

## **Empirical Study on the Determinants and Pro-Development Impacts of Foreign Direct Investment in Ghana**

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## Executive Summary

The main purpose of this study is to analyse the determinants and the potential pro-development impacts of foreign direct investment (FDI) in Ghana. Moreover, key policy areas are indicated in order to enable Ghana both to attract more FDI and to benefit more from these capital inflows. The analysis combines qualitative and quantitative methods and is partly based on data retrieved from the World Bank's 2007 Enterprise Survey and partly on our own survey of 54 multinational enterprises (MNEs) operating in Ghana.

The key results of the study can be summarised as follows:

- Domestic and foreign companies differ significantly from each other: the latter are larger, employ better educated managers, and have easier access to credit. Importantly, taking these advantages into account, the results show that they are not more productive or export more. This indicates that Ghanaian companies have the potential to increase their competitiveness under more favourable conditions (e.g. better access to credit).
- Ghana has not received much FDI in the manufacturing sector so far. Since positive technology spillover effects from MNEs to domestic firms are most likely to occur in this sector, the potential benefits of FDI are not fully exploited. The main reasons for low FDI inflows are access to land, registering property, and the labour market (regulations, availability of skilled labour, labour productivity).
- The activities of MNEs in Ghana have had a positive impact on the productivity of their Ghanaian competitors. Furthermore, foreign firms provide a wide range of assistance to their local suppliers as well as social benefits and training to their employees.
- In previous studies, four main policy areas (pre-determinants) for growth-promoting effects of FDI have been identified: the external sector (trade policy), education, financial markets, and business regulations. While Ghana has improved its performance in all areas over the last 25 years, it has made the largest progress in the external sector. Today, the policy areas with the largest deficiencies are education (shortage of skilled workers and low labour productivity) and finance (lack of well-established financial markets). Both hinder Ghana in taking full advantage from FDI.

Based on these findings, we draw some policy implications that would enable Ghana to attract more foreign investment and to enhance FDI's pro-development impact:

- (1) To improve its position in the global competition for FDI, Ghana needs to improve the regulatory environment particularly in areas such as land titling and registration, and also general business registration, such as market entry regulations.
- (2) To increase the benefits from capital inflows, FDI promotion policies should be concentrated on manufacturing and assembly and on firms that use advanced technologies, have a strong export orientation, and are integrated into global supply chains.
- (3) Within the manufacturing sector, it could be useful to promote specific clusters, in which companies mutually benefit from each other and that provide positive externalities. Since these core sectors should make the best use of Ghana's comparative advantages, interesting investment fields encompass, for example, agro-processing, food and beverages, or light manufacturing, such as wood products.
- (4) There are substantial benefits from further FDI in sectors such as telecommunications and finance, which are particularly important for development. The entrance of further firms in these sectors could provide much needed capital and lead to productivity gains through increased competition.
- (5) Linkages between domestic suppliers and MNEs need to be strengthened to enlarge technology spillovers. At present, Ghanaian firms are not in a position to meet the demands of MNEs, both in terms of quality and availability of inputs. It could be useful to develop a national technology strategy which aims at building the needed capacities.
- (6) Despite strong progress concerning educational attainments, there is still a shortage of skilled workers. In particular, workers with good technical skills are lacking. Since these are necessary in order for the country to take advantage of spillovers, there is a need for upgrading workers' skills.

Summing up, Ghana has a great potential to attract more FDI and to use foreign investment to better promote development. With a wealth of natural resources and an excellent geographic position, ensuring access to markets in Europe and the sub-region, Ghana is a suitable place for foreign investors. However, policy makers should continue, and reinforce, the reform agenda.

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## List of Abbreviations

AGI	Association of Ghana Industries
ALP	Ahafo Linkages Program
ECOWAS	Economic Community of West African States
ERP	Economic Reform Programme
EU	European Union
FTZ	Free Trade Zone
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GH¢	New Ghanaian Cedi
GIPC	Ghana Investment Promotion Centre
GLSS	Ghana Living Standards Survey
GoG	Government of Ghana
ICT	Information and Communication Technology
IFC	International Finance Cooperation
MFN	Most-Favoured Nation
MNE	Multinational Enterprise
MSME	Micro, Small and Medium Enterprises
NDPC	National Development Planning Commission
RPED	Regional Program on Enterprise Development
SIPH	Societe Internationale de Plantation d'Heveas
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
WTO	World Trade Organisation

## 1. Introduction

The economic progress of countries depends to a large extent on the opportunity of making profitable investments and accumulating capital. Having access to foreign capital and investments allows a country to invest in both human and physical capital and to exploit opportunities that otherwise could not be used. Recent experiences with opening capital accounts in emerging and developing economies, however, have proved to be a mixed blessing, as it is becoming increasingly clear that not all types of capital imports are equally desirable. Short-term credits and portfolio investments run the risk of sudden reversal, if the economic environment or even just an investor's perception changes, giving rise to financial and economic crises. It is therefore frequently advised that such countries should primarily try to attract foreign direct investment (FDI) and be very careful about accepting other sources of finance (Prasad et al. 2003). In comparison, foreign investments are much more resilient to crises.

In addition to the provision of new capital, several channels through which FDI can boost growth rates in the host economies have been identified. For example, FDI is generally accepted as a means to incorporate new knowledge from abroad. The theory of the multinational firm proposes that multinational corporations have a technological advantage over local firms that outweighs the cost of doing business in external markets (Markusen 2002). The inflow of new knowledge may benefit domestic firms through imitation and learning, increased competition in local markets, facilitation of human capital mobility among firms, and vertical linkages; thereby increasing the productivity level and sustaining a higher growth rate.<sup>1</sup>

Against this background, this study aims to examine the determinants and pro-development effects of FDI for developing countries. Rather than focussing on a large number of host countries, it concentrates on one particular country: Ghana. While large cross-country studies are able to indentify the factors that drive FDI and examine their impact across countries, they cannot provide an in-depth analysis. This is the main advantage of a country case study.

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<sup>1</sup> See Markusen (2002), Navaretti and Venables (2004), Helpman (2006), and Caves (2007) for extensive literature surveys.

Ghana has been selected because it has a proven track record in implementing political and economic reforms. In fact, Ghana was one of the first sub-Saharan African countries to carry out market-friendly economic reform programmes. Beginning with the implementation of the Economic Reform Programme (ERP) in 1983, the adoption of the Mining Code in 1986, the enactment of the Investment Code in 1994, and the Free Zone Act in 1995, Ghana has greatly improved the business environment for foreign (and domestic) investors (UNCTAD 2003). At the time Ghana implemented the Investment Code, the code was viewed as best practice in Africa.

In addition to investment liberalisation, other areas of the external sector have been liberalised as well, through unilateral, multilateral (World Trade Organisation, WTO) and regional (Economic Community of West African States, ECOWAS) liberalisation. As a consequence of the various liberalisation efforts, the average most-favoured nation (MFN) tariff Ghana applied in 2007 was 12.7 percent (WTO 2007), which is relatively low for a developing country. Due to preferential trading agreements and various exceptions, and partly due to Free Trade Zones (FTZs), the effectively applied tariff rate is even lower.<sup>2</sup> As a result, Ghana's openness to trade has increased considerably since 1980. Total trade, that is, exports plus imports, increased from some 20 percent of Gross Domestic Product (GDP) in 1980 to 103 percent of GDP in 2006 (World Bank 2008c).

While the reform agenda lost some momentum in the late 1990s, the World Bank (2008a) has recognized Ghana for having implemented significant economic and institutional reforms in recent years. In fact, Ghana belongs to the group of top reformers and continues to increase the efficiency of its public services. On the political level, Ghana introduced a multi-party democratic system in 1992, helping to ensure a key prerequisite for attracting FDI, namely political stability.

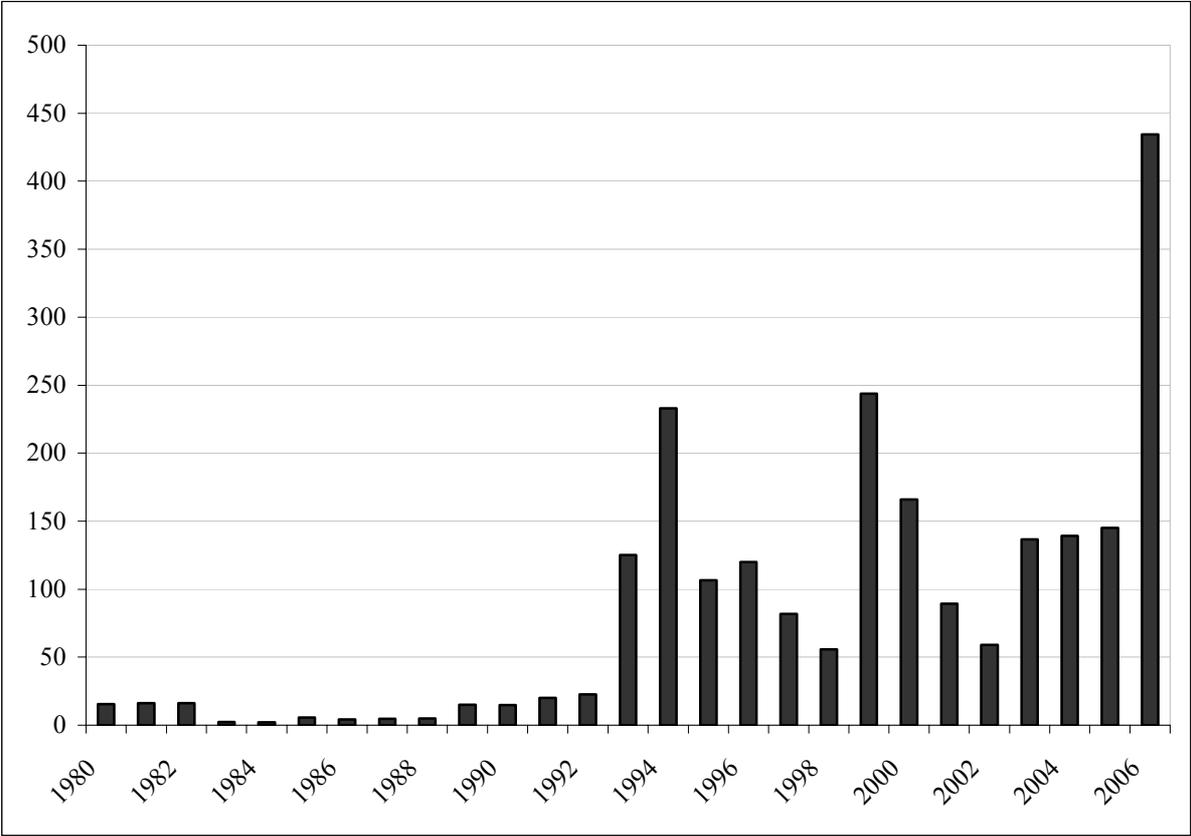
Despite liberalising investment rules, reducing trade barriers and improving the business climate, Ghana did not receive as much FDI as expected by the government. Though absolute FDI inflows increased in the 1990s, they started from a very low level in the preceding decade (Figure 1). Between 1993 and 2005, annual FDI inflows fluctuated between US \$50 million

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<sup>2</sup> According to estimates by Busse and Großmann (2007), the effectively applied tariff rate for Ghana in the year 2000 was as low as 4.7 percent.

and US \$250 million. In 2006, FDI rose to almost US \$450 million. The fluctuations in the level of FDI reflect erratic levels of investment and inflows linked to privatisation.

Figure 1: FDI in Ghana, 1980-2006 (US\$ Million)

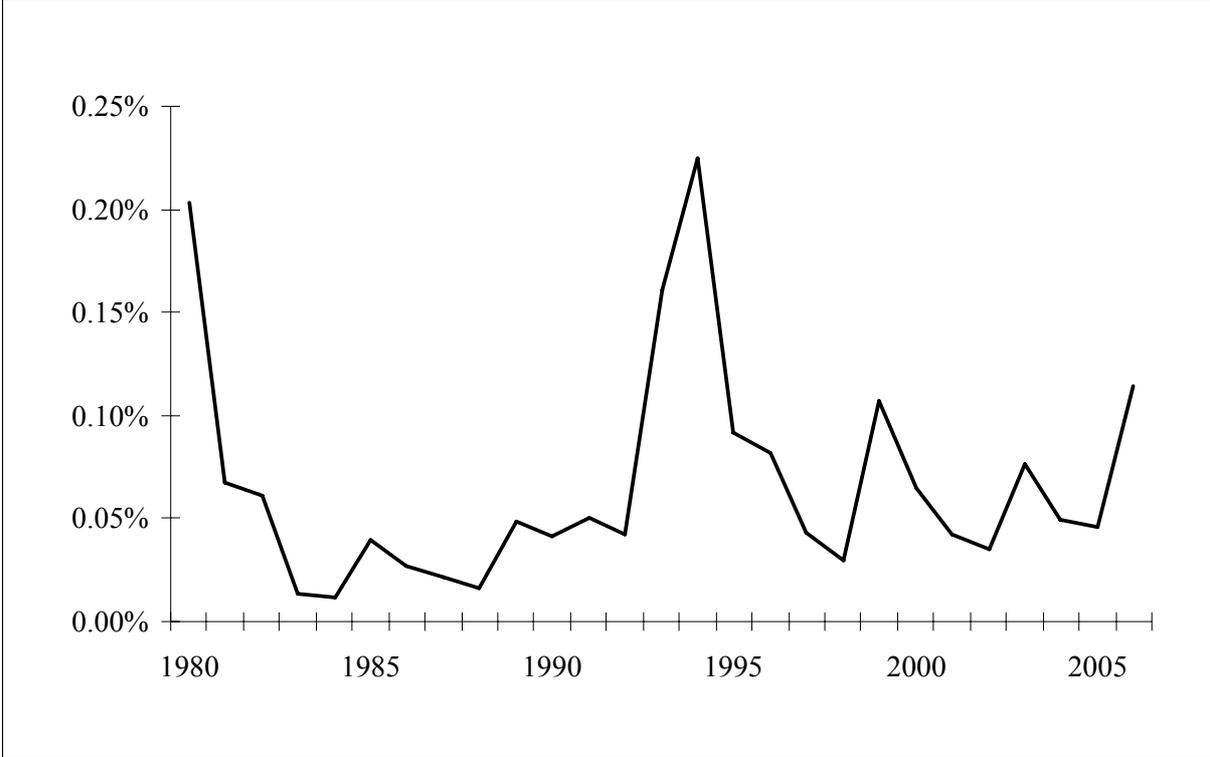


Source: UNCTAD (2008).

As a share of GDP, FDI inflows since the mid-1990s amounted to some one to two percent. In 2006, the year with the highest quantity of FDI inflow, the same share reached some 3.4 percent, which shows a significant increase over recent years. In that year, capital provided from foreign sources made up 10.4 percent of total gross capital formation (World Bank 2008c). FDI inflows can thus be a considerable source of capital.

Despite the recent increase in FDI inflows, FDI levels are low compared to other developing countries or even to other (similar) African countries. Since 2000, Ghana has attracted only between 0.05 percent and 0.1 percent of total FDI to all developing countries (Figure 2). As a share of FDI to sub-Saharan African countries, Ghana received in the same period between 0.5 percent and 2 percent of FDI flows. In other words, Ghana did benefit proportionally from the worldwide increase in FDI flows to developing countries.

Figure 2: FDI in Ghana in Percent of Total FDI to All Developing Countries, 1980-2006



Source: UNCTAD (2008).

Table 1: FDI Stocks in Ghana by Geographical Origin, 2004 (US\$ Million)

Country	FDI Stock
United Kingdom	270.3
United States	268.0
Malaysia	55.3
Netherlands	44.2
Canada	37.9
Germany	14.1

Source: UNCTAD (2008). Note: Data are based on information reported by the economies listed above and refer to 2004 or the most recent year for which data were available.

The nationality of foreign investors has varied over the past 25 years. In the past, European and US investors were the largest sources of FDI flows to Ghana (Table 1). More recently, South African and Asian investors from China, Malaysia, and India now play a major role in several sectors, such as mining, manufacturing or services (UNCTAD 2008).

Most of foreign investment is concentrated in the mining sector. According to estimates by UNCTAD (2008), some 70 percent of total FDI inflows over the last 15 years went into this sector.<sup>3</sup> Outside the mining sector, FDI inflows mainly went into the service sector and light manufacturing (Table 2). FDI in manufacturing is predominantly resource-based, for example in agro-processing. Within the service sector, Ghana managed to attract significant amounts of foreign capital in telecommunications and banking (UNCTAD 2008).

Table 2: Sectoral Distribution of Foreign Investment in Ghana, Average 1994-2002 (US\$ Million and Percentage)

Sector	Inward FDI (US\$ Million)	Percent of total FDI
Agriculture	204	11.5%
Building and construction	125.9	7.1%
Export trade	15.6	0.9%
General trade	101.3	5.7%
Liaison office	0.1	0.0%
Manufacturing	345.6	19.5%
Service	944.4	53.3%
Tourism	34.2	1.9%
<b>Total</b>	<b>1,771.1</b>	<b>100.0%</b>

Source: UNCTAD (2003). Notes: Figures refer to projects registered by the GIPC only and represent actual transfers as communicated by the Bank of Ghana and the Ghana Customs, Excise and Preventive Services. Investments in Oil and Mining are excluded.

In view of Ghana’s particular FDI performance, this study examines both determinants and pro-development effects of FDI for the West African country, using a variety of qualitative and quantitative measures. The study intends to answer several key questions regarding FDI that are highly relevant from a development perspective:

- (1) How do domestic and foreign firms operating in Ghana differ from each other?
- (2) What are the main reasons why Ghana has not attracted more FDI so far?
- (3) What has been the development impact of FDI in Ghana, with a particular focus on spillovers and linkages with suppliers?
- (4) How can Ghana increase the pro-development effects of foreign investment?

The study is structured as follows: In Section 2, we compare and assess the characteristics of domestic and foreign-owned enterprises that operate in Ghana. Using the World Bank (2008b)

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<sup>3</sup> Since the Ghana Investment Promotion Centre (GIPC) does not record FDI in the mining sector, it is difficult to obtain a full sectoral break down. Moreover, GIPC does not provide records for FDI in the Free Trade Zones.

“Ghana Enterprise Survey 2007” data, we first compute some simple descriptive statistics to compare foreign and domestic firms. Then, we perform an econometric (probit) analysis to identify the principle factors that explain the differences between domestic and foreign firms.

In the subsequent Section 3, we examine the main determinants of FDI in Ghana using a new survey of 54 firms that are fully or partially foreign-owned. The main areas of interest are the macroeconomic and political environment, natural and physical resource factors, the regulatory and institutional setting, and market size and its growth. One of the key questions addressed in this section is why Ghana has not attracted more FDI in the past, even though it offers political stability and a relatively good regulatory, administrative, and institutional environment.

Using the same enterprise survey, we investigate the pro-development impact of the activities of foreign firms in Ghana in Section 4. Apart from export intensity, employment and productivity per worker, we focus particularly on technology (and other) spillovers between foreign and domestically-owned firms as an excellent source for pro-development effects. In addition, using case studies for two foreign-owned firms, we intend to shed more light on the exact determinants, linkages and spillovers that are likely to occur due to the activities of multinationals in Ghana.

Since not all host countries have benefited from FDI inflows, a number of studies have started to examine the determinants for a positive FDI-growth nexus. In Section 5, we will first review the relevant literature and then, based on the determinants that have been identified as important for the linkage, conduct a benchmarking for Ghana. The main purpose of this exercise is to identify those policy-relevant areas in which Ghana can further improve the pro-development effects of (existing) FDI and ensure that it will attract (more of) the type of FDI that is most relevant for harnessing the benefits of increasing globalisation through an inflow of foreign capital.

The study ends with a summary of the main results and various policy implications in Section 6. The main intention of the final section is to provide Ghanaian policy makers with the key findings of the study and a brief outlook on how to improve the investment climate for attracting more FDI and improving the benefits from existing FDI.

## 2. A Comparison of Domestic and Foreign Firms Operating in Ghana

### 2.1 Firm Sample and Descriptive Statistics

The World Bank's (2008b) Enterprise Surveys collect data from key manufacturing and service sectors for more than 100 countries. Using standardised survey instruments (that is, a standardised questionnaire) and a uniform sampling methodology, this approach ensures that the figures are comparable across countries and over time.

For Ghana, the World Bank conducted the first Enterprise Survey in 2007.<sup>4</sup> In that year, 616 firms were surveyed. Roughly half of the surveyed firms (313) belong to the manufacturing sector, while the rest are agricultural and other primary resource firms, construction companies and service sector establishments. This sample characteristic matters, as we will distinguish between manufacturing and non-manufacturing firms in the following analysis. In almost five percent of all firms (28), foreigners own either part of or the entire company.

While the Enterprise Survey contains a wealth of information on the activities and growth constraints of firms operating in Ghana, we are particularly interested in the characteristics of foreign vis-à-vis domestic firms. In other words: How do they differ from each other? To answer this question we retrieved all relevant information on the size of the company, training and educational data, financial information, productivity figures, market shares, and foreign trade. More specifically, we include the following variables in the analysis:<sup>5</sup>

- *Employees*, quantifies the number of workers employed by the firm;
- *Formal Training*, representing a formal training programme for the workers of the firm (dummy 0 or 1);
- *Education Manager*, stands for the educational background of the firm's top manager, ranging from 1 (no education) to 11 (postgraduate degree);

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<sup>4</sup> According to the World Bank (2008b), the data retrieved from the 2007 Enterprise Survey are not comparable with earlier firm surveys, e.g., the World Bank Regional Program on Enterprise Development (RPED) 1992 to 1994 survey. Above all, the questions, the approach, and the survey methodology have changed substantially.

<sup>5</sup> In our empirical investigation, we basically follow Moss et al. (2005), who conducted a similar analysis for Kenya, Tanzania, and Uganda. However, we extended their approach by including more variables.

- *Experience Manager*, represents the number of years the manager has worked in the sector the firm is operating;
- *Access to Finance*, refers to the ease of access to finance, ranging from 0 (no obstacles) to 4 (very severe obstacles);
- *Bank Credit*, quantifies the proportion of the working capital of the firm that was financed through private or state-owned banks;<sup>6</sup>
- *Value Added per Worker*, measures the productivity per worker employed, computed as total sales minus total costs (excluding labour costs and rental costs for land/buildings, equipment and furniture) divided by the number of employees (in GH¢);<sup>7</sup>
- *Investment*, denotes total investment in percent of total sales;
- *Market Share*, represents the market share of the firm in Ghana;
- *Exports*, measures the share of (direct and indirect) exports in percent of total production;
- *Imports*, stands for the share of imported material inputs/supplies in total material inputs/supplies.

Base year for all variables is 2006 (*Exports*, *Imports*, *Value Added per Worker*, *Investment*, and *Market Share*) or 2007 (all other variables). Descriptive statistics are provided in Table 3. Firm sizes vary considerably from no employed workers to relatively large corporations with 3,000 employees as indicated by the relatively high standard deviation. The figures for value added per worker should be treated with some caution, as they are prone to measurement errors if the information given by the firms is not entirely correct. This applies in particular to some very large numbers suggesting unusually high productivity figures that were computed based on the company information. However, we note that this average is comparable to the level of GH¢ 8,726 from the 2003 National Industrial Census level<sup>8</sup>.

