDI involves the creation of new facilities, workplaces and additional production capacity. The choice between the two relies on the investment that is able to yield the greatest return. This difference brings with it different impacts on the economy of the host country. The choice of greenfield FDI can be the only one available depending on the status and dynamics of the host country. In the past, in developing countries, this was typically the case and it still remains in not industrialised countries (Ragoussis, 2020). A brownfield FDI, on the contrary,

has the only immediate benefit of increasing the knowledge capital and capabilities of the target firm, as they indeed involve just a transformation of the existing production. From a long-term perspective, however, things change. Brownfield investments depend on the ability to access successful firms' assets that could result in a future stream of revenues. The decision involves the belief that the firm is able to acquire them at a favourable value and, thanks to its knowledge, to raise their value over time. The computations must take into account the operational synergies that result in efficiency gains and the greater manoeuvrability obtained thanks to the possibility to access the MNE liquidity. The latter factor shows its importance in periods of economic crisis where credit constraints raise the valuation gains possible for the direct investor resulting in a 30 per cent increase in the probability of a foreign acquisition during this period than in normal economic ones (Alquist, Mukherjee, & Tesar, 2016). Evidence shows how these firms are able to outweigh similar firms in the domestic market with respect to employment growth and profitability and are more likely to contribute to the development of the countries with exporting and higher wages as noted by the World Bank (Ragoussis, 2020). The effects of this kind of investment heavily rely on the development level of the host country. Some authors point out even a negative effect of them when they happen between developed countries which are characterised already by a substantial integration. Ragoussis (2020) notes that this view is biased by a macroeconomic focus which may neglect other firm-level outcomes. Motivations, as explained previously, matters and the scope and the mode of investing in developing countries differ from the ones adopted when dealing with developed countries.

### 1.1.3 Horizontal and Vertical FDI

Companies can engage in FDI activities using different approaches with respect to the host country firm. Firms can decide to go multinational to serve a foreign market or to get inputs at a lower cost. They indeed can choose to expand their activities by establishing the same type of business activities they already perform in their home country or establishing different stages of the production process in multiple countries creating a global value chain and taking advantage of specific factors that pertain to different countries.

Horizontal FDI exists because exports of goods or services produced by the company can become too expensive or even infeasible due to transportation costs or trade barriers. Thus, positive trade costs and firm-level scale economies are crucial factors to consider. Opening a foreign production involves additional costs of dealing with a new market plus all the fixed and variable costs per se and for not exploiting at-home scale economies. The firm has to deal with factor prices, bureaucracy costs, increased coordination costs and opportunity costs. However, savings also arise when switching from exports to local production. Proximity to the market helps the firm effectiveness, and its presence in it improves the adaptation to local customers' tastes and expectations. Not only, but it also avoids transportation costs and tariffs. A strategic perspective should also take into account that, given an oligopolistic market, the sales of each firm depend on the marginal costs of the competitors. By conducting a horizontal FDI the firm may also induce other firms to reduce their sales: the commitment indeed to supply the local market could possibly change the behaviour of competitors. This increases the already present effect of reducing trade flows, since the market is not anymore served through exports but through local production. When saving outweighs the costs the MNEs will engage in a horizontal FDI. Note how the concept of horizontal FDI is closely linked with the one of market-seeking

FDI. Likely, horizontal FDI sees market size as a crucial determinant since it allows for a reduction of the relative shares of fixed costs thanks to a possible increased volume of production.

On the other hand, vertical FDI aims to improve the efficiency and profitability of a firm by fragmenting production processes in different countries and environments. The fragmentation occurs with the aim of exploiting cross-country differences in relative factor costs. In doing this, the company could aim at integrating and controlling inputs or raw materials for its production process, engaging in what is called Backward Vertical FDI, or opting for Forward Vertical FDI, choosing to control the distribution or marketing of its product gaining a direct presence in the foreign market and a better overview of its marketing channels, customer relationships and brand image. The benefit of vertical FDI can be understood by thinking about the lower production costs in the new location, since as said input prices vary across countries. This remains profitable until the savings outweigh the additional costs of fragmentation: transportation costs, opportunity costs and additional costs for acting in a new country. Both horizontal and vertical FDI have their unique advantages and strategic objectives. The choice between these types of FDI depends on factors such as market opportunities, cost considerations, access to resources, and overall business strategies of the investing company. “International corporations: The industrial economics of foreign investment, author=Caves, Richard E” (1971) centred his attention on the concept of product differentiation as a monopolistic advantage, asserting that imperfect competition incentivized MNEs to distinguish their products and partake in horizontal FDI. Instead of relying on exporting or licensing, MNEs favoured FDI when their knowledge was utilized in product differentiation rather than managerial skills (Faeth, 2009).

A useful framework for analyzing FDI, combining ownership and location advantages with technology and country characteristics and explaining both horizontal

and vertical FDI, is offered by the new trade theory. Horizontal FDI can indeed be explained using the proximity–concentration hypothesis, while vertical FDI using the factor-proportions theory (Faeth, 2009). The proximity-concentration hypothesis arises from consideration of the trade-off between transportation costs, the proximity, and diseconomies of scale, the concentration, that results when the firm duplicates its activities by engaging in horizontal FDI. Firms have to weigh expected future profits that will accrue from producing abroad and the ones from exporting. In doing so, they should consider the correlation of countries’ business cycles with respect to their home country’s ones and their volatility (Ramondo, Rappoport, & Ruhl, 2013). Based on these considerations the model is able to predict the balance between exports and local production. FDI will be preferred when transportation costs are bigger compared to plant fixed costs or when firm-level scale effects are more relevant than plant-level scale effects.

On the other hand, vertical FDI can be explained using the factor proportions theory (Faeth, 2009). “International corporations: The industrial economics of foreign investment, author=Caves, Richard E” (1971) notes how as part of the theory of capital flows, headquarters activities should be performed in capital-abundant countries while subsidiaries in capital-scarce countries. As a consequence, identical countries should not show any transaction happening between them. Empirical observation however contrasts this hypothesis and it is only with the introduction of imperfect competition and increasing return to scale in the “new trade theory” that such movement can be explained. The factor proportions theory has been developed by the Swedish economist Heckscher and it relates to the interaction between labour and capital as mediated by technology (Leamer, n.d.). According to this theory, which assumes no productivity differences between countries, the comparative advantage of countries in production and export is the cost differences determined by factor prices. If labour and capital are quite rigid indeed each country owns different quantities of

the two that in turn define it. Thus, countries which own relatively large endowments of labour and relatively smaller endowments of capital when compared to the others should have relatively cheap labour. Multinationals can take advantage of these consequences.

A clear-cut distinction between horizontal and vertical FDI is not possible because even in horizontal FDI some vertical traits emerge and some services are still performed by the direct investor.

## 1.2 Determinants

Foreign Direct Investment is influenced by various determinants, and there are several factors that can affect a country's attractiveness. The specific determinants may vary depending on the context and the period, with the magnitude of each determinant being more or less influential over time. Different theories highlight the importance of different determinants. The OLI paradigm found four main categories of determinants: infrastructure, human capital, economic stability and production costs. First of all, the market size and growth potential of a country are crucial, especially for market-seeking FDI. Market size as said can be measured in different ways, from GDP to population, but its importance is widely recognized. Larger markets with growing economies tend to attract more foreign investment. However, Nunnekeamp (2002) notes how its importance is on the decline. Globalization made markets closer and trade agreements reduced the barriers between markets. Consequently other determinants such as quality of infrastructure, the ease of doing business and a skilled and flexible labour market have seen an increase in their importance. Policymakers now face complex challenges in the process of enhancing the attractiveness of a location for FDI (Blomström & Kokko, 2002). In general, the presence of a well-developed physical infrastructure, including transportation, communication networks,



power supply, and reliable utilities, is an essential factor for attracting FDI. Quality of infrastructure has been used as a determinant by many authors (Cleeve, 2008; Mhlanga, Blalock, & Christy, 2010), using different proxies each time such as the number of phone lines, mobile subscribers, internet connection, net electricity generation capacity (Assunção, Forte, & Teixeira, 2011). Countries with stable economic conditions and predictable policies are more likely to attract FDI. Political stability, rule of law, absence of corruption, and protection of property rights are crucial factors (Agarwal, 1980). From governments, firms are interested in a favourable environment and policies (Agarwal, 1980). Favourable tax regimes, tax incentives, investment promotion policies, and special economic zones designed to attract foreign investment can significantly impact FDI flows. Countries that have open trade policies, liberalized markets, and preferential access to other markets through trade agreements may attract more FDI. Participation in regional economic integration initiatives, such as free trade agreements and economic unions, can stimulate FDI by creating larger integrated markets and reducing trade barriers. Economic stability is another necessity as MNE may face greater difficulties in an uncertain scenario. Authors used as a proxy many indexes such as the inflation rate (Asiedu, 2006), the unemployment rate (Botrić & Škuflić, 2006), the ratio between government spending and GDP, the weight of the private sector in the economy and so on. What evidence has been found is that the effect of determinants varies according to the level of countries' development. Firms interested in engaging in FDI activities have to also consider the availability of skilled labour and the labour market in general; wage levels, labour productivity, flexibility in labour regulations, and the overall quality of human capital. Agarwal (1980) found support for the MNEs' seeking of cheap labour and so a positive correlation between low wages and FDI inflows. Other studies found instead a negative correlation, the effect can thus be depending on the sector involved (Assunção et al., 2011). Meanwhile, adult literacy and secondary education in SubSaharan Africa (SSA) countries

have a positive effect on the location dimension of the OLI paradigm. Human capital is found to be relevant due to the improved productivity and facilitated technological innovation that a higher level of education carries with it (Brooks, Hasan, Lee, Son, & Zhuang, 2010). Production costs have also their part, the cost of inputs in general influence the choice of MNE interested in reducing or containing their cost. Then, the availability and accessibility of natural resources, such as minerals, oil, and gas, can be attractive to foreign investors, particularly in industries related to extraction and exploitation. Lately, the presence of advanced technology, research and development capabilities, innovation ecosystems, and intellectual property protection can be attractive to foreign investors seeking access to new technologies and knowledge.

Other approaches to discovering the determinants of FDI offer different perspectives to look at to understand the flows. The institutional approach focused on some institutional features that are believed to attract investors. As such, corruption, political instability and institutional quality and financial and economic incentives are investigated in their role of promoting the country in the eyes of the MNE. The reduction of corruption and more transparency have a significant effect on institutional quality and this can give security to investors. All the related parameters that can lead to a situation of political instability have been taken into account to explain FDI inflows. Inequality can generate revolts, insurrections, strikes or coups d'états that are negatively associated with FDI inflows (Asiedu, 2006). There is not a general consensus on the net effect of incentives for MNE. Various studies have found no significant effect between some kinds of incentives, such as temporary tax exemptions, liberal policies on repatriation of profits and tax concession selecting some type of FDI (Assunção et al., 2011). The new theory of trade instead highlights the importance of four other determinants: market size, market growth, the openness of the economy and factor endowments in natural resources. First of all, the market size and growth potential of a country are crucial, especially for market-seeking FDIs. Market size

as said can be measured in different ways, from GDP to population, but its importance is widely recognized. Larger markets with growing economies tend to attract more foreign investment. However, Nunnenkamp (2002) notes how its importance is on the decline. Globalization made markets closer and trade agreements reduced the barriers between markets. Consequently other determinants such as quality of infrastructure, the ease of doing business and a skilled and flexible labour market have seen an increase in their importance. Policymakers now face complex challenges in the process of locational attractiveness to FDI (Blomström & Kokko, 2002). Open economies are more likely to attract FDI and virtually all the studies with conclusive results corroborate this hypothesis (Assunção et al., 2011). With respect to natural resources, Dunning and Lundan (2008) note how better quality and a lower real cost than in the country of origin are a source of competitive advantage for firms, especially if they are resource-seeking. Proxies such as the presence of fuel and minerals have shown a positive correlation (Cheung & Qian, 2009). FDI inflows from some countries may be more influenced by the availability of resources than others due to political reasons. Another interesting model to understand FDI flows is the one which sees policy variables as determinants of FDI. In this framework, the company behaves with respect to government policies and incentives that impact and influence the firm's decision process in all stages. MNEs are able to bargain directly with the government to ensure the best possible conditions in the areas of government intervention in which settles, including but not limited to taxes, subsidies, financing arrangements, use of expatriates, local employment, training, local input, export conditions and capital repatriation. These discourses are interesting to apply and expand for one of the main functions of a firm, crucial for its long-term perspective, Research and Development (R&D). The choice of investing in a foreign country to increase R&D capacity is related to other reasons that are not the mere seeking of a new market. Different institutional assets provide different environments to acceler-

ate the growth of companies in different fields. The Varieties of Capitalism framework (Hall & Soskice, 2001), offers a first distinction between countries that can be categorised in a spectrum in which at the two poles there are Liberal Market Economies (LMEs) and Coordinated Market Economies (CMEs). According to these distinctions, many institutional peculiarities that compose a country's kind of capitalism, provide companies with a greater capacity to radical innovate in LMEs, defined as "substantial shifts in product lines, the development of entirely new goods, or major changes to the production process" and a greater capacity to incremental innovate in CMEs, "continuous but small-scale improvements to existing product lines and production processes". Briefly, in LMEs, the privilege given to short-term profitability, a fluid labour market composed of workers with a general skill set, the easily accessible and available capital, and a legal framework that discourage inter-firm collaboration give companies the ability to move fast within sectors and hire and displace workers relatively easily. On the contrary, in CMEs the coordination achieved thanks to non-market mechanisms between firms encourages collaboration and cooperation between them and between employers and employees, which are highly specialized in their sectors thanks to training and a secure job. At the same time, capitals are usually more patient, allowing a long-term perspective in the investment decision-making process of firms. This first distinction, even if disputed and neglects some issues that can challenge this conclusion (Akkermans, Castaldi, & Los, 2009), is a useful start to understand how institutional differences are crucial in the location choices of FDI in R&D for firms. It is important in the end to note that the importance and relative influence of these determinants can vary depending on the specific industry, sector, and purposes of foreign investors.

### 1.3 Effects of FDI

When an MNE engages in FDI activities multiple perspectives can be adopted. From the point of view of the company, the gain and the cons have already been explained previously. However, FDI not only has the effect of potentially increasing the firm's profitability but also has a variety of consequences for the host country's economy and development. The entry of a company into an economy represents something more than just an inflow of capital. Governments usually tend to promote their countries and create a conducive environment for multinationals hoping that they will decide to expand their business there and this is proved by the number of agencies that have been created exactly for this scope. It is believed indeed that this investment can have positive impacts in terms of employment and various types of spillovers, and in opening the country's economy to the world. Briefly, the country as a whole and local firms can benefit from the know-how and product innovation brought by FDI. In developing countries, domestic capital accumulation may not be enough to stimulate sufficient growth (Farole & Winkler, 2012). FDI can thus bring inside the country flows of private capital coming from richer countries and, given the long-term perspective that is quintessential for this kind of investment, ensure stability and a basement for long-term growth that would not have been possible with domestic savings. FDI is indeed less risky and less vulnerable to an exogenous shock, that is structural in weak economies, and that for other types of investments may result in a rapid outflow of capital. However, this is not always the case, as the higher competition brought by the company can force local firms to shut down or the un-integration in the local economies can result in only a resource drain. The balance between positive and negative effects depends on a number of reasons and Johnson (2005), notes how empirical evidence is ambiguous. While some studies have found a positive correlation between FDI and host country economic growth some others reached the conclusion

that some host country conditions such as human capital abundance and macroeconomic stability are crucial in determining the net effect in host countries. Other studies have also highlighted the role of institutional characteristics, trade policies or level of development in determining the net effects of FDI (Mencinger, 2003).

According to the framework provided by the OECD (2002) and expanded by Forte and Moura (2013) there are six main channels through which FDI affect host countries: integration in the global economy, increased competition, transfer of new technologies and know-how, formation of the human resources, firms development and restructuring and through the difficulty of implementation economic policies. While the last one has a clear negative impact and the firm development and restructuring have a positive one, the first four are ambiguous. Lastly, we can include the environmental and social impact FDI has.

### **1.3.1 Integration in the global economy**

Starting from the integration into the global economy, FDI increases its capital stock and thus its production capacity. As a consequence, foreign trade flows tend to increase thanks also to the distribution network of the MNE fostering the integration of the country in the world economy. This relationship has been demonstrated by Mencinger (2003) who found a positive link between the increase of FDI and the rapid integration into global trade. Local firms can as well be positively impacted by the presence of a multinational firm that can incentivize them to standardize their products, by becoming MNE suppliers or customers, and take advantage of the firm know-how and methodologies to access the global market thanks to the proximity. The local firms can also be included in the multinational strategy and follow it in other countries, becoming multinationals in turn, or even replacing other suppliers of the MNEs subsidiaries in other countries (OECD, 2002). This in turn welds the linkages

between the country and the global economy. The OECD (Fontagné, 1999) found that until the mid-1980s international trade caused direct investments. After that period this causal-effect relationship has reversed with direct investments heavily influencing trade. The relationship is of complementarity or substitutability however depending on the characteristics of the country and the reasons behind the MNE's decision. What has been found, for example, is that for inward FDI in the United States, the relationship in the 90s was mainly of substitution because foreign firms' main aim was to access the local consumer base and avoid transportation costs. Different was the case of the UK and France (Fontagné, 1999). For the firms, this comes with some threats: the competition may become greater and their products may not be of enough quality to compete. Moreover, it increases their exposition to macroeconomic fluctuations. Economic problems occurring in the MNE origin's country can also spread in the world due to FDI (Vissak & Roolaht, 2005). Not only, but possible problems may also arise from the balance of payments. The purpose of improving it can be mitigated by the usual repatriation of profits to their countries of origin or through the payment for services, licenses and royalties for the usage of technology owned by the headquarter (Şen, 1998). The negative impacts of repatriation of capital can worsen if these funds are obtained through credits obtained in the host country (Loungani & Razin, 2001).

### **1.3.2 Competitive landscape**

Secondly, FDI plays a role in shaping the competitive landscape. The entrance of a new firm that brings new technologies, know-how and networks, increases the strength of competition. The newly generated supply induces local firms to react in order to maintain their market shares (Forte & Moura, 2013). However, if local firms cannot keep pace they may be forced to cease their activities. This increases the

concentration in the sector and decreases the competition. Moreover, local firms may be incentivized to merge to face the advantages multinationals have, further increasing the concentration in the market. To face the entry of the MNE they indeed have to increase their R&D expenditures, improving their technologies and methods (Forte & Moura, 2013). This may lead to increased productivity, lower prices and a more efficient allocation of resources (Pessoa, 2007). However, in a situation of a highly protected market multinationals may tend to influence authorities in order to maintain the status quo after their entry, constraining the development capacity of the country (Forte & Moura, 2013). The growth of the income in the national economy may be unequal, with multinationals increasing their own income with a magnitude able to outweigh the decrease in income of local firms, or their closure. Hanson et al. (2001) found evidence of this. Local firms may also suffer from a loss of human resources due to the higher wages and better career possibilities usually offered by multinationals (Sylwester, 2005). They may even find greater difficulties in access to credit and subsidies from the government that may commit to bear some costs in order to attract FDI (Vissak & Roolah, 2005).

### **1.3.3 Transfer of new technologies and know-how**

One of the main reasons governments seek to attract FDI is the hope that multinationals may increase the country's capabilities and develop its technology. The importance of technological progress is highly recognized by the literature (Blomström & Kokko, 2002). International trade and FDI are indeed believed to be the two major channels for knowledge spillovers (Xu, 2000). The impact however can be not only positive but also negative. Multinationals are regarded as the most technologically developed firms, with R&D spending that covers almost half of all the world spending in the field (Forte & Moura, 2013). They produce and control most of the world's ad-



vanced technology (Blomström & Kokko, 2002). The competencies and instruments that they developed and own are indeed a source of competitive advantage. Domestic firms can access technologies and know-how via the establishment of business relationships with the MNE or thanks to the labour turnover that has experienced training inside the MNE. The transfer thus can happen horizontally, thanks to the mobility of employees between MNE, its competitors and complementary companies, or vertically, in the relationship with the MNE's customers and suppliers (OECD, 2002). The mobility of labour depends on the competitiveness of domestic firms in wages and career opportunities but also the role of entrepreneurship should not be neglected. On the other hand, the relationship between MNEs supplier and customer is ambiguous. It may be in the interest of the MNE to develop a chain that is the most efficient possible as its performances are determined not only by its organization but also by the coordination capacity with the other players. However, the MNE may be reluctant to share too much knowledge and technology as it sees it as the source of its competitive advantage. The risk is indeed that this knowledge can be accessed by rivals hampering its growth and prosperity.

Moreover, MNEs subsidiaries may invest more in Research and Development than domestic firms, thanks to the access to the capital of the parent or the greater access to credit in the host country. They indeed face fewer financial constraints with respect to domestic firms. Perhaps, however, they may invest less, because they already enjoy access to technologies and knowledge abroad brought by the parent or other subsidiaries (Un & Cuervo-Cazurra, 2008). The net effect in determining how subsidiaries behave with respect to comparable local firms depends on the influence of these two elements. Un and Cuervo-Cazurra (2008) supported the hypothesis that subsidiaries stick to the advantage enjoyed by being part of a multinational conglomerate. The knowledge transfer thus substitutes the further R&D done in the host country, with an R&D that acts as a complement to the technology and knowledge

transmitted from abroad.

Assessing the impact of technological spillover is not an easy task since it is difficult to distinguish between the technology diffusion effect of MNEs and other factors such as enhanced competition (Xu, 2000). Xu (2000) found strong evidence of technology diffusion brought by US MNE affiliates in developed countries but weak evidence in least-developed countries. In the former, FDI has played a role almost as important as international trade. On the negative side, host countries can develop a dependency on foreign technologies (Vissak & Roolaht, 2005) and depress the local firms' willingness to research and develop new products. Local firms that receive foreign technologies indeed may decide to become more competitive by reducing costs through a reduction in the spending for R&D (Berthélemy & Demurger, 2000). In the long term, this may hamper the country's competitiveness.

#### **1.3.4 Formation of human resources**

In the process of transfer of new technologies and know-how FDI incentive the human capital development of the host country. The transfer of technology is not only made indeed of the physical movement of machinery, and equipment but also realized through expatriate managers and technicians and the training of local employees. The benefits are not limited to the direct employees of the host-country firm, but also the ones of the firm's suppliers, subcontractors and customers. The training can take the form of on-the-job training, seminars, more formal schooling or even overseas education, thanks to the MNE network and possibilities. The training happens for managers, and manufacturing employees but also for service employees in sectors that are believed to be "simpler" such as hotels and restaurants (Blomström & Kokko, 2002).

Evidence shows how MNE has a not marginal impact on tertiary education (Blomström

& Kokko, 2002). The opportunities they offer may be an incentive for students to continue their studies in tertiary education and encourage the government to invest in them. Scholarships and sponsoring of local academic institutions are other channels through which MNEs impact the education of the people. Thus, indirectly, MNE affects the human capital enhancement resulting from all the government policies enacted to attract foreign investments through improvements in the education of the workforce. Depending on the level of general and cognitive skills of host country employees' the firm sets its investments in training. The amount of competition is another determinant: if the market is protected, the firm is less likely to invest in human capital.

### **1.3.5 Local firms' development and reorganization**

FDI leads to some changes in host countries' firms. Blomström and Kokko (2002) identifies two main situations in which these changes happen. Firstly, MNEs are more capable of overcoming barriers to entry, which may protect some sectors from the entrance of local firms, with fewer means than an MNE. Their entry can thus hamper existing monopolies and increase the competition. Secondly, if FDI is achieved by takeover or by the process of privatisation, the entrance of a multinational transfers some procedures and policies that usually are more efficient than existing ones, with efficiency gains for the economy. Local firms may also try to copy the structure of multinationals, considered more efficient, and stimulate their growth. From a long-term perspective, thanks to this demonstration effect and all the spillovers previously discussed, these benefits will spread to the whole economy (OECD, 2002).

### **1.3.6 Difficulty in the implementation of economic policies**

FDI inflows are difficult to predict and this is a source of instability that can destabilise the country's economic development and hamper the implementation of economic policies (Vissak & Roolaht, 2005; Forte & Moura, 2013)). Local authorities can see their autonomy diminishing under the increasing influence of the political and economic decisions of MNEs that with their strategic decision can have a significant impact on the host countries (Duttaray, Dutt, & Mukhopadhyay, 2008; OECD, 2002). Thus, MNEs can push for policies that benefit foreign investors to the detriment of the locals. In the case of FDI flows from more developed countries toward developing ones, the influence of the former can become unbearable and lead to accusations of neo-colonialism (Hashim & Arfeen, 2021). Moreover, in the case of high capital inflows, it is likely to increase inflation as a consequence (Şen, 1998).

### **1.3.7 Environmental and Social Impact**

The entrance of MNEs can lead to an improvement of human capital and the adoption of best practices in human resources that can be copied by local firms. From an environmental point of view, the effects can follow two channels. From one perspective the technology brought by MNE can be more efficient and cleaner, reducing the CO<sub>2</sub> emission per output produced. From the other perspective, the increased capacity or the production of new types of goods can increase the total CO<sub>2</sub> emissions. Arif et al. (2022) found that while in developed countries FDI leads to fewer emissions, in developing countries empirical evidence found support for the pollution haven hypothesis. OECD (2002) note that FDI can be a way for MNEs to transfer the production that became illegal in home countries due to the enactment of environmental policies. Carbon taxation for example, is defined as “compulsory, unrequited payment to the general government, levied on carbon emissions or its proxy

that can confer a reduction in corresponding carbon-based (equivalent) emissions in the atmosphere and is thus characterised as having both environmental purpose and effect” (UN, 2021) can lead to emission leakages via FDI due to the movement of emission-intensive production to countries with none or less stringent environmental regulations. Empirical approaches however found limited evidence of carbon leakage in only very few energy-intensive industries (Jakob, 2021).

## 1.4 FDI in developing economies

The effects of FDI are influenced by the characteristics of the host country economies and thus the impact is different among countries and, notably, between developed and developing countries. Firstly, it is useful to understand what developing countries are. While in the past there was a clear-cut distinction between two groups of countries at least for some indicators, it is no longer the case. Developing countries, as they are usually categorized, are increasingly dissimilar. The World Bank (Khokhar & Serajuddin, 2015) notes how this categorization leads to some paradoxes, implicitly suggesting that countries like Mexico (GNI per capita of \$9,860) should be treated in the same way as countries such as Malawy (GNI per capita of \$250). The group of developing countries is not homogeneous at all. However, the term remains used and studied both in the UN, even if without a formal definition, and in academic research (Khokhar & Serajuddin, 2015). Currently, the World Bank has decided to divide the countries into four income groupings (low, lower-middle, upper-middle and high), based on their gross national income (GNI) per capita in U.S. dollars. This indicator has been chosen because it is expected to summarise sufficiently, even if not completely, the level of development and it is closely correlated with other non-monetary measures of the quality of life. The “developing country” status is however still used by the World Trade Organization. In this case, it comes with some advan-

tages, such as longer transition periods before fully implementing the agreements or the entitlement to receive technical assistance. The operationalization of the status is self-designation. Members announce for themselves whether they are “developed” or “developing countries”. Since it comes with some benefits, other members can challenge the self-identification and the usage of the related provisions. This mechanism gives little predictability in rights and obligations in the world trading system and the setting of more precise identification methods is claimed by some in order to sustain the objective of development (Cui, 2008). Another definition, set by the UN and recognized by the WTO is the category of “least developed countries”. Countries that pertain to this list are granted some exemptions, preferential treatments and aid for trade. Ghana is not part of the list as of 2021 (United Nations Conference on Trade and Development, 2021).

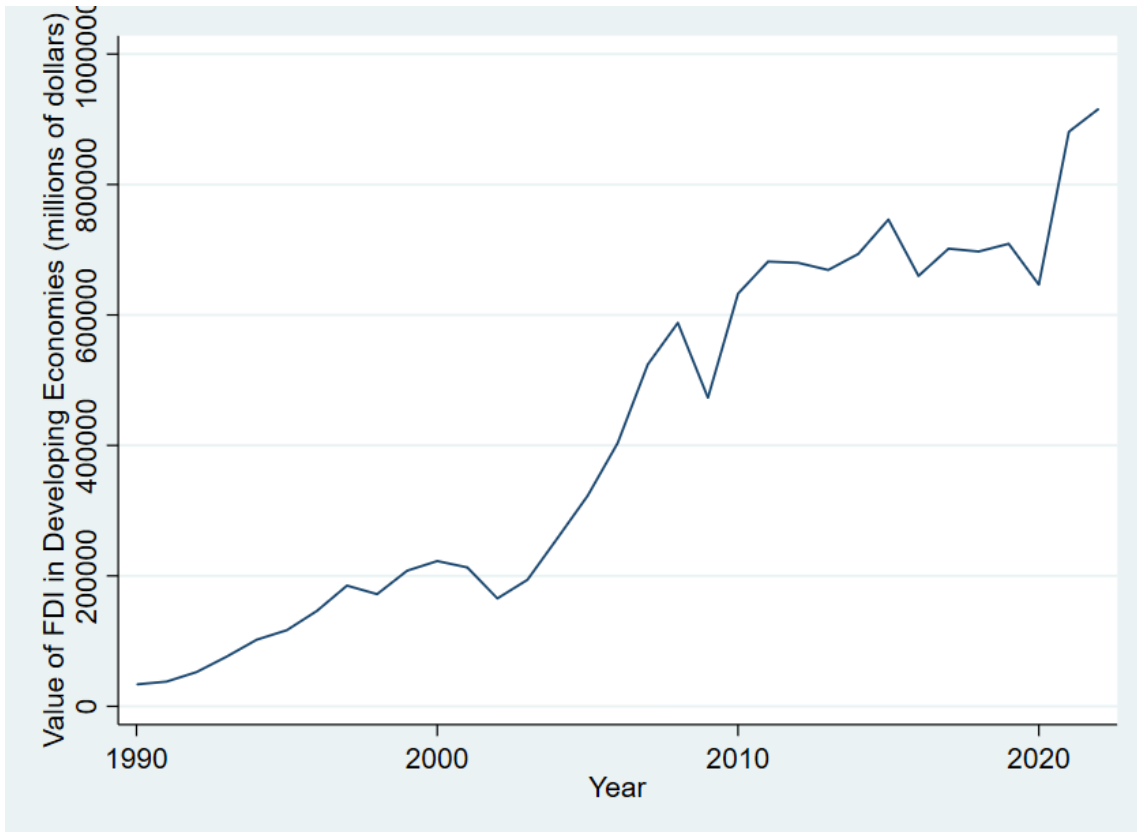


Figure 1.2: Value of FDI in developing economies *Source:* Own elaboration on UNCTAD data

FDI to developing countries have a long history, but it was in the early 1990s that a boom of FDI flows started (Nunnenkamp, 2002). These investments have been increasingly considered by MNEs as profitable investments and developing countries favourable choices in which to locate. Developing countries accounted for more than two-thirds of global FDI in 2022. The flows to developing economies rose to \$916 billion in 2022, the highest level ever recorded, as a result of strong growth performance in Latin America and the Caribbean. In 2023 it is projected that the value will continue to rise: announcements of greenfield projects indeed rose by 37 per cent in number, with a total value more than doubled. By looking at the type of projects,

the increase was mostly the result of *megaprojects* announced in the renewable energy sector, including five of the 10 highest-value projects (UNCTAD, 2023). Of all the flows, investment in sectors relevant to achieving the UN's Sustainable Development Goals in developing countries, particularly renewable energy, has experienced significant growth. Inflows to Africa fell by 44 per cent in 2022 compared to 2011, but this can be accounted for by the large corporate reconfiguration that happened in South Africa and provoked an unusual peak. However, the value of greenfield projects announced reached a new record of \$195 billion and the number of projects increased as well, totalling 766. The biggest increases were in energy and gas supply (to \$120 billion), construction (\$24 billion) and extractive industries (\$21 billion). Six of the top 15 greenfield "*mega projects*" announced in 2022 were in Africa. European investors remain, by far, the largest holders of FDI stock in Africa, led by the United Kingdom (\$60 billion), France (\$54 billion) and the Netherlands (\$54 billion).