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<sup>6</sup> While *Access to Finance* provides information on the ease of obtaining credit, it does not give any evidence regarding whether or not the firms used credit from banks to expand their operations. *Bank Credit* fills that gap and, hence, acts as a complement.

<sup>7</sup> We have used different definitions of value added in the analysis, such as total sales minus costs of raw materials and intermediate goods. Yet the results do not change much. We use data for total sales instead of total production, as information for the latter is not available.

<sup>8</sup> This is computed from the Industrial Census of 2003 published by the Ghana Statistical Service (2006).

Table 3: Descriptive Statistics, All Firms

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Employees	616	27.8	137.6	0	3,000
Formal Training	616	0.3	0.4	0	1
Education Manager	616	4.7	1.8	1	11
Experience Manager	616	13.4	9.3	1	50
Access to Finance	616	2.7	1.4	0	4
Bank Credit	616	4.7	13.2	0	80
Value Added per Worker	616	9,780	64,800	0.5	1,520,000
Investment	616	5.8	17.3	0	211.2
Exports	616	3.5	12.1	0	90
Market Share	494	10.0	11.2	0.1	100
Imports	414	25.7	34.4	0	100

Source: Own calculations based on World Bank (2008b) data.

In Table 3, we included all firms of the survey. Looking at the characteristics of foreign-owned and domestic enterprises, a quite heterogeneous picture emerges (Table 4). On average, foreign firms are larger, have more formal training programmes for workers, their managers possess a higher educational degree and are slightly more experience in the sector they operate, have easier access to credit (and obtain more credit from private or state-owned banks), are more productive, have higher investment levels, tend to export and import more, and have a higher (domestic) market share. For both groups, that is, foreign and domestically-owned firms, the corresponding figures for the manufacturing sector are usually higher, though considerable differences exist, depending on the variable.

Table 4: Descriptive Statistics (Mean) by Subsamples

Variable	All firms	Domestic firms			Foreign firms		
		All	Manu- facturing	Other sectors	All	Manu- facturing	Other sectors
# of firms	616	588	292	296	28	21	7
Employees	27.8	22.4	37.1	7.8	140.9	184.2	11.1
Formal Training	0.3	0.3	0.2	0.3	0.5	0.6	0.3
Education Manager	4.7	4.6	4.4	4.8	7.1	7.6	5.6
Experience Manager	13.4	13.4	16.8	10.0	14.3	14.6	13.6
Access to Finance	2.7	2.7	2.7	2.7	1.6	1.7	1.4
Bank Credit	4.7	3.8	4.2	3.4	23.9	30.4	4.3
Value Added per Worker	9,780	9,190	2,710	15,600	22,200	7,930	65,100
Investment	5.8	5.6	4.2	7.0	9.2	10.9	4.1
Exports	3.5	2.9	5.4	0.4	16.1	21.5	0
Market Share	10.0	9.6	8.5	11.1	18.6	16.2	31.3
Imports	25.7	25.1	21.2	36.7	36.0	40.1	6.7

Source: Own calculations based on World Bank (2008b) data.

While these simple means can provide a first impression of the differences between domestic and foreign-owned firms, they cannot simultaneously take various factors into account that characterize foreign ownership. For example, foreign firms might be more likely to export their products, since they are – on average – larger than domestic firms. Or foreign-owned firms tend to export a higher portion of total domestic production, because a higher percentage of them belong to the manufacturing sub-sector, in comparison to domestic enterprises. To examine the various determinants of foreign ownership at the same time, we proceed with a multivariate analysis in the next sub-section.

## 2.2 Factors Determining Foreign Ownership

To compute the likelihood that a firm is foreign-owned, we first use a simple probit model. This type of analysis is particularly useful for binary dependent variables, such as foreign ownership. As it could matter for the firm’s characteristics whether foreign firms are dominant or minority shareholders, we use the following two variables for foreign ownership:

- *Foreign*, takes the value 1 if a foreign firm owns 0.1 percent or more of the establishment and 0 otherwise, and
- *Foreign50*, takes the value 1 if a foreign firm owns 50.1 percent or more of the establishment and 0 otherwise.

In 19 out of 28 foreign firms, foreign enterprises own a majority of the firm’s capital. Jointly with the distinction between manufacturing and non-manufacturing firms, we thus run regressions for four samples.

Our basic probit model specification reads as follows:

$$\Pr(\text{Foreign} = 1 | x_j) = \psi(\text{Foreign}_i) \quad (1)$$

where  $\psi(\cdot)$  is a cumulative distribution function and  $x_j$  represents the set of explanatory variables introduced in the previous section.

Since equation (1) is not linear in the corresponding  $\beta_j$  coefficients, we have to transform the coefficients and compute the marginal effects. Rather than using the marginal effects at the mean, we compute average marginal effects to take into account the fact that the marginal effects vary continuously in a non-linear model.

In addition, we use the share of foreign ownership, ranging from 0 to 100 per cent, as a third dependent variable (*shareforeign*). For this variable, we employ a simple ordinary least squares (OLS) regression analysis:

$$\begin{aligned} \text{Shareforeign}_i = & \alpha_1 + \alpha_2 \ln(\text{Employees}_i) + \alpha_3 \text{FormalTraining}_i \\ & + \alpha_4 \text{Education Manager}_i + \alpha_5 \text{Experience Manager}_i \\ & + \alpha_6 \text{Access Finance}_i + \alpha_7 \text{Bank Credit}_i \\ & + \alpha_8 \ln(\text{Value Addedd per Worker}_i) + \alpha_9 \text{Exports}_i \\ & + \alpha_{10} \text{Market Share}_i + \alpha_{11} \text{Imports}_i + e_i \end{aligned} \quad (2)$$

where  $\alpha_j$  are the estimated parameters,  $i$  stands for the individual firms, and  $e_i$  is an error term.

For *Employees* and *Value Added per Worker*, we use the natural logarithm to reduce the skewness in the data.<sup>9</sup> In fact, tests on the functional form of the model specification showed that the logarithmic version should be preferred.

In the analysis, we test four main hypotheses regarding the characteristics of foreign firms versus domestic enterprises:

- (1) Foreign-owned firms use their dominant position in the local (Ghanaian) market to crowd out domestic competitors. To test this hypothesis, we use the firm size (*Employees*) and *Market Share*.
- (2) Foreign firms are more productive than their domestic competitors because they offer more training programs to their workers, employ managers with a better education and

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<sup>9</sup> Since there are three firms that do not employ any workers, we added 1 before computing the natural logarithm of the number of employees. For *Value Added per Worker*, we took the natural logarithm without adding a constant.

more experience, and invest more. For this hypothesis, we use labour productivity as the main indicator (*Value Added per Worker*) along with *Formal Training*, *Education Manager*, *Experience Manager*, and *Investment*.

- (3) Foreign firms have an advantage in comparison to domestic enterprises, as they have easier access to credit. Here, *Access to Finance* and *Bank Credit* are the main variables of interest.
- (4) Foreign firms could be a burden for the current account, because they source a higher percentage of their material inputs and/or supplies from abroad in comparison to domestic enterprises. However, foreign firms might have a higher probability to export their products. Hence, the net impact on the current account is uncertain a priori. We test the hypothesis on the current account using *Exports* and *Imports*.

We start with the full sample that includes all firms and sectors, reported in column 1 in Table 5. Foreign-owned firms are indeed substantially larger than domestic enterprises. Considering the (statistically significant) coefficient for *Employees*, an average marginal change in the number of workers employed is associated with a 4.5 percent increase in the probability that the firm is entirely or partially owned by foreigners. The results also show that foreign firms are not likely to offer more formal training, do not have more experienced managers, are not more productive, and do not invest or export more than domestic firms. However, *Exports* is only slightly below the 10 percent significance level. On the other hand, managers of foreign firms have a higher educational degree and face less financing problems (and have, thus, better access to credit).

Table 5: Determinants of Foreign Ownership, All Foreign Firms

Variables	All firms		Manufacturing firms	
	(1)	(2)	(3)	(4)
Ln (Employees)	0.0451*** (2.70)	0.0711*** (2.75)	0.068** (1.97)	0.0955* (2.46)
Formal Training	0.0018 (0.12)	-0.0028 (-0.18)	0.007 (0.28)	0.0089 (0.34)
Education Manager	0.0109*** (2.87)	0.0122*** (2.87)	0.0155** (2.24)	0.0191*** (2.95)
Experience Manager	-0.00036 (-0.39)	-0.00087 (-1.03)	-0.0013 (-1.21)	-0.00161 (-1.33)
Access to Finance	-0.0131*** (-2.80)	-0.0146*** (-2.67)	-0.0147* (-1.85)	-0.0183** (-2.08)
Bank Credit	0.00098*** (2.73)	0.00102*** (2.56)	0.0012** (2.45)	0.0183** (2.30)
Ln (Value Added per Worker)	0.0123 (0.92)	0.0188 (1.08)	0.0184 (0.63)	0.0194 (0.67)
Investment	-0.00027 (-0.74)	-0.000215 (-0.50)	-0.00011 (-0.18)	-0.000557 (-0.63)
Exports	0.000595 (1.55)	0.000612 (1.52)	0.00059 (1.33)	0.000443 (0.94)
Market Share		-0.000054 (-0.09)		-0.00112 (-1.54)
Imports				0.00048 (1.37)
Observations	616	494	313	292
Pseudo R <sup>2</sup>	0.36	0.44	0.47	0.49

Notes: Marginal effects are displayed; significance at the 10, 5, and 1 percent level is denoted by \*, \*\*, and \*\*\*, respectively; t-values are reported in parentheses; standard errors are heteroskedasticity-robust; constant term not shown.

We then add *Market Share* to the set of explanatory variables, as information for this indicator is available for fewer firms (column 2). However, we do not obtain a statistically significant coefficient at conventional threshold levels (10 percent level or better). The outcome for this variable (and all other variables) is quite similar if we focus on manufacturing firms only (columns 3 and 4). Also, foreign firms are not likely to import more material inputs and/or supplies.<sup>10</sup>

Then, we use the second definition of foreign firms, that is, a firm is foreign-owned only if foreign firms have a share of at least 50.1 percent of the firm's capital (*Foreign50*). As can be seen from the results, reported in Table 6, the outcome is very similar to that using the previous dependent variable (*Foreign*). For some variables, the significance levels are a little

<sup>10</sup> We add *Imports* only in the manufacturing sub-sample, as there is no import data for non-manufacturing firms that provide information on market shares. In other words, the additional regression for all firms using import data would be identical to the regression reported in column 4.

bit lower, for example, for the educational background of the manager, while for others, such as value added per worker, we obtain slightly increased significance levels. More specifically, we obtain a positive and significant coefficient in one out of four regressions for this variable. Importantly, the same set of variables is significant as in the first set of regressions.

Table 6: Determinants of Foreign Ownership, Foreign Equity Larger Than 50 Percent

Variables	All firms		Manufacturing firms	
	(1)	(2)	(3)	(4)
Ln (Employees)	0.0363*** (2.57)	0.0564*** (2.61)	0.0527** (1.98)	0.0642* (1.84)
Formal Training	0.0031 (0.25)	-0.0045 (-0.36)	-0.00287 (-0.15)	-0.00235 (-0.12)
Education Manager	0.005* (1.60)	0.00697* (1.91)	0.00738 (1.26)	0.0095* (1.62)
Experience Manager	0.000317 (0.45)	-0.00000658 (-0.00)	-0.000179 (-0.21)	-0.000255 (-0.27)
Access to Finance	-0.0142*** (-3.39)	-0.019*** (-3.71)	-0.02012*** (-2.86)	-0.02259*** (-2.98)
Bank Credit	0.00065** (2.27)	0.000695** (2.15)	0.001026** (2.43)	0.00106** (2.26)
Ln (Value Added per Worker)	0.0167* (1.65)	0.01625 (1.16)	0.009568 (0.48)	0.00995 (0.50)
Investment	-0.000267 (-0.76)	-0.00031 (-0.77)	-0.000064 (-0.10)	-0.000245 (-0.36)
Exports	0.00017 (0.54)	0.000157 (0.46)	0.00012 (0.27)	0.0000766 (0.17)
Market Share		-0.0000974 (-0.23)		-0.000606 (-1.01)
Imports				0.000126 (0.43)
Observations	616	494	313	292
Pseudo R <sup>2</sup>	0.37	0.46	0.45	0.45

Notes: Marginal effects are displayed; significance at the 10, 5, and 1 percent level is denoted by \*, \*\*, and \*\*\*, respectively; t-values are reported in parentheses; standard errors are heteroskedasticity-robust; constant term not shown.

Finally, we run OLS regressions using the share of foreign ownership as a dependent variable (*shareforeign*). Again, the outcome is quite similar to that using the binary dependent variables (Table 7). What is more, we run various additional regressions, such as using the logit rather than the probit model, employing the Tobit model rather than OLS regressions, excluding outliers, changing the definition of value added per worker, or dropping independent variables that are closely associated with each other (multicollinearity). The outcome, however, does not change much (results not shown).<sup>11</sup> Still, we obtain no robust

<sup>11</sup> All results that are not reported in this study can be obtained from the corresponding author upon request.

results for *Exports* and *Value Added per Worker* or the other variables that are not significant in the regression analysis so far.

Table 7: Determinants of Foreign Ownership, OLS Regressions

Variables	All firms		Manufacturing firms	
	(1)	(2)	(3)	(4)
Ln (Employees)	2.808** (2.54)	4.422*** (2.95)	3.592** (2.40)	4.053** (2.24)
Formal Training	0.262 (0.15)	-0.345 (-0.18)	1.518 (0.52)	2.105 (0.64)
Education Manager	0.979** (2.44)	0.993** (2.23)	1.209 (1.62)	1.265* (1.68)
Experience Manager	-0.00163 (-0.016)	-0.0309 (-0.33)	-0.0681 (-0.55)	-0.0718 (-0.55)
Access to Finance	-1.757*** (-3.04)	-1.888*** (-2.82)	-1.839** (-1.98)	-2.025* (-1.96)
Bank Credit	0.204** (2.10)	0.199* (1.94)	0.310** (2.25)	0.305** (2.21)
Ln (Value Added per Worker)	0.406 (0.66)	0.502 (0.74)	0.271 (0.25)	0.250 (0.23)
Investment	-0.00894 (-0.35)	-0.000672 (-0.022)	0.0129 (0.24)	0.0201 (0.36)
Exports	0.146 (1.35)	0.138 (1.26)	0.112 (1.00)	0.0902 (0.77)
Market Share		0.0377 (0.34)		-0.0939 (-0.68)
Imports				0.0469 (0.92)
Observations	616	494	313	292
R <sup>2</sup>	0.18	0.23	0.28	0.29

Notes: Significance at the 10, 5, and 1 percent level is denoted by \*, \*\*, and \*\*\*, respectively; t-values are reported in parentheses; standard errors are heteroskedasticity-robust; constant term not shown.

Importantly, some of these results are driven by the particular set of control variables. While a comparison of the simple means for the different sub-samples shows that foreign-owned firms are more productive and have a higher tendency to export their products, the multivariate probit analysis demonstrates that these differences can be explained: above all, by the diverging firm sizes, the better educational background of the managers and enhanced access to credit.<sup>12</sup> In other words, foreign firms are indeed more productive and more export oriented, but domestic firms have the potential to catch up once growth constraints, such as access to credit, are removed.

<sup>12</sup>As a matter of fact, if we drop *Employees*, *Education Manager*, *Access to Finance*, and *Bank Credit* from the set of control variables we obtain positive and highly significant coefficients for *Value Added per Worker* and *Exports* (results not reported).

Still, our results are partly at odds with those obtained by Moss et al. (2005). They found that foreign firms operating in Kenya, Uganda, and Tanzania are more productive and have a higher tendency to export their products than domestic enterprises, even if they control for various other characteristics of foreign ownership. The diverging results of our analysis could – to some degree – be explained by the particular dataset we have used. For example, the Ghana Enterprise Survey 2007 provides information only on 28 foreign-owned firms, which could have an impact on the results, as a more comprehensive survey of foreign-owned firms would increase the probability of obtaining representative results (and lower the statistical threshold for getting significant results). For example, the sectoral distribution could differ between foreign and domestic firms, even though both operate within, for example, the manufacturing sector. Given the low number of foreign firms, any comparison of further sub-samples is not very fruitful.

Moreover, Moss et al. (2005) used fewer explanatory variables, that is, they excluded information on access to credit (*Access Finance* and *Bank Credit*), investment levels (*Investment*), and the experience of managers in the particular market they operate in (*Experience Manager*). While the inclusion of the last two variables does not affect our results much, the first two have an impact on the significance level of the share of exports. Interestingly, *Exports* is positively associated with *Foreign* and *Foreign50* at the 10 percent significance level or better, if the four additional independent variables are excluded (results not shown). Regarding the other variables, we obtain very similar results concerning imports, market shares and formal training, in comparison to Moss and Associates.

Our results for productivity and exports are not only at odds with those obtained by Moss et al. (2005). Numerous studies have found that foreign firms are more productive than local (domestic) competitors and export a larger share of their production.<sup>13</sup> In fact, one of the key reasons to produce abroad is the superior productivity and management performance of multinational enterprises. As noted before, we think that the results are partly due to the relatively small sample of foreign-owned firms in Ghana and the particular sectors they operate in. Nevertheless, for our Ghanaian sample, the better performance of multinational firms with respect to productivity levels and exports can be explained to a considerable degree by firm size, education and access to finance.

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<sup>13</sup> See Caves (2007) for a survey of the literature.

### **2.3 Summary of the Results**

Regarding the four main hypotheses, the results can be summarized as follows:

- (1) Once we take their larger firm size (and other firm characteristics) into account, foreign firms are not likely to have a larger market share. Hence, we reject hypothesis 1.
- (2) Foreign firms are not more productive than their domestic competitors, after controlling for firm size and educational background of the management; while they do employ managers with a higher educational degree, they do not offer more formal training or invest more. So we reject hypothesis 2.
- (3) In comparison to domestic firms, foreign enterprises face less credit constraints and are in a better position to finance their expansion; this could – at least partly – explain the larger firm size of foreign firms. We thus find support for hypothesis 3.
- (4) Foreign firms are neither more likely to import nor to export in comparison to domestic enterprises. Hence, foreign firms are neither a burden for the current account nor a drain on foreign exchange, and we reject hypothesis 4.

These key results imply that there would be an enormous potential for domestic enterprises to increase both output and productivity levels, if key obstacles to growth are removed.

### **3. Determinants of FDI**

This section aims at better understanding why Ghana – although offering a relatively good regulatory, administrative and institutional environment – has not attracted more FDI in recent years. It uses an enterprise survey of 54 partially or fully foreign-owned companies in Ghana to analyse the advantages and disadvantages of Ghana as a destination for FDI. It focuses on those factors that have been identified in the literature as being important pull factors for inward FDI (Akinkugbe 2003). Key among these factors are macroeconomic and political environment, regulatory and administrative obstacles, market size, labour productivity, human resources and infrastructure.

A survey was conducted over the period 18<sup>th</sup> January to 10<sup>th</sup> April, 2008. The survey instrument was in five parts. In Part A, some general information on firms are collected. Questions in Part B focus on the level of employees of firms, their skill set, as well as the efforts made by firms to build on this skill set of the employees. The Part C questions tries to understand the degree of linkages (both backward and forward) between these foreign firms and local firms.<sup>14</sup> Questions related to the importance of ‘pull factors’ (macroeconomic and political environment, market potential, human and natural resources, etc) for attracting and sustaining FDI in Ghana constitutes Part D. In the final part (Part E), some questions which are specific to the mining firms are asked with a view to understanding how different the regulatory and institutional factors influence the extent to which these firms impact on the Ghanaian economy.

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<sup>14</sup> This part of the questionnaire is analysed in Section 4.

### **Box 1: Advantages and Limitations of Company Surveys**

Compared to macro data, company interviews provide some irreplaceable advantages in an analysis: Most important, information is obtained from managers who take investment decisions and/or are in charge of operations on the ground. Obviously, they are the most suitable to assess the relative importance of both factors influencing investment decisions and problems in daily operations. Furthermore, compared to mailed questionnaires, in-depth face-to-face interviews allow an examination of more complex interrelationships and could provide valuable information beyond the standardised set of questions.

Even though the information gained from company surveys without a doubt provides very useful insights, there are some limitations that have to be kept in mind when interpreting the results. This is especially important if interviewees were asked about their own perceptions rather than about objective data, such as number of employees or share of domestic inputs. First, it is difficult to aggregate perceptions, i.e., place certain types of answers (e.g., regarding obstacles for investment) in a ranking order. The reason behind this is that for one interviewee a specific problem might be just a minor nuisance, while for another the same problem might be quite important. Second, the interests of the interviewed managers might not coincide with the interests of the society. Therefore, the interviewees might have an incentive to give answers strategically. For example, when asked about rules and regulations in their business environment, interviewees might tend to overstate their interference since companies in general might prefer to act freely. Third, if some obstacles for investment are particularly striking, there might be very few companies relying on this area of investment climate, making them hard to identify in a company survey. For instance, if a country has a poorly developed telecommunications infrastructure, there might be very few firms operating in the IT sector.

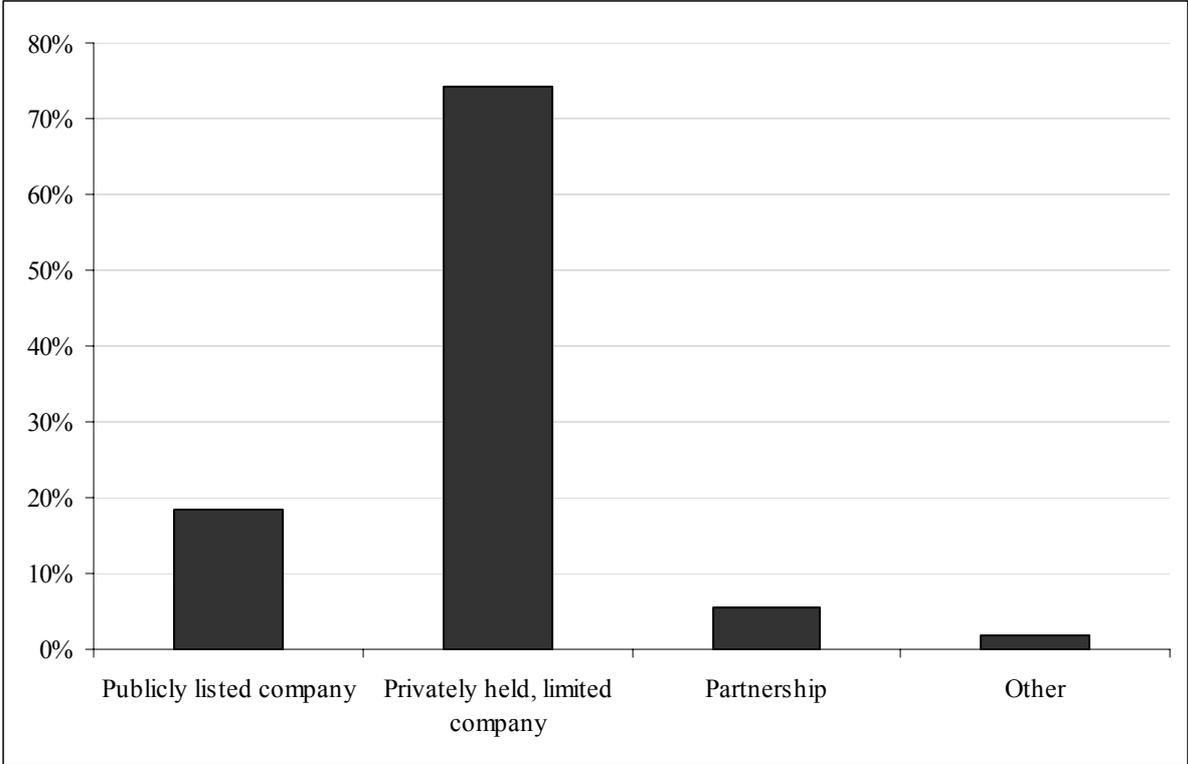
Fourth, even though the interviewed managers might be aware of a specific problem, they might not know the exact underlying reason causing this problem (e.g., whether observed difficulties in bank loan access are due to a lack of competition in the banking sector, crowding out issues or low productivity in banks). Therefore, additional information is needed to evaluate alternative measures and to remove a given constraint. Fifth, firms which have operated in a country for a longer period of time might not be fully aware of all obstacles new investors would face (e.g., acquisition of land, company registration). This might lead to understatement of the importance of these hindrances. Sixth, the comparability of perceptions across countries – or even across firms – might be limited, since perceptions are partly driven by cultural differences or persistent differences in expectations about how the investment climate should be. In our case, this issue might particularly arise when comparing answers from Ghanaian managers of international companies with those of expatriate managers from abroad.

Source: World Bank (2007).

**3.1 General**

A total of 54 firms were interviewed. All but three of the firms have their headquarters in the Greater Accra region. Of the three that are outside Greater Accra, two are in the Western region and one in the Eastern region. Majority of the firms interviewed are privately held limited liability companies (about 74 percent). About 19 percent of the firms in the sample are publicly listed companies and less than six percent of them are partnerships (Figure 3).

Figure 3: Legal Status of Firms (Full Sample)

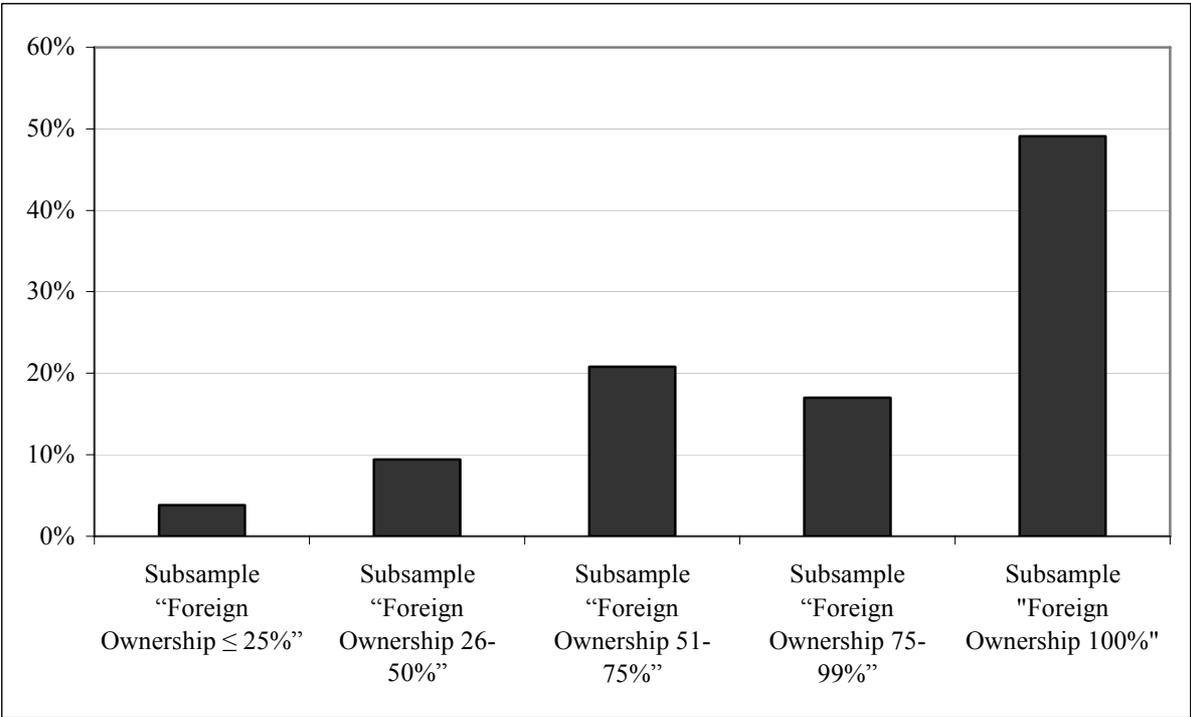


Source: Company Survey (2008).

For 66 percent of the firms in the sample, the share of foreign investment in the firm is above 75 percent. Indeed, only about 4 percent have their share of foreign investment being less than 25 percent. The remaining 30 percent have the share of foreign investment between 25 percent and 75 percent. It is also worth noting that almost 50 percent of the firms in the sample are 100 percent foreign owned (Figure 4).

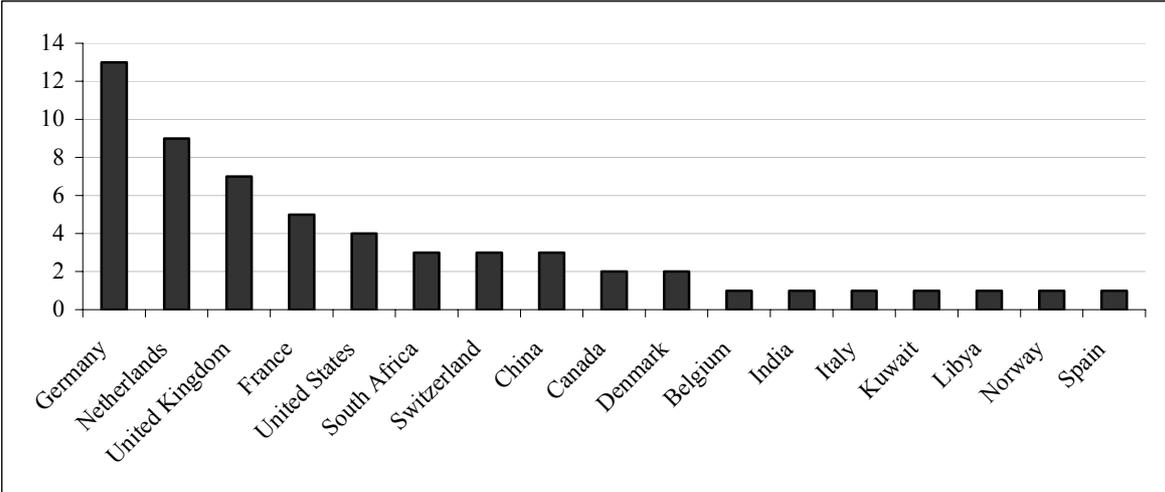
These 54 foreign firms interviewed are from 17 countries (Figure 5). The majority of them are from Europe, with Germany topping the list with 13 firms. This is followed by Netherlands with nine and the UK and France with seven and five respectively. There are a total of six North American firms (four and two from the US and Canada, respectively). The only African country which features in the sample is South Africa with three firms. Although the sample is not random the distribution across countries of origin is fairly consistent with the general distribution of FDI by geographic origin. As noted from Table 1 FDI to Ghana has predominantly been from Europe and the US, with a few countries from Asia (China and India) and Africa (South Africa), increasingly becoming important origins of FDI.

Figure 4: Distribution of Firms by Share of Foreign Investment (Full Sample)



Source: Company Survey (2008).

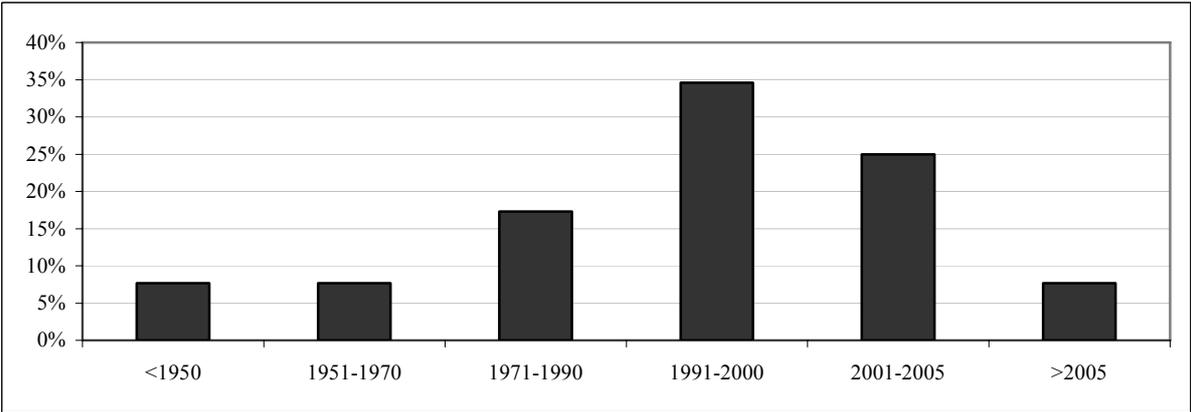
Figure 5: Origin of Foreign Owners (Full Sample)



Source: Company Survey (2008); Notes: Investors from more than one country per company possible.

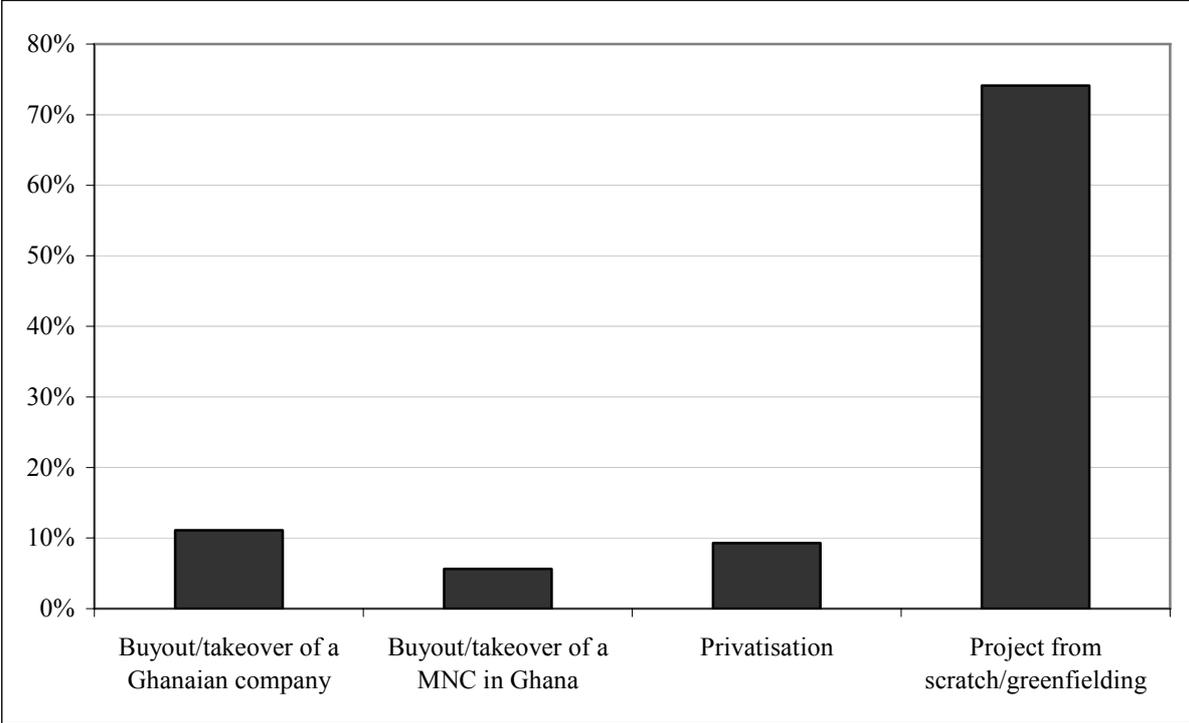
The majority of firms in the sample were established after 1990 (about 67 percent of them) and about 33 percent established after 2000 (Figure 6). Only about 33 percent of the firms were established before 1990. About 74 percent of the firms were started from scratch (green fielding), while about eleven percent were established through a buyout or takeover of a Ghanaian firm (Figure 7). There is no significant difference between firms that were established either before or after 2000, in terms of how they were started in Ghana.

Figure 6: Year of Establishment (Full Sample)



Source: Company Survey (2008).

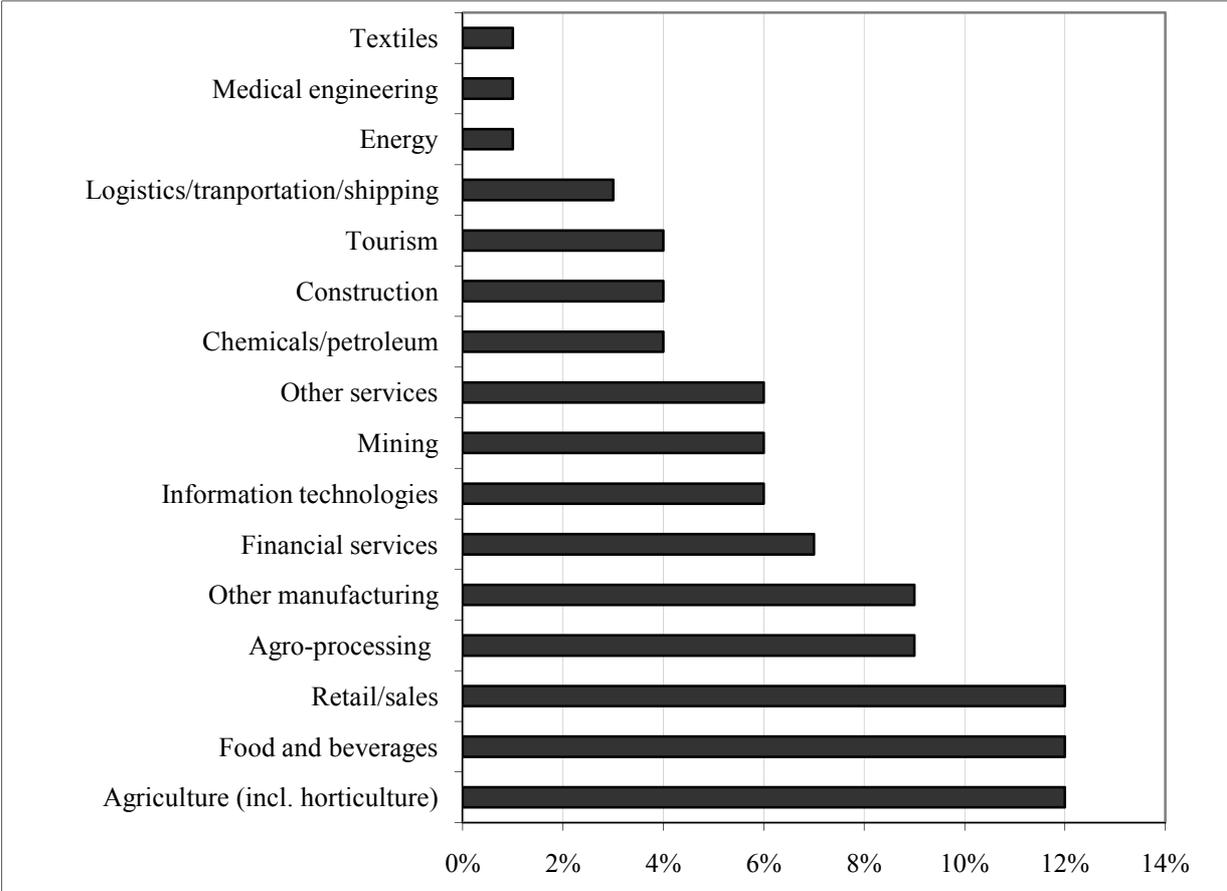
Figure 7: Mode of Establishment (Full Sample)



Source: Company Survey (2008).

Of the firms in the sample twelve percent are in agriculture, twelve percent in food and beverages and another twelve percent in retail sales (Figure 8). We also have nine percent each in agro-processing and other manufacturing. There are seven percent in financial services and six percent each in IT, mining and other services. This compared quite well with the general sectoral breakdown of FDI flows to Ghana (see Table 2).

Figure 8: Distribution of Firms by Sector (Full Sample)



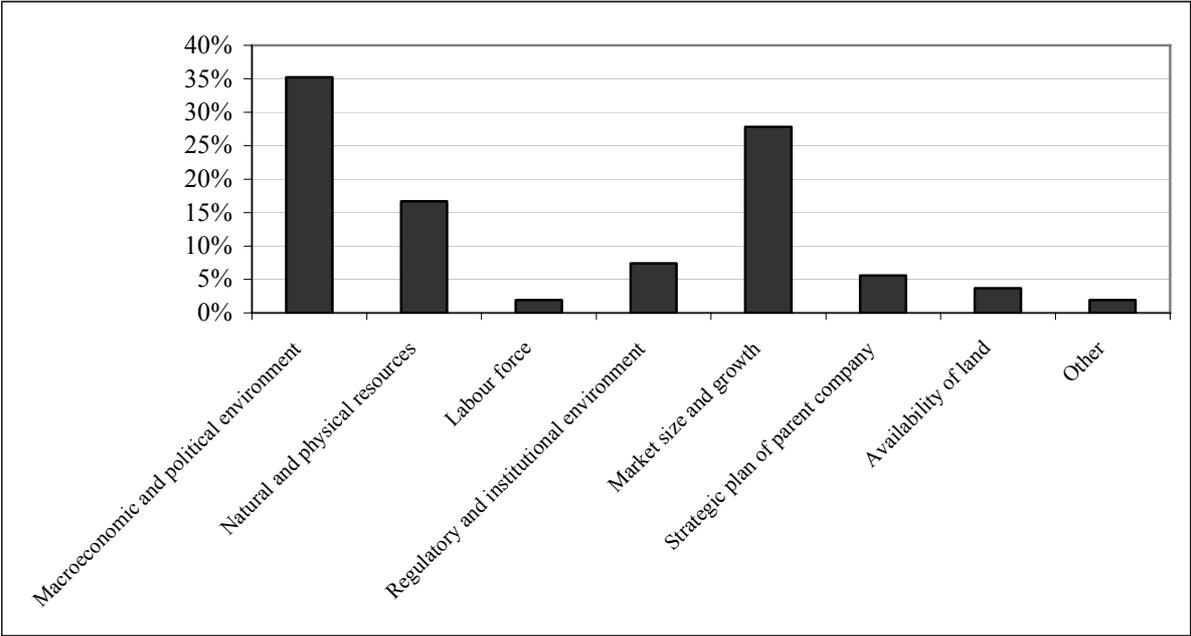
Source: Company Survey (2008); Notes: Two main sectors could be selected.

**3.2 Factors that Influence Investors Decision to Invest in Ghana**

According to the data the most important factor that influences the choice of Ghana as an investment destination is the macroeconomic and political environment. When firms were asked to name the most important factor that influences investment decisions today, about 35 percent said it is the macroeconomic and political environment (Figure 9). This result is consistent with the findings of Ahlquist (2006) who finds that FDI inflows tend to increase under more stable and democratic governments. The next most important factor among the firms interviewed is the market size and its potential to grow, a variable identified by about 28 percent of the firms. The next in that order is natural and physical resources of the country. Unsurprisingly, this is the most important factor for the mining companies.

Looking at these factors in relation to the share of foreign ownership, we note that the ordering is similar for firms with foreign ownership of over 50 percent (Table 8). However, for firms with foreign ownership of 50 percent or less, labour force issues also feature as being very relevant for investment decisions today.

Figure 9: The Most Important Factor That Influences Firms Decision to Invest in Ghana (Full Sample)



Source: Company Survey (2008).

Table 8: Firms Decision to Invest (By Share of Foreign Investment)

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Macroeconomic and political environment	33.3%	20.0%	45.5%	35.3%	35.2%
Market size and growth	33.3%	20.0%	27.3%	26.5%	27.8%
Natural and physical resources		20.0%	18.2%	17.6%	16.7%
Regulatory and institutional environment			9.1%	8.8%	7.4%
Strategic plan of parent company	33.3%	20.0%		2.9%	5.6%
Other				5.9%	3.7%
Labour force		20.0%			1.9%
Availability of land				2.9%	1.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Company Survey (2008).

From Table 9 below, it is evident that among the macroeconomic and political environment factors, the most important variable that influences investment decision is political stability. This is particularly the case for firms with less than 50 percent of share of foreign ownership. When firms were asked to pick the three most important macroeconomic and political factors that influence investments today, political stability constituted about 33 percent of the responses. This is followed by the economic growth performance (20.1 percent), exchange rate regime (16.5 percent) and inflation (12.2 percent) in that order. A factor such as the access to and cost of credit came up only about ten percent of the time. The relatively low importance attached to this factor (access and cost of credit) may be a result of the increased financial deepening as well as increased credit to private enterprises in Ghana over the last ten years (ISSER 2007). It is important to point out that among firms with foreign ownership of between 26 percent and 50 percent, access to and the cost of credit seems to be more important than growth, exchange rate or inflation.

Table 9: Most Important Macroeconomic and Political Environment Factors

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Political stability	33.3%	55.6%	26.7%	33.0%	33.1%
Growth performance	22.2%	11.1%	23.3%	19.8%	20.1%
Exchange rate regime	0.0%	11.1%	23.3%	16.5%	16.5%
Inflation	11.1%	0.0%	16.7%	12.1%	12.2%
Access to and cost of credit	11.1%	22.2%	6.7%	9.9%	10.1%
FDI track record	0.0%	0.0%	3.3%	2.2%	2.2%
Government fiscal deficits	11.1%	0.0%	0.0%	1.1%	1.4%
Better security than West African countries	11.1%	0.0%	0.0%	0.0%	0.7%
Availability of external finance	0.0%	0.0%	0.0%	1.1%	0.7%
Investment agreement	0.0%	0.0%	0.0%	1.1%	0.7%
Security of mineral license	0.0%	0.0%	0.0%	1.1%	0.7%
Level of corruption	0.0%	0.0%	0.0%	1.1%	0.7%
Strategic plan from abroad	0.0%	0.0%	0.0%	1.1%	0.7%

Source: Company Survey (2008).

We note from Table 10 that among the natural and physical resource factors, road and transport network (20.7 percent), reliable water and energy (18.6 percent), information and communications technology (ICT) infrastructure (17.9 percent) and availability of land (16.4 percent), in that order, are the important variables. For firms with foreign share of ownership between 51 percent and 75 percent, the reliability of water and energy is the most important variable. However, for firms with foreign ownership of more than 75 percent, road/transport network is the most important variable. Availability of natural raw materials is the most important variable for all firms with foreign ownership equal to or below 50 percent.