The place of foreign direct investment as the source of capital to finance the development of developing countries has been emphasised in the literature (Dunning, 1988). In developing countries, in general, FDI flows remain an important source of external financing to support the growth in tangible assets and the development together with other cross-border capital flows such as remittances, portfolio investments and official development assistance (ODA) (Azémar & Giroud, 2023). FDI still remains the most important source compared to the other cross-border capital flows (UNCTAD, 2023).

Remittances are non-commercial transfers of money by people working abroad to their home countries. They represent the main source of financing for many developing countries and compose as much as half of the total GDP for some of them (Benn & Mirabile, 2014). Of particular importance is the fact that, unlike FDI, they tend to rise in periods of economic recession in the receiving countries (Benn & Mirabile, 2014). Portfolio Investments are characterised by a short-term horizon and aim to



diversify investment portfolios and participate in the growth of foreign economies without committing to a long-term perspective.

ODA, the last type of cross-border capital flow, is defined by the OECD as “flows of official financing administered with the promotion of the economic development and welfare of developing countries as the main objective, and which are concessional in character with a grant element of at least 25 per cent (using a fixed 10 per cent rate of discount)”.

Studies on developing countries, and especially in Africa (see Johnson (2005)), encounter many difficulties due to a lack of proper data to base the analysis on. This may lead to contrasting results in the literature on the effect of FDI in such economies.

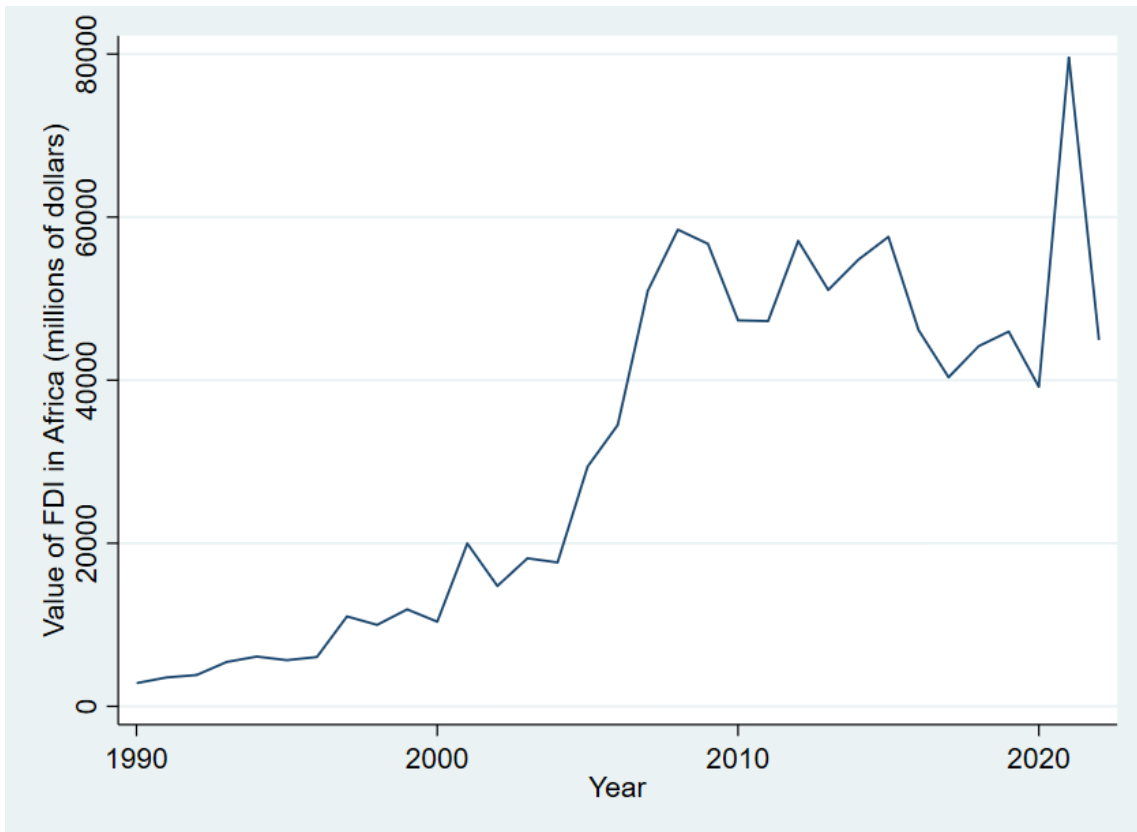


Figure 1.3: Value of FDI in Africa *Source:* Own elaboration on UNCTAD data

(Farole & Winkler, 2012) found that spillovers in the short term may be even negative. Among the reasons for this, the competition effect for scarce skilled labour is predominant. However, from a long-term perspective, the entrance of MNEs in the country can lead to an improvement of the economy, creating opportunities for local workers and suppliers. To be effective, developing countries should aim at retaining investors. The benefits appear indeed when the company starts employing local people in higher positions, sharing technology and know-how and bringing capital on a stable base (Fruman, 2016). (Inekwe, 2013) studied the relationship between employment, economic growth and FDI in Nigeria, finding that FDI has had a negative relationship with economic growth in the manufacturing sector, even if positively related to the employment rate. The contrary is true for the service sector. Indeed, FDI has had a positive relationship with the economic growth in that sector, but a negative with the employment rate. Evidence is mixed. Alege and Ogundipe (2013) found that the reason behind the majority of FDI in Africa is seeking resources. The sectoral distribution of FDI to Africa is indeed mainly concentrated in the primary sector and more specifically in the oil and gas extraction (Yimer, 2023). According to Alege and Ogundipe (2013), FDI flows have not contributed to the growth of GDP per capita in ECOWAS countries. The reasons are that they concentrate on industries unrelated to the general economy and the possibility that an excessive openness in the extractive industry could harm the other sectors in import-dependent economies (Alege & Ogundipe, 2013). On the contrary, Soumaré (2015) found that there are positive and strongly significant relationships with welfare improvement in North Africa even if the investments were concentrated in a few industries, like extractive petroleum, tourism, or construction.

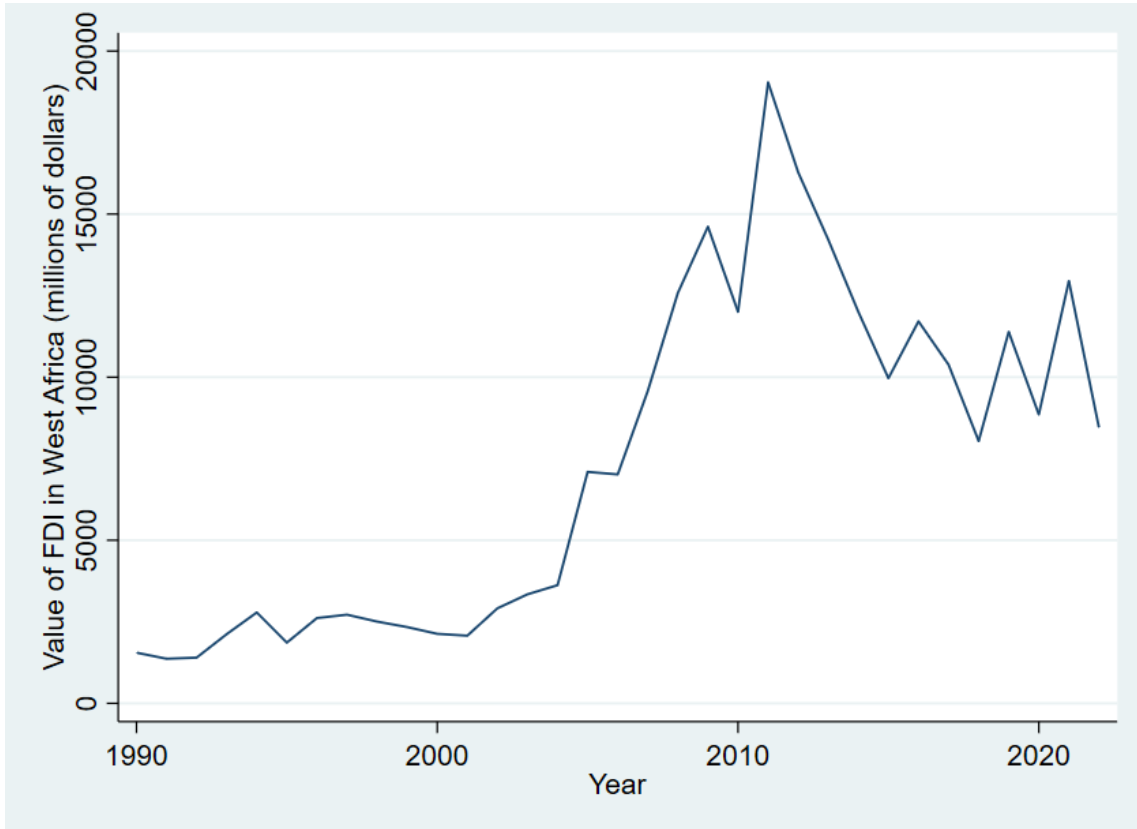


Figure 1.4: Value of FDI in West Africa *Source:* Own elaboration on UNCTAD data

Utouh and Rao (2016) found that FDI are positively and significantly at 5% correlated with employment in Tanzania using an OLS technique. However, the analysis was based on the absolute number of FDI and the total employment over the year, without then looking at the trends in the specific sectors. The same is true for the analysis done by Craigwell (2006) in 20 countries in the Caribbean. Again, analysis in developing countries are difficult due to the lack of available and reliable data.

# Chapter 2

## Ghana

### 2.1 Introduction

Ghana is a country located in Western Africa, on the Gulf of Guinea, surrounded by Côte d'Ivoire, Burkina Faso, and Togo and with access on the southern part to the Atlantic Ocean. The population in 2021 was 32,83 Million people in an area of 239,535  $km^2$  and is growing at a high rate: 28 per cent in the last decade and with an annual percentage growth of 2 per cent. The country is already the second most populated in West Africa, just after Nigeria. The official language and lingua franca is English, but indigenous languages such as Twi or Ga are widely spoken. Some of them, and more precisely eleven, have also a recognition as government-sponsored languages. People from different regions and ethnic groups often speak different languages, thus using English to communicate between themselves. The major cities are Accra, the capital, Kumasi, the capital of the Ashanti region, Tamale and Sekondi-Takoradi. The first two have more than 2 million inhabitants and are important industrial centres. More than half of Ghanaians now live in cities. The greater majority of them are Christians, but in the country there is also a fifth of the population that is Muslim,

mostly concentrated in the northern regions.

Ghana is well integrated within the international community, being a member of the African Union, of the Economic Community of West African States (ECOWAS) and, as a former British colony, of the Commonwealth.

The GNI per capita is 2,280 international \$ while, accounting for purchasing power parity, is 5,820\$. Ghana owns a national currency, the Ghana Cedi (GHS).

### **2.1.1 Brief History**

Today, more than 100 separate ethnic groups coexist in the country. Of these, the most important is Akan, a group that in the past was able to create various states, such as Ashanti, the state that will expand into an empire covering much of modern Ghana and parts of the modern Cote d'Ivoire thanks to the monopoly of gold. It was again the gold, that gave prosperity to the indigenous state, to have brought European traders to be interested in the region. The first ones to arrive in 1471 were the Portuguese, setting up the first outpost on the coast and starting a period in which the business of gold was followed by the business of slaves. Dutch, Danes, English and Swedes joined it taking advantage of what became known as the "Golden Coast". In this period European colonists competed between each other, building fortresses to protect their operations and trading with African states. By the 18th century, the slave trade started to be abolished by European states and one after the other withdrew from the area. Britain won the competition and by 1902 Ghana, without the Volta region that voted to join it only in 1956, was conquered and transformed into a British crown colony to overcome the instability of trade due to the wars with Ashanti. Despite the centralism and authoritarianism, Ghanaians were permitted to become agents of the colonial administration, creating a representative government to a degree that was an unicum in the region. In this period the country began to

develop economically. In 1878 cocoa was introduced into the country, beginning a cultivation that would become crucial for the country in the future. At the same time, the education system developed with the founding of the first university in 1948. The rise of the newly created, educated, social class increased the sought for independence. After years of fighting, thanks to the independence movement Ghana was the first country in sub-Saharan Africa to achieve independence from colonial domination in 1957, remaining anyway within the British Commonwealth of Nations. The economy was sustained by the production and exports of minerals such as gold and timber and the status of the world's leading producer of cocoa. With a well-developed infrastructure, and relatively good indexes such as per capita income, foreign currency reserves, level of education and low national debt the future seemed prosperous. However, during the following 25 years, the situation worsened. In 1960 the new constitution, moving from the previous situation of being a constitutional monarchy, finally established the Republic of Ghana, with Kwame Nkrumah, leader of the Convention People's Party and one of the main figures of the independence movement, elected as President. Considered an authoritarian by the West, and a hero by the Soviet Union, under his government Ghana became a one-party state by the mid-1960s. He believed in decolonization, Pan-Africanism and a rapid transformation of the economy with socialist traits, nationalising foreign-owned companies and investing in education, the health sector and infrastructures. Ghana followed a path of Import substitution Industrialization. It was based on the principle that the direct involvement of the state in the production process and management of the economy was necessary due to some characteristics of the country like a lack of entrepreneurial class and the availability of basically only low-skilled labour. Moreover, there were also few indigenous private capital. Therefore, in order to reduce its dependency on the external market and protect its economy from external shocks, the state decided to directly intervene in the economy, in the hope of creating jobs and ensuring a

rapid and efficient expansion of the economy. The lack of sufficient internal resources to finance the public-sector projects desired however exhausted the foreign currency reserves and started a period of deficit financing and foreign borrowing. The country started to experience rising inflation, increasing public debt, corruption and a power intolerant of dissent. The forced implementation of the first austerity budget in 1961 made citizens aware of the cost of the President's programmes, and the population started a period of strikes. In 1966 a coup d'état removed Nkrumah from power, but the military government established did not succeed in improving the situation. The country lost its importance and the internal divisions challenged the forming of a nation. After the seizing of power by the military and a short parenthesis of vague socialism, the leader of the council Jerry John Rawlings negotiated with the World Bank and the International Monetary Fund a set of reforms to stimulate growth, exports and liberalizations, starting from 1983. The program succeeded in its aim of reversing the downfall in exports, increasing GDP and controlling inflation but the country was forced to incur new debt and it experienced rising unemployment and newly added fees for basic services. Inequalities, indeed, continued to rise.

The fourth republic was established by the Constitution of 1993 with the return to democracy with a multi-party system and Rawlings, after having won elections boycotted by the opposition, as president. Since then, the election has been considered free and fair with the alternation of the New Patriotic Party (NPP), Centre-right, and the National Democratic Congress (NDC), centre-left. As of 2023, the NPP has been ruling the country since 2016, with Nana Akufo-Addo as President. In the last two decades, it experienced rapid and stable growth that resulted in a fast poverty reduction (from a 52.6% poverty rate to 21.4% between 1991 and 2012), unlike other SSA countries, even with rising polarization (Clementi, Molini, & Schettino, 2018). Polarization, and so the creation of subgroups and divisions in society that become homogeneous intra-group but alienated inter-groups, is particularly concerning since

it may lead to social conflicts and tension. The Ghana Poverty Reduction Strategy introduced in 2000 was intended to address the social problems that translated into high poverty incidence and inequalities with a focus on generating employment, however failed its purpose due to the constraint on the expansion of the private sector caused by the willingness to have macroeconomic stability at all costs (Aryeetey & Baah-Boateng, 2007). Ghana achieved the status of lower middle-income country in 2010, thanks to statistical adjustments that set the GDP per capita to USD 1,363. This change in status has direct consequences because it affects the concession of financing from the World Bank.

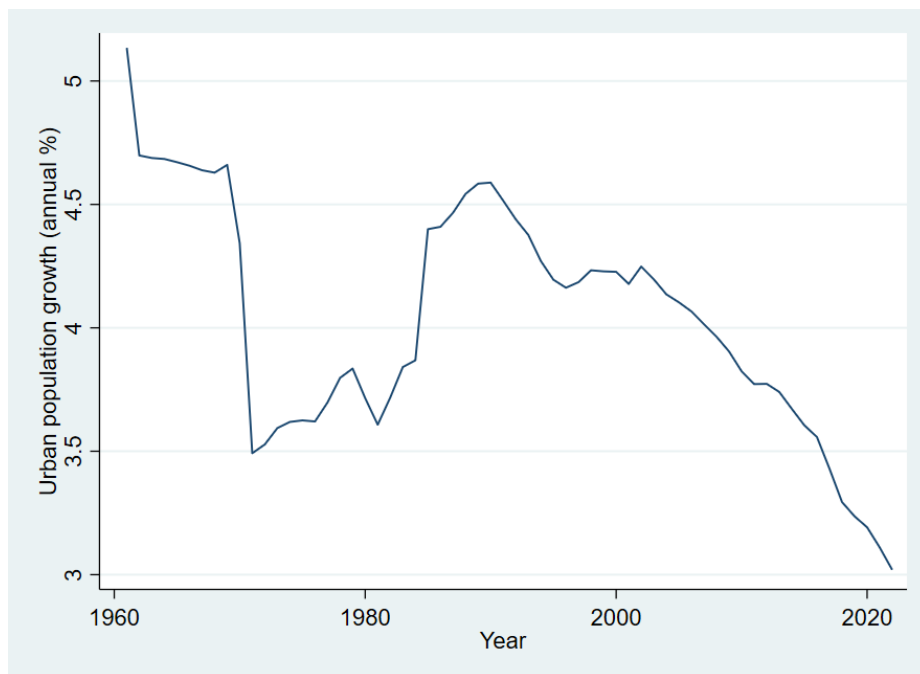


Figure 2.1: Urban population growth (annual %). *Source:* Own elaboration on World Bank data



## **2.2 Characteristics**

Following the classification as made by Assunção et al. (2011), this section will present the characteristics of Ghana as seen by the three main theories to explain foreign direct investments: the OLI paradigm, the Institutional Approach and, lastly, the New Theory of Trade. The vast literature on FDI encompasses a wide number of potential determinants, that can be however narrowed down to summarise a country in a small set of quantifiable indexes that can cover most of the situations. Ghana is one of the greatest recipient of FDI in Africa, and own a long even if modest history of flows. FDI has been historically seen mostly with the aim of import substitution, starting to increase after the transition from an administrative system of economic management to a market economy due to the IMF recommendations.

### **2.2.1 FDI determinants associated with the OLI paradigm**

The OLI paradigm emphasises the role of the simultaneous ownership advantages, location advantages and internalisation advantages. From a national perspective, countries with favourable conditions such as a large market size, well-developed infrastructure, abundant human capital, and low risks become attractive destinations for foreign companies. For example, a country with a large market size gives companies the opportunity to scale their operations and reach a broader customer base. Similarly, a well-developed infrastructure reduces logistical challenges, making it easier for businesses to operate efficiently. A nation with a skilled and educated workforce contributes to the development and utilisation of ownership advantages, as companies can hire local talent. In this way, countries can also maximise the positive impact FDI may have.

### **2.2.1.1 Infrastructure**

A robust infrastructure plays a crucial role in ensuring economic sustainability. A combination of physical and digital infrastructure is not merely a facilitator of doing business, acting as a support of the functioning of an organization; it is in fact the factor that allows a company to operate and to grow in a complex environment. They provide the necessary facilities required for day to day business operations. Consider, for instance, an export-oriented company: a type of company crucial as will be shown for the economic future of Ghana. A well connected network of roads for the efficient transportation of goods and a robust internet connection for maintaining constant communication with customers are indispensable components.

Physical infrastructure encompasses a wide range of elements, including buildings and office spaces, all the structures related to the transportation system as well as water supply and sanitation facilities and, obviously, communication networks, both for internet and telecommunication. Digital infrastructure instead refers to the information technology systems, data centres, networking systems and cybersecurity measures. These digital infrastructure are not only important for the internal operations of a company, but also for safeguarding sensitive information about it.

Ghana understood that building a developed infrastructure is a necessary premise for economic development. Indeed, it has made huge efforts in the modernization of its infrastructure stock in recent years. Even if remarkable progress has been achieved, it is important to acknowledge that certain geographical areas and segments of the population still lack access to basic services. Inadequate infrastructure translates into a factor that hinders the country's potential growth. Indeed, a lack of quality infrastructure increases transaction cost and processing times, diminishing overall productivity and capability of companies to expand and prosper, both in local and global environments.

**Electricity** Electricity is the necessary premise for carrying out a business nowadays, and access to electricity is sought for by companies that need a reliable supply system to avoid incurring in longer processing times and delays. In 2015 the electronic power consumption per capita in Ghana was 348 kWh. To make a comparison, in Low and Middle Income Countries (LMIC), the category Ghana belongs to, the average is 745kWh. Electricity indeed was available only to 64% of the population, marking a 10 per cent deficit compared to LMIC averages. By 2021 Ghana made huge steps, and now the World Bank in its “2023 Africa’s Pulse Report”, states that for Ghana electricity access rate is 81.2 per cent, making it the country with the best result in Sub-Saharan Africa. The availability of electricity though has not kept pace with the increasing demand, resulting in shortages that still hamper the business activities that are forced to slow down their production in certain situations (National Development Planning Commission, 2019). The disparity in electricity access is evident in household statistics. Even if it is true that the difficult access to electricity is an issue in the whole country, percentages go from only 2,8 per cent in the capital to 46,1 percent in rural areas, with the main reasons being the unavailability or the considerable distance from the grid and the associated costs (Ghana Statistical Service, 2019). A study conducted by Doe and Emmanuel (2014) highlighted that since electricity is the main driver for industrial development and it is a crucial input for businesses, power fluctuation impacted on both *Return on Assets* (ROA) and *Return on Investments* (ROI) depending on the frequency of the fluctuations, for small and medium enterprises in the Accra Business District. Access to energy remains one of the most profound development challenges Ghana faces. For example, City of God, an organization that manages a school for children in the slum of Korle Dudor, or “Old Fadama” as it is known by locals, had to install photovoltaic panels to ensure the functioning of lights and fans inside the classroom. These two elements are essential in a classroom with small windows, closely surrounded by shacks and where

tens of children have to stay till afternoon. However, their cost is not neglectable and they need constant maintenance.

Ghana's electricity generation primarily relies on traditional sources, though there is also a substantial share of hydropower, at 29.1 per cent. Though oil has been discovered in the country in 2007 and it is now one of the most important exports of the country, preceded only by gold, the country does not own the necessary facilities to refine it, and thus its most important import is still refined petroleum. Indeed, the country exported in 2021 \$3.57 billion of crude petroleum and imported \$1 Billion of refined petroleum. The government is also still reliant on imported gas from Nigeria, that comes into the country via the West African Gas Pipeline (Atuahene & Sheng, 2023). Ghana's electricity demand is so threatened by two main factors: the reliance on other countries for the raw materials that expose it to external shocks, and water scarcity that hamper its hydropower production (National Development Planning Condition, 2019). Recognizing the vulnerabilities and the impact of climate change on the latter, Ghana signed the Paris Agreement that should, and is, fostering the renewable energy sector. This initiative not only contributes to reducing the country's emission but also diversifies the energy mix, allowing the country to reach a greater resilience. According to National Development Planning Condition (2019) the nuclear power is being considered as a viable solution to mitigate the risks associated with fuel supply and price instability, while simultaneously offering long-term reductions in emissions and and costs.

Ghana is also taking steps to include nuclear energy in its energy mix, viewing it as a strategic component for the future (Debrah et al., 2020). This move aligns with the country's efforts to address challenges related to electricity access, external dependencies, and environmental sustainability, positioning Ghana for a more robust and sustainable energy future that will allow companies to grow and prosper.

**Transportation System** Countries seeking to attract international investments have to recognize that the bedrock of their attractiveness lies not only in fiscal incentives and regulatory frameworks but also in the efficiency and efficacy of their transportation systems. For investors, the availability of reliable and well-connected transport systems translates into reduced operational costs, streamlined supply chains, and greater market access.

The transportation infrastructure of Ghana consists of two major deep-water ports, a 160 km operational railway system, an international airport in Accra and 8 regional airports and airstrips scattered across the country.

The railway system was originally established during the colonial period, but now consists of only a fraction of what it used to be, serving only the coastline area and the Ashanti region. This limited coverage hinders the opportunities for businesses to leverage rail transport, cheaper and more efficient than the road one. This incomplete railway network poses some challenges particularly in the transportation of bulk minerals, as the existing system does not adequately connect to regions with significant mineral deposits, rendering them largely unexplored (National Development Planning Condition, 2019).

In response to these challenges, Ghana initiated the *2020 Railway Master Plan*, a commitment that involved the collaboration with the Italian consultancy firm *Team Engineering S.p.A.* The company reviewed the original plan of 2013, aiming to upgrade the railway system by connecting not only inland regions but also to integrate the Ghanaian railway system with the one of neighbourhood countries (Ministry of Railway Development, 2020). The railway system will undergo major development in the next decade and aim at building 3800 kilometres of new rail lines by 2035. This expansion is crucial to allow a more efficient transport of people and goods, particularly minerals and cocoa, while alleviating the traffic on the congested roadways of the country. The project is seeing an international commitment with partnership involv-

ing countries such as South Africa, Germany and Sweden (Deutsche Bank, 2022) and an estimated cost over the years of approximately US\$21.5 billion (Obeng, Bessah, Amponsah, Dzisi, & Agyare, 2022).

The railway infrastructure will be owned by the government through the Ghana Railway Development Authority (GRDA), while rail services and ownership of rolling stock will be delegated to private sector operators. According to Obeng et al. (2022), this model will grant the government an important role in stimulating socio-economic development. Indeed, the government made huge efforts to create a favourable institutional and legislative environment.

The road network is crucial as well for transportations within the country. As of 2023, Ghana's total road network is reported to be only 27 per cent paved, according to the Minister for Roads and Highways, Amoako-Attah (Roads Minister, 2023). To provide context, in 2015 Liberia had only 7.4% of its roads paved. The *Ghana Infrastructure Plan 2018-2047* (GIP) (National Development Planning Commission, 2019) highlights how one of the main challenges to the growth of the agricultural sector is the difficulty to access the market due to the poor conditions of roads. Additionally, the national vehicle fleet is old (with more than half of them defined as "not roadworthy") and made of used and imported vehicles that are unsafe and polluting. Indeed, many cars that are no more suitable for the European market are sold here, where the price can be also quite high. This further increases the unsafety of Ghana's roads. Notably, in the country there are only 71 vehicles per 1000 people. The GIP proposal is to have 90% of the road network paved by 2057 and to increase the network to reach 256.000 kilometres of roads, a crucial milestone on the path to achieving high-income country status. Right now, there are less than 100.000 kilometres of roads. The strategy is thus to make Ghana a hub for the west african sub-region, thanks also to the hoped economic integration coming from being a member of the ECOWAS.

**Phone Lines and Internet** In the initial phases of globalization, FDI in least developed countries focused on the exploitation of natural resources, investing particularly in the mining sector. However, this sector's limited integration into broader society, despite providing some benefits (namely foreign exchange and public revenue), raised concerns about its efficacy and its potential threats to overall economic growth (Addison & Heshmati, 2003). Already in the early 2000s, the importance of Information Communication Technologies (ICT) rised and the presence of related infrastructure became a crucial determinant to attract FDI in non-traditional sectors and diversify economies making them less reliant on natural resources (Addison & Heshmati, 2003).

ICT is now recognized as a key driver for socioeconomic development. Technological change furthermore created the need for new minerals and materials often abundant in poorer countries, and so a demand for their extraction. The internal ICT infrastructure plays a vital role in enabling local firms to connect and communicate internally and externally, supporting particularly vertical FDI and global value chains. Empirical studies consistently show a positive relationship between ICT infrastructure and FDI (Sinha & Sengupta, 2022; Wang & Rukh, 2021; Addison & Heshmati, 2003). Indeed, the evidence indicates that the availability and quality of ICT infrastructure contribute to improving the returns on investment, either by diminishing costs or enhancing productivity (Wang & Rukh, 2021).

Recognizing the transformative potential of ICT, the Ghanaian government, in the early 2000s, acknowledged its role in enhancing economic growth and eradicating poverty. The *Ghana Poverty Reduction Strategy* policy explicitly recognized that ICT is essential to reduce poverty (Kubuga, Ayoung, & Bekoe, 2021). Ghana has been the first country to liberalise the telecommunication sector in Africa in 1994 aiming to enhance competition and efficacy. Subsequent policies, such as the 2003 *ICT Policy for Accelerated Development* (ICT4AD) and the 2016 *National Cyber Security*

*Policy and Strategy*, reflect the government's commitment to promoting investments in ICT for the country's growth. However, despite these efforts, two decades after the 2003 documents, the state missed most milestones (Kubuga et al., 2021) with lost opportunities due to inefficiencies and duplication of projects.

What is interesting anyway has been the role of foreign investors involved to develop and implement part of the project, such as the Exim Bank of China, a Chinese institutional bank dedicated to promoting Chinese exports, and Huawei (Kubuga et al., 2021).

ICT4AD sets the standard for the broadband infrastructure that finds competitive characteristics: affordability, ubiquity, accessibility, ease of use and extensive reach.

To model the ICT infrastructure Wang and Rukh (2021) used three parameters:

1. individual using the internet as a percentage of the total population;
2. mobile cellular subscriptions per 100 people;
3. fixed telephone subscription per 100 people.

Despite Ghana's strides in ICT, challenges persist. In 2017, only 7.2% of the population aged 12 years or older owned a computer device, usually a laptop, with a percentage for males four times the one of females (Ghana Statistical Service, 2019). The same disparities exist between regions, both in ownership and in usage. While in Greater Accra more than 25% of people used a computer, the same data became less than 3,5% in rural northern regions (Ghana Statistical Service, 2019). The limited diffusion of computer devices is offset by the extensive use of mobile phones, with nearly three-quarters of the population utilising them. Indeed, they are cheaper and able to perform most of the needs, even the facilitation and promotion of businesses. Again, though, marked differences between urban and rural areas exist, and between males and females. The difference between urban and rural areas is more than 20



percentage points both for usage and for ownership, the one between males and females is instead great for ownership, almost ten points, but not for usage, only 4,9 per cent (Ghana Statistical Service, 2019).

As of 2021 Ghana had over 40 million mobile cellular subscriptions, with the larger provider being MTN, a south african multinational, followed at a distance by Vodafone, a british one, and AirtelTigo, an indian multinational headquartered in London (ITU, 2022). This means 123 subscriptions per 100 persons. Meanwhile, only 315.271 fixed-telephone subscriptions were in place, 0,96 per 100 persons, and 114.543 fixed broadband subscriptions, 0,35 per 100 persons (ITU, 2022). In any case, the International Telecommunication Union (ITU), the United Nation agency for ICTs, estimates that the internet usage is 68,2% of the population in 2021.

Despite this, e-commerce remains severely underdeveloped, with only 2

**Water Resources Management** Effective water resources management is indispensable for the development of countries as it contributes significantly to agriculture, public health, cost savings in treatments and filtration, and the preservation of ecosystems in order to maintain all the environmental services they provide. This management concerns various structures related to water supply, flood control, drainage, irrigation and waste water management. In Ghana, millions of people are affected by water-related challenges, including floods, drought, pollution and waterborne diseases (National Development Planning Commission, 2019).

The availability of water in Ghana fluctuates significantly over time, differing with respect to seasons, years and throughout the country. The internal renewable water resources are enough to sustain the country's needs, if adequately managed. Part of them, however, originates in neighbourhood countries, with some geopolitical implications. Groundwater, although not extensively studied, supplies a fraction, approximately 5 per cent, of the urban areas water needs. Out of the total withdrawals

of about 3123 million  $m^3$ , constituting only a fraction of all the total water resources the country is endowed with, 68 per cent are used for irrigation, 20 per cent for domestic use and 10 per cent for industrial needs. The yearly per capita usage is very low, measuring less than half the value of Sub-Saharan Africa and less than 1/16th the one of North American average (National Development Planning Condition, 2019).

Water ecosystems are in an unhealthy state, with many rivers now classified as poor quality and 15% considered to be in a critical situation. The root cause can be traced to unregulated activities of small-scale artisanal gold miners (Armah, Luginaah, Taabazuing, & Odoi, 2013) and poor waste management.

Access to safe potable water is both a human need and a human right. More than 60% of rural residents face issues related to water quality, a data that however decreases to around 30% in urban areas. The expected increase in population will threaten the availability of water. Indeed, it is expected that by 2047 the situation will be critical (National Development Planning Condition, 2019) due to a value of freshwater resources per capita of about 1040  $m^3$ /cap/year, much lower than the actual value of 1941  $m^3$ /cap/year. The incorporation of groundwater resources, once thoroughly evaluated, may help in improving this value.

#### **2.2.1.2 Human Capital**

Human capital is the economic value of individuals' skills and capabilities, and thus influence the country's potential and shape its trajectory of growth. Education plays a central role in building human capital, being the place where new information and competencies are taught to people. For the socio-economic development of a nation, education is indeed crucial, as it provides the tools for the people to contribute to the country's growth, from all perspectives. Access to a quality education is the fourth Sustainable Development Goal, that seeks to "ensure an inclusive and equitable

quality education and promote lifelong learning opportunities for all”.

In Ghana, the education system is structured into three level (Aheto-Tsegah, 2011):

- Basic education level, spanning eleven years and comprising two years of childhood education, six years of primary school and three years of junior high school;
- Second cycle education; involving three years of high school or other skill-development programmes such as the National Apprenticeship Programme;
- Tertiary level education, encompassing diploma programmes at teacher training institutions and polytechnics, as well as undergraduate programs.

Since gaining independence, Ghana has made significant investments in education, introducing free and compulsory education through the Education Act of 1961 (Sparreboom & Gomis, 2015).

Education is free for all till second cycle from 2017, when the gratuity of education was extended to cover also senior high schools as a strategic investment for the future development. However, higher education is now characterised by privatisation and competition, with students bearing the costs as only a portion of the universities’ fees is covered by the state (Gyamfi, Gyamfi, & Qi, 2016). However, free education till high schools is a recent conquest, and primary education was historically inaccessible for many, leading to only 32,5 per cent of the population aged 3 that attended primary schools (Ghana Statistical Service, 2019). Challenges persist, with inadequately trained teachers and a scarcity of textbooks (Sparreboom & Gomis, 2015). The educational disparities are evident in the statistics: only 24,3% of the population has attained junior high school, and a mere 3,1% hold a bachelor’s degree. Great differences exist between genders and urban and rural areas with males and urban residents having a higher educational attainment (Ghana Statistical Service, 2019).

The literacy rate stands at 47.4% with variation across genders and regions. As one may expect, males (54,2%) surpass females (41,2%) and urban areas (56%) outpace rural ones (37,7%). Literacy, that Ghana Statistical Service (2019) define as the “*ability to read and write simple sentences in English, Ghanaian Languages or French with understanding*” is provided also through literacy courses offered to population that do not have access to the formal school system, with the major aim being to diminish the disparities between rural and urban areas. In the Volta region, such courses have benefitted 1.394.689 persons between those who have more than 15 years, 5.9% of the whole population. In Accra the percentage is almost thirty times lower.

Ghana is classified by UNDP’s Human Development Index (HDI) as a ‘medium’ development country (Sparreboom & Gomis, 2015), with an attainment level that still stands above the average for SSA. The Education Index, a component of HDI, has greatly improved during the years, standing at 0,563 in 2021. It was indeed only 0,375 in 1990. This index evaluates the expected years of schooling and the mean years of schooling. Rich countries have values way near 1, like the United Kingdom (0,948) or Italy (0,793). While Ghana’s education indicators align with countries like Morocco, Iraq, or India, they are higher than neighbouring nations such as Togo (0,517), Côte d’Ivoire (0,453), and Nigeria (0,499). However, there remains a gap with Southern African countries like South Africa (0,724), Botswana (0,676), or Gabon (0,65).

According to Yeboah (2023), insufficient skills and training are significant contributors to low productivity in Ghana. The existence of skill gaps within the workforce, and the limited access to quality training programs acts as a barrier to the adoption of modern production techniques and efficient work practices. Consequently, this hampers productivity levels and diminishes the competitiveness of Ghanaian industries on the global stage. Additionally, there is a mismatch between industry requirements and educational curricula in Ghana that enhance the productivity challenges.

### 2.2.1.3 Economic Stability

Economic stability is seen by many as a crucial aspect that businesses seek in countries in which they want to invest. Indeed, the uncertainties related to unstable countries could require higher returns on investment, something that is usually not possible. A stable economic landscape, characterised by low inflation rates, traditional monetary policies, and a resilient financial system minimise risks and enable companies to commit to long term strategies.

**Inflation** Analysis of FDI indicates that promoting macroeconomic stability is key to successfully attracting a substantial volume of investment in the country. Over the past decades, Ghana has experienced a fluctuating inflation, a phenomenon that has had significant economic and social implications for the country. Since gaining independence Ghana had to deal with rising inflation and price instability. Ocran (2007) distinguished different episodes between the 1960s and the beginning of the new millennium. Shortly after the exit of the country from the West African Currency Board, an institution issuing coins and notes for the four British Colonies of West Africa in 1957 that prohibited the government to finance its spending through printing of money, the Nkrumah administration tried to fuel the economy in the path of a fast industrialization granting at the same time extensive social welfare to the population. This period was characterised by a huge involvement of the state in the economy. The spending was initially sustained by the post-war boom of commodity prices and heavy taxation on cocoa, but started to show some problems when commodity prices declined and the government had to start financing through debts. Inflation, which was typically estimated at less than 1% during the period of the colonial currency, grew to 8% in the first years of the 60s and more than doubled during the half of the 1960s reaching 23% on average. The inflationary process was mainly

due to a deficit in government accounts and also to a shortage of essential consumer goods and restrictions on free trade with abroad (Gyebi & Boafo, 2013).

After the coup d'état and the agreements with the IMF to achieve macroeconomic stability via tight monetary and fiscal policies, inflation declined to even become a deflation. The subsequent civil administration continued the liberalisation process while softening monetary and fiscal policies, and it reached to maintain the inflation at around 10% around 1970.

In 1972 the second coup d'état started a period of rising inflation due to the first oil price shock of 1973 and expansionary economic management (Gyebi & Boafo, 2013). The very high gold and cocoa prices that improved the balance of payment had been unable to compensate for the shock and the deficit of the government had to be financed through printing of money, with a total money supply growing by 500% cumulatively in 6 years. Expansionary monetary policies resulted in high general prices, and inflation reached 117% by 1977. Ocran (2007) notes how the inflation in this period was due *"to expansionary fiscal and loose monetary policies"*. To deal with this inflation crisis, price control mechanisms were implemented and the regime that followed the previous administration, devalued the currency again in order to comply with IMF agreements. The measures were largely unsuccessful due to government difficulty to deal with the required prescription of the IMF.

During these reform years, from 1983 to 2000, the government however reached to maintain the inflation averaged 34% per year. This result has been achieved also with measures such as freezing wealthy bank accounts and confiscating 50 cedi notes (Aryeetey & Kanbur, 2017). External factors played a role as well, Ghana tried indeed to substitute imports with foreign exchange controls and high level of protection for local industries with tariff and non-tariff measures. However, the lack of availability of key raw materials and machinery needed for the industry in the internal market lead to a fall in production. The increase in oil prices and decrease in commodity prices

of cocoa and gold resulted in an imbalance between exports and imports (Aryeetey & Kanbur, 2017). The value of the cedi was largely overvalued as a result of a fixed exchange rate that translated into a strong black market with increasing margins on foreign exchange. Gyebi and Bofo (2013) found also a non monetary source of inflation coming from the poor performances of the agricultural sector in the second half of the 90s. In 1999 the new elected government of Liman started a period of expansionary economic policies, tripling public sector wages overnight. During the new millennium it kept being a source of instability for the country but it maintained its value of around 10%. Meanwhile, access to financial services increased and the banking sector liberalised (Aryeetey & Kanbur, 2017). Trade increased and barriers with foreign countries were removed or reduced. Imports are still higher than exports, due to commodity prices remaining low and volatile. The discovery of minable oil fields in 2007 increased confidence in Ghana and led to an increase in FDI and revenue expectation for the state.

In the new millennium macroeconomic stability has been seen as a priority. Money supply fell after 2011 (Aryeetey & Kanbur, 2017) and the country focused on keeping the exchange rate stable. Recently, COVID-19 pandemic contributed to raising inflation again like in the rest of the world. This is concerning for the population, with living costs getting higher and higher. Ghana has been hugely dependent on crude oil prices, an international source of inflation. Inflation reached 31,5 per cent in 2022 driven by food and energy prices and depreciating local currency (African Development Bank Group, 2023).

Bank of Ghana, responsible for the issuance of Ghanaian Cedis, maintains forman independence from the government to ensure the reach of its goal of maintaining price stability, controlling inflation and promoting a stable economic growth without having to consider interferences and short-term perspectives of sitting governments. The Central Bank thus formulates and implements monetary policies in order to manage

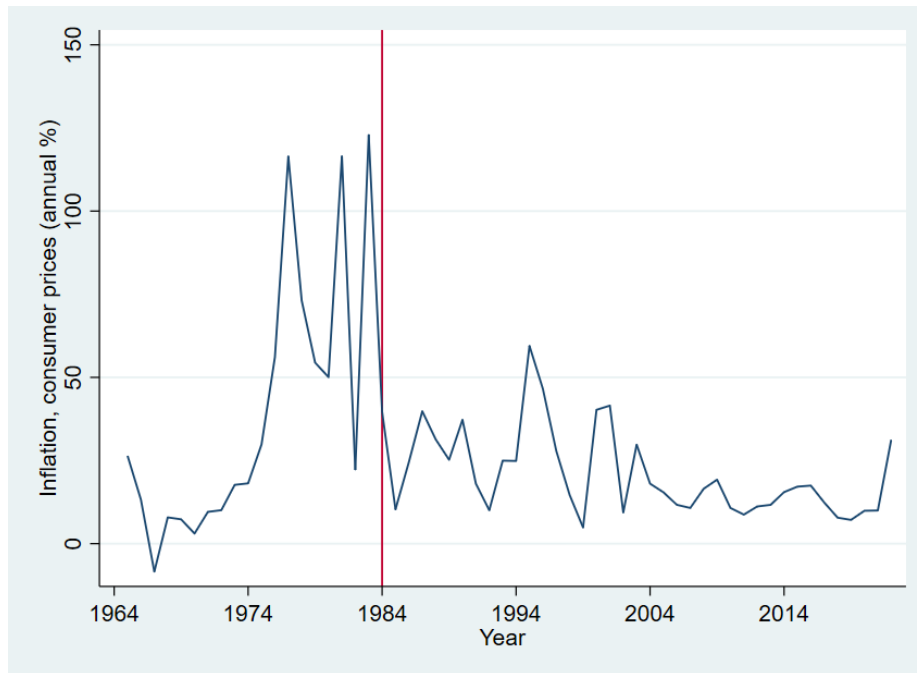


Figure 2.2: Inflation, consumer prices (annual %). *Source:* Own elaboration on World Bank data

the money supply and control inflation. It is generally believed that an independent central bank is capable of pursuing both short-term and long-term sustainable economic growth more effectively. Three reasons behind this statement: the institution is less constrained and can act faster and more effectively if it is free from political interferences; policymaker tends to be lenient in time of financial instability, due to political costs, and thus maintaining a short term perspective; and third, financial crisis cannot be imputed to incumbent politicians (Ding & Vitenu-Sackey, 2021). Ding and Vitenu-Sackey (2021) found that Ghanaian central bank's independence should be improved in order to strengthen economic growth, and reduce variability of both economic growth and inflation.



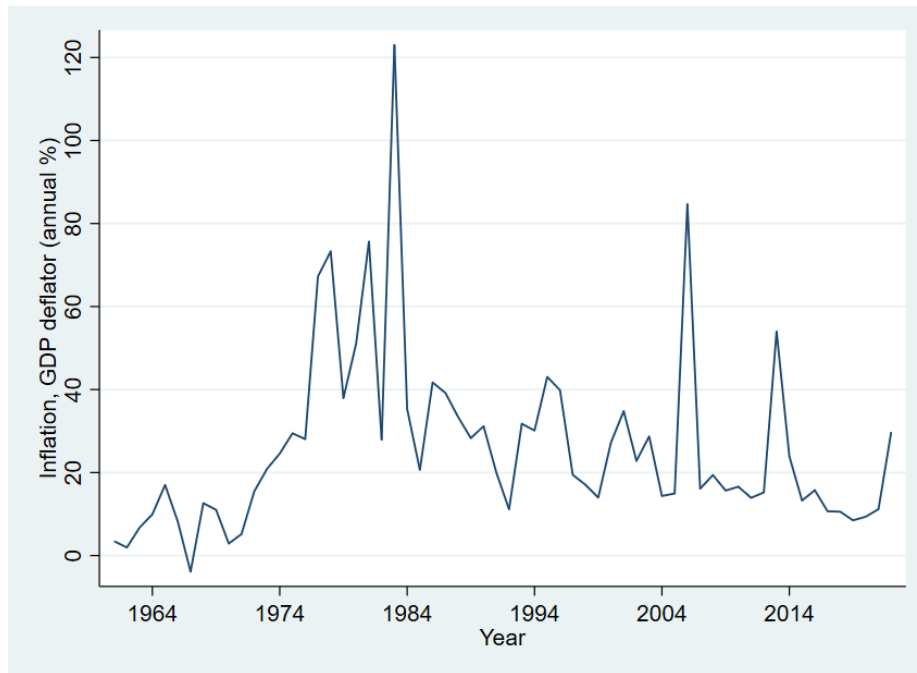


Figure 2.3: Inflation, GDP deflator (annual %). *Source:* Own elaboration on World Bank data

**Balance of Payment deficit** Balance of payment is a key indicator of a country's economic health and performance in the global market. It refers to the record of all monetary transactions between a country and the rest of the world over a specific period, usually a year. It is made of two main components: the current account and the capital account.

The current account includes the balance of trade, representing exports and imports of goods and services, payment made to foreign investors and transfers such as remittances or foreign aid. It reflects a country's competitiveness and ability to attract foreign investment. A surplus in the current account means that a country's exports exceed its imports, indicating that the country is a net lender to the rest of the world and it is increasing its net foreign assets. Conversely, a deficit indicates that a country is importing more than it is exporting, which may raise some concerns

about its dependence on foreign sources.

The capital account, on the other hand, records the flow of capital, such as investments and loans, between a country and the rest of the world. It includes foreign direct investment, portfolio investments, and changes in reserve assets. A surplus usually means that a country is attracting more foreign investments than the one is doing abroad. Conversely, a deficit implies that a country is making more investments abroad than it is receiving.

Maintaining a favourable balance of payment is crucial for a country's economic stability and sustainability. A consistent surplus signals that a country is capable of financing its imports and debt obligations, while a constant deficit can lead to a depletion of foreign reserves and reliance on external financing. Additionally it affects inflation and exchange rates.

Governments often implement policies and strategies to manage their balance of payment, such as promoting exports, attracting foreign investment, controlling imports, and maintaining a stable exchange rate. International organisations, such as the International Monetary Fund, often provide assistance and guidance to countries experiencing difficulties in balancing their payments.

Ghana is a country that experienced a trade deficit since 1976 with only two exceptions in 1979-1980 and 2003. This deficit has grown over time, reaching an all-time low in 2013 at -5.7 billion current US\$ (World Bank, n.d.) and standing at -2.54 billion of current US\$ in 2021. The enduring imbalance holds significant implications for economic stability.

Yeboah (2023) studied the current account imbalances by confronting 35 articles on the issue. He discovered that a number of factors play a role in shaping Ghana's balance of payments and concurring to shape the potential of the country in the future.

First of all, the macro category of trade balance plays a crucial role: Ghana

heavily relies on imports while predominantly exporting commodities vulnerable to fluctuation in prices. Cocoa, gold and oil, while boosting the exports of the country, make it exposed to global macroeconomic events, and the limited diversification of the exports worsen the situation. A decline in the prices of these commodities lead to a decrease in the value of exports and an increase in the trade deficit. Moreover, the lack of technological innovation as well as the impact of climate change on the amount of suitable land, even though it should not be severe and will leave time for adaptation (Läderach, Martinez-Valle, Schroth, & Castro, 2013), could reduce the quantity of cocoa produced (Nkamleu, Nyemeck, & Gockowski, 2010), or slower its growth.

As for oil, Ghana is “one of Africa’s fastest-growing hydrocarbon markets” (Projects, 2023), and it is expecting to increase its production capacity at impressive rates thanks to new oil site discoveries. Ghana produced around 180,000 barrels of crude oil per day in 2022 and is seeking to reach a level of 420,000 barrels per day in 2024. This would make Ghana the 30<sup>o</sup> greatest producer of crude oil in the world, ahead of Australia.

The government plays a role as well in two ways: deciding the fiscal policy to be pursued and managing the revenue from taxes. Fiscal policies often impact import levels and export competitiveness. Expansionary policies may require an increase of goods and services bought from foreign countries in order to cover the government spending. The contrary is true if the government decides to lower its expenses or increase taxes, reducing the need for imports that contribute to a positive current account position. Taxation may also help the government to reduce imports, making foreign goods more expensive than domestic ones. It has to be said though that wise government spending may influence the economic growth and the level of domestic production.

Of course, FDI also impacts current accounts through capital flows, trade en-

hancement, and technology transfer. It has been empirically demonstrated that FDI increases exports and thus has a positive impact on the balance. Of course, FDI impacts also through all the indirect mechanisms that enhance productivity and efficiency that have been already discussed. In Ghana, studies have found a positive relationship between FDI and current account balance (Yeboah, 2023), thanks to their role in increasing export earnings and inflow of capital that can open the country to world trade.

Yeboah (2023) suggests that Ghana should diversify its economy, making it less reliant on a small bucket of goods, namely cocoa, gold and oil. In doing so, the focus should be on supporting enterprises in non-traditional sectors, their innovation capability, research and development and access to capital. In this way, Ghana may ensure sustainable economic growth in the long term, avoiding the risks of huge exposure to global macroeconomic events. Apart from the supply side, Yeboah (2023) highlights that expanding the markets toward which Ghana exports, increasing the number of destinations and customers, is crucial for substituting, if needed, exports from one to another. Trade policies, alliances between countries and trade agreements may foster Ghana's exports. The diversification effort should not involve only one party, but all the stakeholders working as a whole can make the implementation effective.

**Financial Development Index** The International Monetary Fund computes a Financial Development Index, a metric decisive to assess a country's attractiveness for FDI. This index considers the depth, access and efficiency of the financial institutions and market and merges them to retrieve a unique index. Ghana exhibited a Financial Development Index of 0,18 in 2021, after having experienced stable growth from 2009 when it stood at 0,11. To provide context, Nigeria scored 0,22 while Côte d'Ivoire recorded 0,13.

Institutions are evaluated based on: the depth of their impact, defined as “bank credit to the private sector in percentage of GDP, pension funds asset to GDP, mutual fund assets to GDP, and insurance premiums, life and non-life to GDP”; their accessibility, defined as “bank branches per 100.000 adults and ATMs per 100,000 adults; and lastly the efficiency of the financial institution, which “compiles data on banking sector net interest margin, lending-deposits spread, non-interest income to total income, overhead costs to total assets, return on assets and return on equity” (IMF, 2023). The Financial Institution Index was 0,25 in 2021. While gaining a good result in efficiency, Ghana severely lacks in accessibility and particularly in depth, in which it scored only 0,09 and it is not making sufficient progress in recent years. To make the same comparison as before in Nigeria was slightly lower, 0,24 sharing the same problem of Ghana, and it was 0,20 in Côte d’Ivoire, which however reached a way better accessibility.

Finally, Financial Market index consider the depth, “data on stock market capitalization to GDP, stocks traded to GDP, international debt securities of government to GDP, and total debt securities of financial and nonfinancial corporations to GDP”; the accessibility, “data on per cent of market capitalization outside of top 10 largest companies and total number of issuers of debt (domestic and external, nonfinancial and financial corporations) per 100,000 adults; and lastly the efficiency of market, with “data on stock market turnover ratio (stocks tradet to capitalization). The Financial Markets Index was 0,13 in 2019 driven by the good performance of accessibility. As before, in Nigeria, it was 0,20 while only 0,07 in Côte d’Ivoire.

**Unemployment** Employment is crucial for understanding a country and the opportunities it offers. In Ghana unemployment is defined as considering persons in working age, that is from 15 years onwards in Ghana, who are unemployed during a certain period but are actively searching for a job and willing to have one. This

implies that even if people are in working age and available for work, are not unemployed if they are not actively searching for an occupation, and in this case they are described as “discouraged workers”. The rate of unemployment in Ghana has been generally low over the years from the 1980s, performing better than countries in the region (Baah-Boateng, 2015). In 2022, unemployment was only 3,9% (World Bank, 2023).

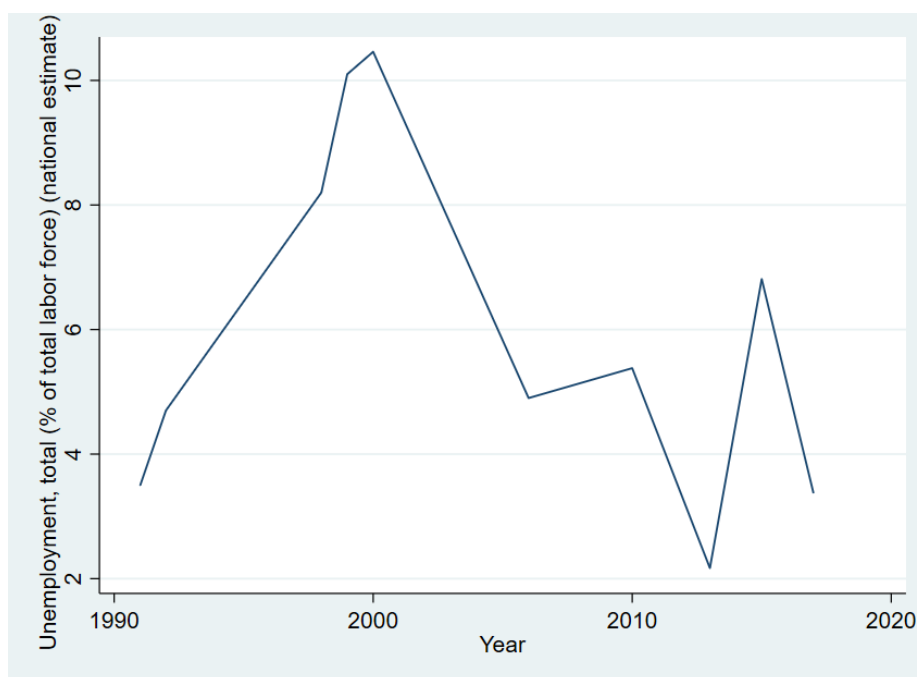


Figure 2.4: Unemployment (% of total labour force) *Source:* Own elaboration on World Bank data

However, employment in Ghana is driven by the informal economy. Informal employees are workers that are insufficiently or not covered by formal arrangements through work, and thus cannot access contributions to pension, medical insurance or the various types of benefits and protection a formal agreement ensures. At least since the 1960s, more than 80% of the people are involved in informal employment (Baah-

Boateng, 2015). In 2015 informal unemployment covered 89 per cent nationwide of the workforce, with women more affected by this phenomenon than men. In Ghana, the number of women in the labour force is greater than the one of men, but 92% of them are involved in informal work (Baah-Boateng & Vanek, 2020). In any case, men usually work more hours each week.

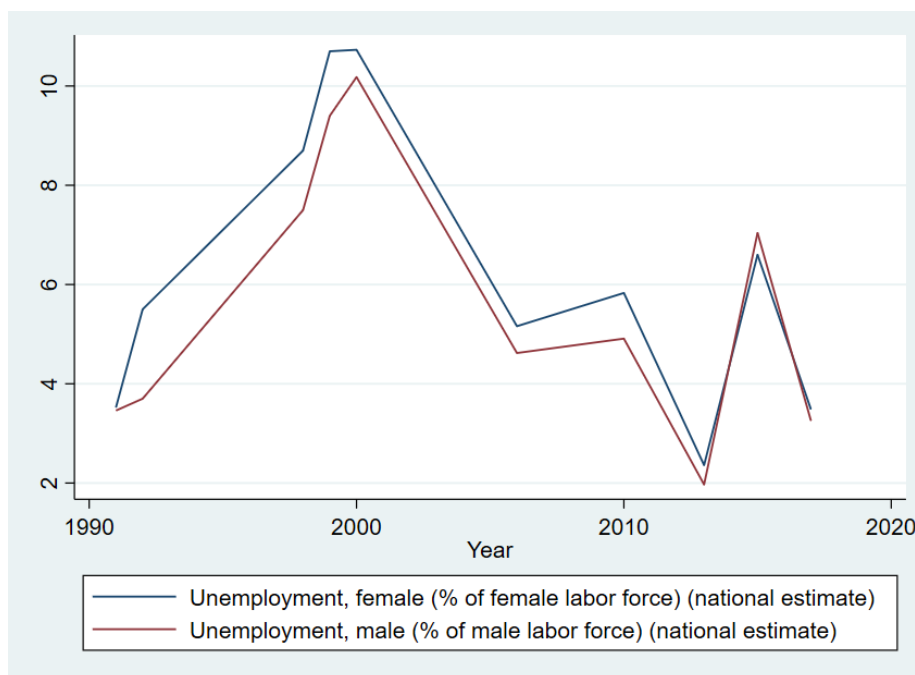


Figure 2.5: Unemployment by gender. *Source:* Own elaboration on World Bank data

Informal work is slightly more frequent in rural areas than urban ones, as one may expect. The occupations that are characterised by informal occupations and cover a significant share of employment are home-based workers, market traders, street vendors and waste pickers (Baah-Boateng & Vanek, 2020). Informal occupations help people with limited formal education to enter the labour market, due also to the lack of active labour market policies. The case of *kayayei* is representative of

this situation. Kayayei are women migrating from the northern regions of Ghana to the main cities, particularly in Accra, to be head porters. This allows them to be employed and gain some capital before coming back to their hometowns. They are usually illiterate but thanks to this opportunity they can improve their life back in their hometown.

Urban areas present a higher unemployment rate than rural ones due to the migration of people toward the former in search of better economic opportunities and life quality. Lack of infrastructure that sometimes fails even to supply water and electricity and the low profitability of agricultural activities push indeed, particularly the youth to the big cities. This creates a supply of labour that is not counterbalanced by a sufficient demand for it. Indeed, unemployment largely remains an urban phenomenon.

Young people tend to suffer more unemployment than their adult counterparts, a phenomenon attributed to their lack of labour market experience, rendering them more vulnerable in periods of economic crisis (Baah-Boateng, 2015). In challenging times, firms tend to lay off the last entered and keep more experienced people. Despite new generations tend to be more educated, this alone does not help them in overcoming unemployment.