Table 10: Most Important Natural and Physical Resource Factors

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Road/transport networks	22.2%	22.2%	16.1%	22.7%	20.7%
Reliability of water and energy supply	11.1%	0.0%	19.4%	20.5%	18.6%
ICT infrastructure	0.0%	22.2%	16.1%	19.3%	17.9%
Availability of land	22.2%	22.2%	12.9%	17.0%	16.4%
Availability of natural raw materials	33.3%	33.3%	16.1%	9.1%	13.6%
Innovative capacity and technological adoption rate	11.1%	0.0%	9.7%	8.0%	8.6%
Intermediate input costs	0.0%	0.0%	9.7%	3.4%	4.3%

Source: Company Survey (2008); Notes: The proportions are based on responses and not the respondents. In this question respondents were asked to select at most two factors.

Firms’ concerns relating to the labour force are shown in the Table 11. We note that about 36 percent of the firms said the productivity of labour is problematic. Also about 27 percent of the firms said that skilled labour was not readily available. In other words, the two main concerns raised in relation to the labour force are that workers generally have low productivity and are not adequately trained. This result is true for the different categories of firms, as per the share foreign ownership.

Table 11: Most Important Concerns Relating to the Labour Force

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Quality/productivity of labour	50.0%	44.4%	28.6%	36.4%	36.5%
Availability of skilled labour	16.7%	33.3%	19.0%	28.8%	26.9%
Cost of labour	16.7%	11.1%	23.8%	19.7%	19.2%
Reliability of labour	16.7%	11.1%	23.8%	13.6%	15.4%
Unionism	0.0%	0.0%	4.8%	0.0%	1.0%
Ghanaian culture in work environment	0.0%	0.0%	0.0%	1.5%	1.0%

Source: Company Survey (2008).

In the case of the regulatory and institutional environment, protection of investors and investment incentives are the most important variables (Table 12). Following them, in order

of significance, are trade regulation and strategy, exchange control, existence of a long term development strategy, labour and social security regulations and the time and cost of acquiring and registering property. The issue of protection of investors is especially important for firms with 25 percent or less foreign ownership. Likewise, the investment incentives variable is the most important variable for firms with between 51 percent and 75 percent foreign ownership and least important for firms with between 26 percent and 50 percent foreign ownership.

Table 12: Most Important Factors Relating to the Regulatory and Institutional Environment

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Investment incentives	12.5%	10.0%	24.1%	14.9%	16.0%
Protection of investors	37.5%	0.0%	13.8%	16.0%	16.0%
Trade regulation and strategy	12.5%	30.0%	13.8%	13.8%	14.6%
Exchange controls	0.0%	10.0%	6.9%	9.6%	9.0%
Existence of a long term development strategy	0.0%	10.0%	3.4%	9.6%	8.3%
Labour and social security regulations	0.0%	0.0%	10.3%	8.5%	7.6%
Time and cost of acquiring and registering property	0.0%	0.0%	13.8%	6.4%	6.9%
Investment promotion activities/programmes	12.5%	10.0%	3.4%	5.3%	5.6%
Time and cost of registering a business	12.5%	20.0%	3.4%	3.2%	4.9%
Duration for resolution of commercial disputes in courts	12.5%	0.0%	0.0%	4.3%	3.5%
Time and cost of contract enforcements	0.0%	0.0%	3.4%	3.2%	2.8%
Time and cost of closing a business	0.0%	10.0%	0.0%	2.1%	2.1%
Other	0.0%	0.0%	3.4%	1.1%	1.4%
Flexible entry requirements by law	0.0%	0.0%	0.0%	1.1%	0.7%
Mineral law and environment regulation	0.0%	0.0%	0.0%	1.1%	0.7%

Source: Company Survey (2008); Notes: The proportions are based on responses and not the respondents. In this question respondents were asked to select at most three factors.

Firms see the potential for the Ghanaian market to grow as the most important variable in relation to the extent to which the market acts as a pull for foreign investments. Almost 42

percent of the respondents mentioned this as the most important market size determinant (Table 13). This is then followed by the actual size of the market – about 18 percent of the respondent said this was important. It is also interesting to note that 15 percent of the firms see Ghana as a base for reaching the larger market in the sub-region. Finally, the relatively low trade barriers for Ghana also serve as an attraction for foreign direct investment.

Table 13: Most Important Factors Relating to the Market Potential

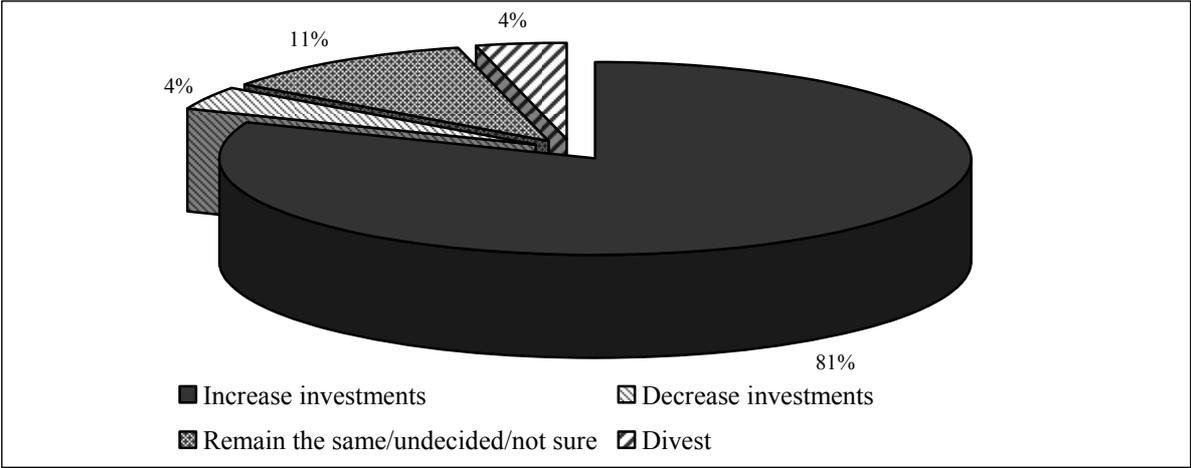
	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Potential for markets to expand/grow	60.0%	0.0%	42.9%	45.8%	41.9%
Size of the market	20.0%	0.0%	23.8%	16.9%	18.3%
Export base for neighbouring markets	0.0%	33.3%	19.0%	13.6%	15.1%
Availability of preferential market access/reduced custom	0.0%	50.0%	9.5%	11.9%	14.0%
Ease of market entry	20.0%	16.7%	4.8%	10.2%	9.7%
Incentives to expand regionally within Ghana	0.0%	0.0%	0.0%	1.7%	1.1%

Source: Company Survey (2008); Notes: The proportions are based on responses and not the respondents. In this question respondents were asked to select at most two factors.

### 3.3 Firms’ Investment Plans for the Next Three to Five Years

Having discussed the factors that influence the choice of Ghana as an investment destination we also discuss in this section what the investment plans of firms are. In Figure 10 we note that the majority of firms (about 81 percent) will increase their investment over the next three to five years. This is a positive development and is consistent with the view that economic agents perceive the improvements in macroeconomic and political environment to continue. However, eight percent of the firms said they will decrease their investment over the period. The latter operate in sectors such as retail trade, financial services, energy and chemical production. About eleven percent of the firms said they were unsure about which direction their investments over the next three to five years will go.

Figure 10: Firms' Investment Decision Over Next Three to Five Years (Full Sample)



Source: Company Survey (2008).

Comparing firms in the food and beverages sector with the other firms, it is noted that whilst all eleven firms in this sector will want to increase their investments, 81.5 percent of all companies said they will be increasing their investments (Table 14). However, in terms of actual numbers, about 44 of the other firms will be increasing their investments, compared to the eleven in the food and beverages sector. Looking at mining firms in terms of their plans to invest, it can be seen that none of the mining firms will decrease their investment in the next three to five years. Indeed, three of the four mining firms will increase their investment while the remaining one will keep it at the same level.

Table 14: Firms' Investment Decision (By Subsamples)

		Subsample "Mining Firms"	Subsample "Food and Beverages"	Full Sample
Decrease investments	Count	0	0	2
	% within subsample:	0.0%	0.0%	3.7%
Increase investments	Count	3	11	44
	% within subsample:	75.0%	100.0%	81.5%
Divest	Count	0	0	2
	% within subsample:	0.0%	0.0%	3.7%
Remain the same/undecided/not sure	Count	1	0	6
	% within subsample:	25.0%	0.0%	11.1%
Total	Count	4	11	54
	% within subsample:	100.0%	100.0%	100.0%

Source: Company Survey (2008).

From Table 15 we note that natural, physical and human resources are not very relevant in influencing the decision of firms not to invest in the next three to five years. Crime and theft, illegal payments, market size, regulatory and institutional environment, and labour force remain relevant factors that hinder an increase in investment. What this suggests is that in spite of the fact that Ghana, relative to other countries in the sub-region, seems to be doing better, there are some firms for which some of these actors remain problematic. In other words, there is a lot more that needs to be done with respect to improving these investment factors.

Table 15: Reasons Why Firms Will Not Expand Investment in Next Three to Five Years (By Share of Foreign Ownership)

	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Labour force	1.0	1.7	1.5
Widespread illegal payments	3.0	1.0	1.5
Regulatory and institutional environment	2.0	2.0	2.0
Crime and theft	3.0	1.7	2.0
Market size and growth	2.0	2.3	2.2
Macroeconomic and political environment	3.0	2.0	2.2
Strategic plan of parent company	2.0	3.0	2.8
Natural, physical, and human resources	4.0	3.7	3.8

Source: Company Survey; Notes: These are the averages of the following classifications: 1-highly relevant, 2-relevant, 3-of low relevance, 4-irrelevant.

The macroeconomic and political environment remains the main reason why firms will expand their investments in the next three to five years. Other factors such as the market size, natural and physical resources, and the regulatory environment all remain important in positively influencing inward investments (Table 16).

As shown in Figure 11, most firms wishing to increase investments will do so in order to access other markets (about 57 percent of the firms). Quite a number of firms will also want to strengthen the linkages with their supply chain (22 percent) and about 19 percent will want to improve their operational efficiency.

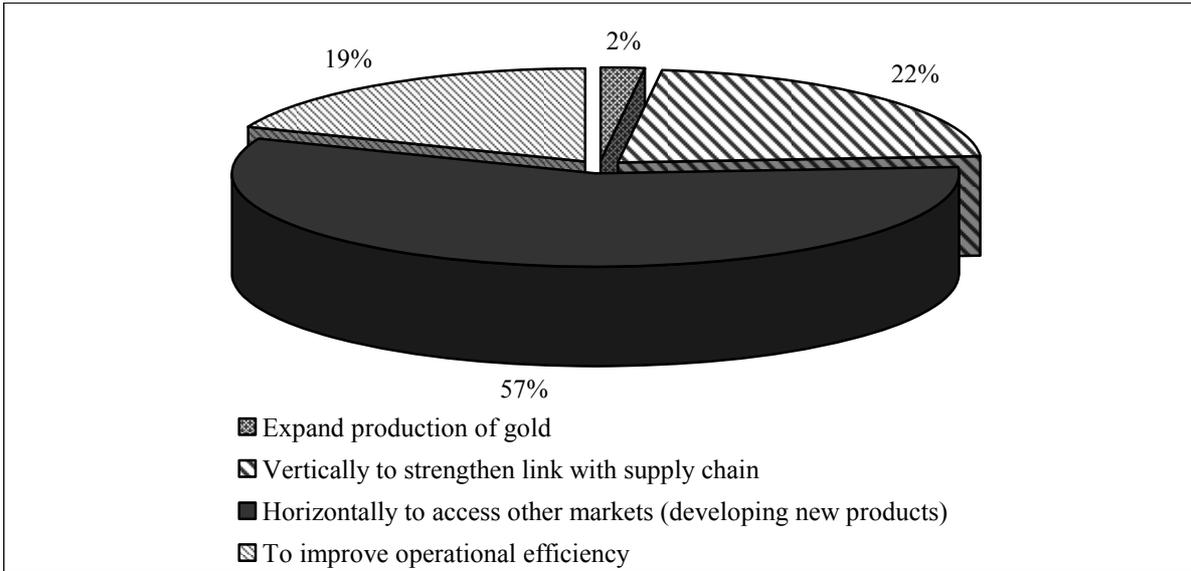
In Table 17 we note that for the majority of the firms (about 74 percent), increasing investment will be in the form of expanding their existing facility while about 24 percent will building or leasing a new facility.

Table 16: Reasons Which Will Influence the Decisions Why Firms Will Expand Investments in Next Three to Five Years (By Share of Foreign Ownership)

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Macroeconomic and political environment	1.0	2.3	1.3	1.4	1.4
Market size and growth	1.0	1.8	1.4	1.9	1.7
Regulatory and institutional environment	1.3	2.0	1.5	1.8	1.7
Labour force	2.3	1.5	1.5	1.8	1.8
Strategic plan of parent company	2.7	2.8	2.7	1.7	2.0
Natural, physical, and human resources	2.7	2.0	2.1	2.2	2.2
Crime and theft	2.7	3.3	2.8	2.7	2.8
Widespread illegal payments	3.7	2.8	3.0	3.0	3.0

Source: Company Survey; Notes: These are the averages of the following classifications: 1-highly relevant, 2-relevant, 3-of low relevance, 4-irrelevant.

Figure 11: Objective for Expanding Investment (Full Sample)



Source: Company Survey (2008); Notes: Multiple answers were possible.

Table 17: Form of Investment Expansion

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26- 50%”	Subsample “Foreign Ownership 51- 75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Expand existing facility	33.3%	100.0%	60.0%	80.0%	73.8%
Merger and acquisition			10.0%		2.4%
Build or lease new facility	66.7%		30.0%	20.0%	23.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Company Survey (2008).

Generally, the returns to foreign investments have been positive with about 89 percent of the firms in the sample supporting this view (Table 18). Not surprisingly, all the mining firms say investment returns have been positive. Looking at the firms in the food and beverages sector, we note that about 92 percent of them said their investments have paid off.

Table 18: Distribution of Firms Who Say Investment Returns Have Been Positive (By Subsamples)

	Subsample “Mining Firms”	Subsample “Food & Beverages”	Full Sample
Yes	100.0%	91.7%	88.9%
No			5.6%
Do not know/no answer		8.3%	5.6%
Total	100.0%	100.0%	100.0%

Source: Company Survey (2008).

In Table 19 we note that there is not much to choose from between firms established before 2000 and those established after this period in terms of whether their investments have paid off. About 76 percent and 72 percent for firms established before and after, respectively, said that the returns to their investments have been positive.

Table 19: Distribution of Firms Who Think Their Investment Decision Was Correct (By Year of Establishment)

	Subsample “Established before 2000”	Subsample “Established 2000 and Beyond”	Full Sample
Yes	76.5%	72.2%	75.0%
No	14.7%	16.7%	15.4%
Do not know/no answer	8.8%	11.1%	9.6%
Total	100.0%	100.0%	100.0%

Source: Company Survey (2008).

The majority of firms (about 74 percent) said that if given the opportunity to make the investment decision again, Ghana would still be the preferred choice. This is consistent with the result that the investments have largely yielded positive returns. Topping the list of reasons given by firms is the issue of the stability in the political environment (Table 20). This is particularly the case for those firms established after 2000. Whereas only 26.9 percent of firms established before 2000 cited stable political environment as a reason why they have not regretted investing in Ghana, 61.5 percent of those established after 2000 chose this variable. This is probably due to the strengthening of democratic dispensation and a relative stable political environment that has prevailed in Ghana since 2000. Two other factors which came up as being important include the market potential of the country as well as the human capital base.

Table 20: Reasons Why Firms Have Not Regretted Investing in Ghana

	Subsample “Established before 2000”	Subsample “Established 2000 and Beyond”	Full Sample
Stable political environment	26.9%	61.5%	38.5%
Market potential	23.1%	7.7%	17.9%
Human capital base	11.5%	7.7%	10.3%
Potential for further growth	11.5%		7.7%
Macroeconomic stability	3.8%	7.7%	5.1%
Good investment climate		15.4%	5.1%
Profitability	3.8%		2.6%
Location in West Africa	3.8%		2.6%
Peace	3.8%		2.6%
Focus of Dutch development activities	3.8%		2.6%
Traditional linkages to Ghana	3.8%		2.6%
Access to foreign markets (airport from Accra)	3.8%		2.6%
Total	100.0%	100.0%	100.0%

Source: Company Survey (2008).

The Government of Ghana announced in its 2008 budget that plans were underway to prepare a Domestic Content Bill which will require firms to use some minimum proportion of their inputs from the domestic economy (Government of Ghana 2007). We test the possible effect of such a bill on foreign investors by asking how a policy that requires them to use a minimum of 25 percent domestic input content will affect their investment decision (Table 21). Over 50 percent of the firms in the sample said that such a law will negatively affect their future investment. Only about six percent said it will influence their investment in a positive way. The share of negative responses is even higher for those firms that produce in Ghana or for firms that employ between 51 to 500 workers (57 percent). Not surprisingly, firms in the food and beverage sector will not be affected much by such a bill as they already source their inputs locally.

According to the firm survey, such a bill is does not appear to be appropriate as a means of attracting more FDI or increasing technology spillovers. The bill could act as a deterrent without benefiting domestic firms much. Above all, (foreign and domestic) firms will become or stay competitive if they are able to source from the most efficient supplier. Any

intervention by government regulations in this area could undermine their performance and decrease their chances to compete abroad.

Table 21: Effect of a '25 Percent Minimum Domestic Input Content Law' on Firms' Investment (By Subsamples)

	Subsample "Local Production"	Subsample "Food & Beverages"	Subsample "≤ 50 Employees"	Subsample "51-500 Employees"	Subsample "> 500 Employees"	Full Sample
Negative influence	57%	27%	10%	57%	31%	52%
No influence	33%	55%	70%	29%	54%	33%
Cannot say/do not know	0%	0%	0%	7%	8%	9%
Positive influence	10%	27%	20%	7%	8%	6%
Total	100%	100%	100%	100%	100%	100%

Source: Company Survey (2008).

### 3.4 Some of the Challenges Faced by Foreign Investors in Ghana

Results from the survey suggest that the most significant challenge that foreign investors face in Ghana today is the access to land. About 22 percent of the firms in the sample mention this as being the most difficult obstacle that an investor faces (Table 22). This result holds irrespectively of the degree of foreign ownership. Some of the other factors that came up strongly include registering property (14 percent), employing workers (twelve percent), getting credit (ten percent) and dealing with licenses (ten percent). It is important to note that apart from *access to land, power and past record of other mining companies*, the remaining ten variables are the same as those used in the *Doing Business Report* produced by the World Bank. In the 2008 *Doing Business Report* it is noted that the areas where significant improvements were made over the 2007-2008 period include registering property, getting credit, starting a business, trading across borders and enforcing contracts (World Bank 2008a). Two of these areas (registering property and getting credit) still appear problematic from our survey.

Registering property appears as major challenge to the firms with a smaller foreign share of ownership as compared to firms with larger foreign share of ownership. Additionally, while getting access to credit is a major obstacle for the firms with smaller foreign shares it seems to

be less of a problem for the firms with a larger foreign share of ownership. It may be the case that firms with a larger share of foreign ownership are able to get access to credit from their source country. Again, while enforcing contracts seems a major obstacle to the firms with over 75 percent share of foreign ownership, it is not so with the other firms.

Table 22: Most Difficult Obstacles That Firms Face (By Share of Foreign Ownership)

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Access to land	22.2%	21.4%	24.2%	22.0%	22%
Registering property	22.2%	21.4%	9.1%	14.3%	14%
Employing workers	11.1%	7.1%	12.1%	12.1%	12%
Dealing with licenses	11.1%	14.3%	15.2%	7.7%	10%
Getting credit	22.2%	14.3%	12.1%	7.7%	10%
Enforcing contracts	0.0%	7.1%	3.0%	12.1%	9%
Starting a business	11.1%	0.0%	6.1%	7.7%	7%
Paying taxes	0.0%	0.0%	9.1%	5.5%	5%
Trading across borders	0.0%	7.1%	9.1%	4.4%	5%
Protecting investors	0.0%	7.1%	0.0%	3.3%	3%
Closing a business	0.0%	0.0%	0.0%	1.1%	1%
Power	0.0%	0.0%	0.0%	1.1%	1%
Past record of existing mining activity	0.0%	0.0%	0.0%	1.1%	1%

Source: Company Survey (2008).

In Table 23 we look at the obstacles to doing business in relation to the size of the firm as measured by the number of employees. We note that among the firms with more than 50 employees’ (larger firms) access to land seem to be a major challenge. While paying taxes seem to be a problem for firms with 50 or less employees, it is not a major issue for firms with more than 50 employees.

Table 23: Most Difficult Obstacles That Investors Face (By Number of Employees)

	Subsample “≤ 50 Employees”	Subsample “51-500 Employees”	Subsample “> 500 Employees”	Full Sample
Access to land	8.7%	24.1%	25.7%	22%
Registering property	4.3%	18.1%	8.6%	14%
Employing workers	13.0%	8.4%	17.1%	12%
Dealing with licenses	17.4%	10.8%	8.6%	10%
Getting credit	8.7%	10.8%	8.6%	10%
Enforcing contracts	8.7%	9.6%	5.7%	9%
Starting a business	8.7%	4.8%	8.6%	7%
Paying taxes	17.4%	4.8%	2.9%	5%
Trading across borders	8.7%	3.6%	8.6%	5%
Protecting investors	4.3%	3.6%	0.0%	3%
Closing a business	0.0%	1.2%	0.0%	1%
Power	0.0%	0.0%	2.9%	1%
Past record of existing mining activity	0.0%	0.0%	2.9%	1%

Source: Company Survey (2008).

Acquaintance with important personalities in Ghana, financial/political clout of parent company and use of competent domestic consultants are some of the ways by which firms have overcome some of these challenges in Ghana. Among these factors though, acquaintance with important personalities seem to be the most important, recording about 38.5 percent of the responses (Table 24).

Table 24: Overcoming the Key Investment Challenges in Ghana (By Share of Foreign Ownership)

	Subsample “Foreign Ownership ≤ 25%”	Subsample “Foreign Ownership 26-50%”	Subsample “Foreign Ownership 51-75%”	Subsample “Foreign Ownership > 75%”	Full Sample
Acquaintance with important personalities in Ghana	33.3%	60.0%	18.2%	42.4%	38.5%
Parent company brand			27.3%	18.2%	17.3%
Help from domestic consultants		40.0%		12.1%	11.5%
Financial/political clout of parent company	33.3%		9.1%	12.1%	11.5%
Help from the GIPC			27.3%	3.0%	7.7%
Use of competent domestic employees	33.3%		18.2%	3.0%	7.7%
Followed normal process				3.0%	1.9%
Persistence in trying to get it done				3.0%	1.9%
Federation of association of Ghanaian exporters				3.0%	1.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Company Survey (2008).