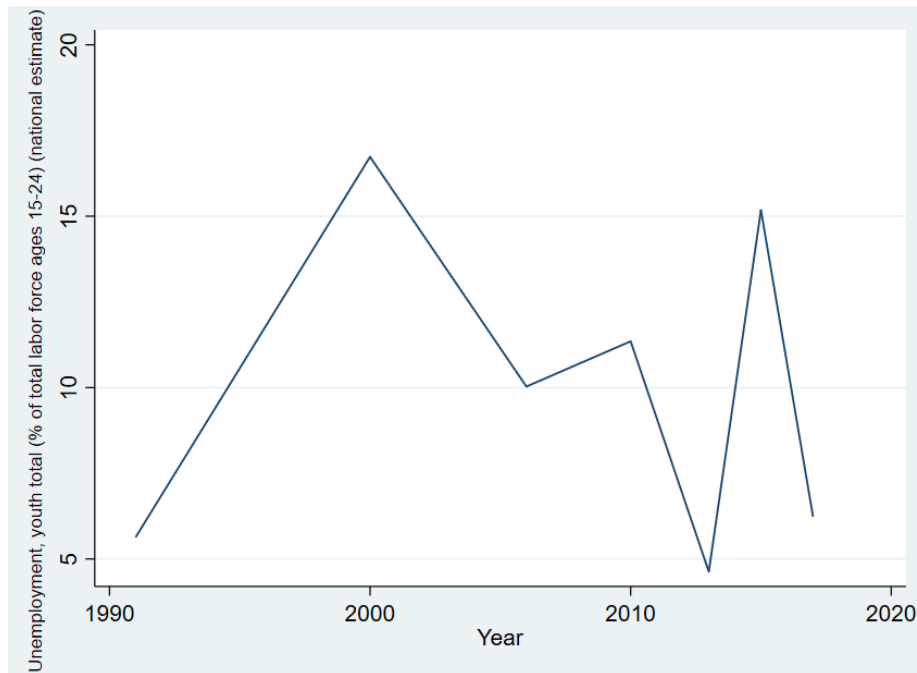


Figure 2.6: Youth unemployment (% of the total labour force ages 15-24). *Source:* Own elaboration on World Bank data

Paradoxically, Baah-Boateng (2015) notes that unemployment rates are observed to be higher among the educated compared to the uneducated. Among the educated strata, those without formal education exhibit the lowest unemployment rates, followed by individuals with tertiary education, and, lastly, those with secondary education. There are indeed few opportunities open in the formal labour market for skilled workers and those individuals prefer not to rely on informal occupations. People without formal education have on the contrary few or no access to formal employment and they have to settle on informal non-skilled jobs. Another reason is that the education and training system has failed to provide students with a skill set that matches the requests of the labour market. Lastly, as found by Affum-Osei et al. (2019), in such a labour market the seeking for a job relies on personal contacts. Labour vulnerability in the country remains high, particularly in agriculture

(Sparreboom & Gomis, 2015).

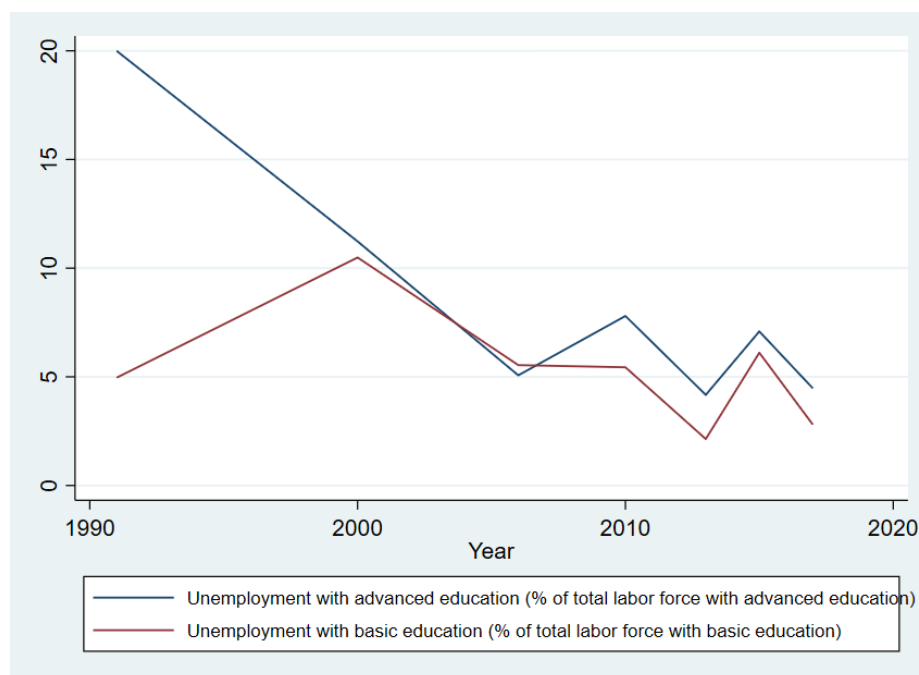


Figure 2.7: Unemployment by level of education. *Source:* Own elaboration on World Bank data

Empirical analyses are difficult to make due to the lack of appropriate data and thus rely on cross-sectional data, and so on the observation of different individuals at a given time. Baah-Boateng (2015) made an empirical analysis on the Ghana Living Standards Survey (GLSS6) that was conducted in 2012/2013. He found that unemployment in Ghana is hugely influenced by demand-side factors coming from the weak employment effect of growth. Indeed, individuals who are seeking formal employment or self-employment are more likely to be unemployed than those who are seeking any job. Moreover, it is easier to get a part-time job than a full-time one. The result is that the economic growth following the introduction of the economic reforms in 1983 has not been employment-friendly. Indeed the growth of real GDP did not

completely translate into employment growth: between 1992 and 2008, the annual average growth of real GDP of about 5% translated into annual average employment growth of only 2,7% due to the sustained pace of growth of not labour-intensive sectors, such as mining, oil, capital intensive construction and finance, compared to labour-intensive ones such as agriculture, tourism or manufacturing (Baah-Boateng, 2015). Moreover, Sparreboom and Gomis (2015) notes how the discovery of oil may result in a “Dutch Disease” for the Ghanaian economy. In brief, the oil sector may grow rapidly, increasing its revenues, and causing a strengthening of the Cedi compared to foreign ones. The other goods then become relatively more expensive while imports become cheaper, resulting in a stagnation of other sectors, namely manufacturing and exporting agricultural subsectors. The Real Effective Exchange Rate (REER) index, with 2010 posed as 100, decreased to its lowest value of 68,2 in 2015, and is currently at 71,3, in a constant decline since the rapid increase happened in 2016 when it touched 78,2 (World Bank, 2023). The real effective exchange rate is, according to the World Bank, “the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs” (World Bank, 2023a).

Employment in Ghana remains at a level that is slightly above the average in SSA (Sparreboom & Gomis, 2015). Employment is basically divided between agriculture and service, with industry composing the 19 per cent left. Agriculture is providing fewer and fewer jobs every year, in a decline that has been compensated by the growth in services and, less, in manufacturing (World Bank, 2023). The biggest contributors to employment have been wholesale, retail trade, hotels and restaurants followed by construction and real estate activities (Sparreboom & Gomis, 2015). Meanwhile, productivity increased thanks to the structural changes in which the country incurred, indeed the productivity growth can be attributed to the increase of the share of services to the expense of agriculture and not to within-sector productivity gains

(Sparreboom & Gomis, 2015).

Ghana is seen as a successful example in sub-Saharan Africa of the ability to translate economic growth into a reduction of poverty. However, distributional changes over time led to a polarization of household consumption distribution over time around the highest and lowest decile (Clementi et al., 2018). Polarization may relate in the future to social conflict and instability, factors that affect countries' growth potential.

By looking at data elaborated from the answers to Skill Toward Employability and Productivity (STEP) surveys, conducted in Ghana between the end of 2011 and December 2013, according to the classification as made by Lo Bello et al. (2019), routine cognitive skills look to be particularly prominent in the Ghanaian context, at least in urban areas. However, they are at the same time the most impacted by the shifting trend in the task content of jobs between 1990 and 2015 which penalised that particular kind of task in favour of the others. This is consistent with the finding that automation and, particularly, ICT tend to replace these kinds of occupations, a consideration enforced by the ICT sector seen as one of the fastest growing in the country, 46,5What happened between 1990 and 2015, indeed, is a stable increase of all the indexes related to the skill content of jobs (non-routine manual, routine manual, routine cognitive, non-routine interpersonal, non-routine analytical) apart from the routine cognitive. Particularly, the increase in non-routine tasks is consistent with Routine Biased Technological Change (RBTC) theory, which suggests that technological change tends to substitute routinary jobs. The impact that automation has on the labour market indeed depends on the degree of routinization that occupations own. In general, automation tends to “reduce the overall labour share in the economy”. Indeed, what can be codified can, potentially, be automated (Autor, 2015). The increase in routine manual tasks may be a result of structural transformations, i.e. the shifting from agriculture to manufacturing accentuated by the offshoring from

developed countries that seek to reduce the cost of labour in countries in which labour still costs less than capital. The routine exposure is lower than the one of developed economies but it is increasing and converging (Lo Bello et al., 2019). The increase in routine exposure in developing economies means that some forces are reducing the likely impact of ICT technologies, which reduces the exposure to routine. Manufacturing plays a role in it. Ghanaian governments are currently pursuing a policy which aims to build a manufacturing skeleton for the country, for example with the One District One Factory (1D1F) initiative. Such efforts will likely increase the exposure to routine in the future. This will also be likely to decrease the exposure to trade and export of the country, and adverse balance of payment consequences.

**Government Spending/GDP and Weight of the Private Sector in the Economy** After gaining independence the country pursued a strategy of import substitution, aiming to reduce its dependency on foreign goods. This approach was sustained by the belief that direct state involvement in production and economic management was imperative. In response to the limited presence of a local entrepreneurial class and the scarcity of private capital, the state indeed took a proactive stance by intervening directly in the economy. This political choice led to the creation of several large and inefficient state-owned enterprises (SOEs), which were characterised by low productivity and a highly protected environment.

As a result of socialist policies enacted after the independence, the state was pervasive in the economy, directly owning many companies, to support the industrialization of the country. Moreover, there was a perceived lack of local entrepreneurs and the government feared that foreigners would enter the country and start some form of “neocolonialism” (Tsamenyi, Onumah, & Tetteh-Kumah, 2010). Ghanaians were not in management positions under the colonial government, and thus they had little experience in such activities. Moreover, the economic returns were not enough

and the risks were too high to attract the private sector. Therefore, the Government decided to enter into the economy with a primary role. SOEs were characterised by low productivity and a high level of indebtedness, and the proponents of the privatisations believed that this process could lead to higher performances, better economic performances and an improvement in general well-being. SOEs had too many employees, since job creation was important to sustain households, and they were usually heavily in debt and with serious liquidity problems (Tsamenyi et al., 2010).

With the advent of reforms brought by the International Monetary Fund and the World Bank, Ghana underwent a series of privatisation of the former state-owned enterprises. These two international organizations indeed widely promoted these kinds of reforms that were perceived to stimulate economic development. Trade liberalisation was championed as a key driver of rapid development, often tied to bailout conditions (Tsamenyi et al., 2010). In 1987, the Divestiture Implementation Committee was established, with the explicit purpose of planning and coordinating all divestitures.

The process of privatisation peaked in Ghana during the 90s. SOEs were present in all sectors, from manufacturing to agriculture, mining and even hotels. 335 SOEs out of nearly 400 SOEs were privatised by 2003 (Adams, 2011). The program aimed to stimulate the private sector management and capital, while leaving to the government the task of dealing with health, safety, education and infrastructure. Private sector players are believed to be better than governments because of their specialised expertise, commitment and flexibility. In Africa, the evidence that private companies perform better than SOEs and they contribute to a wider well-being is mixed. Some scholars report positive effects for privatised enterprises while some others report the contrary (Adams, 2011). A relevant fact is that the majority of firms in the least developed countries have been privatised by selling to foreign investors with little if any connection with local communities (Tsamenyi et al., 2010). A weak regula-

tory framework has played a role as well. SSA countries have had a large number of transactions, mostly the sale of assets, the most popular method of privatisation, but gained low inflows from them. This was due to the fact that the firms were of low value, and thus proceeds were marginal. For some scholars privatised companies did not show better performances: as an example, in Ghana, the price of water increased after the privatisation. Some others highlight an increase of FDI inflows and efficiency, better work conditions and even a lower pressure on the balance of payment. Financial indicators improved, even though some indicate that their focus is not enough to understand the general impact of these programs. In Ghana, there has been anyway huge protest against the privation program, even if a majority of people, according to Adams (2011), seem to support this effort in all sectors but some relevant ones, like water and energy.

#### **2.2.1.4 Production Costs**

In Ghana, there is a daily minimum wage, decided by the National Tripartite Committee, fixed in 2023 at GHC 14.88, which was equivalent to EUR 1.37 on 1/1/2023 but dropped to EUR 1.12 at the end of the same year due to the falling exchange rate. In addition, it must be considered a “cost of living allowance” of 15% over the daily minimum wage.

### **2.2.2 FDI determinants associated with the Institutional Approach**

The Institutional Approach takes its perspective from the understanding that companies operate in uncertain and complex environments, and their decision depends on the institutional forces that could have an impact on them, through regulation or incentives. Thus, MNEs base their decisions to go abroad on the characteristics

of the political sphere of a country. Subsidies, tax incentives and exemptions, easy repatriation of profits, corruption and political stability are all factors relevant to measuring the attractiveness of a country.

### **2.2.2.1 Corruption, political instability and institutional quality**

Ghana is a Presidential Democratic Republic where the president is both Head of State and Head of Government. The Fourth Republic started after the presidential election in 1992. The three powers, legislative, executive and judiciary are separated, and the latter is independent from the former. The constitution explicitly outlines roles and responsibilities, aiming to prevent coups, dictatorship, or the establishment of one-party states. This constitutional framework incorporates a system of checks and balances, ensuring a distribution of powers. Two parties dominate the political sphere of the country: the National Democratic Congress (NDC), a centre-left social democratic party founded by the former Head of State Jerry Rawlings; and the New Patriotic Party, a centre-right party that represents the current President, Mister Nana Akufo-Addo. These two parties have alternated in governing the nation since 1992. There are other parties as well, but all with low electoral results. The unity of the nation is maintained by the parties choosing the candidates between different regions of the country. Indeed, in the country, there are different ethnic groups with different cultures and even languages. There exist more than one hundred different ethnic groups, with the major groups being Akan, the bigger ones, Ewe, Ga, the ethnic group of the capital Accra, Dagomba and Fante. Usually, if the president is part of a group, he or she will choose a vice president as part of another group.

According to the “Democracy Index”, computed by the Economist Intelligence Unit of the Economist Group, Ghana is categorised as a flawed democracy, a classification shared with countries like Romania or Hungary. The result of the country



stands out in West Africa, as it is the sole nation to achieve such a result. Even on the broader African continent, Ghana's democratic ranking remains impressive. The country achieved good results in the electoral process and pluralism, but still underperformed for the functioning of government and civil liberties (Economist Intelligence Unit, 2022). World Bank "*Governance Indicators*" show that Ghana is the country in SSA that performs better in transparency and quality of public administration (World Bank, 2023b). The country though slightly underperformed for the efficiency of revenue mobilisation.

The rule of law is generally upheld in Ghana, although certain concerns have been raised (Frimpong & Agyeman-Budu, 2018). In the country corruption and bribery are still common. Corruption is believed to add greater costs and create a burden on firms, deterring firms from investing in the country. However, someone suggested that it could be useful as a "hedge against bad policies" (Bawole & Langnel, 2023). Thus, in countries with inefficient governance and bureaucracy, it could even be beneficial for businesses to grow. African businesses face a challenging business environment, characterised by arbitrary behaviours such as under-and-over regulation and rent-seeking. The literature about corruption in difficult environments remains unclear. Bawole and Langnel (2023) highlights that corruption poses a significant threat to both the government and businesses, with companies sometimes becoming unwilling participants in corrupt practices to protect their interests. While Ghana is implementing anti-corruption measures, the government should also focus on creating a favourable business environment and transparent governance.

The Corruption Perception Index (CPI) evaluates countries based on how corrupt a country's public sector is perceived to be by experts and business executives. It is made by a combination of 13 surveys and assessments of corruption, collected by a variety of reputable institutions. The results range between 0 (highly corrupt) and 100 (very clean). It is calculated every year by Transparency International and

includes manifestations of corruption in the public sector such as bribery or diversion of public funds. Ghana, with 43 points out of 100, ranked 73<sup>rd</sup> in the 180 countries evaluated in the world in 2021. The result achieved, shared with Senegal, is the best in West Africa.

### **2.2.2.2 Taxation and Incentives**

The tax landscape in Ghana plays a central role in the country's economic dynamics, shaping revenue generation, investment attractiveness, and overall fiscal policies. Tax to GDP ratio in Ghana was 13.4 per cent in 2020, lower than the average in Africa of 16%, and also lower or comparable to the one of neighbourhood countries (OECD, 2023). Notably, this ratio has more than doubled since 2000, indicating a persistent upward trend. The IMF in 2018 estimated that Ghana has a theoretical tax capacity, the maximum amount of revenue a country can achieve given certain macroeconomic and institutional conditions, higher by around 7 per cent GDP points than current tax revenues (IMF, 2018).

The major contributors to tax revenue in Ghana include taxes on goods and services (26%), value-added taxes (VAT) (25%), and corporate income taxes (25%). Non-tax revenues, constituting 2.48% of GDP, primarily stem from state involvement in selling goods, property incomes, rents, and royalties.

Ghana maintains a general corporate income tax (CIT) rate of 25%, with specific sectors subject to variations. Mining and petroleum companies face a higher CIT rate of 35%, while hotels benefit from a reduced taxation of 22%. To encourage export diversification, companies engaged in such activities enjoy a reduced CIT of 8% as well. Agriculture and manufacturing receive protective measures, with banks supporting these sectors enjoying a reduced CIT of 20% on the relative income (Government of Ghana, 2023). Manufacturing companies situated in regional capitals, excluding Ac-

cra and Tema, receive additional tax incentives, and they receive even more benefits if they are not located in a regional capital.

On the other hand, tax compliance costs are not neglectable, and even more for SMEs. Bruce-Twum and Schutte (2021) found that they incur a gross compliance cost of GHC 4.687 when technological costs are included.

Ghana's tax policy extends incentives to attract Foreign Direct Investment (FDI). These kinds of measures remain quite common for African governments. According to the Ghana Investment Promotion Centre Act, enacted in 2013, companies that engage in strategic or major investment, particularly in some crucial areas can benefit from incentives like exemptions from some duties, reduced CIT rates, and some guarantees from the Government. Particularly, the tax policy in Ghana created a lag effect that allows foreign companies to delay the payment of the taxes, and pay lower rates at the beginning of their activities. Abille et al. (2020) indeed noted how the lag effect has a positive short-run relationship with FDI inflows: MNEs are attracted by tax incentives and the country benefits from them in the short run. In the long run however, the relationship is negative and significant: when the corporate tax rate increases companies tend to evaluate their profit margin and ultimately they may decide to leave the country if not satisfied.

An opportunity the country offers is the one of Free Zones Company, companies with a focus on export that benefit from monetary and non-monetary incentives like the total exemption from payment of income tax on profits for 10 years or no restrictions on repatriation of dividends or net profits. These companies are also allowed to operate foreign currency accounts with Ghanaian banks. Indeed, Ghana restricts some financial transactions in foreign currency. This status is open to companies across sectors, except those in plastic manufacturing, timber, and exploration and extraction of certain natural resources.

### **2.2.3 FDI determinants associated with the New Theory of Trade**

The new theory of trade tries to merge the advantages coming from ownership and location, as in the OLI paradigm, with the technology and factor endowments of a country.

#### **2.2.3.1 Market Size**

Market size can be evaluated with various indicators, as discussed previously, in order to assess its impact in determining the attractiveness of the market for FDIs. GDP, found by Agarwal (1980) as the most crucial factor for FDI flows into developing economies, was 68,29 billion of constant 2015 US\$ in 2022, according to the World Bank. Ghana has experienced sustained growth starting from 1984, with a GDP that has grown exponentially in the last decades and fostered the ability to attract market-seeking FDIs. Gross National Income (GNI), or gross national product, serves as another useful indicator to determine market size as it considers all domestic activities. Indeed, it is calculated by adding to the gross domestic product “net receipts from abroad of compensation of employees, property income and net taxes less subsidies on production” (OECD, 2023). Therefore GNI measures all the income its residents receive, even if from abroad. GNI was 66,83 Billion constant 2015 US\$, lower than GDP in the same year. This is because GNI does not count remittances, and so funds sent by Ghanaians living and working abroad in a country with a large diaspora like Ghana play a not neglectable role. Moreover, GNI does not count profits earned by foreign investors that are repatriated.

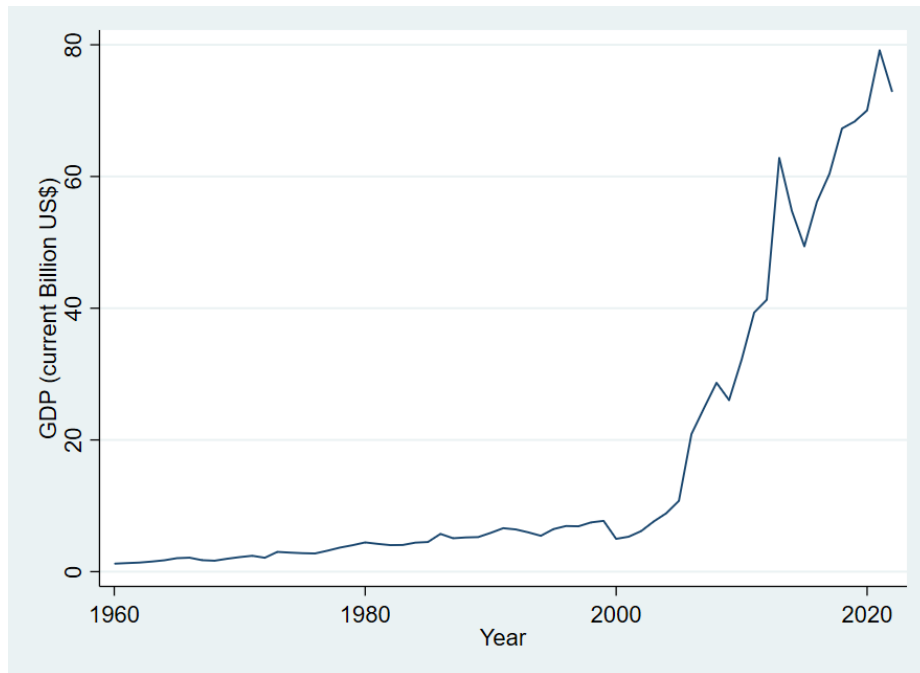


Figure 2.8: GDP (current Billion US\$). *Source:* Own elaboration on World Bank data

Over the years, the population has grown drastically, from 13 million people in 1984 to 33 million nowadays. Historically, Ghana had high fertility rates: large family sizes were common, driven by cultural norms, limited access to family planning, and agricultural-based economies fueled significant population growth. Meanwhile, in recent decades, advancements in healthcare, sanitation, and disease control have contributed to declining mortality rates. Improved access to healthcare services, vaccinations, and better sanitation practices have led to increased life expectancy, particularly among infants and children. Ghana's population has a significant youth bulge, with a substantial portion of the population under the age of 25. Urbanisation has played a significant role in population growth. Cities like Accra and Kumasi have experienced rapid urban expansion due to rural-to-urban migration in search of better economic opportunities and improved living conditions. Managing population

growth entails providing essential services such as healthcare, education, housing, and infrastructure. Rapid urbanisation can strain existing infrastructure and create challenges related to service delivery and urban planning. The government of Ghana has prioritised the promotion of family planning services to empower individuals and families to make informed decisions about the number of their children. This involves making contraceptives and reproductive health services more accessible to the population.

Moving into exploring the purchasing power of people, which ultimately determines the possibility of buying goods and services, it is useful to look at per capita indicators, refining the previous measures. GDP per capita was 742,7 constant 2015 US\$ in 1984, a value that will become 2040 constant 2015 US\$ in 2022. Even after accounting for the population growth, Ghana has been able to increase its GDP per capita over the years. It suggests thus that the economic gains made by the nation have not merely been absorbed by demographic expansion but have, in fact, translated into tangible benefits at an individual level.

The Ghanaian economy revolves mostly around services, the biggest contributor to GDP. Indeed, it composed 48,5 per cent of GDP in 2021, due to the strong performances achieved in the education, health, and ICT service industries, among others. The industrial sector is the second contributor, accounting for 30,4 per cent of GDP followed by the agricultural sector at roughly 21,1 per cent. However, being traditional agriculture a labour-intensive sector, it employs about 39 per cent of Ghana's workforce, mainly consisting of small landholders in the northern regions. On the other hand, the service sectors employed around 41 per cent of the workforce.

Within the agricultural sector, crops stand out as the primary source of production, with cocoa alone contributing 2.2% to the GDP. Mining and quarrying hold comparable significance to the broader manufacturing sector, although recent trends indicate a growing dominance of manufacturing activities. Construction, constituting

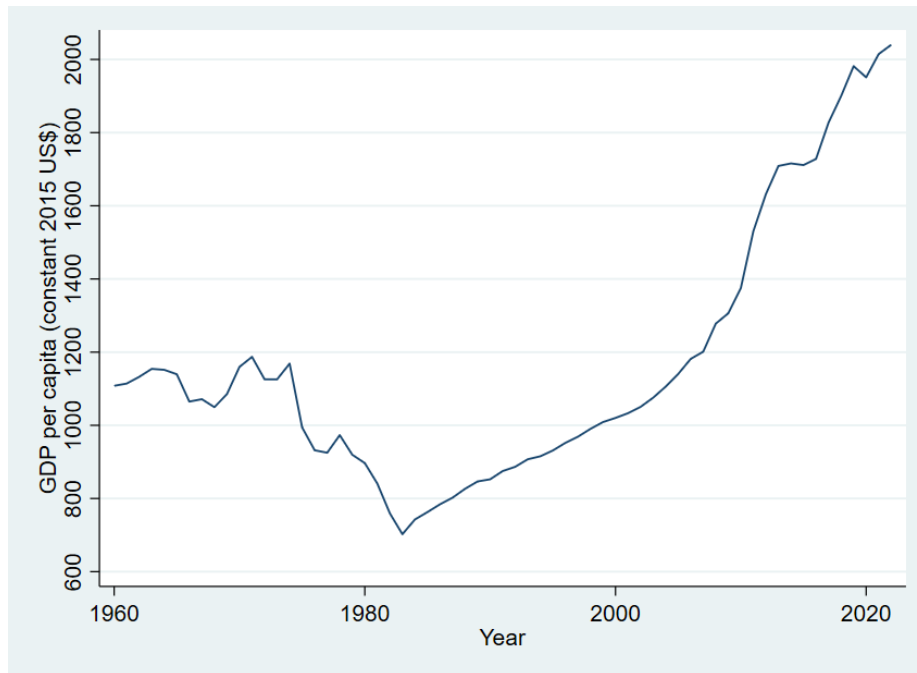


Figure 2.9: GDP per capita (constant 2015 US\$). *Source:* Own elaboration on World Bank data

approximately 7% of the total GDP, has followed a modestly declining trajectory over the past decade.

Turning to the service sector, trade emerges as the principal contributor, closely trailed by transportation and storage. Notably, information and communication technology (ICT) as well as financial and insurance activities play a substantial role, collectively accounting for around 7

Ghana is also a founding country of the regional Economic Community of West African States (ECOWAS). The ECOWAS is an economic union of 15 members, even if some of them are currently suspended due to political instability, and home to more than 350 million people. People from these countries, it's permitted to enter, reside and establish economic activities in the territory of the other member states, a facilitator for people from neighbourhood countries to invest in Ghana. At the same

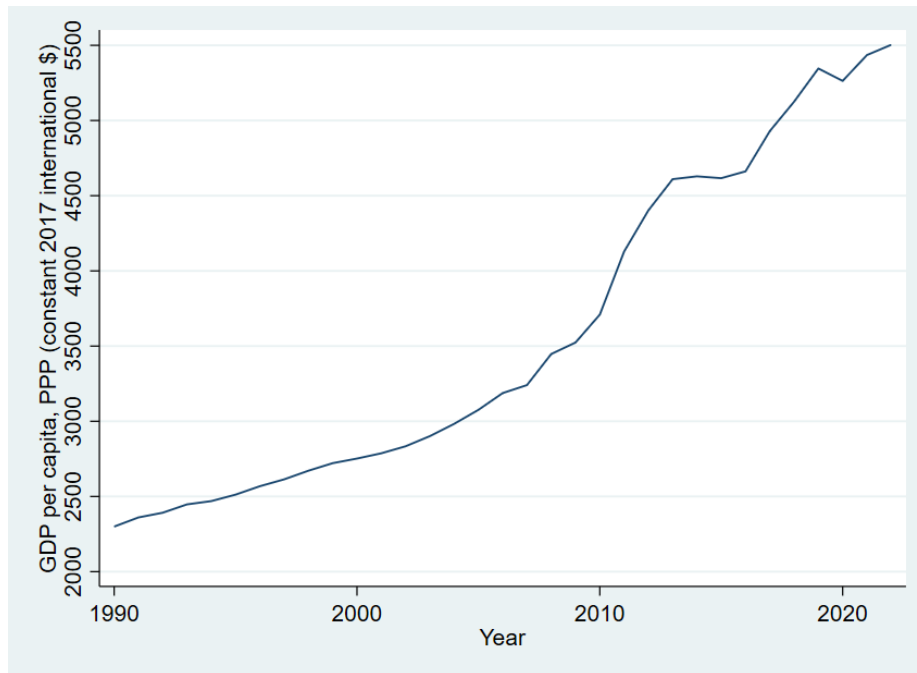


Figure 2.10: GDP per capita PPP (constant 2017 international \$). *Source:* Own elaboration on World Bank data

time, Ghana is a signatory of the African Continental Free Trade Area (AfCFTA) since 2018. This free trade area spans the whole of Africa, bringing together 47 states, and its members committed to eliminating tariffs on most goods in the near future. The main purpose is to create a single market for goods and services and to reduce barriers to capital and labour. Therefore, Ghanaian companies and companies based in Ghana will enjoy a market of more than 1 billion people and a combined GDP of more than US\$ 3.4 trillion with a fast growth rate.

Since 2016, Ghana has been implementing an Economic Partnership Agreement (EPA) with the EU[1]. The EU-Ghana EPA is a trade and development agreement under which Ghanaian exporters benefit from duty-free and quota-free access to the EU market. Equally, under the EPA, Ghana has agreed to open gradually (from 2021 till 2029) its market to around 80% of EU products, which will increase the country's



competitiveness in the regional markets. Products that are sensitive in Ghana are excluded from liberalisation.

### **2.2.3.2 Market Growth**

Ghana has experienced significant economic growth in the past decades, making it one of the fastest-growing economies in the sub-region. Beginning in 1984, the country witnessed a remarkable turnaround from a period of economic turbulence and negative growth, achieving an impressive +9.4 per cent real GDP growth. Neighbourhood countries have shown to be less resilient in this, apart from some notable exceptions like Burkina Faso and Benin.

From 1960 to 1983, Ghana pursued growth through industrialization and self-sufficiency promotion, but the outcomes were disappointing. GDP growth was low, averaging only 0.81

The GDP growth rate fluctuated after 1984 till 2008, when it peaked at the value of 9.1%, declined the following year and rose again in 2010. After 2014 and till 2016 the country experienced a small growth that rebounded again after 2017 and slowed down only due to the COVID-19 pandemic.

The three sectors of the economy, agriculture, industry and service, impacted the overall GDP growth in different ways. Generally, all three sectors contributed positively to economic growth, even if with strong temporal differences. Particularly, the industry showed a decisive strength in recent years, while services drove economic growth at the turn of the new millennium.

Agriculture plays a significant role in Ghana's GDP, accounting for around 20% of the total GDP of the country, a percentage that has been stable in the last decade. The sector traditionally employed large fractions of the working force, and it produces one of Ghana's main exports, cocoa, as well as food for the population, raw materials

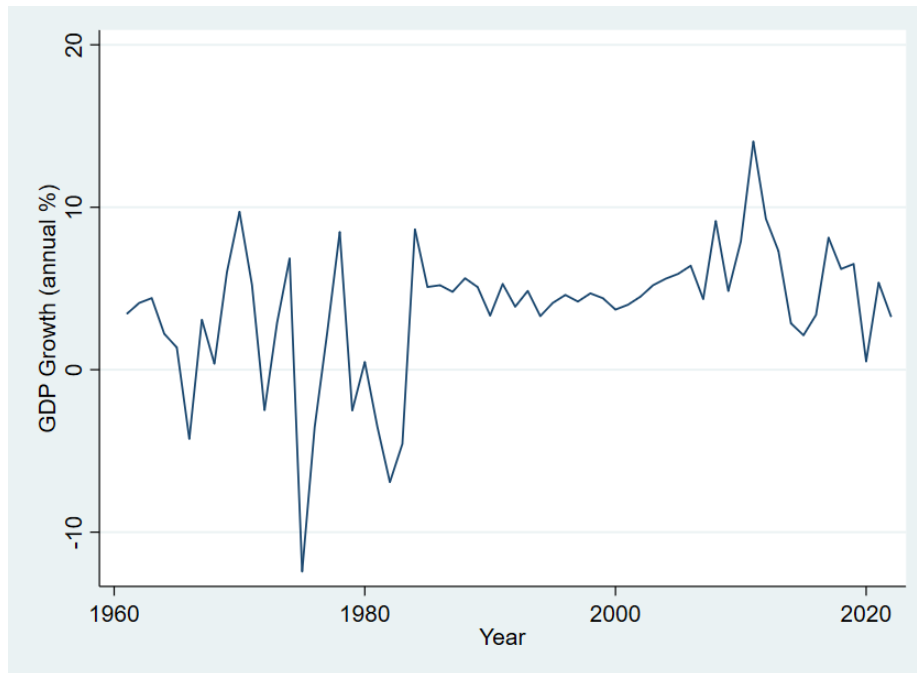


Figure 2.11: GDP growth (annual %). *Source:* Own elaboration on World Bank data

for other industries and so on. However, its impact on GDP growth remains unclear. According to the Ghana Statistical Service agriculture accounts for an important portion of total employment, a number that is however constantly diminishing in recent years. The service sector overcame the agricultural one as the biggest employer. The main products of Ghanaian agriculture are crops, cocoa, oil palms, kola nuts and timber. Agriculture is a sector that generally underperformed the overall GDP growth. Nyamekye et al. (2021) found that there is not a long-run relationship between the overall GDP and agricultural GDP growth and the other sectors.

Indeed, economic growth in Ghana has not been evenly distributed across the country, with disparities between urban and rural areas.

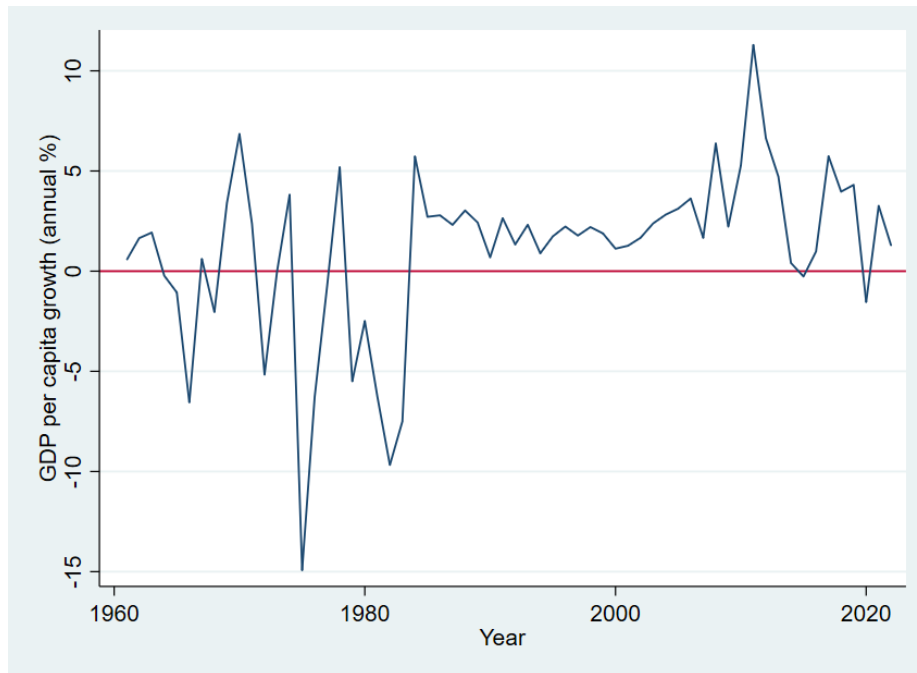


Figure 2.12: GDP per capita growth (annual \$). *Source:* Own elaboration on World Bank data

### 2.2.3.3 Openness of the economy

The degree of economic openness is relevant in the aim of attracting foreign direct investments, particularly those whose primary role is to export. Trade openness is determined as the ratio of exports plus imports to GDP. The higher the openness, the higher the integration of the country in global trade.

In the case of Ghana, the economy is heavily reliant on imports that constantly overcome exports. Exports are indeed highly specific and focused on a small set of commodities: cocoa, timber, gold and crude oil, mostly. Together, they encompass more than 80 per cent of total exports. In contrast, imports are mostly made of finished goods: machinery, equipment or processed food. This difference between what kind of imports and exports is relevant. The Ghanaian economy is very vul-

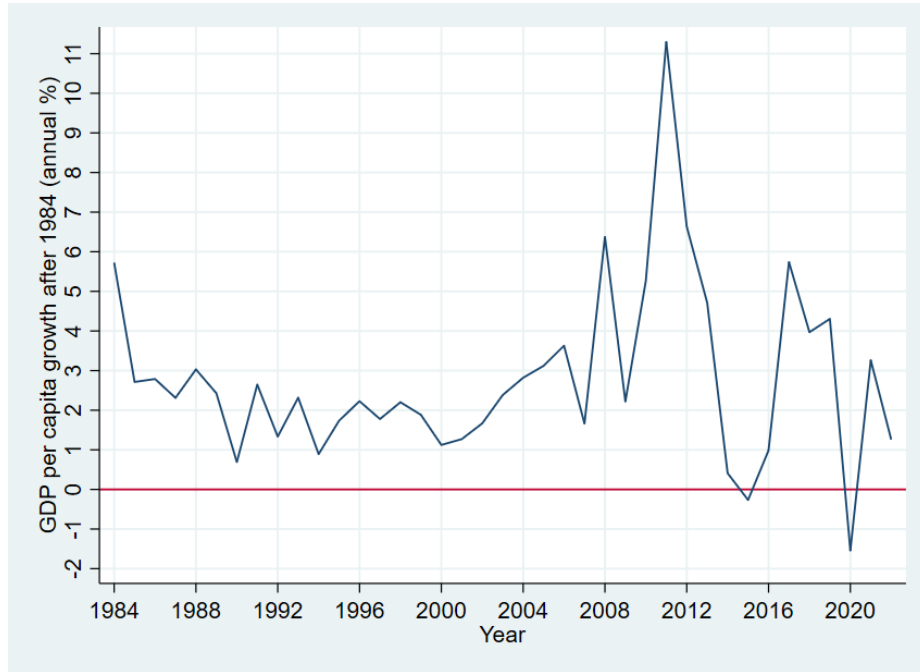


Figure 2.13: GDP per capita growth after 1984 (annual \$). *Source:* Own elaboration on World Bank data

nerable to external shocks or decreases in the prices of commodities. Most payments with the world are denominated in US dollars, and the exchange rate of the GHS can freely float. This further amplifies the economic susceptibility to external market conditions. The country thus needs wise monetary policies.

In 2021, Ghana's economic openness, measured as the sum of exports and imports of goods and services as a percentage of GDP, stood at 52.55 per cent. Before the pandemic, this index fluctuated a bit from the upper peak in 2000, when it reached 116%, and moving up and down but always above 60%. The performance shown by Ghana is slightly superior to that of neighbouring countries. While it is true that imports contribute to increasing the index, a similar pattern is observed in other West African countries, including Nigeria, Togo, and Benin.

#### 2.2.3.4 Factor Endowments In Natural Resources

The rise in demand for minerals and oil in the world presents significant opportunities for developing countries which have some form of deposit in their territories. Mining is one of the oldest industries in the world and it is still one of the largest (Amponsah-Tawiah & Dartey-Baah, 2011). In Ghana, its importance is well explicable by the country's colonial name of Gold Coast. The first documentation of gold mining traces back to 1493 (Amponsah-Tawiah & Dartey-Baah, 2011). Indeed, gold has been one of the major exports of the country throughout its history and still accounts for an important portion of the economy (44% of Ghanaian exports in 2011 (Chuhan-Pole et al., 2015)), and still more than one-third. The country, recognized as the 11th largest gold producer globally in 2022, extracted 90 tons of gold with estimated reserves reaching 1000 tons (U.S. Geological Survey, 2023). Gold accounts for about 95% of the mineral total revenue in Ghana, making it the most exploited mineral (International Trade Administration, 2022a).

Ghana is undergoing its third gold rush, following those between 1892-1901 and the one after the First World War (Chuhan-Pole et al., 2015). Currently, Ghana is one of the largest gold producers in Africa together with South Africa. The sector is highly capital intensive, dominated by large multinational enterprises such as *Gold Fields Limited* and *AngloGold Ashanti Ltd.*, which are both South African and two of the largest firms in the sector. Other relevant investments are the one of the Canadian *Golden Star Resources Ltd.* and the American *Newmont Mining Corporation*. The Ghanaian government engages in joint ventures to operate some mines, as well as receiving royalties and taxes. Since 2010, mining companies have paid 5% of mining royalty, higher than the average in Africa, contributing to government revenue (Ghana Revenue Authority, 2022). This revenue allocation includes 80% to the general government budget, 10% to mining oversight administration, and the rest

supporting district administration (Chuhan-Pole et al., 2015).

Many potential spillovers to the general economy exist. Indeed, many internationals work in the firms and salaries are relatively high (Chuhan-Pole et al., 2015). However, Chuhan-Pole et al. (2015) notes that a shift from underground mining to surface mining may lead to a decrease in labour demand, forcing workers into artisanal and small-scale mining. Gold is already extracted by some small-scale miners, often in hazardous and illegal conditions. The activities of artisanal and small-scale mines were legalized in 1984 after the state loosened its monopoly, however, labour conditions remain problematic, including child labour (Chuhan-Pole et al., 2015).

The impact of gold mining on overall welfare is not conclusively understood. As per Chuhan-Pole et al. (2015), the direct employment created by mines is predominantly for men, whereas women tend to benefit indirectly from jobs generated in the service sector. The welfare outcomes associated with the mining sector exhibit a mixed picture. On one hand, there are indications of reduced infant mortality rates in areas surrounding the mines. On the other hand, certain results suggest a potential increase in food insecurity. While the mining industry contributes to higher wages, it also brings higher energy prices and housing costs.

Ghana owns a rich range of mineral resources, including bauxite, manganese and diamond. In a significant development in 2018, commercial quantities of lithium have been discovered. The mine, located in western Ghana and distant from Accra approximately 100 kilometres, is now projected to be open in 2024 and it has been developed by the Australian Atlantic Lithium (International Trade Administration, 2022b). Originally the production was state-owned, but after the wave of privatisations brought by the IMF in the 1980s foreign investors started to play an important role in the exploitation of its mineral resources. Key players in the sectors are American, Chinese, Canadian, South African and Australian.

The Government is entitled to a 10 per cent equity interest without the need for a

financial contribution. At its discretion, it can also increase its participation. These arrangements, coupled with taxation on extraction activities, position the mining sector as one of the primary contributors to the nation's economic balance. Notably, over half of all FDI in Ghana is directed towards the mining industry, underscoring its significance in the country's economic landscape.

Petroleum exploration in Ghana traces its roots back to the late nineteenth century. However, it was not until 2007 that Ghana discovered oil in commercial quantities in its territory, triggering a rush of non-mining foreign direct investment (Chuhan-Pole et al., 2015).

The *Jubilee field*, the first significant discovery, lies offshore in the western part of Ghana along the border with Côte d'Ivoire. Unearthed by the American firm *Kosmos Energy*, this field is estimated to contain a substantial reserve, ranging between 600 million and 1.8 billion barrels, positioning it among the largest in Africa. The *TEN field*, situated close to the Jubilee one, was discovered in 2011 and started operating in 2016. The fields are currently operated by two US firms, *Kosmos Energy* and *Occidental Petroleum*, one Anglo-Irish firm, *Kosmos Energy* and the south African *PetroSA Ghana*, in addition to the state agency *Ghana National Petroleum Corporation* (GNPC) which own around the 20% (Kosmos Energy, 2023). Currently, these two fields jointly contribute 75,000 barrels per day to Ghana's oil production. As of 2019, Ghana's daily oil production reached 196,089 barrels (Ghanaian Ministry of Finance, 2019).

The last of the three major fields is composed of an oil field, *Sankofa East*, and a gas field, the *Sankofa Gas Project*. The latter is used to produce gas and it is estimated to contain 1.45 trillion cubic feet of non-associated gas. The project is developed by the Italian *Eni*, *Vitol Ghana*, operated by *ENI* as well, and the *GNPC* holding the remaining 20%.

The newfound wealth from oil resources, while promising economic prosperity,

also brings some challenges. Some countries, like Norway, reached to take advantage and gain benefits from the presence of oil. For some others though, it has been a curse. The resource endowment indeed exacerbated conflicts in neighbourhood countries, like what happened in the civil wars in Angola and Sudan (Sefa-Nyarko, 2016). Moreover, as previously stated, countries may suffer from the so-called “*Dutch Disease*”: a large inflow of revenue from foreign countries may overvalue the currency and weaken the manufacturing industry that cannot compete anymore with foreign companies. Some draw parallels with the Nigerian experience, a country where the richness in oil led to bad governance, corruption and a weaker democracy, and raised concerns about the Ghanaian capability to overcome these issues. Ghana though may be structurally resilient to such a scenario (Kopiński, Polus, & Tycholiz, 2013). The Ghanaian Government intervened with comprehensive legislation, as highlighted by Sefa-Nyarko et al. (2021), starting from the *Petroleum Revenue Management Act* (PRMA), in 2011. The PRMA mandates the publication of information on licences and revenue and the establishment of a committee to oversee the management of revenues coming from oil. The Government advocated also for transparency and open governance in the sector.

Open governance particularly refers to governance based on transparency, accountability and participation. Oil companies should thus work together with the government, local communities and associations to maximise the social benefit coming from oil extraction. Public interest may differ from the one of extractive industry companies and it is up to the population to understand what is the better deal for the society. However, the power of the state and of the population with respect to private companies is weak, evidence from SSA shows, and internal conflicts and struggle may lead to not achieving the required coordination (Sefa-Nyarko et al., 2021).

Enhancing transparency emerges as a potential remedy for addressing dysfunction, including issues such as corruption, unaccountability, weak rule of law, and



clientelism. Historically, civil society groups have been excluded by the governance in many sectors of the economy, with Ghana even criminalising the unauthorised sharing of information. While certain legal reforms have been introduced, some clauses still restrict civil society's access to critical information (Sefa-Nyarko et al., 2021).

The enactment of the Right to Information Act in 2019 marked a significant milestone in holding the government accountable. This legislation compels the government to share its records with the public, empowering citizens with reliable information to make informed electoral decisions. However, a nuanced challenge persists, as certain clauses within the act limit the sharing of crucial information. The government contends that maintaining a degree of secrecy is essential for the sake of good governance. Achieving a delicate balance between transparency and confidentiality remains an issue to solve.

## **2.3 FDI attraction in Ghana**

Ghana's FDI stock reached USD 41 billion in 2021. In 2010 it was only 10,80 billion USD\$ (UNCTAD, 2023). In 2022 211 projects started with a total value of US\$1.35 billion (GIPC, 2023). Announced greenfield projects remained flat at a value of \$1.3 billion, while international project finance deals, at \$358 million, decreased from the peak of \$1.8 billion in 2021 (UNCTAD, 2023). In 2021, though, there was a single transaction that increased hugely this amount. The projects have been mainly concentrated in the service and manufacturing sectors by both number and value. The oil and gas sector though continues to receive high-value investments: the six projects totaled indeed 176,51 million US\$. According to the Ghana Investment Promotion Centre (GIPC), these investments are expected to create more than 15 thousand jobs. Of these, around 90 per cent will be owned by Ghanaians. These jobs will not be uniformly distributed across the country, FDI still remains concentrated

in the greater Accra region. Ashanti region receives only 12 projects, even if Kumasi remains the second most important city in the country. At the same time, the western region has been able to attract a relatively high number of investments compared to the other regions with the exception of Accra. The oil fields and main tourist points are indeed located in that area.

Ghana is part of various bilateral agreements. These arrangements make the country more attractive to foreigners because they increase its openness. The most important ones are the Trade and Investment Framework Agreement and the African Growth and Opportunity Act (AGOA), with the United States, the Economic Partnership Agreement (EPA) with the European Union, and an Interim Trade Partnership Agreement with the UK. The EPA is a regional agreement between the EU and 16 West African states that entered into application in Ghana in 2016. This agreement will increase the penetration of west african goods and services into the EU and open gradually the african markets to EU exports. In ten years, Ghana should liberalise the access for the 80% of the total volume of EU exports. Excluded products include cotton, tobacco, coffee, cocoa, fruits, rubber and automobiles. On the other side, it guarantees duty free- quota free access for products made in Ghana in the EU market. The agreement with the UK replicates all the conditions in the EPA. This agreement privileges EU and UK exports to Ghana as compared to the ones from the US, that are subject to the ECOWAS common external tariff. As such:

1. a 5% tariff on imports of essential commodities, raw materials, and capital goods;
2. a 10% tariff on imports of intermediate goods;
3. a 20% tariff on imports of consumer goods; and
4. a 35% tariff on imports on certain other finished goods.

(International Trade Administration, n.d.)

### **2.3.1 Requirements for Foreign Companies**

Some sectors are protected and only Ghanaian citizens or enterprises wholly owned by Ghanaians can operate in them. According to the GIPC Act (2013), these activities include:

1. the sale of goods or provision of services in a market, petty trading or hawking or selling
2. the operation of taxi or car hire service in an enterprise that has a fleet of less than twenty-five vehicles;
3. the operation of a beauty salon or a barber shop;
4. the printing of recharge scratch cards for the use of subscribers of telecommunication services;
5. the production of exercise books and other basic stationery;
6. the retail of finished pharmaceutical products;
7. the production, supply and retail of sachet water; and
8. all aspects of pool betting business and lotteries, except football pool.

This list is subject to amendment by legislative actions.

Foreigners who want to engage in activities in the country have to adhere to some requirements that are more stringent if they do not have Ghanaian partners. Specifically, they have to invest at least 200,000 USD\$ in cash or capital goods in the latter case, and so if there is a Ghanaian partner with at least ten per cent

of the equity; 500,000 USD\$ if the business is fully owned by them. In the case the enterprise is in the trading sector, defined as purchasing and selling of imported goods and services, the investment has to be more consistent: 1 million dollars and it has to employ at least twenty skilled Ghanaians. Enterprises created solely for the aim of export trading of Ghanaian products and manufacturing do not have to adhere to the previous requirements.

The foreign investor is protected by the law from expropriations or nationalisations and from being forced to cede its participation to others. The state can though acquire the company if it is in the national interest by paying an "adequate compensation" and leaving the possibility for the investor to access the High Court to protect its interests. In this case, the funds have to be paid in a convertible currency and can be repatriated without any restriction. The same applies to dividends, gains, payment for loans received abroad, fees and charges in respect of a technological transfer agreement, and proceeds from the sale or the liquidation of the company.

The foreign company is obviously subjected to the labour law of Ghana, and some constraints arise in its capacity to employ people, depending on their nationality. Positions of management can be covered by people by any nationality, but Ghanaian citizens should be preferred, if with similar experience or qualifications, for non-managerial roles. The companies have the right to some automatic quotas for hiring expatriates, based on the paid-up capital (for more information, see Section 34 of the GIPC Act of 2013). The quotas are defined as follows:

<b>Paid Up Capital</b>	<b>Automatic Expatriate Quota</b>
Between 50,000 USD and 250,000 USD	One person
Between 250,000 USD and 500,000 USD	Two persons
Between 500,000 USD and 700,000 USD	Three persons
More than 700,000 USD	Four persons

Table 2.1: Automatic Expatriate Quota

Moreover, there are some constraints on the maximum percentage of foreigners a company can employ. This percentage depends on the sector and the years of activity: the more the years, the more the Ghanaians that should be employed. As an example, the Ghana Local Content and Local Participation Bill, a legislative instrument (L.I.) enacted in 2013, had the purpose of maximizing the value of the petroleum upstream sector for the population as a whole and building local capacities through *”education, skills transfer and expertise development, transfer of technology and know-how and active research and development programmes”*. The L.I. requires a company that wants to be qualified to enter into a petroleum agreement or a petroleum licence to be participated by a Ghanaian company with at least a 5% equity stake. In this case, where the legislative framework is more stringent, the law requires levels of local content to be attained that increase substantially over the years (see Table 2.2).

Item	Start	5 years	10 years
1. Goods and services	10%	50%	60% - 90%
2. Recruitment and training			
a) Management staff	30%	50% - 60%	70% - 80%
b) Technical core staff	20%	50% - 60%	70%-80%
c) Other staff	80%	90%	100%

Table 2.2: Local Content levels to be attained in the petroleum sector. *Source:* L.I

2204

### 2.3.2 The position of the Trades Union Congress

The Trades Union Congress (TUC) of Ghana is the national federation of trade unions in Ghana. It was founded in 1943, when it was formed by a total of 14 unions with a numerical strength of 6030, and represents the interests of workers in various sectors across the country. TUC has a legal existence from 1958 when it was recognized by the law as the sole national trade union centre. The overall number of members rose to 600,000 people in the early 1990s, but decreased in recent years due to heavy job cuts in the public sector, where trade unions are particularly pervasive according to the TUC. The TUC advocates for workers' rights, fair wages, safe working conditions, and other labor-related issues. It plays a significant role in shaping labor policies in Ghana, thanks to its status recognized by the law, and works with the government, employers, and other stakeholders to ensure the welfare and protection of workers. The TUC also provides support and services to its member unions and engages in various forms of advocacy and activism on behalf of its members. I interviewed Prince Asafu-Adjaye, Deputy Director of Research and Policy at TUC to explore the position of the union on FDI.

### **2.3.2.1 Interview**

With respect to FDI, the TUC is focused on two main issues.

Firstly, FDI should come with quality jobs. By quality jobs, they mean jobs that respect workers' rights according to Ghanaian labor standards. The TUC conducted a study on Chinese investments, examining compliance with employment standards, and discovered multiple deficits in the application of relevant laws. Notably, the right of workers to organize was being abused by Chinese employers. Following this discovery, the TUC campaigned to address the issue and mobilize workers, achieving some successes. Workers in the surveyed establishments have been able to engage in collective bargaining, and working conditions have improved.

The second issue the TUC is concerned about is the extent to which foreigners control Ghanaian companies. Many large investments in Ghana, such as in the mining and hospitality sectors (as well as telecommunications, IT, consultancy, etc.), are controlled by foreign entities. The TUC advocates for a plan to promote local entrepreneurship and local control of key economic sectors. This is particularly important for the traditional role of trade unions. The TUC is currently working to improve the quality of work for fishermen, noting that many vessels are Chinese-owned, with Chinese managers. As a result, Ghanaians can only access low-level, low-paid jobs in this sector. Many workers' rights abuses occur on these vessels. A primary goal of the TUC is to improve the capacity of Ghanaians to take managerial roles. They acknowledge that in some sectors, Ghanaians lack the necessary skills for managerial roles, justifying the need for expatriates. However, they call for a sustainable plan and general efforts to train Ghanaians. Establishments are often run by expatriates. Foreigners should be discouraged from competing with Ghanaians for low-level jobs, such as in retail markets. However, the TUC recognizes that foreign investors, especially the Chinese, often bypass these laws by having Ghanaians front for them,

allowing them to enter areas reserved for Ghanaians and usually outcompete them.

Another concern is that many incentives are given to foreigners to invest in Ghana. People feel unfairly treated compared to multinationals. Particularly in the mining sector, the government grants generous tax incentives and a privileged fiscal regime, while Ghanaians pay fixed taxes that must be paid regardless of revenue.

In the mining sector, there is concern that capital investments will reduce the need for workers without creating other jobs. Additionally, these sectors operate like enclaves, preventing other sectors from benefiting from their prosperity. Services and equipment are still imported from abroad, so local demand does not incentivize internal supply creation.

The TUC acknowledges that skill transfer is not currently happening. Even after decades of FDI projects, most are still assigned to foreign companies that bring their own managers and engineers, leaving little space for Ghanaian companies to grow. To address this, the TUC proposes serious local content policies and laws with incentives and sanctions to enable skill transfers. Ghanaian companies often lack the capital for new machinery or technologies, and state intervention through centralized buying or loans may facilitate growth. Structural adjustments opened the economy to foreign goods and services, causing local companies to struggle to compete, leading to significant displacement. The textile industry is an example: once thriving, it has declined due to competition from new and second-hand imports. Trade policies should protect local companies and increase trade between African countries. Currently, most trade is with Western nations or China, while trade with neighboring countries is informal and small-scale. Producing value-added products rather than just primary commodities could enhance intra-African trade.

The TUC also notes that technical schools and universities do not provide students with the skills needed for industry jobs, focusing more on arts and social studies.

Ghana's competitive advantages include relatively better infrastructure, access to



the sea, and English language proficiency. The TUC believes Ghana could become West Africa's logistics hub if it builds and connects railways with other countries. Nigeria is seen as a future competitor, but Ghana's better business reputation, security, and stability give it an edge.

Regarding international positioning, the TUC suggests that Ghana should remain neutral and do business with everyone.

The TUC is not opposed to automation but cautions against automation that displaces workers without creating new jobs. Ghana, like other African countries, does not produce technology and thus does not benefit from jobs in engineering or computer science. Automation should be balanced with the cost of labor, which is lower in Ghana compared to Western countries.

Nkrumah believed Ghanaians are not entrepreneurial due to cultural reasons, necessitating significant state intervention in the economy. The TUC disagrees, attributing the lack of entrepreneurs to a lack of capital. They recommend establishing government funds to support entrepreneurs, financed by taxing foreign companies. This taxation would not drive companies away, as relocating is difficult due to their investments in Ghana, and the return on investment in Ghana is high due to its stability. Additionally, tax incentives could encourage companies to source inputs locally.

# Chapter 3

## Analysis

### 3.1 Data

#### 3.1.1 Data about FDI in Ghana

The data to assess the FDI inflows in Ghana has been taken from the database of the Ghana Investment Promotion Centre (GIPC). The GIPC is a government organization that aims to promote Ghana as a destination for foreign investments presenting the country to the investors and helping them in their business. These kinds of agencies have become increasingly popular in countries as a way to increase the FDI flows. The agency operates under the office of the President and it is the first contact with the country for the investors, facilitating their entrance and giving them the information needed to succeed thanks to its team of people with expertise and competencies. According to Article 24 of the Ghana Investment Promotion Centre Act of 2013, when the agency was created, every company had to register in the centre after its incorporation and before the commencement of operations if it includes foreign participation. Since 1994, 6,157 companies have registered in the centre.

The data have been collected from the agency, and then processed by assigning an

ISIC code for each company registered. The ISIC codes are from the fourth revision (rev.4). ISIC, which stands for International Standard Industrial Classification of All Economic Activities, is an industry classification system used and developed by the United Nations. As such, it categorises every economic activity based on some criteria: “the inputs of goods, services and factors of production; the process and technology of production; the characteristics of outputs; and the use to which the outputs are put” (UN, 2008). At the fourth digit, it has also been considered the process and technology of production, particularly in the classes related to services that are more and more important in the current world. The classification is hierarchical, and on four levels. Thus, it can be used considering one, two, three, or four digits based on the level of disaggregation needed. With four digits it is achieved the greatest level of detail. The classification is also organised in broad groupings, with each one with a letter from A to J assigned. The majority of countries now use this codification or codification derived from this one for statistical purposes.

The assignment of codes has been done both manually and with the use of a software, called “GPT for Excel” developed by the luxembourgeois Talarian s.à.r.l.. “GPT for Excel” is an Excel plug-in that introduces into Microsoft’s software some formulas that allow the usage of ChatGPT within and with data coming from Excel cells. ChatGPT is a popular chatbot that uses artificial intelligence to answer the questions of the user. Since the database from GIPC includes a cell with the description of the activities performed by the companies, the question asked was “Could you provide me a likely ISIC code for a company that does: ” followed by the link with the cell in the column “Description”. Then, every cell was manually reconsidered and verified. Roughly 80% of the times the answer coming from the chatbot was relevant, and the errors made followed a similar pattern.

According to the data from the GIPC, there has been a surge in FDI inflows after 2009. In 2014 and until 2019, the last year of availability of data, a drop in the total

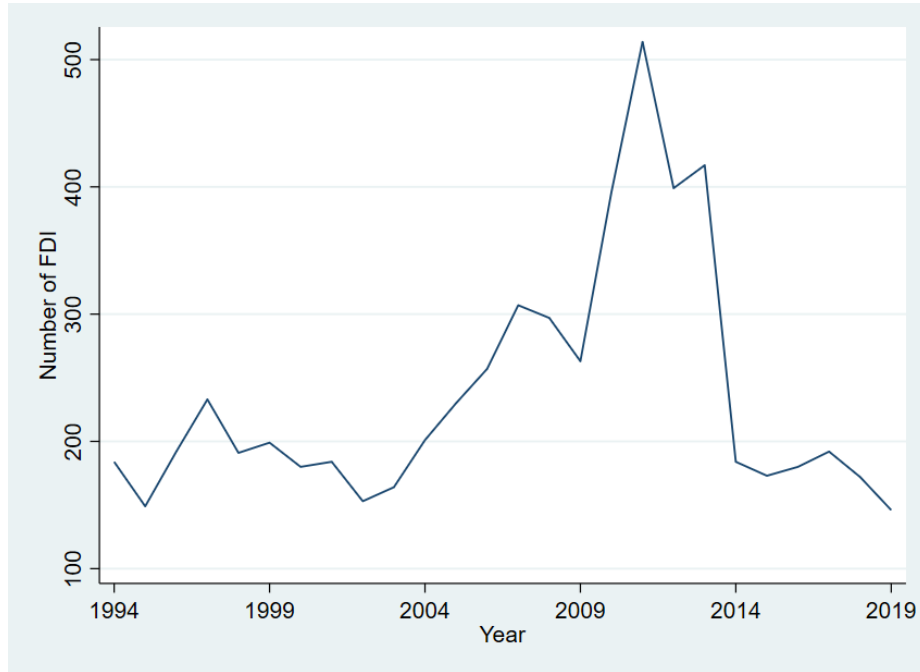


Figure 3.1: FDI in Ghana from 1994 to 2019. *Source:* Own elaboration on GIPC data

number of FDI occurred. From 513 of 2011, the maximum number of FDI in a year recorded by the GIPC, in 2019 only 146 FDI have been recorded (see Fig. 3.1).