### 3.5 Ghana’s Competitors for FDI in the Sub-Region

Nigeria appears to be the main competitor for the FDI that comes to Ghana – 23 percent of the firms interviewed said that another country in the sub-region which was also considered at the time that they made their decision to invest in Ghana was Nigeria (Table 25). For about 19 percent of the firms Ghana was the only candidate at the time that they made their investment decision.

Cote d’Ivoire is the second main competitor for Ghana’s FDI and may have attracted about ten percent of foreign firms established in Ghana before the year 2000, if these firms had not chosen Ghana. Interestingly, 20 percent of firms established in Ghana after 2000 would have preferred Cote d’Ivoire as the next most favoured destination. It is interesting because Cote d’Ivoire have had political problems since 1999, culminating in a military conflict in September 2002. The increase from 9.9 percent to 20 percent as explained above supports the earlier finding that political stability helps attract FDI. Since 2000, Cote d’Ivoire has been experiencing some level of political instability and that has contributed to the relocation of

firms to Ghana, particularly after 2002. In other words, even with the problems in Cote d'Ivoire after 2000 it still remains an important consideration for foreign investment to the sub-region.

Table 25: Ghana’s Main Competitor for FDI (By Year of Establishment)

	Subsample “Established before 2000”	Subsample “Established 2000 and Beyond”	Full Sample
Nigeria	22.5%	24.0%	23%
No competitors	18.3%	20.0%	19%
Cote d'Ivoire	9.9%	20.0%	13%
Senegal	7.0%	12.0%	8%
Sierra Leone	8.5%	4.0%	7%
Liberia	7.0%	4.0%	6%
Cameroon	4.2%	8.0%	5%
Mali	4.2%		3%
Guinea	4.2%		3%
Burkina Faso	4.2%		3%
Mauritania	1.4%	4.0%	2%
Niger	1.4%	4.0%	2%
Togo	4.2%		3%
The Gambia	1.4%		1%
Gabon	1.4%		1%

Source: Company Survey (2008).

Tables 26 and 27 illustrate the sectors that foreign investors find attractive in Ghana today. Generally, agro-processing (excluding food and beverages) is the most preferred sector for investors (17 percent). This is then followed by agriculture (14 percent), food and beverages, information technology, and tourism sectors, all recording ten percent of the responses. The least preferred, with one percent each include sectors such as garment, textiles, mining and real estates.<sup>15</sup>

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<sup>15</sup> Note that we asked the opinion of the interviewed person from a personal view, not from the perspective of the represented company.

Table 26: Cross Tabulation of Sector That Firm is in Against Sector That It Would Invest in

	Sector that Firm will want to invest in																		
	agriculture (including horticulture)	food and beverages	agro-processing (excl. food and beverages)	garments	textiles	machinery & equipment	other manufacturing	retail/sales	information technologies	call centres	construction	energy	financial services	tourism	no investment	backward integration of pharmaceuticals	mining	real estate	Total
agriculture (including horticulture)	5	1	3						1		1	1	1						8
food and beverages	2	3	2			1		1	1		1			1				1	8
agro-processing (excl. food and beverages)	1	2	3						1				1						6
textiles			1											1					1
chemicals/petroleum	1														1	1			3
other manufacturing							2						1	1	1				5
retail / sales	1	2	3			1		3	2	1		2		2					8
information technologies	1	1							3					1					4
construction			1				1												2
energy									1	1		1							1
financial services	1		2						2	1		1							5
tourism			1				1					1		2					3
other services		2						1	1				1	1					4
medical engineering		1																	1
mining	1		2				2		1	1				1			1		4
logistics/transportation/shipping				1	1							1	1						2
Total	12	9	15	1	1	2	5	5	9	3	2	6	4	9	1	1	1	1	53

Source: Company Survey (2008).

Interestingly we note that the only firm in textile would not want to go into that sector. Also of the two construction firms in the sample, none would want to go into that sector – one of them would want to go into agriculture and the other manufacturing. We also note that about half of the firms in the financial services sector would want to invest in agriculture or agro-processing.

Table 27: Sectors That Foreign Investors Find Attractive (Subsample “Local Production” Vs Other)

	Other	Subsample “Local Production”	Full Sample
Agro-processing (excl. food and beverages)	15.7%	23.5%	17%
Agriculture (including horticulture)	12.9%	17.6%	14%
Food and beverages	8.6%	17.6%	10%
Information technologies	10.0%	11.8%	10%
Tourism	12.9%	0.0%	10%
Energy	8.6%	0.0%	7%
Other manufacturing	7.1%	0.0%	6%
Retail/sales	5.7%	5.9%	6%
Financial services	4.3%	5.9%	5%
Call centres	4.3%	0.0%	3%
Machinery and equipment	1.4%	5.9%	2%
Construction	1.4%	5.9%	2%
Textiles	1.4%	0.0%	1%
Garments	1.4%	0.0%	1%
No investment	1.4%	0.0%	1%
Backward integration of pharmaceuticals	1.4%	0.0%	1%
Mining	1.4%	0.0%	1%
Real estate	0.0%	5.9%	1%

Source: Company Survey (2008); Note: Percentages and totals are based on responses.

### 3.6 Summary of the Results

Using an enterprise survey of 54 foreign-owned companies in Ghana, the study investigates why Ghana has not attracted relatively more FDI in spite of the fact that it offers a relatively good regulatory, administrative and institutional environment. It also uses the data from this

survey to better understand the pro-development effects of FDI in Ghana. The main findings from this 54-firm enterprise survey include the following:

The most important factor that influences the choice of Ghana as an investment destination is the macroeconomic and political environment. This is then followed by the market size, and natural and physical resources in that order. As expected among the macroeconomic and political environment variables, political stability and the growth performance of the country dominates. With respect to the market size, firms see the potential and not necessarily the absolute size as the key attraction.

Most of the firms interviewed said their investments in Ghana have yielded positive returns. Unsurprisingly therefore most of the firms said they had plans to expand their investments in the short to medium term.

The results suggest that the most significant challenge that foreign investors face in Ghana today is the access to land. Other factors which are also mentioned as being problematic included registering property, employing workers, getting credit and dealing with licenses. For two of these variables (registering property and getting credit), the World Bank 2008 *Doing Business Report* finds that Ghana have made significant progress. This suggests that a lot more needs to be done from the implementation side to make investing in Ghana more attractive.

We also find from the results that Nigeria and Cote d'Ivoire appears to be the main competitor for the FDI that comes to Ghana. In terms of the sectors the more attractive sectors for FDI include agriculture and agriculture related sectors. Sectors such as garment and textiles are among the least attractive<sup>16</sup>.

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<sup>16</sup> Note that we asked the opinion of the interviewed person from a personal view, not from the perspective of the represented company.

## **4. Development Impacts of FDI**

After analysing the determinants of FDI, we now turn to the development impacts of foreign investment in Ghana, using the same company survey as in the previous section. More specifically, in this section we try to shed light on the impact of foreign investment on Ghanaian competitors (Section 4.1), on the employment of foreign firms (4.2), on their sourcing patterns and assistance to suppliers (4.3), their productivity (4.4), and on their access to international sales markets (4.5). In section 4.6 we have a closer look at mining companies in Ghana. It is important to mention here that most of the analysis here is based on the perception of the firms.

### **4.1 Impact on Ghanaian Competitors**

As pointed out in Section 2, the entry of foreign investors usually increases competition in the local market and puts pressure on established companies.<sup>17</sup> Figure 12 illustrates how the investment of MNEs affected Ghanaian competitors. Regarding the full sample, nearly half (45 percent) of the interviewed managers stated that their investment forced domestic competitors to increase their productivity. The figures are somewhat lower for the subsample of locally producing enterprises and for companies operating in the food and beverages industry. Box 2 describes in detail how these productivity spillovers could arise.

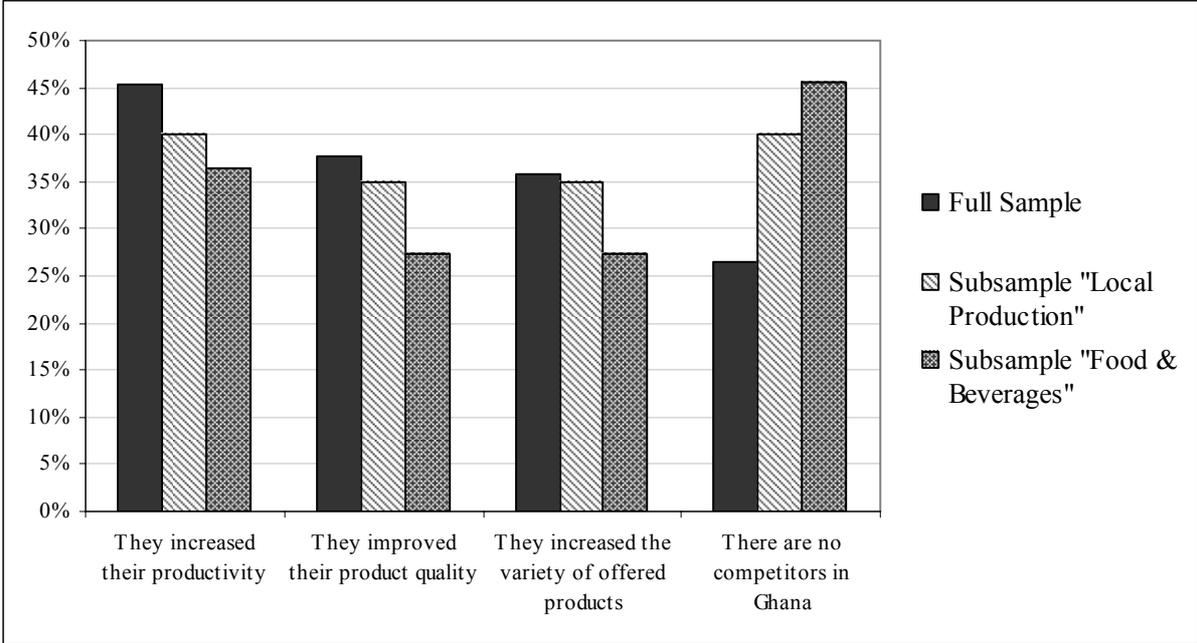
In addition, intensified competition also imposes pressure on local producers to increase their product quality and to better satisfy customer needs by offering a greater variety of products. Roughly one-third of the companies stated that these effects occurred with Ghanaian competitors. Once again, the respective figures are lower for the two production subsamples, indicating that positive effects are more likely to arise in the service and the mining sector. However, one-fourth of the companies – and even nearly half of the food and beverage producers – answered that there are no Ghanaian competitors. This might be due to the fact

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<sup>17</sup> Obviously, the influence depends on the extent of market segmentation and on the market the firms produce for.

that a former state monopoly was privatised or that the foreign investors opened up new markets.<sup>18</sup>

Figure 12: Effect on Ghanaian Competitors (By Subsamples)



Source: Company Survey (2008).

**Box 2: Empirical Evidence on Technology Spillovers**

Productivity spillovers from foreign investment may occur when the entry (or presence) of multinational enterprises increases productivity of domestic enterprises in the host country. These spillovers are likely to take place as local firms enhance their production efficiency by copying technologies of foreign firms that operate in the local economy; either through observation or by employing workers who have been trained by the foreign firm. Also, spillovers may take place if the entry of a foreign firm leads to increased competition in the host economy, thereby forcing domestic firms to use their production resources more efficiently (Blomström and Kokko 1998).

In general, there are two different forms of technology spillovers. Firstly, horizontal spillovers refer to a situation in which domestic enterprises gain from the presence of multinationals in their particular industry. Yet research based on firm-level data, which investigates whether productivity of local firms is associated with the extent of foreign activities in their industry or region, does not show a strong case for horizontal spillovers from foreign investment in developing countries. For example, neither in Venezuela (Aitken and Harrison 1999), in the Czech Republic (Djankov and Hoekman 2000) nor in Bulgaria and Poland (Koning 2001) have researchers found any

<sup>18</sup> For example, three investments in the “Food & Beverages“ subsample were privatisations, while six were projects that started from scratch.

robust evidence of horizontal technology spillovers. The exception is the case study for Romania by Javorcik and Spatareanu (2008), in which positive intra-industry spillovers were found. On the other hand, the picture is somewhat more optimistic in high-income countries. Keller and Yeaple (2005) and Haskel, Pereira and Slaughter (2007) found strong evidence of positive spillover effects in the United States and the United Kingdom, respectively.

Secondly, vertical spillovers may occur if multinationals transfer knowledge to their domestic suppliers in upstream sectors. This spillover type may take place through: (1) direct transfer of knowledge from foreign customers to domestic suppliers; (2) elevated demands by the multinational with respect to product quality and on-time delivery, forcing domestic suppliers to upgrade their management or technology; (3) indirect transfer of knowledge through worker mobility; or (4) enlarged demand for intermediate goods, due to the entry of the multinational firm, allowing local suppliers to better explore economies of scale. Overall, there is empirical evidence for these inter-sectoral technology spillovers for Hungary (Schoors and van der Tol 2002), Lithuania (Javorcik 2004), Indonesia (Blalock and Veloso 2007), and Romania (Javorcik and Spatareanu 2008). The size of the vertical spillover effects can be quite substantial. According to estimates by Javorcik (2004), a one-standard-deviation rise in the foreign presence in the sourcing sectors is associated with a 15 percent increase in output of each domestic firm in the supplying industry in Lithuania.

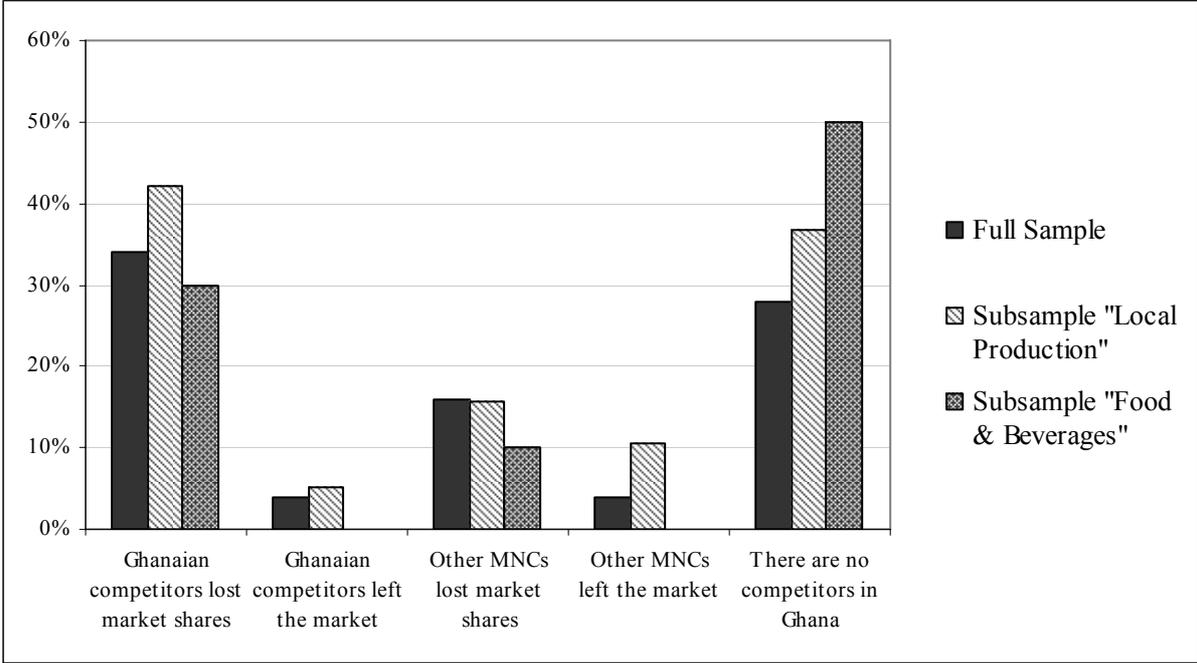
Source: Javorcik and Spatareanu (2005).

Asked about their assessment of their company's impact on their competitor's market share, one-third of interviewees answered that their competitors lost market share (Figure 13). However, this does not necessarily mean that the competitors lost revenues. A loss in market share may also be a consequence of growing slower than the overall market. The same is true for other MNEs operating in Ghana, although to a lesser extent (15 percent). One interviewee stated that a Ghanaian, and one interviewee that another MNE, left the market as a consequence of their market entry. Since the least productive companies cannot stand the increased competition, they are the first to leave the market. This elevates the average productivity in the market and enhances international competitiveness.<sup>19</sup>

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<sup>19</sup> The difference in "There are no Ghanaian Competitors" compared to the former question is due to the fact that one company provided answer only to the former question.

Figure 13: Impact on Ghanaian Competitors' Market Share (By Subsamples)



Source: Company Survey (2008).

**4.2 Employment in Foreign Owned Companies**

An average company in the survey employed 557 workers, of which 108 are females and 449 are males (Table 28). These figures are mainly driven by the four mining companies, which employ between nearly 1,500 and 4,000 workers. Leaving them aside, a company provides 375 jobs on average. Firms in both production subsamples employ more people than the whole sample (excluding mines); particularly production in the food and beverages industry depends on workers and reveals an above-average share of female workers.

For about 55 percent of the firms in the sample their total number of employees ranged from about 51–500. About 20 percent had less than 51 employees whilst the remaining 25 percent had over 500 employees. Clearly within the Ghanaian context, these are quite large firms. This is particularly so when we consider the fact that in Ghana the overwhelming majority of registered firms (about 90 percent) belong to micro, small and medium enterprises (MSMEs) category (Mensah 2004).

The phenomenon of part-time working is not very widespread, with only 8 out of 1,000 employees being employed on such a basis. On the other side, nearly one-fourth of all employees (23.9 percent) in the whole sample have a non-permanent contract. The share is considerably higher in both production subsamples, which might be explained by the employment of temporary staff following the harvesting season in the food and beverages case. In general, it may also be a result of the large underemployment that exists in the urban areas. For many of these people they will also be engaged in some activity in the informal sector when they are not working for a firm.

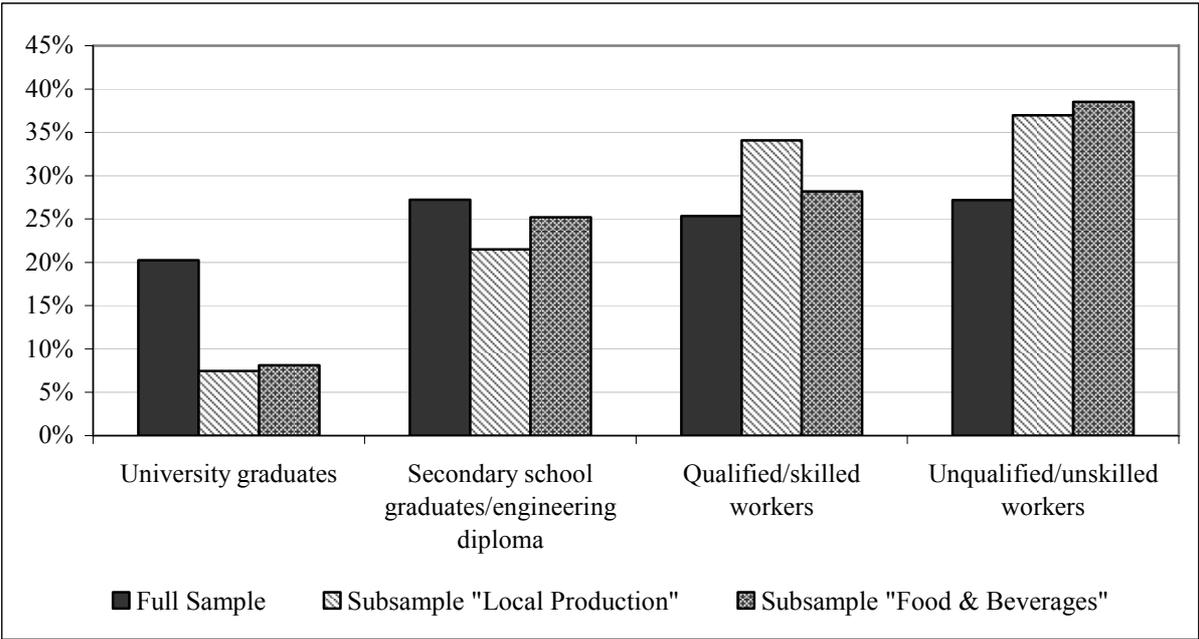
Table 28: Number of Employees (By Subsamples)

	Full Sample	Sample Without Mining Companies	Subsample “Local Production”	Subsample “Food & Beverages”
Total number of employees	557	375	516	681
Share of male employees	80.6%	70.1%	73.8%	73.0%
Share of part-time workers	0.8%	1.3%	0.0%	0.0%
Share of non-permanent workers	23.9%	26.1%	40.9%	39.6%

Source: Company Survey (2008).

However, as Figure 14 reveals, companies in these subsamples share another similarity, which is closely related to this finding. While the share of unqualified workers is 27 percent in the full sample (and 20.6 percent when restricting the sample to companies without local production), an average of 37 percent of the workers employed at a locally producing company are unskilled. The share is even slightly higher in the “Food & Beverages” subsample (39 percent). Workers in this category are generally easier to substitute if the employer is not satisfied with either their performance or their work ethic. In contrast, these workers might not receive as much training as their more skilled colleagues and might not be able to develop firm-specific know-how as a result of their tasks within the company. Both facts might induce an employer not to commit himself to a specific worker for a long period of time. Furthermore, the prospect of getting a permanent contract or the fear of not being hired again might serve as a means to enhance the motivation of the workers.

Figure 14: Educational Level of Employees (By Subsamples)



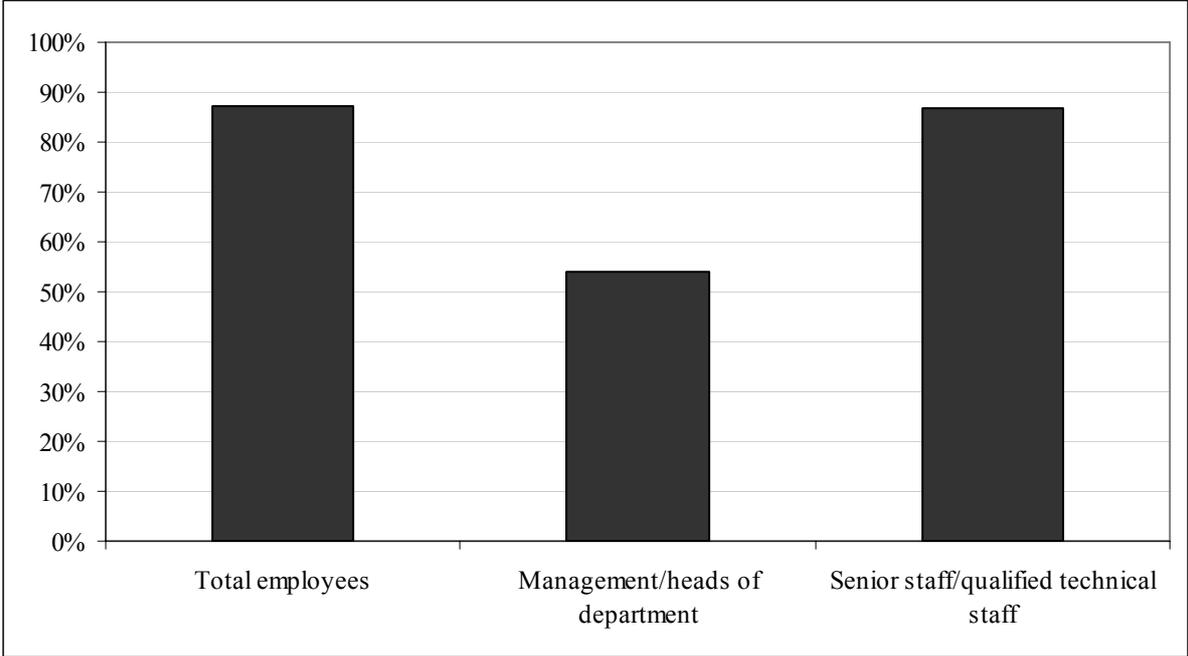
Source: Company Survey (2008).