As Barthel et al. (2011) notes, GIPC does not record major FDI in the mining sector, and so investments coming from companies like Kosmos or Eni, and does not include investments in the Free Trade Areas either.

Looking at the country of origin of the investments, and considering only companies resided in only one country, the more represented countries are China, India, Lebanon, the United Kingdom, and the USA, all with more than 300 FDI in the country (for more insights see table 3.1, for the top countries, and figure 3.2 for a complete disaggregation made by the country of origin).

Investments in Ghana showcase diverse priorities and sectors across various countries. Chinese investors, for instance, heavily concentrate on wholesale trade, restaur-

<i>Others,</i> <i>1408</i>	<i>China, 884</i>	<i>Lebanon,</i> <i>490</i>	<i>USA, 303</i>		<i>Nigeria, 284</i>	
			<i>Netherlands,</i> <i>219</i>	<i>South Africa, 141</i>	<i>South Korea, 141</i>	
	<i>Germany,</i> <i>190</i>	<i>Italy, 132</i>		<i>Switzerland, 97</i>		
		<i>France, 145</i>	<i>Mauritius, 86</i>	<i>Canada, 76</i>	<i>Denmark, 62</i>	
	<i>British Virgin Islan...</i>		<i>UAE, 61</i>	<i>Spain, 56</i>		
	<i>India, 737</i>	<i>UK, 451</i>	<i>Australia, 59</i>	<i>Belgium, 55</i>		

Figure 3.2: Number of FDI by Country

rant activities, and the manufacturing of plastic, rubber, and fabricated metal products within the Ghanaian market. In contrast, Indian investments extend beyond wholesale trade to enter into the agricultural sector, and animal production, other than the manufacturing of rubber, plastic, and chemical products.

Lebanese investors in Ghana are engaged in a variety of activities other than wholesale trade, again the most important sector. From Lebanon, many investments pertain to the construction of buildings and the involvement in the food sector, both from the service side and the manufacturing. British investments span wholesale trade but also office administrative and architectural and engineering activities other than the construction of buildings, accommodation activities and mining support service activities.

The United States follows a unique pattern. Indeed, their main investments are not in the wholesale trade, but the emphasis is on accommodation, agriculture, animal production, offices, and consultancy services in Ghana.

Regional differences are noticeable both in absolute numbers and over the years (see figure 3.3). The Greater Accra region sees more than three-quarters of the total FDI inflows, leaving to the others only a small number of investments. The Ashanti

<b>Country</b>	<b>Number of FDI</b>
China	884
India	737
Lebanon	490
United Kingdom	451
USA	303
Nigeria	284
Netherlands	219
Germany	190
France	145
South Africa	141
South Korea	141
Italy	132

Table 3.1: Countries with more than 100 FDI investments. *Source:* Own elaboration on GIPC data

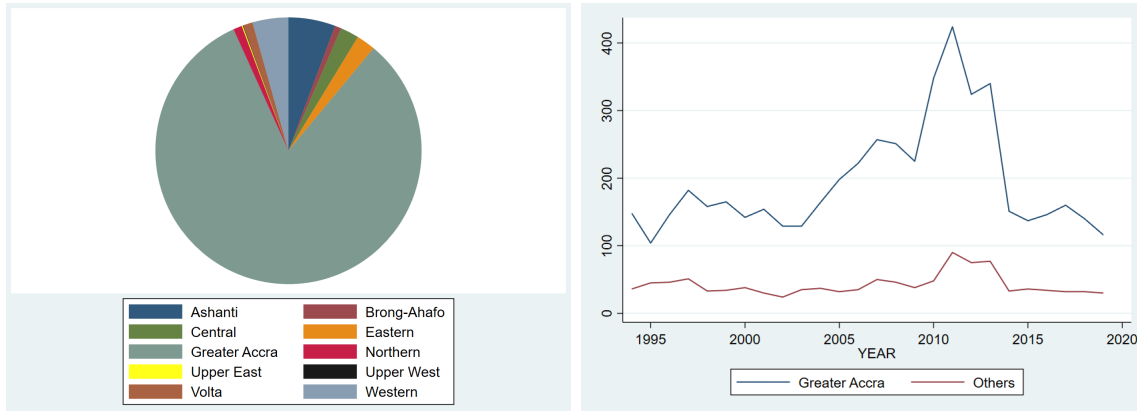


Figure 3.3: Regional Differences. *Source:* Own elaboration on GIPC data

region, and more specifically Kumasi, and the Western Region cover almost all the remaining projects. In the Greater Accra region particularly strong are wholesale trade, construction of building, manufacturing of food products, and activities of offices and consultancy firms, In the Ashanti region, the main projects relate to wholesale trade (57 projects) and the manufacturing of wood and wood products (37 projects). In the western region, the main projects are located in the mining support service sector (31 projects) other than wholesale trade (24 projects) and accommodation activities (20 activities).

Oil was first discovered in Ghana in 2007, after this event there has been a surge in FDI inflows in the sector as noticeable in figure 3.4.

In absolute numbers, the main sector for FDI inflows is Manufacturing. The sector comprised 1548 investments during the 20 years of the research. Inside the sector, manufacturing of food products and manufacturing of rubber and plastic products showed the best performances.

Wholesale Trade is the second sector by number of FDI inflows, as defined by the 46th code according to the ISIC classification. This section includes wholesale trade on its own account or on a fee or contract basis related to domestic and international

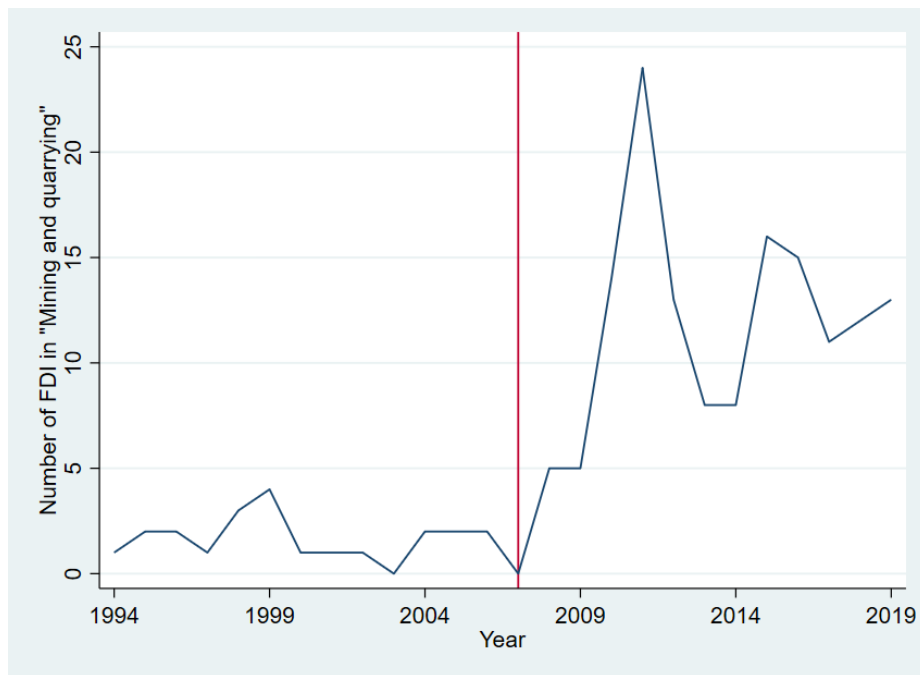


Figure 3.4: Number of FDI in the Mining and Quarrying sector. It has been highlighted the year 2007. *Source:* Own elaboration on GIPC data



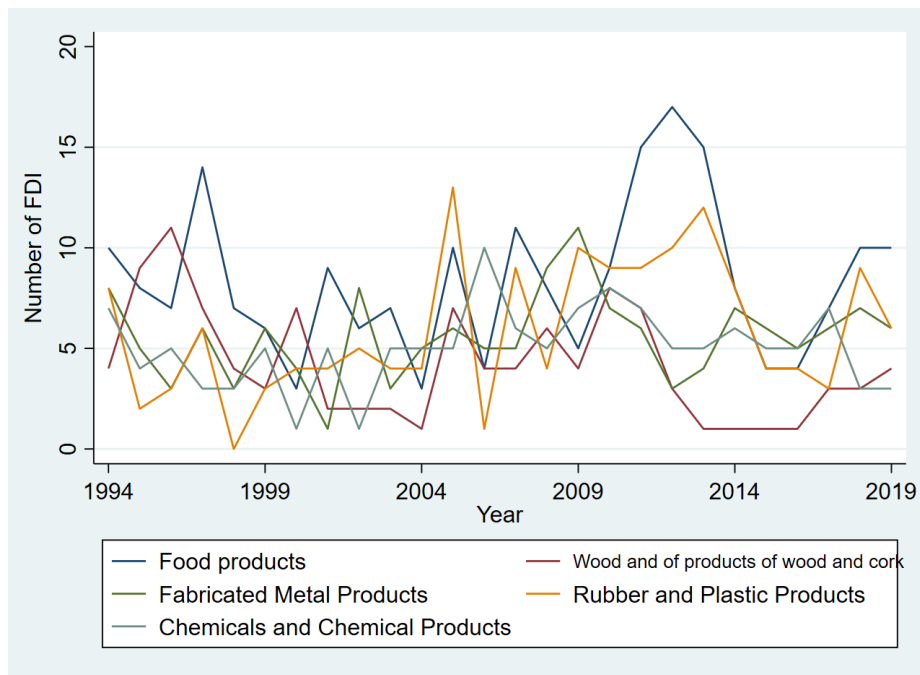


Figure 3.5: Main FDI inflows in Manufacturing. *Source:* Own elaboration on GIPC data

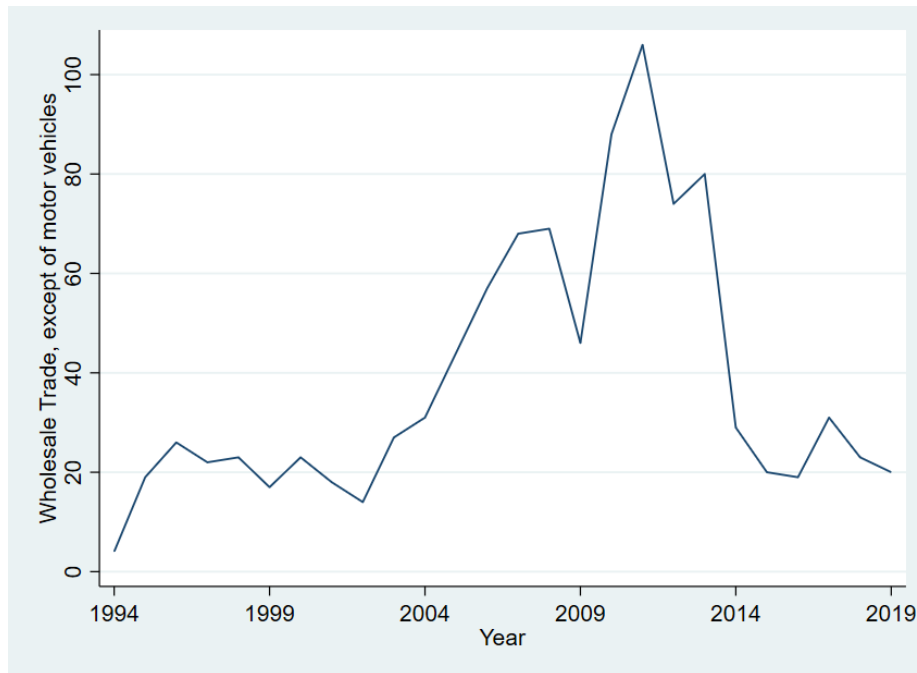


Figure 3.6: Main FDI inflows in ISIC category 46: Wholesale Trade. *Source:* Own elaboration on GIPC data

wholesale trade. As such, it also covers the import and export of goods and services. Indeed, most companies in the dataset are specialised in the import or exports of goods.

The main sectors other than wholesale trade are agriculture, manufacturing, construction, accommodation, and professional and administrative services (see fig. 3.7 for their performances over the years).

### 3.1.2 Data about employment shares

Data to assess employment shares for each sector, come from the Ghana Living Standard Surveys (GLSS) and the Census of 2000. The GLSS surveys are carried on by the Ghana Statistical Service (GSS), with the purpose of measuring the well-being of

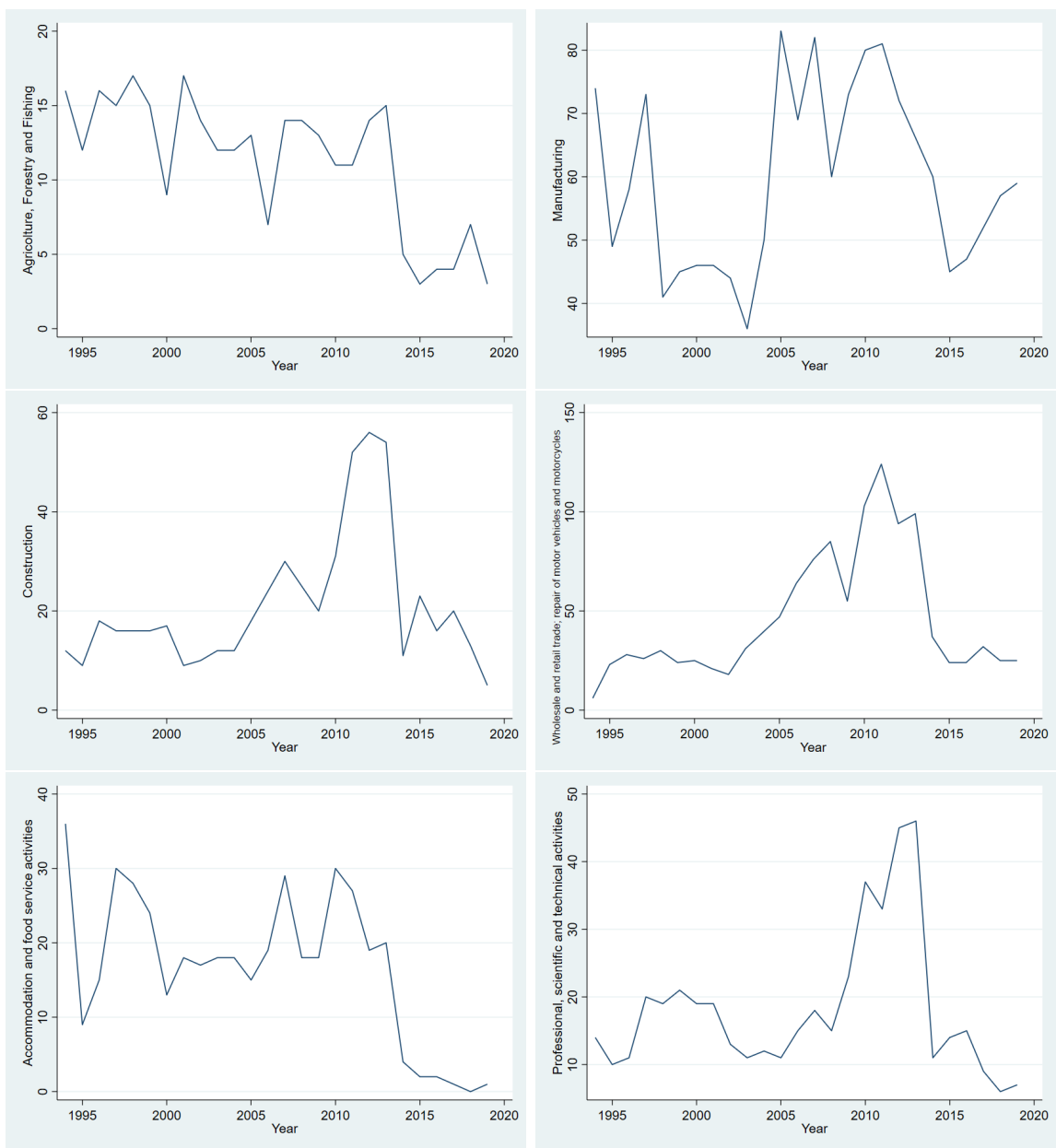


Figure 3.7: Performances of the main sector by FDI inflows over the years. *Source:* Own elaboration on GIPC data

the people and their living conditions. As such, to each individual, the operators ask for information about them, like sex, age or education, their jobs, particularly the sector in which they operate, salaries and working hours. The sample, appropriately weighted, should be representative of the whole population. The data refer thus to 5 years: 1999, 2000, 2006, 2013 and 2017.

#### **3.1.2.1 GLSS 4**

The GLSS 4, with its focus on the household as a key social and economic unit, provides valuable insights into living conditions in Ghana. It was carried out by the Ghana Statistical Service (GSS) over a 12-month period from April 1998 to March 1999. I have used 1999 as a reference year. It covers a representative nationwide sample of more than 5,998 households, totaling more than 25,000 household members and it collects valuable information on all aspects of living conditions, including health, education, employment, housing, agricultural activities, the operation of non-farm establishments, remittances, savings, and credit and assets. The special focus of GLSS 4 was on collecting detailed labour force, income and expenditure data in respect of all household members (Ghana Statistical Service, 1999). The largest share of employment was in the agricultural sector, specifically in "Crop and animal production, hunting and related service activities; Fishing and aquaculture" (Code 1) which accounted for a substantial 41.35% of total employment. This highlights the critical role of agriculture in the Ghanaian economy during this period, reflecting a predominantly agrarian society. The second-largest employment share was in retail trade (except of motor vehicles ) at 23.09%. This indicates a strong presence of informal trade and retail activities, which are typical in developing economies where small-scale trading is common. Employment in the manufacturing sector showed notable shares in specific industries. First of all manufacture of food and tobacco products

at 5.64% and then manufacture of textiles, wearing apparel and leather products at 4.84%, suggesting some level of industrialization focused on processing local agricultural produce and textiles. The service sector also showed significant contributions, with "Education" at 5.84% and public administration and defence at 2.59%. We can then notice two emerging sectors: manufacture of fabricated metal products (1.06%) and mining of coal and lignite and extraction of crude petroleum and natural gas (0.95%). Ghana's employment structure in 1999 was heavily reliant on agriculture and retail trade, highlighting a predominantly agrarian and informal economy. While there were emerging industrial and service sectors, their contributions were relatively small. The data suggests a country in the early stages of economic diversification, with significant potential for growth in manufacturing and service sectors to reduce reliance on agriculture and informal trade 3.8.

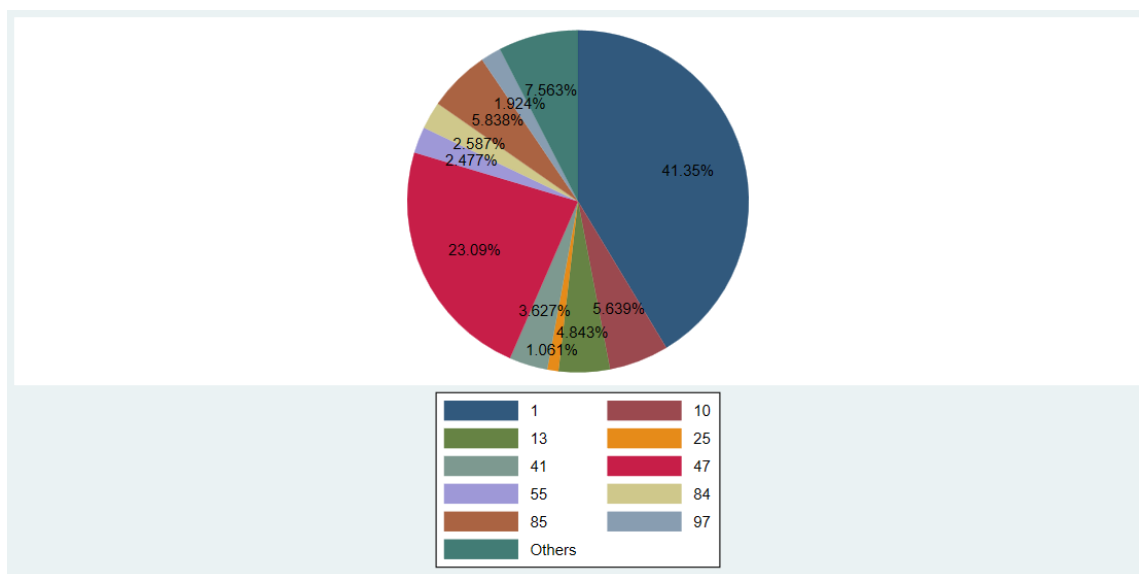


Figure 3.8: Share of the workforce employed in major sectors in 1999 *Source:* Own elaboration on GSS data

### 3.1.2.2 Census 2000

Population censuses have been conducted in Ghana at approximately ten-year intervals since 1891, with interruptions such as during World War II in 1941, which was resumed in 1948. The first census after independence took place in 1960, followed by another in 1970, with plans for a regular decennial census program. However, due to circumstances beyond the statistical organization's control, the third post-independence census was delayed until 1984. Similarly, the subsequent census expected in 1994 was postponed until 1995, when the commitment was finally secured to conduct the fourth post-independence census in 2000.

The 2000 Census aimed to update information on Ghana's population size, sex, age, composition, and other characteristics compared to the last census in 1984. It allowed to keep a continuous series of demographic and socio-economic data at both national and sub-national levels and strengthened the Statistical Service's capability-building program.

The primary objective of the 2000 Population and Housing Census was to provide updated statistical information on Ghana's population characteristics.

Moreover, the 2000 Population and Housing Census marked the first time a comprehensive housing census was integrated with a population census in a single operation.

Agriculture was obviously still the most important sector, but here we can also find employment in Forestry and logging at 2.83%. There is indeed some discretion in collecting data that need to be considered when analyzing the results. The mining sector, including "Mining of metal ores" (1.45%) and "Other mining and quarrying; Support activities for other mining and quarrying" (0.34%), employed a small portion of the workforce. We can though notice how the sector was already present from an employment point of view. Again we find the importance manufacturing of food

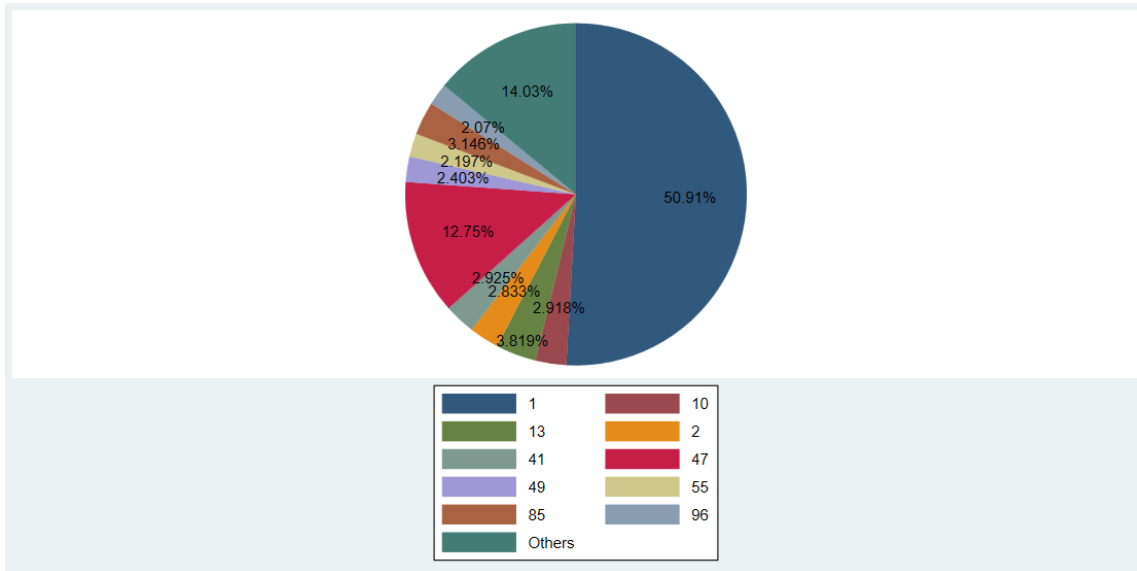


Figure 3.9: Share of the workforce employed in major sectors in 2000 *Source: Own elaboration on GSS data*

and textiles, but with an increasing relevance of manufacture of rubber and plastics products at 1.08%. Notably, land transport and transport via pipelines accounted for 2.40% 3.9.

### 3.1.2.3 GLSS 5

The GLSS 5 was conducted from September 4, 2005, to September 3, 2006.

GLSS 5 covered a nationally representative sample of 8,687 households across 580 enumeration areas, with a total of 37,128 household members. The survey asks detailed information on demographic characteristics, as well as various aspects of living conditions such as health, education, housing, household income, consumption, expenditure, credit, assets, savings, prices, and employment. Two new sections, namely Tourism and Migrants and Remittances, were introduced in this round. GLSS5 also focused extensively on Non-Farm Household Enterprises, collecting information on all

eligible household members involved in such enterprises (Ghana Statistical Service, 2006).

In 2006, the agricultural sector accounted for a 69.51% of employment. This indicates that agriculture remained the backbone of the Ghanaian economy, employing the vast majority of the population. This is consistent with a predominantly rural economy with significant dependence on subsistence farming. Retail trade (except of motor vehicles) retained a significant share of 10.63%. Still, there is an important role of the informal sector and small-scale trading in providing employment opportunities. Retail trade, often characterized by small businesses and market activities, is a key component of the Ghanaian economy also nowadays.

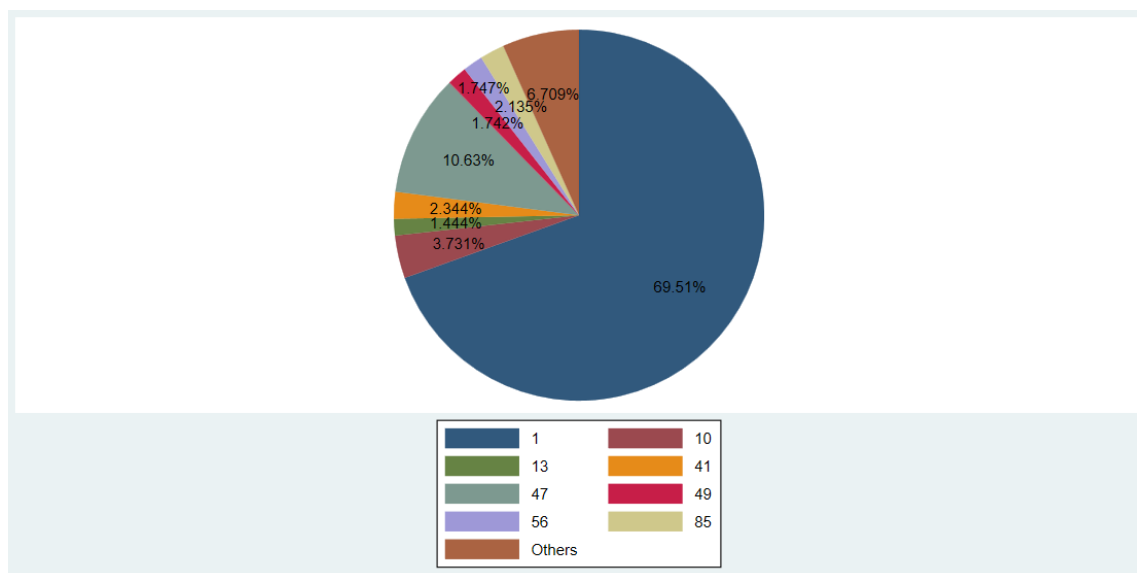


Figure 3.10: Share of the workforce employed in major sectors in 2006 *Source:* Own elaboration on GSS data

Employment in manufacturing was notable in food and tobacco products and textiles. Constructions, education and Human health activities (0.27%) diversified somehow the Ghanaian economy. It can be noticed the impact of IT: repair of com-



puters and personal and household goods employed 0.38% of the total workforce shows engagement with technical and repair services and a gradual shift towards more specialized service activities 3.10.

#### **3.1.2.4 GLSS 6**

The GLSS 6 focuses on the household as the key socio-economic unit and provides information on the living conditions and well-being of households in Ghana. It was conducted by the GSS from October 18, 2012, to October 17, 2013. I have used 2013 as a reference year.

A nationally representative sample of 18,000 households in 1,200 enumeration areas was covered in the survey. Of this number, 16,772 households were successfully enumerated, resulting in a response rate of 93.2 percent. Detailed information was collected on the demographic characteristics of households, education, health, employment, migration and tourism, housing conditions, household agriculture, household expenditure and income, access to financial services, credit and assets, and governance, peace, and security.

Among the main objectives was the aim to provide information on the patterns of household consumption and expenditure at a lower level of disaggregation, to estimate the number of persons in the labour force (employed, under-employed, and unemployed) and their distribution by sex, major age groups, educational level, disability status, geographical and rural/urban spread and to estimate the number of child workers aged 5-17 years and their distribution by sex, major age groups, educational status, geographical, ecological, and rural/urban spread. (Ghana Statistical Service, 2013).

Ghana's employment landscape remained heavily reliant on the agricultural sector, with Code 1 (Agriculture, hunting and fishing) still dominating at 48.17%. This

represents a slight decrease compared 2000, where the sector accounted for 50.91%. Despite this reduction, it is obvious to notice that agriculture continues to play a critical role in providing livelihoods for nearly half of the workforce, highlighting its importance in the Ghanaian economy. Over the years, there has been a noticeable and predictable shift towards more diversified employment sectors. For instance, the retail trade sector has seen significant growth, particularly in retail trade (47) which increased to 16.95% in 2013 from 12.75% in 2000. This increase highlights the expanding role of informal and small-scale trade in sustaining employment and in giving a job and a way to earn some moneys for many people.

The manufacturing sector has also shown variations, with steady employment in sub-sectors such as the manufacture of food (2.93% in 2013, up slightly from 2.92% in 2000) and textiles (2.63% in 2013, with a small decrease compared to 2000). While these sectors remain some of the most important ones, their relative importance has diminished, indicating a gradual shift away from traditional manufacturing industries.

Construction activities accounted for 2.91% in 2013, reflecting ongoing infrastructure development and urbanization. This sector's contribution has been relatively stable.

Service sectors have gained prominence, particularly in "Food and beverage service activities," which saw a rise to 3.58% in 2013 from 0.55% in 1999. Similarly, "Education" employment increased to 3.15% in 2013 indicating an investment in human capital development (important also from an FDI perspective).

Transport and communication sectors have also evolved, with land transport stable at 2.82% in 2013, slightly higher than the 2.40% in 2000. This highlights the importance of transportation in enhancing connectivity and supporting economic activities and can be also due to the infrastructural project that were going on at the beginning of the new millenium.

Public administration and health services continue to be significant for employ-

ment, even if their relative importance decreased.

In 2013 the gradual shift towards more diversified economic activities continued. Retail trade, construction, services, and transportation sectors have gained traction, contributing to a more balanced and resilient economy 3.11.

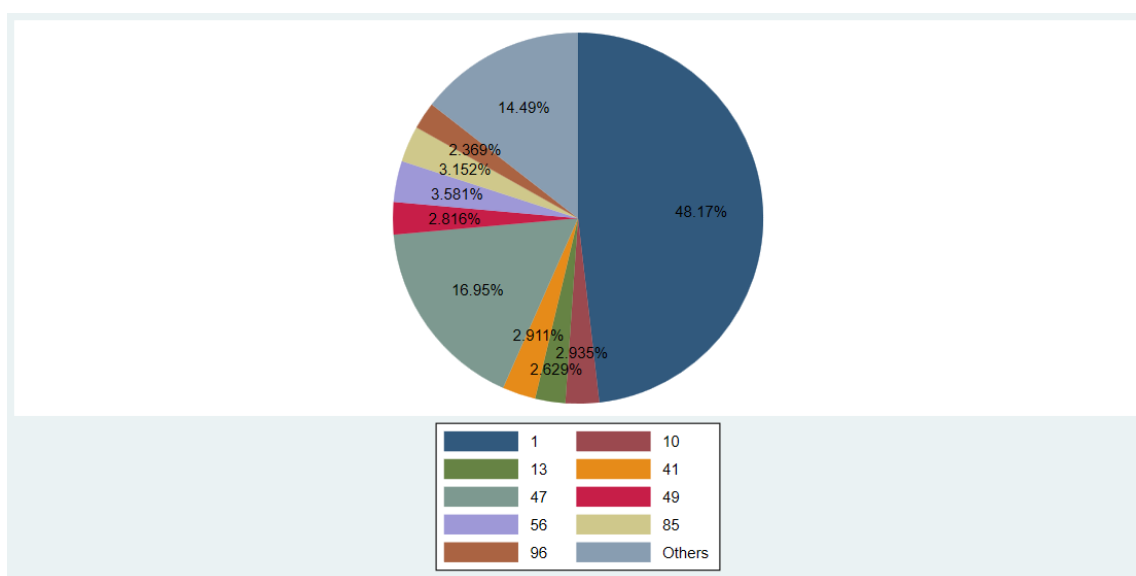


Figure 3.11: Share of the workforce employed in major sectors in 2013 *Source:* Own elaboration on GSS data

### 3.1.2.5 GLSS 7

The GLSS 7 provide extensive information for understanding living conditions and monitoring the welfare system in Ghana. This household-based survey focuses on key socio-economic characteristics and the well-being of households across the country with the purpose of this report is to guide policy review and program planning to foster national development. The GLSS7 conducted from October 22, 2016, to October 17, 2017. I have used 2017 as a reference year.

The survey is nationally representative, with a sample size of 15,000 households selected from 1,000 enumeration areas. A total of 14,009 households responded to

the survey, resulting in a response rate of 93.3 percent. Detailed information was collected on various topics, including Demographic Characteristics, Education, Health, Employment, Migration and Tourism, Housing, Household Agriculture, Expenditure and Income, Governance, Peace and Security, Financial Services, Credit, and Assets (Ghana Statistical Service, 2019)

In 2017 the importance of agriculture continued to decrease, even though the sector still employed more than one third of the workforce. The retail trade sector experienced once again a substantial growth, maintaining its role as the second-largest employer with 18.95% of the workforce in 2017, as compared to 16.95% in 2013 and 12.75% in 2000. Ghanaian markets grew and more and more goods were exchanged. The two largest industries in manufacturing, food and textiles, continued to grow. Manufacture of food employed 5.85% in 2017, almost the double than it did in 2013. Manufacture of textiles, wearing apparel and leather products also increased its employment share to 4.69%, almost doubling the value of 2013. Other sectors that increased their relevance were construction (4.92%) and education (4.80%). The public sector grew as well. Public administration and defence reached the 1.84% while Land transport increased only slightly (2.99%) with respect to 2013.

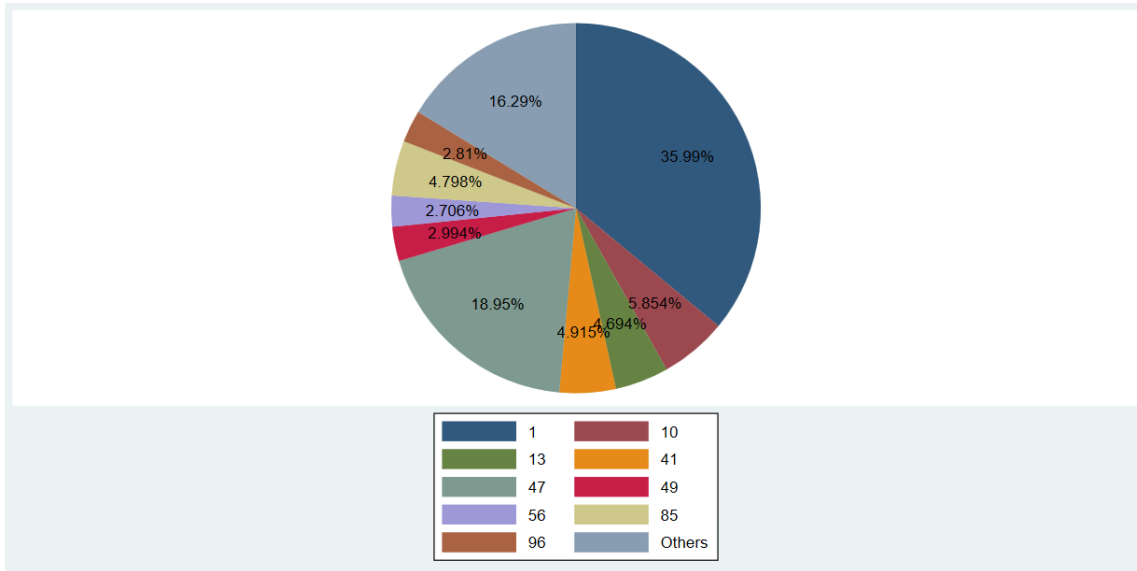


Figure 3.12: Share of the workforce employed in major sectors in 2017 *Source:* Own elaboration on GSS data

### 3.1.3 Data about import tariffs

Data has been retrieved from World Integrated Trade Solution (WITS), a software developed by the World Bank in collaboration with the United Nations Conference on Trade and Development (UNCTAD) and in consultation with organizations such as the International Trade Center, United Nations Statistical Division (UNSD) and the World Trade Organization (WTO). I used Effectively Applied (AHS) tariffs. Countries indeed apply different tariffs to different countries for the same products. Nearly every country in the world has joined at least one preferential trade agreement, committing to lower tariffs on another country's products compared to their Most-Favored-Nation (MFN) rate. MFN tariffs are what countries promise to impose on imports from other members of the WTO (97% of total world trade happens between members of the WTO), unless the country is part of a preferential trade agreement

(such as a free trade area or customs union). This means that, in practice, MFN rates are the highest (most restrictive) that WTO members charge one another. In custom unions like the European community or free trade areas (such as NAFTA), the preferential tariff rate is zero on almost all products. These agreements are reciprocal, meaning all parties agree to lower tariffs for each other. Some agreements offer members a percentage reduction from the MFN tariff rather than zero tariffs, resulting in varying preferences among partners and agreements.

Many countries, especially wealthier ones, provide developing countries with unilateral preferential treatment instead of reciprocal agreements. The largest of these programs is the Generalized System of Preferences (GSP), established in the 1960s. Ghana is a beneficiary of this program from both the European Union and the United states. The European Union, Japan, and the United States offer several unilateral preference programs. An example is the EU's Everything But Arms (EBA) program. The EBA scheme removes tariffs and quotas for all imports of goods (except arms and ammunition) coming into the EU from least developed countries (LDCs). Ghana is not on the list of the EBA eligible countries which is targeted through to its neighbours Togo and Burkina Faso. Exporting countries may access multiple preference programs from a single importing partner for a given product.

Effectively applied tariffs are the lowest available tariff. If a preferential tariff exists, it will be used as the effectively applied tariff. Otherwise, the MFN-applied tariff will be used.

### **3.1.4 Data about Foreign Direct Investment in Africa**

Data for assessing the number and type of FDI in Africa has been retrieved from *fDi Markets*. *fDi Markets* is a comprehensive database and information service provided by the Financial Times that tracks cross-border greenfield investment projects. 2003 is

the first year available in fDi markets. There has been a total 11.189 projects in Africa from 2003, of which 1533 in West Africa, 3528 in North Africa, 6128 in Sub-Saharan Africa. The sector related to financial service activities, except insurance and pension funding has a high number of observations, highlighting the prominence of financial services in the dataset and the critical role in the African economy by facilitating financial transactions and investments. Indeed, is the single main contributor of the dataset. (fig: 3.13). Egypt, Angola, South Africa and Ghana are the main beneficiaries of FDI in this sector.

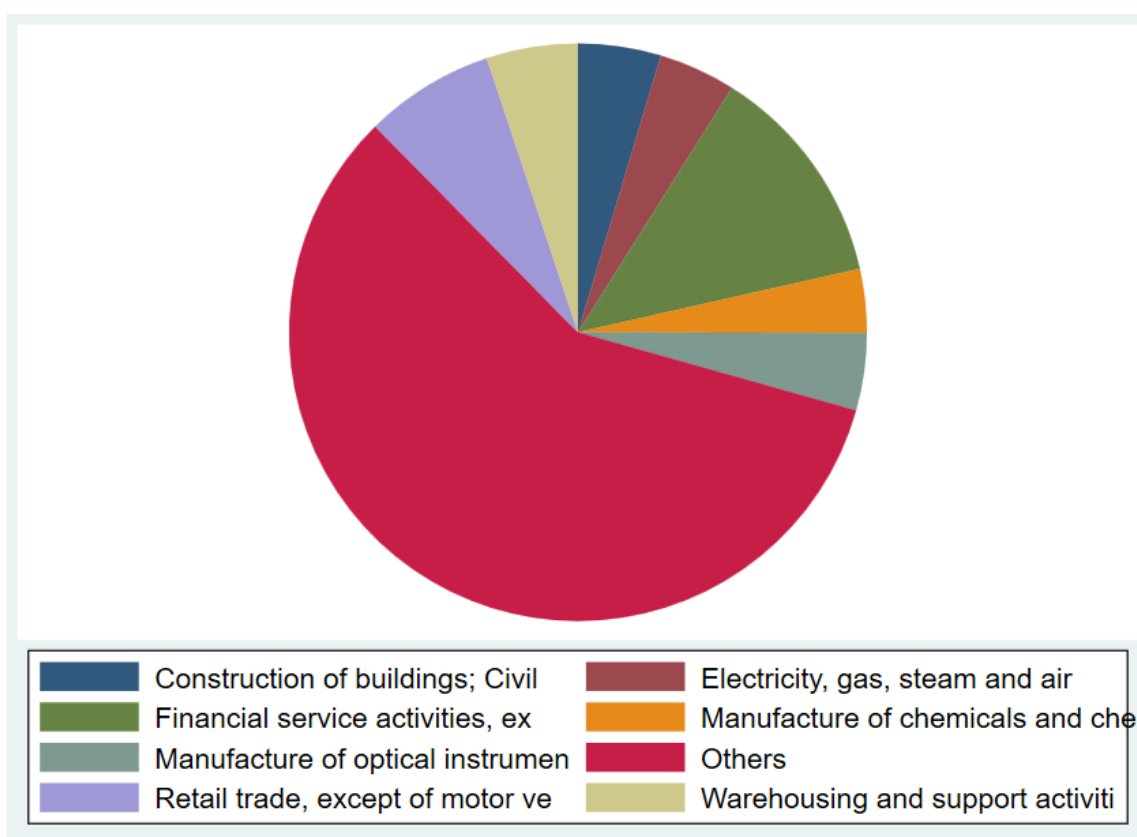


Figure 3.13: Distribution of FDI in Africa by sector *Source:* Own elaboration on fDi market data

The construction sector, that contains building construction, civil engineering,

and specialized construction activities, shows a substantial FDI presence with 518 observations, reflecting the importance of developing infrastructure and the reliance of African countries to foreign firms to develop their construction projects. Morocco and Egypt attract the majority of this kind of FDI. Similarly, the utilities sector, which includes electricity, gas, steam, and air conditioning supply, has 483 observations. Investment in energy infrastructure to support economic growth are considered important as they support the development of businesses and protect the countries from external shocks in the energy sector.

Manufacturing sectors also attract significant FDI, with the manufacture of chemicals and chemical products accounting for 401 observations and the manufacture of optical instruments, photographic equipment, and electrical equipment having 483 observations. This indicates a focus on developing advanced manufacturing capabilities and technological advancements in Africa.

Retail trade, excluding motor vehicles and motorcycles, and warehousing and support activities for transportation, with 813 and 572 observations respectively, underline the importance of consumer goods distribution and logistics in the continent's economy. These sectors are crucial for promoting trade, ensuring the efficient movement of goods, and meeting the demands of a growing consumer market. Logistic, with its difficulties, is crucial for the economic growth. Egypt, South Africa and Morocco seems to be the most affected by this phenomenon.

In general, South Africa, Morocco and Egypt seem to be the countries that are able to attract the greatest share of FDI. Ghana is the 5th country in Africa according to the number of FDI from 2003 to 2019 (fig: 3.14).



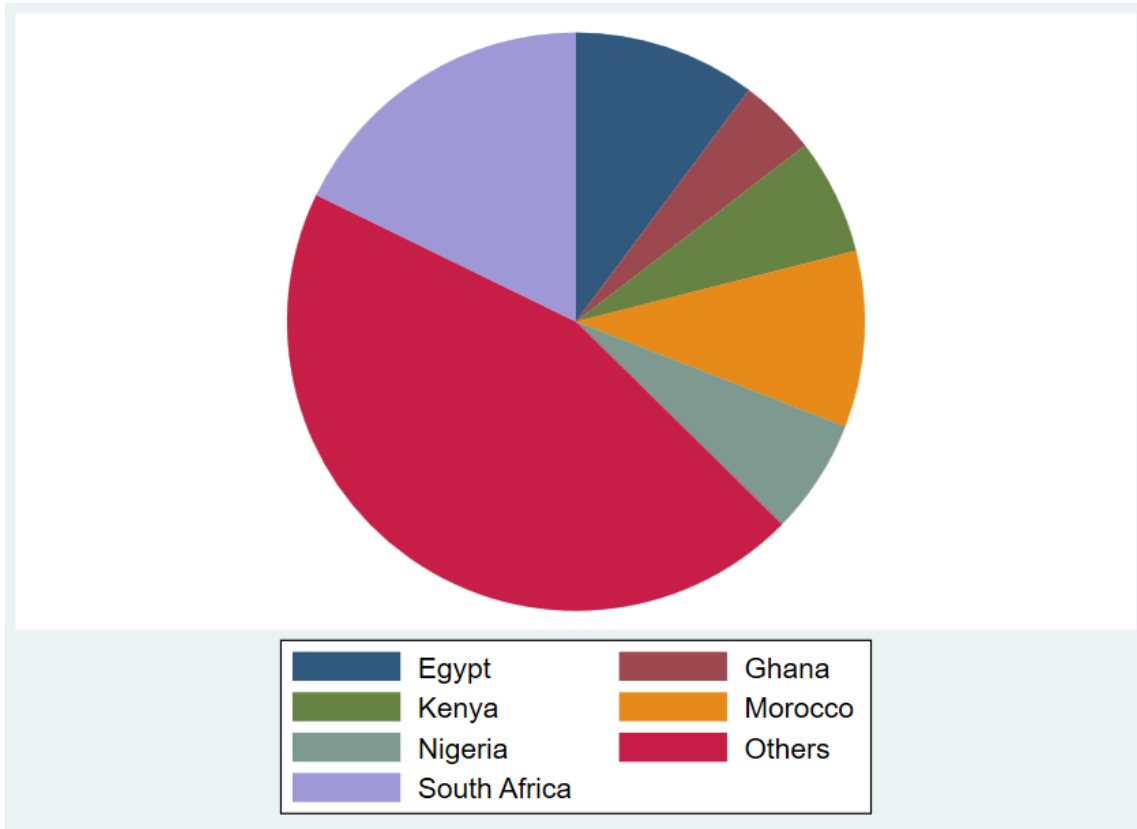


Figure 3.14: Distribution of FDI in Africa by country *Source:* Own elaboration on fDi market data

By looking at the time distribution of FDI (fig: 3.15), it can be noticed that the initial years show moderate growth in FDI, starting with 334 instances in 2003, peaking at 469 in 2006, and slightly declining to 412 in 2007. This period likely reflects a growing interest in African markets, even if with some volatility. A notable peak occurs in 2008, with FDI jumping to 881. Despite the global financial crisis, Africa seems to be attractive for investors, at least in sectors like financial services and construction. In 2009, FDI numbers decrease to 764, perhaps reflecting the fact that global economic crisis had a delay in impacting the continent with respect to FDI. After 2010 we can notice a volatile period, with still a high number of projects

over the years, followed by a substantial decrease of investment in 2016 and 2017. 2018 and 2019 however reflect a renewed interest in the continent, with the highest peak ever achieved happening in 2019 (1011 total projects).

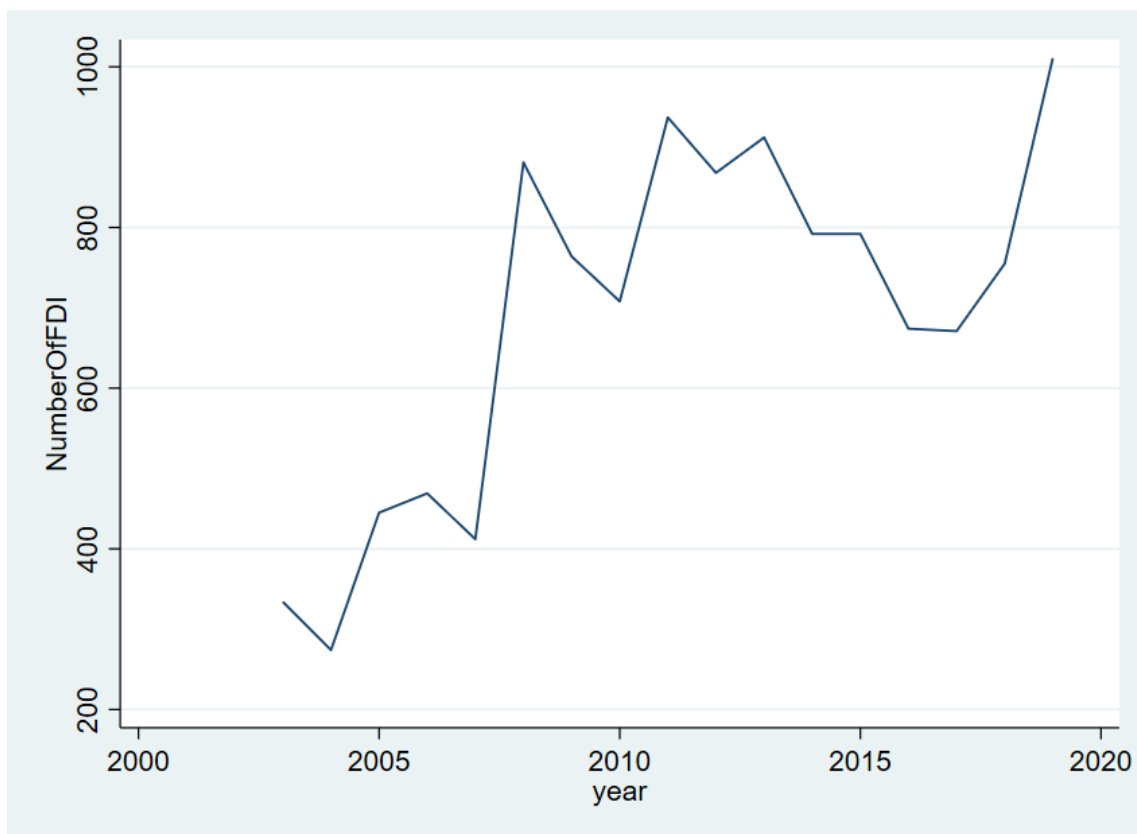


Figure 3.15: Time distribution of FDI in Africa *Source:* Own elaboration on fDi market data

## 3.2 Model and variables

The model is then built based on the data previously presented. Briefly, the available variables refer to employment shares in each sector for five point in time, weighted import tariff for West Africa, North Africa and SSA, the number of FDI in each sector

at every year (and the cumulative number of FDI in each sector, i.e. the stock) for Ghana, North Africa, SSA and West Africa. I also built for each variable a related variable that is the value of the variable at time  $t$  less the value of the variable at time  $t-1$ . In this way it can be evaluated the effect of the change and not the effect with absolute numbers. Moreover, I divided the employment shares considering only male or only females.

<b>Code</b>	<b>Description</b>	<b>Data source</b>
$Emp_{s,t}$	Employment share of sector $s$ at time $t$	GLSS 4,5,6,7; Census 2000
$EmpMale_{s,t}$	Male employment share of sector $s$ at time $t$	GLSS 4,5,6,7; Census 2000
$EmpFemale_{s,t}$	Female employment share of sector $s$ at time $t$	GLSS 4,5,6,7; Census 2000
$FDIinGhana_{s,t}$	Number of FDI in Ghana in sector $s$ at time $t$	GIPC
$FDIinWA_{s,t}$	Number of FDI in West Africa in sector $s$ at time $t$	<i>fDi Markets</i>
$FDIinNA_{s,t}$	Number of FDI in North Africa in sector $s$ at time $t$	<i>fDi Markets</i>
$FDIinSSA_{s,t}$	Number of FDI in SSA in sector $s$ at time $t$	<i>fDi Markets</i>

<b>Code</b>	<b>Description</b>	<b>Data source</b>
<i>StockFDIinGhana<sub>s,t</sub></i>	Stock of FDI in Ghana in sector <i>s</i> at time <i>t</i>	<i>fDi Markets</i>
<i>StockFDIinWA<sub>s,t</sub></i>	Stock of FDI in West Africa in sector <i>s</i> at time <i>t</i>	<i>fDi Markets</i>
<i>StockFDIinNA<sub>s,t</sub></i>	Stock of FDI in North Africa in sector <i>s</i> at time <i>t</i>	<i>fDi Markets</i>
<i>StockFDIinSSA<sub>s,t</sub></i>	Stock of FDI in SSA in sector <i>s</i> at time <i>t</i>	<i>fDi Markets</i>
<i>ImportTariffSSA<sub>s,t</sub></i>	Weighted Average of import tariffs in SSA in sector <i>s</i> at time <i>t</i>	<i>WITS</i>
<i>ImportTariffGhana<sub>s,t</sub></i>	Weighted Average of import tariffs in Ghana in sector <i>s</i> at time <i>t</i>	<i>WITS</i>
<i>ImportTariffWA<sub>s,t</sub></i>	Weighted Average of import tariffs in West Africa in sector <i>s</i> at time <i>t</i>	<i>WITS</i>
<i>ImportTariffNA<sub>s,t</sub></i>	Weighted Average of import tariffs in North Africa in sector <i>s</i> at time <i>t</i>	<i>WITS</i>

For each variable is also available the  $\Delta 'var'_{s,t}$ , built as the difference between the variable at time *t* minus the variable at time *t-1*. The resulting database is divided in 73 sectors, similar to the ISIC Rev.4 at the two digits level. The list of code and relative description can be found in Appendix A. I then divided the 73 sectors in 12 macro-sectors, namely: *Agriculture, Mining, Manufacturing, Utilities, Construction, Trade, Transport, Business, Finance, Real Estate, Government and Other*.

The estimated equation for the model is the following:

$$\text{Emp}_{s,t} = \beta_0 + \beta_1 \cdot \widehat{\text{StockFDIinGhana}}_{s,t} + \sum_{t=1}^5 \sum_{m=1}^{12} \beta_i \cdot \text{macrosector\_year\_dum}_{t,m} + u \quad (3.1)$$

where:

$$\widehat{\text{StockFDIinGhana}}_{s,t} = \gamma_0 + \gamma_1 \cdot \text{StockFDIinWA}_{s,t} + \gamma_2 \cdot \text{ImportTariffWA}_{s,t} + v \quad (3.2)$$

$\text{macrosector\_year\_dum}_{t,m}$  is a set dummy that is equivalent to 1 if the year is equal to  $t$  and the macro-sector is equal to  $m$ . This procedure allows to catch some effect happening at the macrosectoral level in particular years. The addition of other sets of dummies relative to the macro-sectors or to the years are useless due to collinearity.

The stock of FDI in Ghana has been instrumented with the stock of FDI in West Africa and the weighted average import tariffs in West Africa.

In a 2SLS (Two-Stage Least Squares) regression model, the aim is to estimate the effect of the stock of FDI in Ghana on employment shares while controlling for other factors represented by the *macro-sector-year* variables. In the first stage, *StockFDIinGhana* is regressed on the instrumental variables *StockFDIinWA* and *ImportTariffWA*. This regression produces predicted values of *StockFDIinGhana*, which are free from endogeneity. This is needed to increase the reliability and unbiasedness in the results.

Regional FDI trends likely impact industry employment shares in Ghana solely through FDI inflows and are commonly used as instruments for FDI in the industrial policy literature. Another instrument involves import tariffs in the West African region, excluding Ghana, broken down by industry level similar to FDI. Tariffs and taxes have been employed as instruments for FDI because they can directly influence trade and investment. High import barriers can lead to tariff-jumping FDI, while their effect on employment through other channels is improbable (Benfratello L., 2023).

Table 3.2: Summary Statistics

Variable	Mean	Std.Dev	Min	p25	p50	p75	Max
$Emp_{s,t}$	1.37	6.19	0	0	0.088	0.42	69.51
$EmpMale_{s,t}$	1.37	6.37	0	0	0.018	37.37	66.59
$EmpFemale_{s,t}$	1.37	6.19	0	0	0.088	0.42	69.51
$StockFDIinGhana_{s,t}$	43.68	88.45	0	0	16	457	955
$StockFDIiWA_{s,t}$	12.47	26.83	0	0	3	103	263
$ImportTariffWA_{s,t}$	4.35	7.69	0	0	0	29.01	45.82

Table 3.2 shows the summary statistics for the variables included in the analysis. All variables have 365 total observations. There is a high variability among the variables. Particularly, services have import tariffs always equal to 0, and the stock of FDI in WA is often 0 for year 1999 and 2000.

### 3.3 Results

The 2SLS regression results are presented in Table 3.3. I did not consider the first year available, 1999, related to GLSS4, due to being adjacent to year 2000 and with values of variable not coherent with the other data available. This is probably due to different methods being used in collecting data. The coefficient of StockFDIinGhana is positive and statistically significant, indicating that higher FDI inflows are associated with an increase in the employment share of the sector.

Thus, in table 3.3 are the results of the regression, omitting the *macrosector\_year\_dum* variable. The significant positive coefficient for StockFDIinGhana confirms that FDI inflows play a crucial role in enhancing the employment share of specific sectors in Ghana. This finding aligns with existing literature that emphasizes the importance

Emp	Coef.	Std. Err.	z	P >  z	[95% Conf. Interval]	
StockFDIGhana	0.0574	0.022	2.58	0.010	0.0138	0.100
._cons	.022	.144	0.15	0.877	.260	.305

Table 3.3: Instrumental Variables (2SLS) Regression Results

of FDI in economic development and job creation (see Tab. 3.4).

The Wald chi-squared statistic is highly significant (p-value < 0.0000), indicating a strong overall model fit. The R-squared value of 0.4734 suggests that nearly half of the variation in employment shares can be explained by the model.

As previously explained, the *macrosector\_year\_dum* variables are dummy variables representing different macroeconomic sectors (12 in total) over the various time periods (5). These dummy variables are included in the regression to control for sector-specific and time-specific effects. For example, *macrosector\_year\_dum1\_2* has a positive coefficient (45.317) and is highly significant. In contrast, *macrosector\_year\_dum10\_2* has a negative coefficient (-0.658) and is also highly significant. In 2006 the same effects happened. Interestingly, in 2013 and 2018 it can be noticed a significant negative effect in manufacturing. Many of the dummy variables are statistically significant at level  $p < 0.05$ , indicating that the sector-year effects are important determinants of the dependent variable.

When looking to differences among sexes, the coefficients for StockFDIGhana are notably different.

The new equations are the following ones. For males:

$$\text{EmpMale}_{s,t} = \beta_0 + \beta_1 \cdot \widehat{\text{StockFDI}}_{\text{inGhana}_{s,t}} + \sum_{t=1}^5 \sum_{m=1}^{12} \beta_i \cdot \text{macrosector\_year\_dum}_{t,m} + u \quad (3.3)$$

	(1)	(2)	(3)
VARIABLES	Emp	EmpMale	EmpFemale
StockFDIGHana	0.0574*** (0.0222)	.0219** (0.0121)	0.088*** (0.0330)
Constant	-0.0224 (0.144)	0.668** (0.325)	-0.535 (0.347)
Observations	232	232	232
$R^2$	0.473	0.913	0.732

Robust standard errors in parentheses

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

Table 3.4: Instrumental Variables (2SLS) Regressions Results



where:

$$\text{StockFDI}\hat{\text{in}}\text{Ghana}_{s,t} = \gamma_0 + \gamma_1 \cdot \text{StockFDIinWA}_{s,t} + \gamma_2 \cdot \text{ImportTariffWA}_{s,t} + v \quad (3.4)$$

For females:

$$\text{EmpFemale}_{s,t} = \beta_0 + \beta_1 \cdot \text{StockFDI}\hat{\text{in}}\text{Ghana}_{s,t} + \sum_{t=1}^5 \sum_{m=1}^{12} \beta_i \cdot \text{macrosector\_year\_dum}_{t,m} + u \quad (3.5)$$

where:

$$\text{StockFDI}\hat{\text{in}}\text{Ghana}_{s,t} = \gamma_0 + \gamma_1 \cdot \text{StockFDIinWA}_{s,t} + \gamma_2 \cdot \text{ImportTariffWA}_{s,t} + v \quad (3.6)$$

When looking at male employment indeed the coefficient is .0219 with a robust standard deviation of .0121, while for female the same variable stands at .088 for the coefficient and .0330 for the robust standard deviation. The results are still significant at every level. The significant difference in coefficients for StockFDIGhana between male and female employment models suggests that the effect of FDI in Ghana on employment outcomes varies significantly by gender. The effect of StockFDIGhana on female employment is approximately four times larger than its effect on male employment. This indicates that FDI in Ghana has a more pronounced impact on increasing female employment compared to male employment. This may be due to the fact that females are less employed in the agricultural sector, a sector that doesn't show up with respect to FDI.