In the full sample, 20 percent of all employees hold a university degree. Focussing on companies with local production and those in the food and beverages sector, the shares are considerably lower, at seven and eight percent, respectively. This reflects the need for a large workforce which is either unskilled or receives some firm-specific education in these sectors.

Figure 15 shows the share of Ghanaian employees by hierarchical level. 87 percent of the workers hired by companies in the full sample are Ghanaians. However, the share is considerably lower when looking at the management and head of department level. Nevertheless, more than half of the management staff (54 percent) of the interviewed foreign companies is composed of Ghanaians. More importantly, nearly nine tenth of the senior and qualified staff is made up of local employees. On the one hand this finding rejects the common preconception that foreign investors bring in their own management staff and refuse to fill responsible positions with local managers. On the other hand it may be a reflection of the ‘immigrant quota’ provision in the Ghana Investment Act.<sup>20</sup>

<sup>20</sup> Section 30 of the act stipulates that firms with a paid-up capital of US\$10,000-US\$100,000 are entitled to a maximum immigrant quota of up to one person, firms with paid-up capital of US\$100,000-US\$500,000 are entitled to up to 2 people and firms with a paid-up capital of more than US\$500,000 are entitled to a maximum of four people. Should firms require to hire more expatriates, they will need to apply to the GIPC for additional immigrant quota.

Figure 15: Percentage of Ghanaian Employees (Full Sample)



Source: Company Survey (2008).

Table 29 shows the number of training days received by an average member of the management and the workforce, respectively. 48 out of 52 interviewed companies answering this question provided training measures for their employees. In the full sample, a manager participated in training measures on average for 10.8 days in the last year, while a worker got 7.7 days of training. The figures are higher for both production subsamples, while in the food and beverages industry, the number of training days for workers is even higher than for managers. The analysis reveals another interesting pattern: while small (less than 51 employees) and large (more than 500 employees) companies train their staff below average, skill-enhancing measures are most prevalent in medium-sized companies. This is consistent with the earlier finding (Section 2) that firm productivity is positively related to the size of the firm.

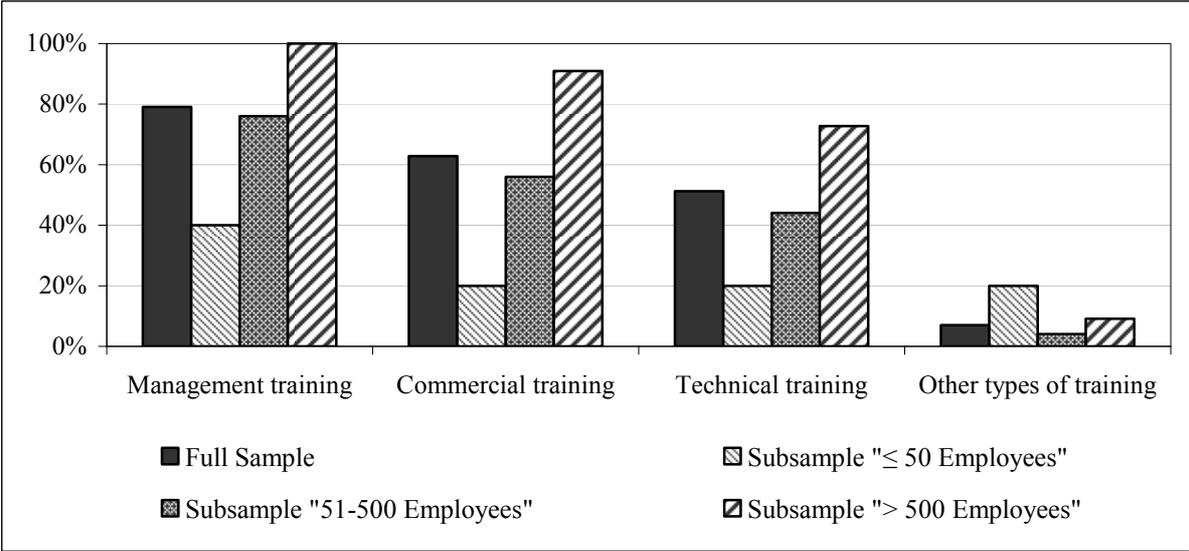
Table 29: Days of Training Provided for Management and Workers (By Subsamples)

	Full Sample	Subsample "Local Production"	Subsample "Food & Beverages"	Subsample "≤ 50 Employees"	Subsample "51-500 Employees"	Subsample "> 500 Employees"
Average number of training days for a member of management	10.8	13.1	10.4	4.8	14.1	7.3
Average number of training days for a worker	7.7	9.9	11.7	5.2	8.8	6.8

Source: Company Survey (2008).

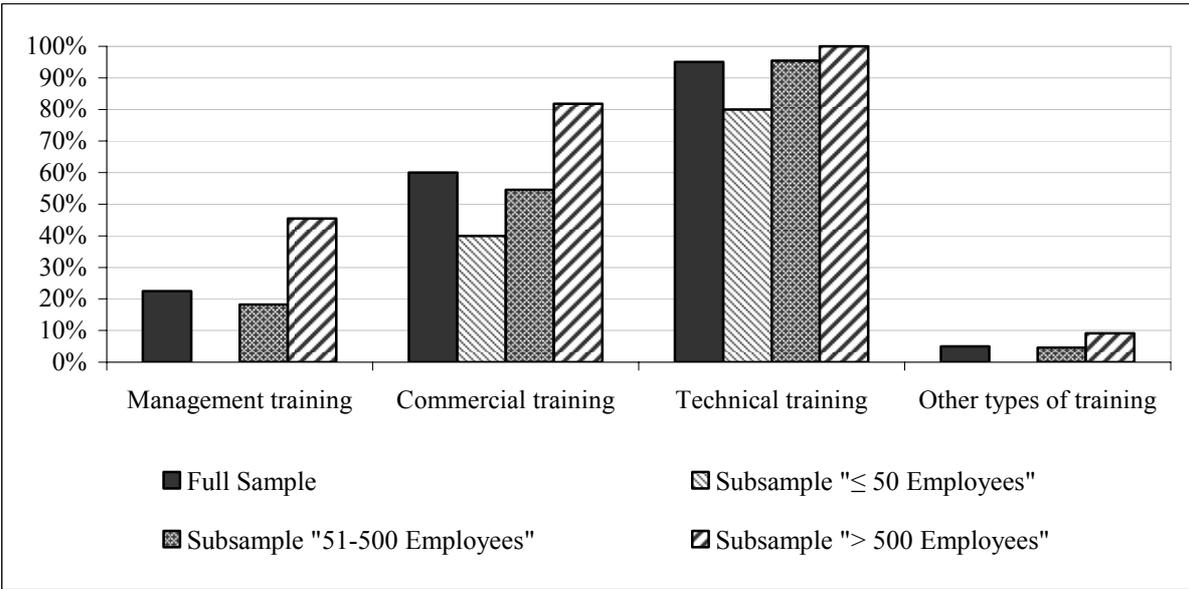
Figures 16 and 17 show the frequency of different types of training being offered to the management and the workers, respectively. It is not surprising that management training is mainly given to employees in managing positions; however, in the full sample, 23 percent of the companies provided courses concerning, e.g., leadership or organisation, also for employees not (yet) in a leading position. The fact that this number is considerably higher in large companies (45 percent) underpins the commitment of these companies to qualify the future leaders from inside the firm. Commercial training, such as those relating to accounting or office software, is offered by about 60 percent of the companies both for management and workers, while technical training is more common for workers. Examples of other types of training measures encompass health and safety or HIV/Aids prevention courses, while some companies also provide e-learning lessons or language classes if the mother company is not from an English-speaking country. The overall pattern is that medium-sized companies indeed provide more intensive training (measured by days per year), but that a larger company is more likely to provide a certain kind of training.

Figure 16: Types of Training Offered for Management (By Subsamples)



Source: Company Survey (2008).

Figure 17: Types of Training Offered for Workers (By Subsamples)

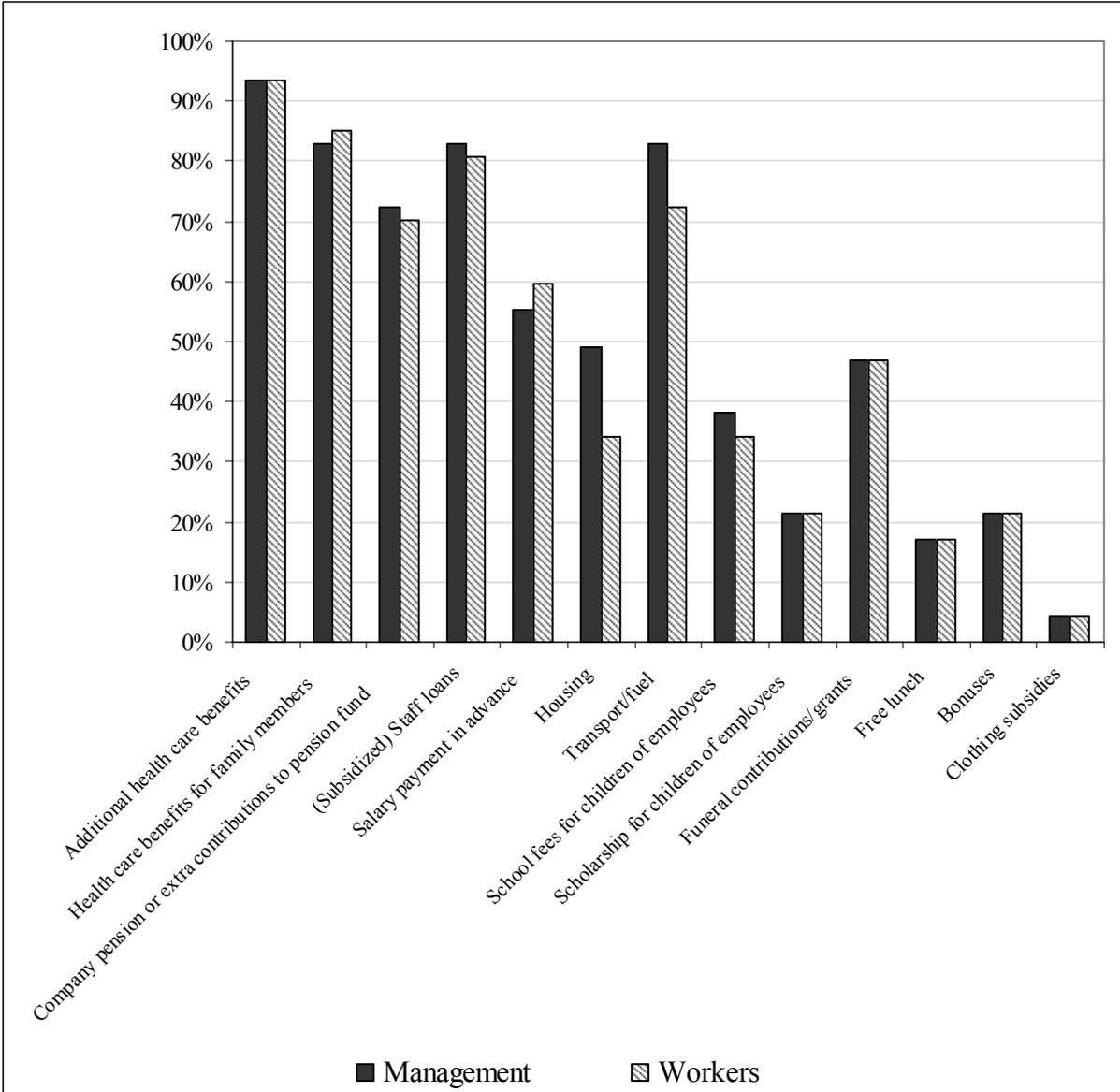


Source: Company Survey (2008).

Next, we examine income per worker employed by MNEs. The average annual income of an employee is approximated by the total labour costs divided by number of employees. Even though this figure includes not only the salary or wage but also social insurance contributions, bonuses, and additional social benefits, it allows us to compute some rough income figures for various industries. For the whole sample, the average annual cost of one employee is GH¢ 10,113 (without mining companies GH¢ 9,555). Companies with local production spend

an average of GH¢ 6,867 per employee, and companies operating in the food and beverages industry GH¢ 6,310. The fact that employees in the production sectors on average are paid less compared to the whole sample is in line with the finding that the share of unqualified workers is particularly high in these firms. Regarding the size of the firm, the results reveal significant differences: in a company with less than 51 employees, the average annual cost of labour per employee is GH¢ 4,016;<sup>21</sup> GH¢ 9,137 in medium-sized companies, and GH¢ 12,979 in firms with more than 500 employees.

Figure 18: Social Benefits for Management and Workers (Full Sample)



Source: Company Survey (2008).

<sup>21</sup> However, information is available only for two companies in this subsample.

The vast majority of employees receive additional social benefits besides the regular monthly payment. Figure 18 shows the frequency of different types of social benefits given to working and managing staff. Particularly striking is the fact that there are very few differences between management and workers. However it is important to mention that this only relates to the array of additional social benefits and not the value of these benefits. Only housing and transport or fuel allowances are provided considerably more often to managers than to workers. More than 90 percent of the interviewed companies offer health care beyond that which is required by law, 85 percent (83 percent for management) offer these benefits also to family members of their employees. Extra contributions to retirement savings, subsidized staff loans and transport allowances are very widespread, available in more than 70 percent of all enterprises in the survey. It is noteworthy that almost half of the foreign owned companies in the sample provided contributions to funerals employees and their close relatives. This shows a strong respect for and support of the Ghanaian tradition and culture.

Focussing on differences between the various subsamples, Table 30 reveals that companies producing locally offer, on average, a larger number of social benefits. Furthermore, larger companies provide considerably more social benefits than smaller firms. In medium-sized companies, however, managers benefit from more amenities; although the difference is very small.

Table 30: Average Number of Social Benefits (By Subsamples)

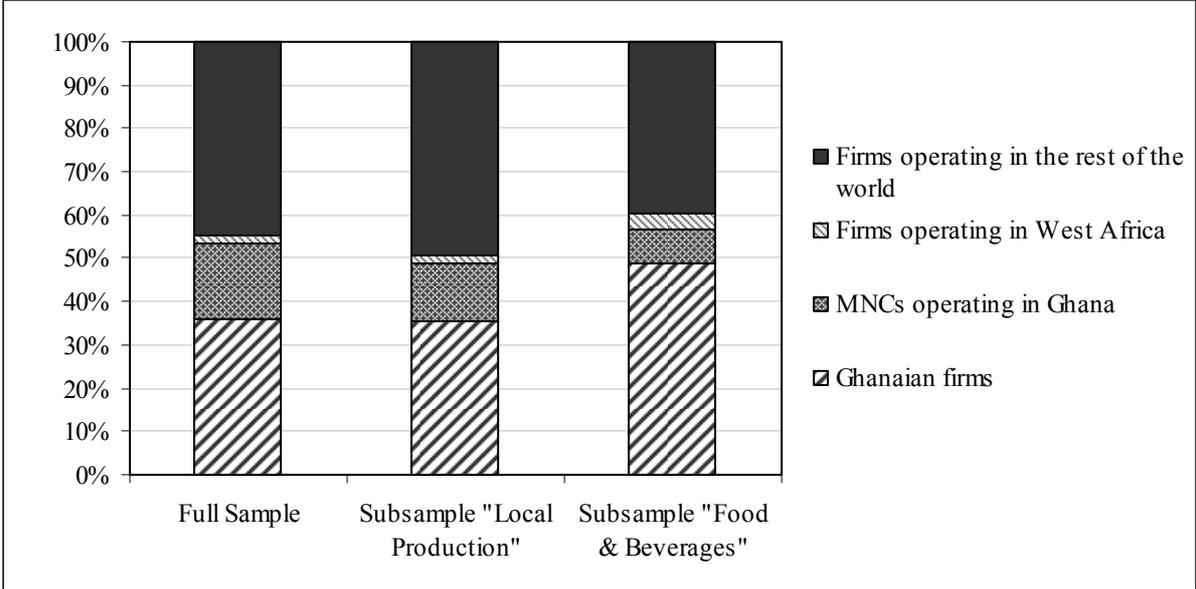
	Full Sample	Subsample “Local Production”	Subsample “Food & Beverages”	Subsample “≤ 50 Employees”	Subsample “51-500 Employees”	Subsample “> 500 Employees”
Number of social benefits for members of the management	6.7	7.7	9.3	4.0	6.6	8.3
Number of social benefits for workers	6.3	7.3	7.5	3.5	6.6	7.5

Source: Company Survey (2008).

### 4.3 Sourcing of Supplies by MNEs Operating in Ghana

When asked about the origin of their most important suppliers, all MNEs indicated that on average 36 percent of their major suppliers are Ghanaian companies. As Figure 19 shows, most of the suppliers (44.8 percent) are firms operating in the rest of the world, while other MNEs operating in Ghana account for nearly 18 percent. In contrast, the supply linkages with western African states are weak, only 1.6 percent of all suppliers come from these countries.

Figure 19: Origin of Supplies (By Subsamples)



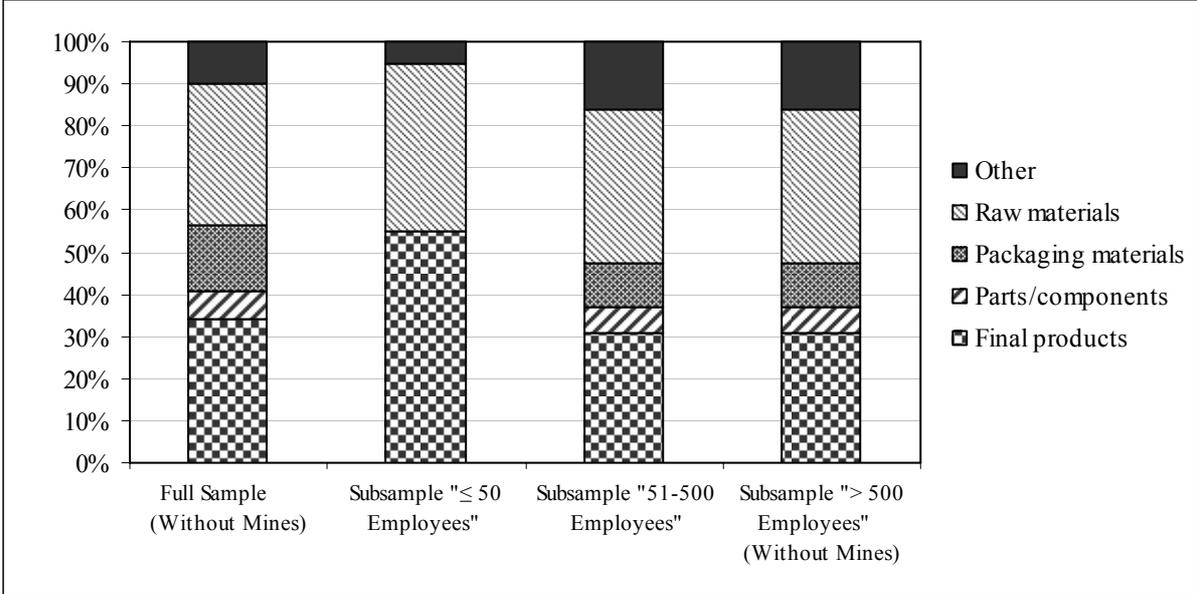
Source: Company Survey (2008).

For the whole sample, more than half of the suppliers are located within Ghana. While the values for companies in the subsample “Local Production” only slightly differ from the whole sample, companies within the subsample “Food & Beverages” generally collaborate with more Ghanaian suppliers (49 percent of suppliers).

Another question concerned the value of Ghanaian inputs. For the whole sample, the value of Ghanaian supplies accounts for 35 percent of total inputs, corresponding with the share of domestic suppliers. The result holds for the two production subsamples. For the emergence of positive spillovers, however, not only the quantity but also the quality of domestic input is crucial. In the production of raw materials and barely processed goods, there is little potential to absorb technological knowledge from MNEs. Figure 20 shows the composition of Ghanaian supply for the whole survey sample and for the different categories of company

size.<sup>22</sup> While final products, and parts and components account for 40 percent of Ghanaian inputs in the whole sample, the share of raw material accounts for one-third. This pattern is rather consistent across the different subsamples. One exception is made by small companies with less than 50 employees, where the input is strongly concentrated on raw materials (40 percent) and final products (55 percent).

Figure 20: Composition of Ghanaian Supply (By Subsamples)



Source: Company Survey (2008).

An important starting point for development impact and for positive spillovers is the transfer of technology and know-how from MNEs to domestic companies. This can happen implicitly, if employees move from an international company to a local company, or explicitly, through formal assistance provided to the suppliers.<sup>23</sup> Table 31 shows the proportion of firms who indicated that they provide any kind of assistance to their Ghanaian suppliers. While in the whole sample and in the local production subsample about two-thirds offer assistance, the share is particularly high in the food and beverages industry, where more than 80 percent of the interviewed companies provide support. Since these companies source their inputs mainly from local farmers, their support has a direct impact on the income and wellbeing of their

<sup>22</sup> Mining companies are excluded from the sample for this analysis; they stated that their domestic supply primarily consists of parts and components (70 percent). The results do not differ substantially across the two production subsamples.

<sup>23</sup> Whereas tacit transfer of knowledge also occurs between MNEs and their local competitors, official assistance is restricted to local suppliers.

Ghanaian suppliers. A specific example of assistance in this context is the provision of fertilizer and seedlings for particularly productive or resistant species.