If I remove the lateral years, i.e. 2000 and 2017, the result still stands (see tab. 3.5). The coefficient of StockFDIGhana is higher if we remove the year 2000, but is still positive and significant in both regressions. The effect of FDI is thus not dependant by the years chosen.

I then tried to analyze the impact of the change, modifying the variables with their  $\Delta$  counterparts. Thus modifying the regression model in the following way:

(1)		
VARIABLES	Emp (w/o 2000)	Emp (w/o 2017)
StockFDIGhana	0.0703* (0.0378)	0.040*** (0.015)
Constant	-0.173 (0.239)	0.135 (0.111)
Observations	174	174
$R^2$	0.568	0.629

Robust standard errors in parentheses

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

Table 3.5: Instrumental Variables (2SLS) Regression Results without selected years

$$\Delta \text{Emp}_{s,t} = \beta_0 + \beta_1 \cdot \Delta \text{StockFDIinGhana}_{s,t} + \sum_{t=1}^5 \sum_{m=1}^{12} \beta_i \cdot \text{macrosector\_year\_dum}_{t,m} + u \quad (3.7)$$

where:

$$\Delta \text{StockFDIinGhana}_{s,t} = \gamma_0 + \gamma_1 \cdot \Delta \text{StockFDIinWA}_{s,t} + \gamma_2 \cdot \Delta \text{ImportTariffWA}_{s,t} + v \quad (3.8)$$

The results are not statistically significant anymore (see tab. 3.6). The coefficient of  $\Delta \text{StockFDIinGhana}$  is indeed -0.0126453 with a standard error of 0.0341858, resulting in a z-value of -0.37 and a p-value of 0.711. This indicates that the effect of  $\Delta \text{StockFDIinGhana}$  on the dependent variable ( $\Delta \text{Emp}$ ) is not statistically significant. Moreover, it seems to be negative. It is however positive if we use as dependant variable  $\Delta \text{EmpMale}$ , with a coefficient of .0012231 and a std. error of 0.034. Anyway, the result continues to not be statistically significant.

VARIABLES	(1) $\Delta\text{Emp}$
$\Delta\text{StockFDIGhana}$	-0.0126 (0.0342)
Constant	0.153** (0.0644)
Observations	174
$R^2$	0.913

Robust standard errors in parentheses

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

Table 3.6: Instrumental Variables (2SLS) Regression Results

# Chapter 4

## Conclusion

Foreign Direct Investment is a critical driver of economic growth, particularly in developing countries like Ghana. It involves investments made by foreign entities directly into the productive capacity of another country, often through the establishment of businesses, acquisition of assets, or mergers. FDI is often sought by countries for its potential to create jobs, transfer technology, enhance managerial skills, and bring economic development. In the context of developing countries, FDI is believed to offer several advantages. One of the primary benefits of FDI is its ability to generate employment. By establishing new businesses or expanding existing ones, foreign investors create jobs directly within the sectors they invest in. This is particularly significant in countries with high unemployment rates. For instance, manufacturing plants, service centers, and agricultural projects funded by FDI can absorb a substantial portion of the local workforce, providing much-needed employment opportunities. Moreover, FDI could create new jobs in sectors related to the ones in which they happens, creating a demand for goods and services that may be satisfied by local firm. FDI indeed often brings advanced technology and managerial know-how to the host country. This not only enhances productivity but also provides local employees with

valuable skills and training. Over time, these skills can diffuse throughout the economy, raising the overall human capital level. By attracting FDI into various sectors, developing countries can diversify their economies. This is crucial for reducing dependency on a limited number of commodities or industries, a situation that is very common in African countries. Diversification can make economies more resilient to external shocks, such as fluctuations in global commodity prices. Foreign investments frequently lead to improvements in infrastructure. Investors may finance the construction of roads, ports, and telecommunications systems necessary for their operations. These improvements benefit the broader economy by enhancing connectivity and reducing transaction costs. Ultimately, FDI can help develop export-oriented industries, enabling countries to enter into global markets. This can lead to increased foreign exchange earnings and a more favorable balance of payments.

Ghana, like many other developing countries, has actively sought to attract FDI in its recent past. The Ghana Investment Promotion Centre has implemented various incentives to attract foreign investors, including tax holidays, exemptions from import duties, and guarantees against expropriation. Ghana has been among the fastest growing countries in Africa, and it was able to become a major FDI destination in the African context.

This thesis aimed at investigating the impact of FDI on employment in Ghana. The findings indicate that FDI inflows are positively correlated with an increase in employment shares, with a more pronounced effect on female employment compared to male employment. The results indeed highlight the nuanced differences across gender. This may suggest that FDI not only drives job creation but also plays a role in promoting gender inclusivity in the labor market. However, when the variables were adjusted to reflect changes over time, the results were not statistically significant, indicating that the relationship between FDI and employment shares might be more complex and influenced by other factors not captured in this thesis.

FDI in developing countries have the potential to drive economic growth, create jobs, and enable skill development. For Ghana, attracting FDI has proven beneficial, with significant contributions to various sectors of the economy. However, to maximize the benefits of FDI, it is crucial for policymakers to design strategies that ensure equitable distribution of economic gains. While FDI is a powerful tool for economic development and job creation, its impact is complex and requires comprehensive, and sector-specific approaches to exploit its full potential.

# References

- Abille, A. B., Mpuure, D. M.-N., Wuni, I. Y., & Dadzie, P. (2020). Modelling the synergy between fiscal incentives and foreign direct investment in Ghana. *Journal of Economics and Development*, 22(2), 325–334.
- Adams, S. (2011). Privatization and national development: A case study of Ghana. *Public Organization Review*, 11, 237–253.
- Addison, T., & Heshmati, A. (2003). *The new global determinants of FDI flows to developing countries: The importance of ICT and democratization* (No. 2003/45). WIDER Discussion Paper.
- Affum-Osei, E., Asante, E. A., Forkouh, S. K., Aboagye, M. O., & Antwi, C. O. (2019). Unemployment trends and labour market entry in Ghana: Job search methods perspective. *Labor History*, 60(6), 716–733.
- African Development Bank Group. (2023, Jun). *Ghana Economic Outlook*. African Development Bank Group. Retrieved from <https://www.afdb.org/en/countries/west-africa/ghana/ghana-economic-outlook>
- Agarwal, J. P. (1980). *Determinants of foreign direct investment: A survey*. Springer.
- Aheto-Tsegah, C. (2011). Education in Ghana—status and challenges. *Commonwealth Education Partnerships*, 27–29.
- Akkermans, D., Castaldi, C., & Los, B. (2009). Do ‘liberal market economies’ really



- innovate more radically than ‘coordinated market economies’?: Hall and Soskice reconsidered. *Research Policy*, 38(1), 181–191.
- Alege, P., & Ogundipe, A. (2013). Sustaining economic development of West African Countries: A system GMM panel approach.
- Alquist, R., Mukherjee, R., & Tesar, L. (2016). Fire-sale FDI or business as usual? *Journal of International Economics*, 98, 93–113.
- Amponsah-Tawiah, K., & Dartey-Baah, K. (2011). The mining industry in Ghana: a blessing or a curse. *International Journal of Business and Social Science*, 2(12).
- Arif, U., Arif, A., & Khan, F. N. (2022). Environmental impacts of FDI: evidence from heterogeneous panel methods. *Environmental Science and Pollution Research*, 1–11.
- Armah, F. A., Luginaah, I. N., Taabazuing, J., & Odoi, J. O. (2013). Artisanal gold mining and surface water pollution in Ghana: have the foreign invaders come to stay? *Environmental justice*, 6(3), 94–102.
- Aryeetey, E., & Baah-Boateng, W. e. a. (2007). *Growth, investment and employment in Ghana*. International Labour Organization Geneva.
- Aryeetey, E., & Kanbur, S. R. (2017). *The economy of Ghana sixty years after independence*. Oxford University Press.
- Asiedu, E. (2006). Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. *World economy*, 29(1), 63–77.
- Assunção, S., Forte, R., & Teixeira, A. (2011). Location determinants of FDI: a literature review.
- Atuahene, S. A., & Sheng, Q. X. (2023). Powering Ghana’s future: unraveling the dynamics of electricity generation and the path to sustainable energy. *Environmental Sciences Europe*, 35(1), 25.

- Autor, D. H. (2015). Why are there still so many jobs? The history and future of workplace automation. *Journal of economic perspectives*, 29(3), 3–30.
- Azémar, C., & Giroud, A. (2023). *World Investment Report 2022: International tax reforms and sustainable investment: United Nations Conference on Trade and Development, Geneva and New York, 2022, 219 pp. ISBN: 978-9211130492.* Springer.
- Baah-Boateng, W. (2015). Unemployment in Ghana: a cross sectional analysis from demand and supply perspectives. *African Journal of Economic and Management Studies*, 6(4), 402–415.
- Baah-Boateng, W., & Vanek, J. (2020). Informal workers in Ghana: A statistical snapshot. *WIEGO Statistical Brief No, 21*.
- Barthel, F., Busse, M., & Osei, R. (2011). The characteristics and determinants of FDI in Ghana. *The European Journal of Development Research*, 23, 389–408.
- Bawole, J. N., & Langnel, Z. (2023). Corruption-induced inhibitions to business: What business leaders have to say in Ghana. *Journal of African Business*, 24(1), 59–76.
- Benfratello L., S. A., D’Ambrosio A. (2023). Foreign Direct Investment, structural transformation and employment: evidence from Ghana.
- Benn, J., & Mirabile, M. (2014). Innovating to finance development. *Development Co-Operation Report 2014: Mobilising Resources for Sustainable Development*, 177–185.
- Berthélemy, J.-C., & Demurger, S. (2000). Foreign direct investment and economic growth: theory and application to China. *Review of development economics*, 4(2), 140–155.
- Blomström, M., & Kokko, A. (2002). FDI and human capital: a research agenda.
- Botrić, V., & Škuflić, L. (2006). Main determinants of foreign direct investment in the southeast European countries. *Transition Studies Review*, 13, 359–377.

- Brooks, D. H., Hasan, R., Lee, J.-W., Son, H. H., & Zhuang, J. (2010). Closing development gaps: challenges and policy options. *Asian Development Review*, 27(02), 1–28.
- Bruce-Twum, E., & Schutte, D. (2021). Tax compliance cost of SMEs in Ghana.
- Buckley, P. J., & Casson, M. (2020). The internalization theory of the multinational enterprise: Past, present and future. *British Journal of Management*, 31(2), 239–252.
- Cheung, Y.-W., & Qian, X. (2009). Empirics of China’s outward direct investment. *Pacific economic review*, 14(3), 312–341.
- Chuhan-Pole, P., Dabalén, A., Kotsadam, A., Sanoh, A., Benschaul-Tolonen, A., & Tolonen, A. K. (2015). The local socioeconomic effects of gold mining: evidence from Ghana. *World Bank Policy Research Working Paper*(7250).
- Cleeve, E. (2008). How effective are fiscal incentives to attract FDI to Sub-Saharan Africa? *The Journal of Developing Areas*, 135–153.
- Clementi, F., Molini, V., & Schettino, F. (2018). All that glitters is not gold: polarization amid poverty reduction in Ghana. *World Development*, 102, 275–291.
- Craigwell, R. (2006). Foreign direct investment and employment in the English and Dutch-speaking Caribbean. *ILO Subregional Office for the Caribbean*.
- Cui, F. (2008). Who are the developing countries in the WTO? *The Law And Development Review*, 1(1), 124–153.
- Debrah, S. K., Nyasapoh, M. A., Ameyaw, F., Yamoah, S., Allotey, N. K., & Agyeman, F. (2020). Drivers for nuclear energy inclusion in Ghana’s energy mix. *Journal of Energy*, 2020, 1–12.
- Denisia, V. (2010). Foreign direct investment theories: An overview of the main FDI theories. *European journal of interdisciplinary studies*(3).
- Deutsche Bank. (2022). Transforming Ghana’s railway infrastructure.
- Ding, G., & Vitenu-Sackey, P. A. (2021). Central Bank Indepen-

- dence and Economic Growth of Ghana: What Inflation and GDP Per Capita Growth Rates Matter? *The Economics and Finance Letters*, 8(1), 104-116. Retrieved from <https://ideas.repec.org/a/pkp/teafle/v8y2021i1p104-116id1669.html>
- Doe, F., & Emmanuel, S. E. (2014). The effect of electric power fluctuations on the profitability and competitiveness of SMEs: A study of SMEs within the Accra Business District of Ghana. *Journal of competitiveness*, 6(3).
- Dunning, J. H. (1977). Trade, location of economic activity and the MNE: A search for an eclectic approach. In *The international allocation of economic activity: proceedings of a Nobel Symposium held at Stockholm* (pp. 395–418).
- Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of international business studies*, 11, 9–31.
- Dunning, J. H. (1988). The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of international business studies*, 19(1), 1–31.
- Dunning, J. H., & Lundan, S. M. (2008). Institutions and the OLI paradigm of the multinational enterprise. *Asia Pacific journal of management*, 25, 573–593.
- Duttaray, M., Dutt, A. K., & Mukhopadhyay, K. (2008). Foreign direct investment and economic growth in less developed countries: an empirical study of causality and mechanisms. *Applied Economics*, 40(15), 1927–1939.
- Economist Intelligence Unit. (2022). *Democracy Index 2022*.
- Faeth, I. (2009). Determinants of foreign direct investment—a tale of nine theoretical models. *Journal of Economic surveys*, 23(1), 165–196.
- Farole, T., & Winkler, D. E. (2012). Foreign firm characteristics, absorptive capacity and the institutional framework: the role of mediating factors for FDI spillovers in low-and middle-income countries. *World Bank policy research working paper*(6265).

- Fontagné, L. (1999). Foreign Direct Investment and International Trade: Complements or Substitutes: Sont-ils complémentaires ou substituables?
- Forte, R., & Moura, R. (2013). The effects of foreign direct investment on the host country's economic growth: theory and empirical evidence. *The Singapore Economic Review*, 58(03), 1350017.
- Frimpong, K., & Agyeman-Budu, K. (2018, 00). The rule of law and democracy in Ghana since independence: Uneasy bedfellows? *African Human Rights Law Journal*, 18, 244 - 265. Retrieved from [http://www.scielo.org.za/scielo.php?script=sci\\_arttextpid = S1996 - 20962018000100013nrm = iso](http://www.scielo.org.za/scielo.php?script=sci_arttextpid = S1996 - 20962018000100013nrm = iso)
- Fruman, C. (2016). *Why does efficiency-seeking FDI matter?* Retrieved from World Bank Blogs: [https://blogs.worldbank.org/psd/why-does . . .](https://blogs.worldbank.org/psd/why-does...)
- Ghana Revenue Authority. (2022). *Mineral Royalty Tax*. Retrieved from
- Ghana Statistical Service. (1999). *Ghana Living Standard Survey (GLSS 4)*.
- Ghana Statistical Service. (2006). *Ghana Living Standard Survey (GLSS 5)*.
- Ghana Statistical Service. (2013). *Ghana Living Standard Survey (GLSS 6)*.
- Ghana Statistical Service. (2019, Feb). *Ghana Living Standard Survey (GLSS 7) 2017 - Overview 2019*. Retrieved from <https://www2.statsghana.gov.gh/nada/index.php/catalog/97/study-description>
- Ghanaian Ministry of Finance. (2019, Feb). *Ghana's oil production estimated to go up to 500,000 barrels per day by 2024*. Retrieved from
- GIPC. (2023). *Quarterly Investment Report*. Retrieved from <https://www.gipc.gov.gh/wp-content/uploads/2023/08/Q4-2022-Quarterly-Investment-Report-.pdf>
- Giroud, A., & Ivarsson, I. (2020). *World Investment Report 2020: International production beyond the pandemic: United Nations Conference on Trade and Development*. Springer.

- Government of Ghana. (2023). *Corporate Income Tax*. Retrieved from <https://gra.gov.gh/domestic-tax/tax-types/corporate-income-tax/>
- Gyamfi, E., Gyamfi, I., & Qi, D. K. e. a. (2016). The influence of tuition fees on the choice of university among senior high school graduates in Kumasi, Ghana. *International Journal of Business and Management*, 11(12), 222–229.
- Gyebi, F., & Boafo, G. K. (2013). Macroeconomic determinants of inflation in Ghana from 1990-2009. *International journal of business and social research (IJBSR)*, 3(6), 81–93.
- Hall, P. A., & Soskice, D. (2001). An introduction to varieties of capitalism. *op. cit*, 21–27.
- Hanson, G. H., des Nations Unies sur le commerce et le développement, C., & Center for international development (Cambridge, M. (2001). *Should countries promote foreign direct investment?* (Vol. 9). UN.
- Hashim, R., & Arfeen, B. (2021). Colonialism to Neo-Colonialism: The Chinese Use of Foreign Direct Investment and the Case of Pakistan. *Global Economics Review*, VI, 15–27.
- Helpman, E., Melitz, M. J., & Yeaple, S. R. (2004). Export versus FDI with heterogeneous firms. *American economic review*, 94(1), 300–316.
- IMF. (2018). *Regional Economic Outlook for Sub-Saharan Africa*. Retrieved from <https://www.imf.org/ /media/Files/Publications/REO/AFR/2018/May/pdf/sreo0518.ashx>
- Inekwe, J. N. (2013). FDI, employment and economic growth in Nigeria. *African Development Review*, 25(4), 421–433.
- International Trade Administration. (n.d.). *GHANA TRADE AGREEMENTS*. Retrieved from <https://www.trade.gov/market-intelligence/ghana-trade-agreements>
- International Trade Administration. (2022a). *Ghana - Mining Industry Equipment*.

- Retrieved from  
International Trade Administration. (2022b). *Mining Industry Equipment*. Retrieved from  
International corporations: The industrial economics of foreign investment, author=Caves, Richard E. (1971). *Economica*, 38(149), 1–27.
- Jakob, M. (2021). Why carbon leakage matters and what can be done against it. *One Earth*, 4(5), 609–614.
- Johnson, A. (2005). *Host country effects of foreign direct investment: The case of developing and transition economies* (Unpublished doctoral dissertation). Jönköping International Business School.
- Khokhar, T., & Serajuddin, U. (2015). Should we continue to use the term “developing world”. *World Bank Blogs*, 16.
- Kopiński, D., Polus, A., & Tycholiz, W. (2013). Resource curse or resource disease? Oil in Ghana. *African Affairs*, 112(449), 583–601.
- Kosmos Energy. (2023). *Ghana Overview*. Retrieved 2023-10-16, from <https://www.kosmosenergy.com/ghana/>
- Kubuga, K. K., Ayoung, D. A., & Bekoe, S. (2021). Ghana’s ICT4AD policy: between policy and reality. *Digital Policy, Regulation and Governance*, 23(2), 132–153.
- Läderach, P., Martinez-Valle, A., Schroth, G., & Castro, N. (2013). Predicting the future climatic suitability for cocoa farming of the world’s leading producer countries, Ghana and Côte d’Ivoire. *Climatic change*, 119(3-4), 841–854.
- Leamer, E. e. a. (n.d.). *The Heckscher-Ohlin model in theory and practice*.
- Lo Bello, S., Sanchez Puerta, M., & Winkler, H. (2019). From Ghana to America: The skill content of jobs and economic development.
- Loungani, P., & Razin, A. (2001). How beneficial is foreign direct investment for developing countries? *Finance and development*, 38(2), 6–9.
- Luo, Y. (2003). Market-seeking MNEs in an emerging market: How parent–subsidiary

- links shape overseas success. *Journal of international business studies*, 34, 290–309.
- Mallampally, P., & Sauvart, K. P. (1999). Foreign direct investment in developing countries. *Finance and development*, 36(1), 34.
- Mencinger, J. (2003). Does foreign direct investment always enhance economic growth? *Kyklos*, 56(4), 491–508.
- Mhlanga, N., Blalock, G., & Christy, R. (2010). Understanding foreign direct investment in the southern African development community: an analysis based on project-level data. *Agricultural Economics*, 41(3-4), 337–347.
- Ministry of Railway Development. (2020). Ghana Railway Master Plan.
- Nachum, L. (1999). *World Investment Report 1998: Trends and Determinants*. JSTOR.
- National Development Planning Condition. (2019). GHANA INFRASTRUCTURE PLAN (GIP) 2018-2047.
- Nkamleu, G. B., Nyemeck, J., & Gockowski, J. (2010). Technology gap and efficiency in cocoa production in West and Central Africa: Implications for cocoa sector development. *African Development Bank: Abidjan, Côte d'Ivoire*.
- Nunnenkamp, P. e. a. (2002). *Determinants of FDI in developing countries: has globalization changed the rules of the game?* (Tech. Rep.). Kiel working paper.
- Nyamekye, A. P., Tian, Z., & Cheng, F. (2021). Analysis on the contribution of agricultural sector on the economic development of Ghana. *Open Journal of Business and Management*, 9(3), 1297–1311.
- Obeng, D. A., Bessah, E., Amponsah, W., Dzisi, E. K., & Agyare, W. A. (2022). Ghana's railway transport services delivery: A review. *Transportation Engineering*, 8, 100111.
- Ocran, M. K. (2007). A modelling of Ghana's inflation experience: 1960-2003. *Studies in Economics and Econometrics*, 31(1), 119–144.



- OECD. (2002). *Foreign direct investment for development: Maximising benefits, minimising costs*. Organisation for Economic Co-operation and Development.
- OECD. (2023). *Revenue Statistics in Africa 2022 - Ghana*. Retrieved from <https://www.oecd.org/tax/tax-policy/revenue-statistics-africa-ghana.pdf>
- Pessoa, A. e. a. (2007). FDI and host country productivity: a review. *FEP Working Papers*(251).
- Projects, Z. (2023). Ghana is seeking to double its oil production by the end of 2023 – government official.
- Ragoussis, A. (2020). *How Beneficial Are Foreign Acquisitions of Firms in Developing Countries? Evidence from Six Countries*. World Bank Washington, DC.
- Ramondo, N., Rappoport, V., & Ruhl, K. J. (2013). The proximity-concentration tradeoff under uncertainty. *Review of Economic Studies*, 80(4), 1582–1621.
- Roads Minister. (2023). *We'll build better and safer roads in Ghana*. Retrieved 2023-10-17, from
- Sefa-Nyarko, C. (2016). Civil war in south Sudan: is it a reflection of historical secessionist and natural resource wars in “Greater Sudan”? *African security*, 9(3), 188–210.
- Sefa-Nyarko, C., Okafor-Yarwood, I., & Boadu, E. S. (2021). Petroleum revenue management in Ghana: How does the right to information law promote transparency, accountability and monitoring of the annual budget funding amount? *The Extractive Industries and Society*, 8(3), 100957.
- Şen, H. (1998). Different Arguments for and Against the Role and Impact of Foreign Investment on The Development Potentials of Developing Countries: An Overview.
- Sinha, M., & Sengupta, P. P. (2022). FDI inflow, ICT expansion and economic growth: An empirical study on Asia-pacific developing countries. *Global Busi-*

- ness Review*, 23(3), 804–821.
- Soumaré, I. (2015). Does FDI improve economic development in North African countries? *Applied Economics*, 47(51), 5510–5533.
- Sparreboom, T., & Gomis, R. e. a. (2015). *Structural change, employment and education in Ghana* (Tech. Rep.). International Labour Organization.
- Sylwester, K. (2005). Foreign direct investment, growth and income inequality in less developed countries. *International Review of Applied Economics*, 19(3), 289–300.
- Tsamenyi, M., Onumah, J., & Tetteh-Kumah, E. (2010). Post-privatization performance and organizational changes: Case studies from Ghana. *Critical perspectives on Accounting*, 21(5), 428–442.
- UN. (2008). International Standard Industrial Classification of All Economic Activities, Rev. 4.
- UN. (2021). *UN handbook on carbon taxation for developing countries*”.
- Un, C. A., & Cuervo-Cazurra, A. (2008). Do subsidiaries of foreign MNEs invest more in R&D than domestic firms? *Research Policy*, 37(10), 1812–1828.
- UNCTAD. (2023). *World Investment Report 2023*.
- United Nations Conference on Trade and Development. (2021). UN List of Least Developed Countries..
- U.S. Geological Survey. (2023). *Mineral Commodity Summaries*. Retrieved from <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-gold.pdf>
- Utouh, H. M., & Rao, M. K. (2016). Foreign Direct Investment (FDI) and its Impact on Employment Creation: The Case of Manufacturing Sector in Tanzania. *International Journal of Current Innovation Research*, 2(7), 432–440.
- Vissak, T., & Roolaht, T. (2005). The negative impact of foreign direct investment on the Estonian economy. *Problems of Economic Transition*, 48(2), 43–66.
- Wadhwa, K., & Reddy, S. S. (2011). Foreign direct investment into developing Asian

- countries: the role of market seeking, resource seeking and efficiency seeking factors. *International Journal of Business and Management*, 6(11), 219.
- Wang, P., & Rukh, B. G. (2021). The Effect of Information Communication Technology (ICT) Infrastructure availability on FDI inflow in D8 Countries. In *E3s web of conferences* (Vol. 235, p. 02052).
- World Bank. (n.d.). *Current account balance, Ghana*. Retrieved from <https://data.worldbank.org/indicator>
- World Bank. (2023a). *Databank*. Retrieved from <https://databank.worldbank.org/metadataglossary/world-development-indicators>
- World Bank. (2023b). *Databank, Governance Indicators*. Retrieved from <https://databank.worldbank.org/source/worldwide-governance-indicators>
- Xu, B. (2000). Multinational enterprises, technology diffusion, and host country productivity growth. *Journal of development economics*, 62(2), 477–493.
- Yeboah, S. (2023). Unravelling the Tapestry: Understanding the Factors Shaping current account Imbalances in Ghana.
- Yimer, A. (2023). The effects of FDI on economic growth in Africa. *The Journal of International Trade & Economic Development*, 32(1), 2–36.

# Appendix A

## Codes Description

Description	Code
Crop and animal production, hunting and related service activities; Fishing and aquaculture	1
Forestry and logging	2
Mining of coal and lignite; Extraction of crude petroleum and natural gas; Support activities for petroleum and natural gas extraction	5
Mining of metal ores	7
Other mining and quarrying; Support activities for other mining and quarrying	8
Manufacture of food and tobacco products	10
Manufacture of beverages	11
Manufacture of textiles, wearing apparel and leather products	13

Description	Code
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	16
Manufacture of paper and paper products; Printing and reproduction of recorded media	17
Manufacture of coke and refined petroleum products	19
Manufacture of chemicals and chemical products	20
Manufacture of pharmaceuticals, medicinal chemical and botanical products	21
Manufacture of rubber and plastics products	22
Manufacture of other non-metallic mineral products	23
Manufacture of basic metals	24
Manufacture of fabricated metal products, except machinery and equipment	25
Manufacture of optical instruments and photographic equipment; Manufacture of electrical equipment	26
Manufacture of machinery and equipment n.e.c.	28
Manufacture of motor vehicles, trailers and semi-trailers	29
Manufacture of other transport equipment	30
Manufacture of furniture	31
Other manufacturing	32
Repair and installation of machinery and equipment	33
Electricity, gas, steam and air conditioning supply	35
Water collection, treatment and supply; Sewerage; Waste collection, treatment and disposal activities; materials recovery; Remediation activities and other waste management services	36

<b>Description</b>	<b>Code</b>
Construction of buildings; Civil engineering; Specialized construction activities	41
Wholesale and retail trade and repair of motor vehicles and motorcycles	45
Wholesale trade, except of motor vehicles and motorcycles	46
Retail trade, except of motor vehicles and motorcycles	47
Land transport and transport via pipelines	49
Water transport	50
Air transport	51
Warehousing and support activities for transportation	52
Postal and courier activities	53
Accommodation	55
Food and beverage service activities	56
Publishing activities	58
Motion picture, video and television programme production, sound recording and music publishing activities	59
Programming and broadcasting activities	60
Telecommunications	61
Computer programming, consultancy and related activities	62
Information service activities	63

<b>Description</b>	<b>Code</b>
Financial service activities, except insurance and pension funding	64
Insurance, reinsurance and pension funding, except compulsory social security	65
Activities auxiliary to financial service and insurance activities	66
Real estate activities	68
Legal and accounting activities	69
Activities of head offices; management consultancy activities	70
Architectural and engineering activities; technical testing and analysis	71
Scientific research and development	72
Advertising and market research	73
Other professional, scientific and technical activities; Veterinary activities	74
Rental and leasing activities	77
Employment activities	78
Travel agency, tour operator, reservation service and related activities	79
Security and investigation activities	80
Services to buildings and landscape activities; Office administrative, office support and other business support activities	81
Public administration and defence; compulsory social security	84

<b>Description</b>	<b>Code</b>
Education	85
Human health activities	86
Residential care activities	87
Social work activities without accommodation	88
Creative, arts and entertainment activities	90
Libraries, archives, museums and other cultural activities	91
Gambling and betting activities	92
Sports activities and amusement and recreation activities	93
Activities of membership organizations	94
Repair of computers and personal and household goods	95
Other personal service activities	96
Activities of households as employers of domestic personnel	97
Undifferentiated goods- and services-producing activities of private households for own use	98
Activities of extraterritorial organizations and bodies	99



# Acknowledgements

I would like to thank the many people who helped me complete this thesis.

First, I am grateful to my professor, Prof. Luigi Benfratello, for his help, guidance, and the opportunities he provided throughout my research. I also want to thank PhD Sangrigoli for her important work, which was the foundation of my thesis.

A special thanks goes to Prof. Baah Boateng for giving me the chance to stay in Ghana and conduct my research there. Staying in Ghana was a unique experience that allowed me to deeply understand the topic in a way that would have not been possible in other ways. In Ghana, I had the opportunity to see first-hand what I had only read about before, and the chance to live in a wonderful country.

I am also very thankful to all the people in Ghana who helped me with my research and shared their experiences with me.

Finally, thank you to my family and friends for their support during this project.

Thank you all for your invaluable help.