Table 31: Share of Companies Providing Assistance to Their Ghanaian Suppliers (By Subsamples)

	Full Sample	Subsample “Local Production”	Subsample “Food & Beverages”	Subsample “≤ 50 Employees”	Subsample “51-500 Employees”	Subsample “> 500 Employees”
Share of companies providing assistance to their Ghanaian suppliers	64%	67%	82%	67%	55%	75%

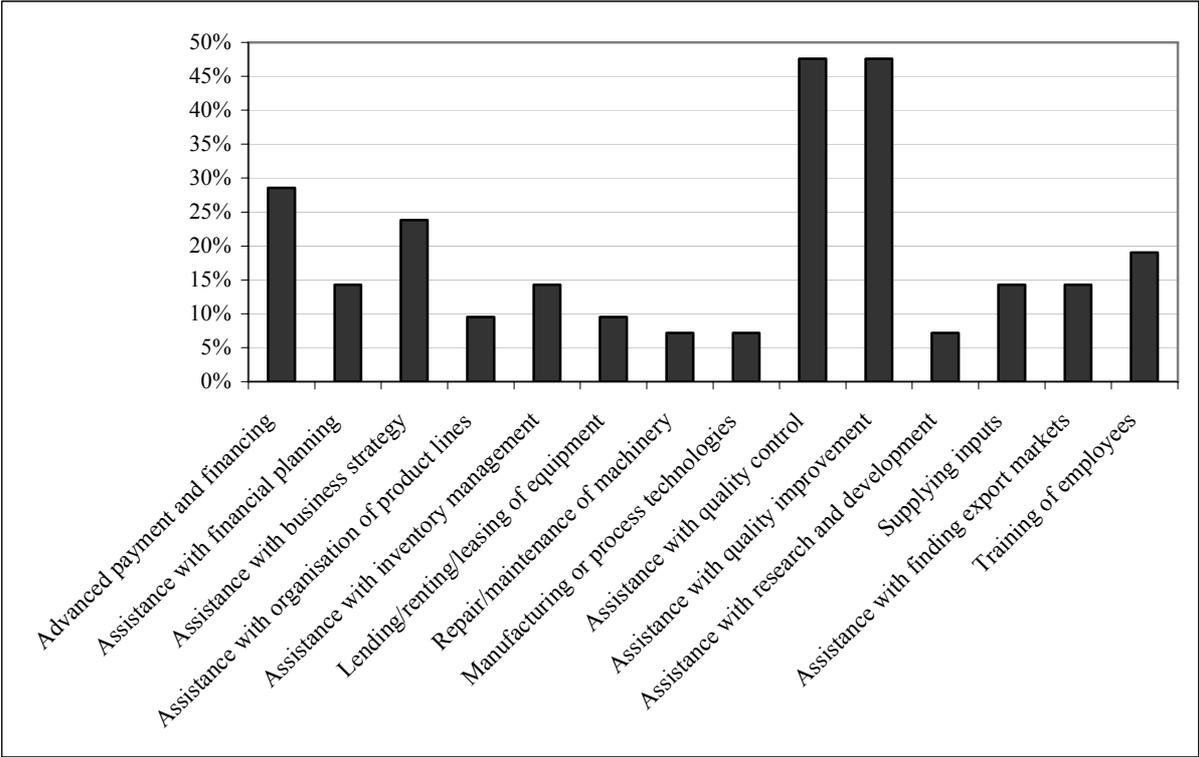
Source: Company Survey (2008).

Analysing the types of assistance given by all interviewed companies reveals a clear result: the strongest need for action from the point of view of MNEs is related to quality issues of their local inputs. Looking at the full sample, 48 percent of the interviewed companies provided assistance with quality control or quality improvement. For the production subsamples, these shares are even higher – 56 percent (local production) and 67 percent (food and beverages). Figure 21 shows how frequently various types of assistance are given.<sup>24</sup>

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<sup>24</sup> See also Box 3 for a case study on the Ghana Rubber Estate Ltd (GREL) as an example of intensive assistance to suppliers.

Figure 21: Types of Assistance Provided to Suppliers (Full Sample)



Source: Company Survey (2008).

As the analysis in the preceding section revealed, credit constraints are a major obstacle for company expansion in Ghana. 29 percent of all companies in the survey provide advanced payment and financing to their suppliers, thereby easing their credit constraints and promoting investment to enlarge production capacities or to increase productivity. This is consistent with the earlier result that credit is more of a problem for domestic firms. Further important types of assistance concern the business strategy of the supplier (24 percent) and training of the supplier’s employees (18 percent). It is noteworthy that 15 out of 27 firms giving assistance had provided it prior to receiving regular supplies from the Ghanaian company. On the one hand, this fact corroborates the assumption that MNEs are interested in long-term business relations, but on the other hand, it is further evidence for the quality problem faced by foreign companies when sourcing domestically.

### **Box 3: Ghana Rubber Estate Ltd as an Example of Intensive Assistance to Suppliers**

**Sector:** Agriculture/agro-processing

**Established:** 1968

**Privatised:** 1997

**Ownership structure:** 60% SIPH, 25% GoG, 15% Newgen (Ghanaian investor)

**Employees:** 304 permanent and 1,220 non-permanent

**Geographic Location:** Western Region

In 1994, Ghana Rubber Estate Ltd (GREL) introduced a rubber outgrower scheme to supplement the supply of rubber from its nucleus plantation. In a context where 60 percent of the local population rely on agricultural farming, of which 90 percent are subsistence farmers, this arrangement offered an opportunity to tie local farmers into the global supply chain of this high-value export crop thereby diversifying and increasing farmers' incomes, whilst allowing GREL to tap into unexploited agricultural potential to raise its supply of rubber for its processing plant without the associated risks of acquiring land, investing in large scale farming operations and hiring labour.

Recognising the need of outgrowers for two kinds of assistance, that is, financial assistance to cover the high costs of establishing a rubber farm and technical assistance to increase yields, both public and private institutions collaborate in this project. The actual arrangement of the scheme has evolved over time, but currently AFD and KfW as development banks lent GH¢ 33.75 million over a period of six years to the Government of Ghana (GoG). GoG in turn refinances the rural banks, which then provide loans to potential rubber outgrowers at an interest rate of 11.5 percent p.a. over a period of 22 years. GREL has committed itself to provide technical assistance and inputs necessary to optimise the productivity of trees to outgrowers at a rate of 2.5 percent of the outgrower's turnover. This includes the provision of technical inputs such as young rubber trees, fertiliser and tapping utensils as well as regular training to outgrowers. The farmers in turn negotiate the price for their products directly with GREL through the local association of rubber producers.

Since the inception of the scheme, the number of outgrower's has risen to over 2,500. They now produce 3,300 tons of rubber, equivalent to almost 25 percent of GREL's total output. By 2020, GREL is looking to increase their share to 50 percent. The average annual income of an outgrower with 4 hectares of land now amounts to GH¢ 8,000, taking loan repayments and technical assistance deductions into account. Other positive effects associated with the project include the diversification of agricultural products, transfer of technical expertise, reforestation, infrastructure development as well as the boosting of foreign exchange earnings through exports.

Part of the reason why this scheme has been exceptionally successful, other than the currently very high commodity price for rubber, is that GREL holds the monopoly for rubber production in Ghana, meaning that outgrowers can only sell to GREL. This substantially reduces the risk of unfolding loans, which has undermined the viability of similar schemes for other crops like palm oil, as there are more competitors in the market. So far GREL mitigated its monopolistic position through a transparent price setting process in its negotiation with the rubber farmer association. However, with the first group of farmers coming to an end of their loan repayment period and competitors likely to enter the market the transition will have to be carefully managed to ensure the long term sustainability of this project.

Asked how the interviewees assessed the quality development of their most important Ghanaian supplier, more than half (23) of the 41 answers indicated no change in the last two years. Deterioration was observed only by three companies, while 15 interviewees replied that the quality improved during this period.<sup>25</sup> The reason behind quality improvement is assigned to the support given by five interviewees, while eleven stated that their suppliers independently improved their product quality. However, even though in the latter cases no direct assistance was given, it is unclear whether progress would have been made in absence of the multinational client. This is because these customers put pressure on their suppliers and provide incentives, such as the prospect of further sourcing. On the other hand, two out of three companies observing deterioration in quality showed no reaction, two stopped sourcing from this supplier, and one offered assistance.<sup>26</sup>

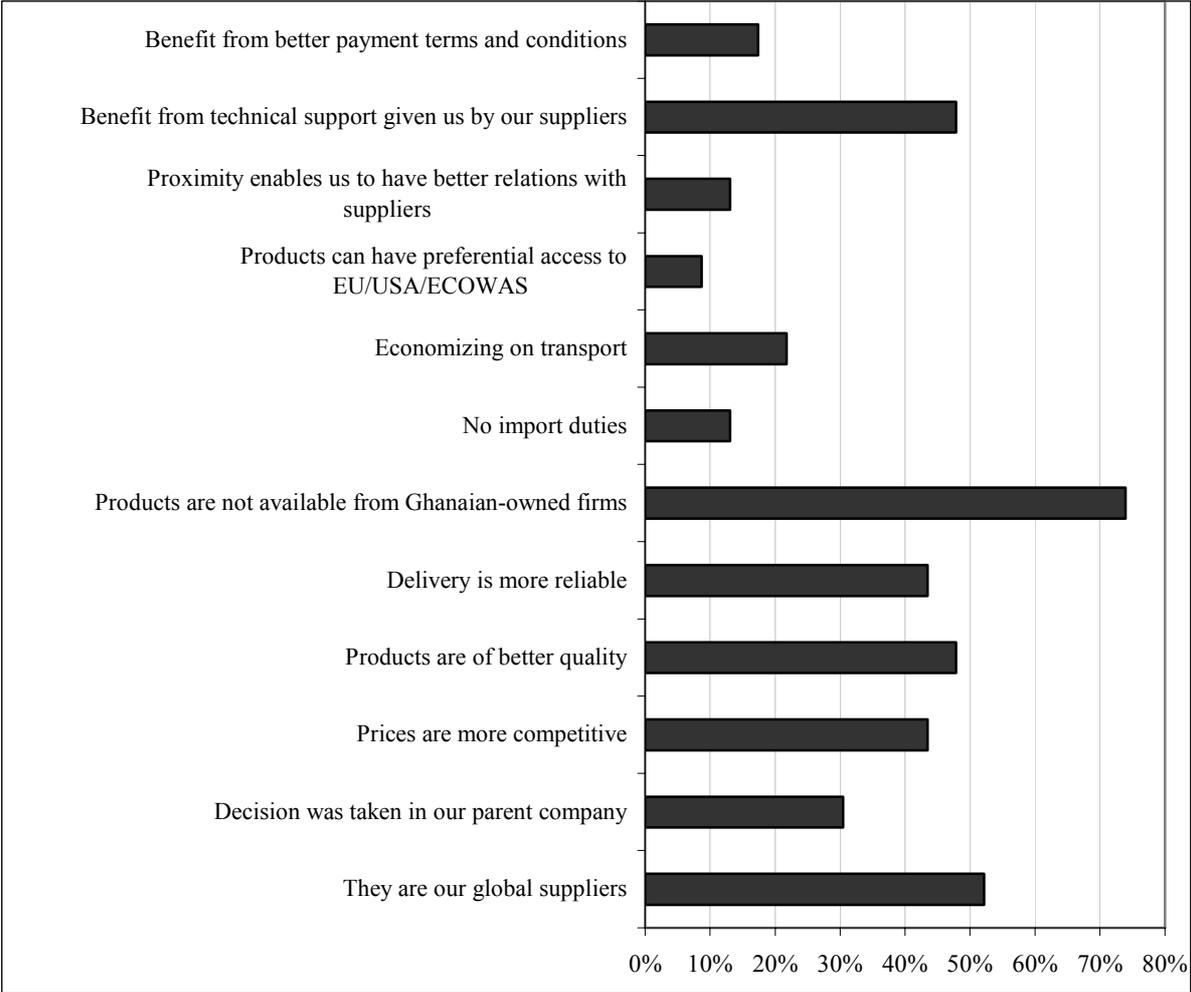
In the following, the benefits of sourcing from either MNEs operating in Ghana and/ or companies abroad are identified, and at the same time, light is shed on the obstacles to domestic sourcing. Figures 22 and 23 reveal the frequency of reasons provided for purchasing inputs from MNEs that are active in Ghana and for sourcing from international suppliers.

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<sup>25</sup> Multiple answers were possible.

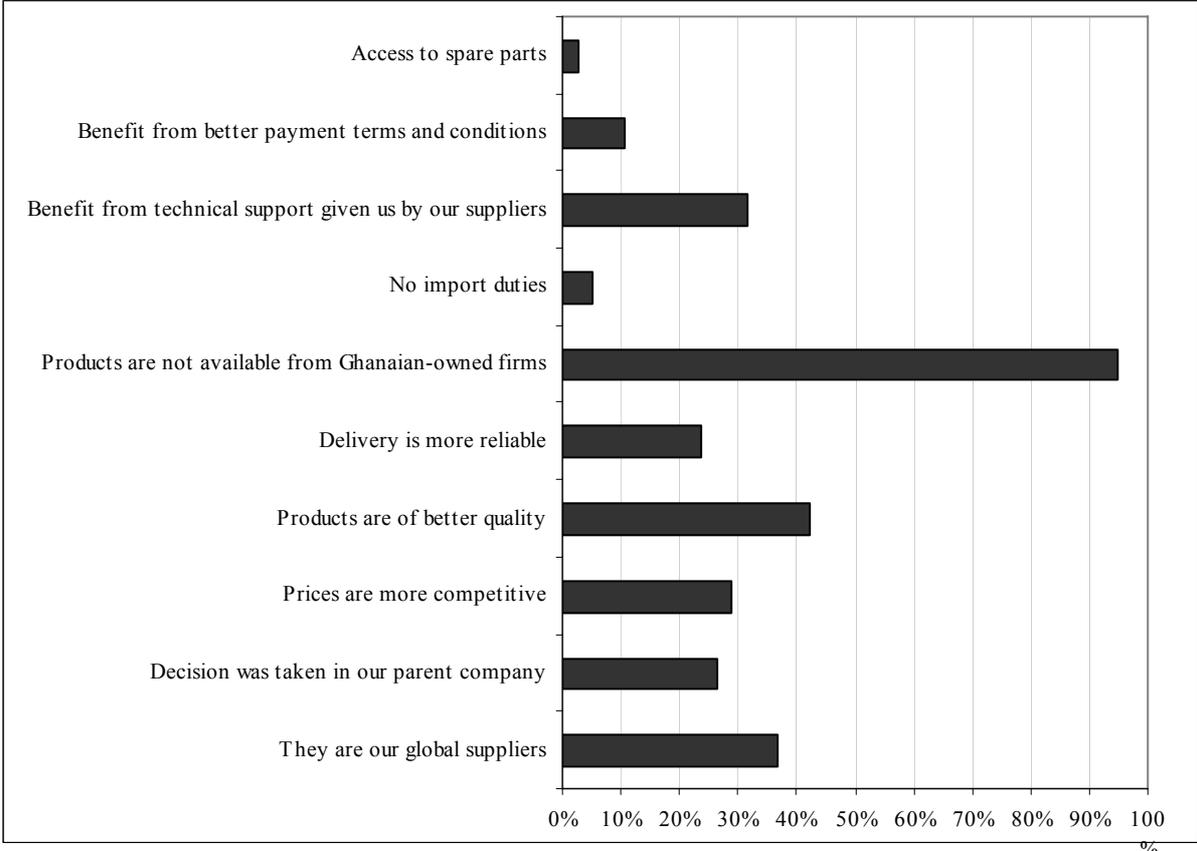
<sup>26</sup> Multiple answers were possible.

Figure 22: Reasons for Sourcing from MNEs Operating in Ghana (Full Sample)



Source: Company Survey (2008).

Figure 23: Reasons for Supplying from Abroad (Full Sample)

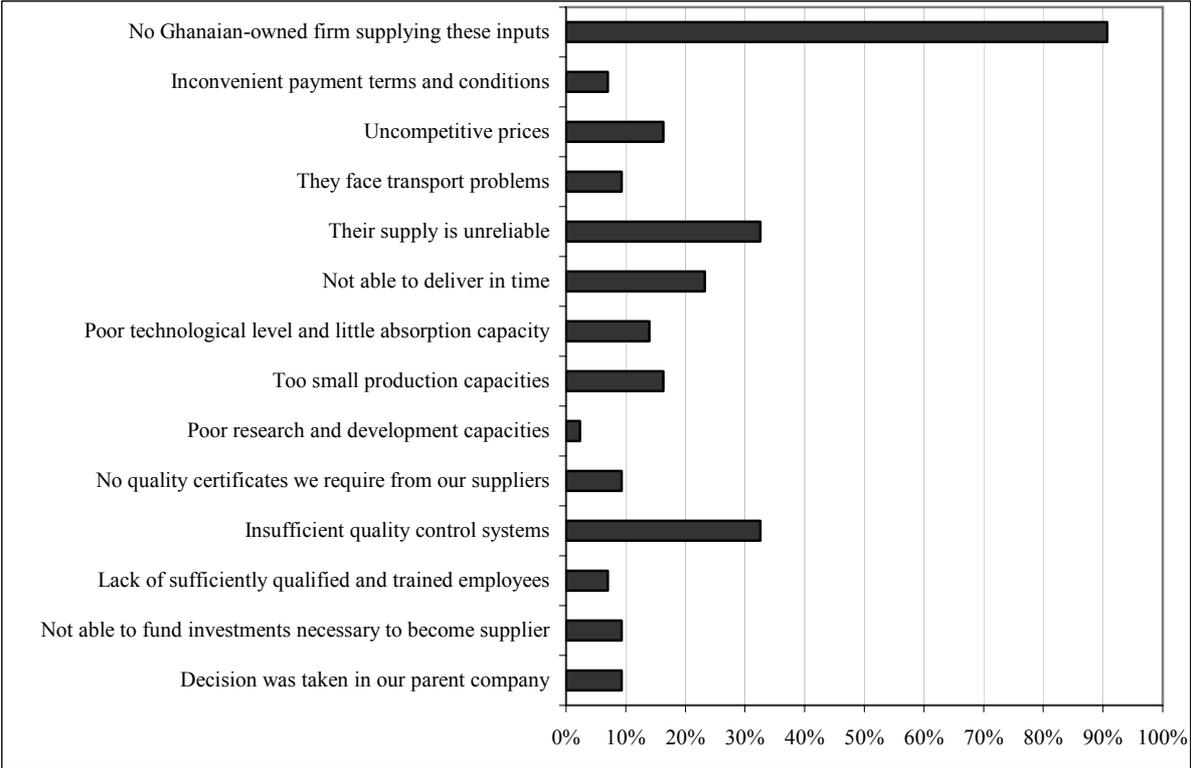


Source: Company Survey (2008).

The most evident motive for going abroad in the search of suppliers is that products are not available from Ghanaian companies. This answer was given by 74 percent (as a reason for sourcing from MNEs operating in Ghana)<sup>27</sup> and 95 percent (as a reason for sourcing from abroad) of the interviewees, respectively. This was consequently also mentioned as the major obstacle to domestic sourcing, as shown in Figure 24. Another important reason for not purchasing locally is the existence of a global sourcing contract with an international company, which is stated as a reason by more than half of the interviewed companies with regard to MNEs operating in Ghana, and by 37 percent regarding suppliers from abroad. However, this does not mean that local managers have no freedom when making sourcing decisions. Local management is responsible for three-fourths of the purchases in terms of value, while only 25 percent is predetermined by the parent company.

<sup>27</sup> One third of the companies producing in Ghana stated that other MNEs followed them into the Ghanaian market. The respective share for companies in the food and beverages industry is 40 percent.

Figure 24: Reasons for Not Sourcing Domestically (Full Sample)



Source: Company Survey (2008).

A further important issue is the quality of supplies, which is assessed as superior for MNEs in Ghana (48 percent) as well as for international suppliers (42 percent), while 33 percent of the companies in the survey specify lower quality as a reason for not procuring more from Ghanaian companies. Not only in terms of quality but also in terms of prices, local companies are evaluated as inferior compared to their competitors. Lack of reliability of supplies from Ghanaian companies can be identified as the third obstacle to domestic sourcing, which was provided by one-third of the companies as a reason for refraining from local suppliers.

Altogether, the results of the survey regarding the sourcing decisions of the surveyed companies indicate that the relative importance of non-Ghanaian suppliers is very high and that the linkages with local suppliers have the potential to be strengthened. This is mirrored in the high share of suppliers originating abroad, as well as in the predominance of raw materials and packaging material from Ghanaian supplies. In line with this finding, the lack of local availability of inputs is mentioned as the major barrier to expansion of domestic sourcing. Further problems encompass the dissatisfying quality and the reliability of supplies. At least regarding the former, the interviewed companies show a strong willingness to assist their

business partners to improve quality and control systems. The above-mentioned difficulties are also reflected in the assessment of future sourcing patterns. Table 32 decomposes the supply of intermediate goods into regional supplier-groups. Looking at the prospective sources in two to three years, the interviewees see little potential to increase the share of domestic inputs considerably in the next few years.

Table 32: Regional Composition of Supply of Intermediate Goods (By Subsamples)

	Full Sample		Subsample “Local Production”		Subsample “Food & Beverages”	
	At present	In 2 to 3 years	At present	In 2 to 3 years	At present	In 2 to 3 years
Ghanaian-owned firms	28.3%	32.6%	27.8%	33.4%	45.3%	53.1%
Other MNEs operating in Ghana	15.3%	13.9%	8.2%	8.2%	0.6%	0.6%
Firms operating in West Africa	2.6%	3.6%	2.4%	2.1%	4.3%	3.6%
Firms operating in the rest of the world	53.8%	49.9%	61.6%	56.4%	49.9%	42.6%

Source: Company Survey (2008).

While 27.8 percent of intermediate goods of locally producing companies are currently sourced in Ghana, this share is expected to increase to 33.4 percent in the near future. However, in the subsample “Food & Beverages”, the relative importance of Ghanaian supplies is prognosticated to increase by 17 percent to 53.1 percent in the year 2011.

**4.4 Productivity in Foreign Enterprises**

The productivity in completely or partially foreign-owned companies is assessed by determining the value added per worker. Two different calculation methods are employed:

- *Valued Added I*, calculated as the difference between the total annual turnover (as a proxy for value of production) and the total cost of material, divided by the total number of employees;

- *Value Added II*, as the total annual turnover minus costs of material, costs of services, costs of energy, and costs of labour, divided by the total number of employees.<sup>28</sup>

Table 33 shows the results for both the full sample as well as for the two production subsamples. The crude measurement of *Value Added I* indicates that each employee creates an additional value of approximately GH¢ 48,800 in the full sample. This value is slightly lower than for the local production subsample (GH¢ 52,400), but considerably higher than for the “Food & Beverages” subsample (GH¢ 34,100).

Table 33: Value Added per Employees in GH¢ (By Subsamples)

	Value Added I per Employee	Value Added II per Employee
Full Sample	48,837	16,804
Subsample "Local Production"	52,377	13,891
Subsample "Food & Beverages"	34,122	20,515
Subsample “Foreign Ownership 26-50%” <sup>29</sup>	10,675	1,801
Subsample “Foreign Ownership 51-75%”	32,712	19,175
Subsample “Foreign Ownership > 75%”	65,465	14,669

Source: Company Survey (2008).

For the second calculation method, *Value Added II*, the figures are considerably higher for companies in the food and beverages industry (GH¢ 20,500) than for the whole production subsample (GH¢ 13,900) and for the full sample (GH¢ 16,800). These results are plausible, since producing in the food and beverages industry is more profitable in Ghana, particularly when compared with other manufacturing. In contrast, in the subsample “Local Production”, the material costs are relatively low compared to the other costs, thereby elevating *Value Added I* and lowering *Value Added II*. Regarding the share of foreign ownership, it can be seen that the *Value Added I* is considerably higher for companies with a larger share of foreign capital. However, for *Value Added II*, the outcome is not that clear cut – companies with a share of foreign capital between 50 and 75 percent have reached the highest value added per employee.

<sup>28</sup> However, these figures cannot be compared directly to the respective variables in Section 2, since, for example, they do not include costs of renting land, buildings, and equipment.

<sup>29</sup> Only two companies out of this subsample provided answers to this question.

### 4.5 Export Intensity of Foreign Companies

One reason for investing abroad is serving distant markets through local production; however, Ghana might also serve as an export basis for other West African states (ECOWAS). Furthermore, companies in sectors where Ghana has a strong competitive advantage, such as tropical fruits, sell their products abroad.

Table 34 shows the share of exporting companies for various subsamples, as well as their share of exports. While nearly half of the interviewed companies export, the share is considerably higher for the two production subsamples. Of the exporting firms, 28 percent of them have an export share (proportion of their output this is exported) of about 100 percent, and about 44 percent have an export share of between 50 percent and 100 percent.

Table 34: Export Intensity (By Subsamples)

	Full Sample	Subsample "Local Production"	Subsample "Food & Beverages"	Subsample "≤ 50 Employees"	Subsample "51-500 Employees"	Subsample "> 500 Employees"
Share of exporting companies	47%	71%	73%	50%	32%	77%
Share of exports	50%	32%	32%	60%	32%	56%

Source: Company Survey (2008).

Regarding the share of exports in the total production volume, it can be seen that locally producing companies export more often, but the larger part of their output is sold domestically. Also, exporters are more likely to be found among the smaller and the larger companies, while only a small share of medium-sized enterprises ships their products abroad.

Of the firms that export abroad, 60 percent were established before 2000. A further probe of the data shows that, of those firms that have been operating before 2000 and export their products, about 40 percent of them started exporting after 2000. In other words, 60 percent of

the firms established before 2000,<sup>30</sup> started exporting after 2000. This may suggest improving conditions for exporting from Ghana. Exports from Ghana increased from the 2000 level of about US \$1.9 million to about US \$4.2 million in 2007 (Bank of Ghana 2008).

In the subsample of exporting companies, 46 percent start selling abroad in the first year. Within five years after establishment, 75 percent had already entered international markets. All interviewed companies, which were established by a takeover of a Ghanaian company or by a MNE operating in Ghana, become exporters within five years, while this is also true for two out of three privatisations in the sample. This provides evidence that the Ghanaian companies were able to export at the time of acquisition; however, no information is available on whether they already exported before the foreign engagement or whether the entrance of foreign investors made exporting possible for the first time.

#### **4.6 A Glance at Mining Companies**

Ghana has had a long tradition of gold mining and trading going back to at least the 10th century. Since then approximately 200 companies in Ghana with prospecting, exploration or mineral leases have evolved of which four are major MNEs - Anglo Gold Ashanti, Newmont, Gold Fields Ghana and Golden Star Resources. The discovery of mineral resources and their subsequent exploitation by foreign (and national) mining companies, however, is not seen as unambiguously favourable for the resource-abundant country. On the one hand, the revenues provide an excellent source of foreign exchange. Since minerals often are found in remote areas, mining companies also contribute to the formation of infrastructure (for example, roads, telecommunication, water and sanitation, energy) and create a lot of jobs at least during the development phase since mining itself is usually very capital intensive. In addition, fiscal revenues are generated through taxes and royalties.

On the other hand, there might be unfavourable effects due to the depletion of raw materials. There is evidence that exporting primary resources leads to an appreciation of the domestic currency thereby deteriorating the international competitiveness of (other) goods produced in the country (Dutch disease). Also, critics stress the potentially negative impacts on the local

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<sup>30</sup> This is for 47 percent of firms that export their products.

environment. Furthermore, a wealth of natural resources might induce rent-seeking behaviour, leading to a possible neglecting of other sectors or fostering corruption. As a consequence, policy makers have to ensure that an appropriate policy mix is in place to harness the maximum benefits from the exploitation of mineral resources.

Our firm survey encompasses three mining companies.<sup>31</sup> With all of them, the Ghanaian government negotiated additional clauses, stipulating contributions to the overall development objectives such as infrastructure, community development or environmental issues. Besides paying on average royalties in the amount of GH¢ 17.9 million, the companies invested voluntarily on average additional GH¢ 4.3 million<sup>32</sup> in community development. The funds are used to finance infrastructure development as well as educational, sanitation or alternative livelihood projects. Beneficiaries of the improved infrastructure were not the mining companies themselves, but also employees and their families as well as the wider community and resettled households. On average, 37,500 people are reached by community development efforts. To ensure sustainability of their activities, the interviewed mining companies developed an exit strategy for the time when the resources are exhausted or exploiting them becomes unprofitable. Examples for such projects are facilitating oil palm plantations or fish farming in aquaculture.

**Box 4: Community Development by Newmont**

**Sector:** Mining  
**Established:** 2006  
**Ownership structure:** 100 % Newmont Mining Cooperation (USA)  
**Employees:** 1,347 permanent and 144 non-permanent

In 2006 Newmont started its mining operations in the Brong-Ahafo Region, traditionally a subsistence farming area with over 66 percent of the population primarily engaged in farming activities. The presence of the Newmont Ahafo Mine has provided a catalyst for local small scale entrepreneurs to seek opportunities to meet the additional demand for goods and services generated by the mine. In collaboration with IFC, Newmont Ghana launched the Ahafo Linkages Program (ALP) in February 2007. With equal contributions of US \$1.5 million in cash and in kind committed over a three year period the program is designed to build the capacity of local enterprises, directly and indirectly related to Newmont Ghana’s activities, as well as to improve the local business enabling environment.

<sup>31</sup> There are three pure mining companies and one company with mining as one business segment.  
<sup>32</sup> Only two companies provided figures in this question.

Following a screening and clustering exercise of micro, small and medium enterprises (MSMEs) from within the 13 communities directly affected by the mine, 89 MSMEs drawn from Newmont Ghana's supply side and beyond were selected to undergo intensive six month business training and coaching. Recognising the importance of customising training programs to local needs, the training itself is provided by eleven Ghanaian consultants. Additionally, the ALP has identified and trained 24 local providers of business development services to provide technical support and business advisory beyond the implementation of ALP. In addition with a view to strengthen local institutions working on private sector development, the ALP is working with the Ahafo Local Business Association to strengthen its institutional capacity to manage regional MSME development over the long-run.

Importantly, the training of local suppliers is complemented by the recently established Local Suppliers and Contractors Development Unit at Newmont Ghana - the first of its kind at Newmont internationally. This department has the exclusive duty to ensure the company always sources locally first wherever economically feasible, and has the discretion to pay premiums for products sourced locally. Further, the department also contractually requires national and international suppliers to share expertise with local entrepreneurs from similar sectors with a view to build their capacity over the long run to compete with national and international companies.

Benefitting from this program, several new successful entrepreneurs have emerged. One example is the Community York Association, which produces York mats to control soil erosion. In the past these mats were often imported from China and made of plastic. In May 2005, however, Newmont Ghana started training 15 local farmers in 'its' communities to produce these mats from York. York weed previously had to be cleared from arable land at a cost but could now be used to generate further incomes. The Association now provides 176 local jobs and two local companies trained through ALP have started buying these jute mats from the community and sell them on to Newmont Ghana. Very soon they will start serving additional clients as well.

Beyond anecdotal evidence, impact assessment so far has only been conducted in reference to direct local suppliers. These show that through the combined effort of ALP and the Supply Chain Management Department local procurement has more than doubled from 2006 to 2007 and is on track to fourfold by the end of 2008. In 2006 just over 120 commercial transactions took place with 25 validated local MSMEs amounting to approximately US \$1.7 million worth of goods and services. By the end of 2007 these figures had increased to more than 282 commercial transactions with 52 MSMEs, accounting for US \$4.2 million.

The transaction costs for Newmont Ghana to enable local procurement and facilitate economic diversification within its surrounding communities are extremely high in the short-term. However, the potential benefits from actively engaging with local entrepreneurs and developing a sustainable economic base around its mine site are critical to the long-term sustainability of the project. In fact, it provides the company with its social license to operate mitigating the risk of disruptions to its core operations from social divisions.

#### **4.7 Summary of the Results**

Summing up the analysis of the pro-development effects of FDI based on our survey, the presence of foreign investors in the Ghanaian market had, above all, positive impacts on the productivity, product quality and variety of goods offered by domestic companies. Foreign-owned companies provide a large number of jobs, not only for well-educated, but also for unskilled workers. Besides their salary, employees of international companies enjoy a great variety of social benefits and training measures. MNEs, however, source their supply to a large extent from abroad. This is partly due to quality and reliability problems, but mostly because the required inputs are not available from Ghanaian companies. Still, the large majority of MNEs provides assistance to their local suppliers, helping to mitigate the sourcing obstacles, thereby boosting local employment and increasing spillover effects. Mining companies in particular actively contribute to community development.

## **5. FDI-Growth Nexus**

After having presented the survey results, we now explore the FDI-growth nexus in more detail and try to address the question of how Ghana could increase the benefits of FDI from a development perspective. To answer this question, we first review the FDI-growth literature and then conduct a benchmarking for Ghana.

### **5.1 Review of the Literature**

Despite the fact that the economic benefits of increasing FDI inflows are well established in the theoretical literature, the evidence on the gains from additional capital, increased competition, and technology spillovers is far from conclusive at the macro level.<sup>33</sup> Unlike most of the microeconomic evidence at the firm level, studies using aggregated FDI data found questionable support that FDI in itself significantly boosts growth rates in all recipient countries. In a cross-sectional regression framework based on data for the 1990s, Ram and Zhang (2002) found some evidence that FDI boosts host economies' income growth rates. Yet they noted that the results are not robust to all their model specifications. UNCTAD (1999), on the other hand, did not find a clear linkage between FDI and growth rates, as the sign of the coefficient for FDI is either positive or negative depending on the variables that enter the regressions. In a similar approach, Dutt (1997) also fell short of detecting any empirical linkage between foreign investment and per capita growth rates.

Nonetheless, using a panel of data for the period of 1970-1999 for 84 countries, Li and Liu (2005) established a clear linkage between FDI and growth rates. They confirmed this outcome using different econometric techniques, including a simultaneous equation system. In contrast, Carkovic and Levine (2005) also used a panel setting and control for simultaneity bias, but did not find robust results for positive growth effects of FDI inflows in their sample of 72 countries for the period of 1960-1995. They noted that this outcome (and the inconclusive evidence in the literature in general) might be due to the specific empirical approaches and the different time periods used.

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<sup>33</sup> De Mello (1997) and Li and Liu (2005) provide surveys of the literature.

Apart from data and methodological issues, further reasons for the inconclusive evidence have been sought by several studies. In fact, these studies search for determinants (or preconditions) for a positive FDI-growth nexus. In one of the earlier studies, Balasubramanyam et al. (1996) examined the role of trade policy in regards to the linkage between FDI and economic growth. Using a cross-sectional approach, a sample of 46 developing countries and averages for the period of 1970-1985, they found that FDI might promote growth only in export-promoting rather than in import-substituting countries. They argued that low barriers for imports and exports as an essential part of an export-promotion strategy not only attract more FDI inflows, but also, that trade leads to a more efficient utilisation of production factors in the host economy. They concluded that openness to trade is essential for the growth effects of foreign investment.

A few years later, Borensztein et al. (1998) investigated the role of further host country characteristics. More specifically, for their sample of 69 developing countries and the average for the period of 1970-1989 they discovered that countries need to reach a particular level of educational attainment to benefit from FDI. Borensztein and associates argued that to be able to benefit from positive (technological) spillover effects, host economies need the educational capacity to facilitate these effects. According to their results, a country has to have a minimum threshold stock of human capital. Otherwise, the country does not have a sufficient absorptive capability for the advanced technologies, enabling it to translate FDI into a higher growth rate.

More recently, a series of papers has been published, which analyse the linkages between the effectiveness and regulations of financial markets, FDI and growth. In essence, Hermes and Lensink (2003), Durham (2004), and Alfaro et al. (2004) all found that countries with better financial systems and financial market regulations can take advantage of FDI more efficiently and achieve a higher growth rate. These studies argue that countries not only need a sound banking system, but also a well-established financial market, allowing entrepreneurs to obtain credit to start a new business or expand an existing one. Through this countries are able to benefit from inward investment to achieve a higher growth rate.

Aside from financial market regulations, the impact of broader government regulations on the interaction between FDI and growth has been examined by Busse and Groizard (2008). Using a sample of 84 countries (including 62 developing countries) and the period of 1984-2003,

they explored the linkages between government regulations, FDI and economic growth in a comprehensive manner. They argue that countries may only benefit from foreign investment inflows if appropriate local government regulations and institutions are in place. Above all, excessive regulations are likely to restrict growth through FDI if human and capital resources are prevented from reallocating. For example, if starting a business is hindered by extensive and costly government regulations, which involve many bureaucratic procedures demanding entrepreneurs' time and resources, then capital flows are prevented from being reallocated to the most productive sectors.

Likewise, if restrictive employment laws for the hiring and firing of employees cause a lower labour market turnover, technology spillovers to domestic firms are less likely to occur. A similar argument can be made for other forms of government regulations, such as closing a business, protecting foreign and domestic investors by ensuring creditor rights and the enforcement of contracts. Both are difficult tasks involving high uncertainty, considerable time and very large expenses. Hence, multinationals would reduce forward and backward linkages with the local economy, thereby affecting the likelihood of horizontal or vertical spillovers taking place. In summary, restrictive government regulations may prevent productivity increases related to the exploitation of technology spillovers from foreign direct investment inflows.

Overall, Busse and Groizard found that FDI does not stimulate growth in economies with excessive business regulations, after controlling for some other relevant determinants of observed changes in GDP growth rates. However, this outcome is restricted to the top 20 or 30 percent of the most regulated countries, indicating that there is a threshold level for which their results hold true. Moreover, they identified one disaggregated sub-indicator (market entry regulations) that is more important for the FDI-growth nexus than other sub-indicators.

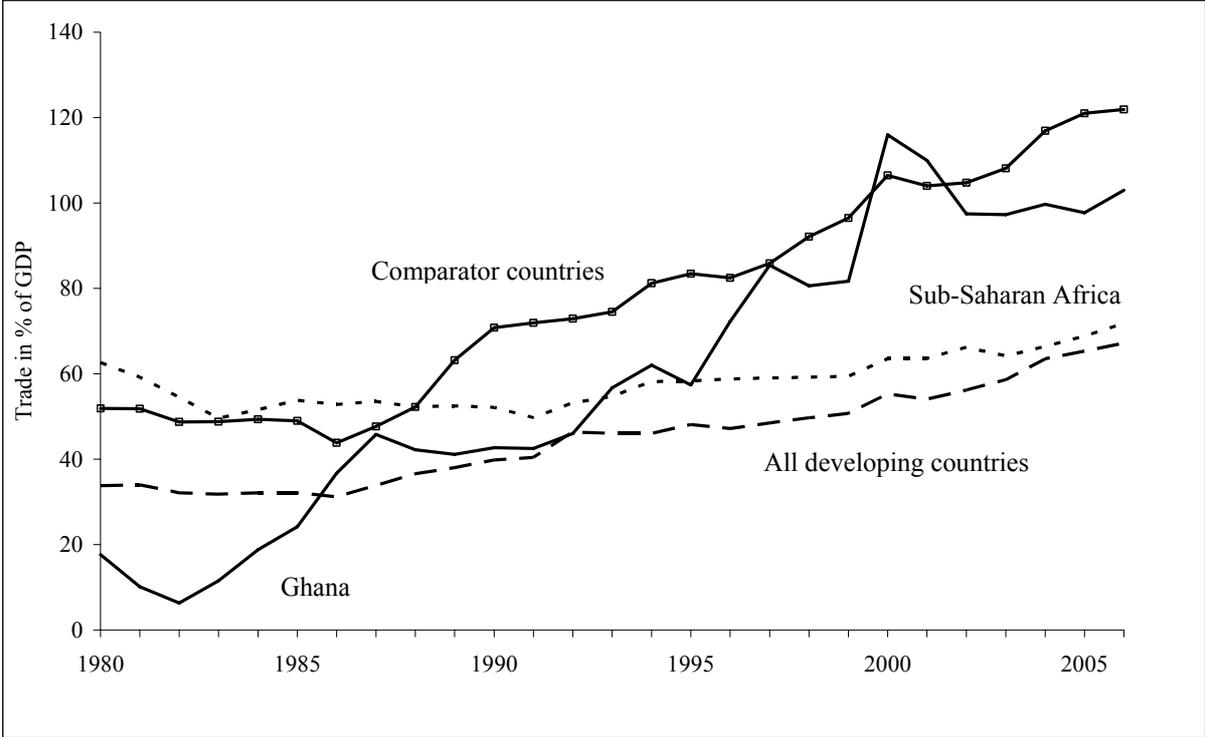
## **5.2 Benchmarking for Ghana**

After identifying important determinants for a positive FDI-growth linkage, we next perform a benchmarking for Ghana. Since all studies mentioned in the previous sub-section included Ghana in their analysis, we can compare Ghana's performance for the specific period employed in previous studies with Ghana's current figures. Moreover, Ghana's performance

will be compared with three groups of countries: sub-Saharan African countries, all developing countries, and a set of comparator countries. The comparison, both with all developing countries and with all sub-Saharan African countries, provides an indication of how Ghana performs in comparison to the large number of other (African) developing countries. Yet various developing countries within these two groupings have not received a lot of foreign investment, which inhibits a useful comparison. Therefore, we additionally compute averages for five comparator countries which have been quite successful in attracting FDI inflows in the past or more recent years and which have, to varying degrees, benefited from the presence of multinational enterprises in their countries. The comparator countries are Brazil, China, Malaysia, Thailand, and Vietnam.

Ghana used to have a restrictive trade policy in place and belonged to the group of import-substituting rather than export-promoting countries in the period Balasubramanyam et al. (1996) considered for their analysis (1970-1985). Hence, Ghana did not benefit as much from FDI inflows as other countries with a more liberal trading regime. As already noted in the first section, Ghana reduced its tariff and non-tariff trade barriers considerably in the 1980s and 1990s as part of various reform programmes. If anything, the trade policy fundamentally changed from import substitution to export promotion in these years. Partly as a consequence, the trading volume, measured as imports plus exports as a share of GDP, has increased enormously since the early 1980s (Figure 25). Measured by this indicator, Ghana now has arguably a more open trading regime than many other African (and/or developing) countries. Only the five comparator countries trade more than Ghana, measured as a share of their GDP.

Figure 25: Total Trade in Percent of GDP, 1980-2006



Source: World Bank (2008c). Notes: Total trade consists of imports and exports of goods and services. The comparator countries are Brazil, China, Malaysia, Thailand, and Vietnam.

Regarding the second main policy area – educational attainment levels – Borensztein et al. (1998) used average years of secondary education of the population age 25 and above in their analysis. For this indicator, Ghana scored just below the threshold level in the considered period of 1970-1989 and belonged to group of countries for which the authors did not find a positive impact of FDI on growth rates. While educational attainment levels have increased since 1980, Ghana’s relative performance has been less impressive. While the West African country is currently performing better than many other African countries, other (non-African) developing countries have also improved the educational levels of their population (Table 35). Importantly, the five comparator countries started from a similar low educational level in 1980 but then made much faster progress in achieving higher educational levels of their populations (years of schooling and secondary school enrolment).

Based on the absolute and relative performance of Ghana in this policy area, it is difficult to classify the country today. Still, an enhanced educational level of the working population would be highly beneficial to attract additional FDI inflows and to increase the growth effects of existing FDI. This is particularly important as it has been argued that in spite of the improvement in enrolment rates, the quality of education has not improved (National

Development Planning Commission 2006). Also as the GLSS V data shows, less than 15 percent of the labour force have a secondary education or higher qualification.

Table 35: Educational Indicators, 1980-2005

Indicator and Country/Region	1980	1990	2000	2005
<b>Average Years of Secondary Schooling (Ages 25+)</b>				
Ghana	0.72	1.07	1.32	1.47
Sub-Saharan Africa	0.31	0.56	0.70	0.85
All developing countries	0.70	1.03	1.30	1.39
Comparator countries	0.79	1.22	1.63	2.00
<b>Gross Secondary School Enrolment in %<sup>1</sup></b>				
Ghana	41	36	37	44
Sub-Saharan Africa	14	20	25	28
All developing countries	36	39	49	55
Comparator countries	40	45	70	81
<b>Literacy Rate of the Adult Population in % (Ages 15+)</b>				
Ghana	..	..	57.9	..
Sub-Saharan Africa	..	..	..	59.3
All developing countries	..	..	..	87.7
Comparator countries	..	..	89.7	..

Sources: World Bank (2008c) and Barro and Lee (2001). Notes: .. refers to data unavailable. The figures for average years of secondary schooling, provided by Barro and Lee (2001) have been updated with UNESCO (2008) data. The comparator countries are Brazil, China, Malaysia, Thailand, and Vietnam. <sup>1</sup>1980-2004.

With respect to the key financial indicators used in the studies by Hermes and Lensink (2003), Durham (2004), and Alfaro et al. (2004), Ghana usually belonged to the group of countries with inadequate financial market systems and regulations. A comparison of some of the indicators employed in the three studies, shown in Table 36, reveals that Ghana scores well below the average of other developing countries and, depending on the particular indicator, sometimes even below the average for all sub-Saharan African countries. Not only is Ghana's stock market less liquid and less well-established than in other developing countries, but also, the indicators show that credit is by far less widely available, even in comparison to other sub-Saharan African countries. While Ghana has improved its absolute performance since 1980, it is still far behind other similar developing countries with respect to financial development.

Table 36: Financial Market Indicators, 1980-2006

Indicator and Country/Region	1980	1990	2000	2006
<b>Domestic Credit Provided by Banking Sector, % of GDP</b>				
Ghana	22.6	17.5	39.3	32.4
Sub-Saharan Africa	44.3	59.6	75.0	110.6
All developing countries	45.4	61.9	69.9	76.7
Comparator countries	63.7	86.5	110.8	106.9
<b>Domestic Credit to Private Sector, % of GDP</b>				
Ghana	2.2	4.9	14.0	17.5
Sub-Saharan Africa	29.8	42.1	61.2	78.1
All developing countries	32.2	40.0	50.4	57.3
Comparator countries	49.3	70.7	93.3	85.4
<b>Liquid Liabilities (M3) as % of GDP</b>				
Ghana	18.6	14.1	28.2	33.8
Sub-Saharan Africa	35.2	35.0	35.6	30.1
All developing countries	34.6	43.2	63.4	76.4
Comparator countries	44.1	62.5	94.2	104.8
<b>Stocks Traded (Total Value) as % of GDP</b>				
Ghana	..	..	0.2	0.4
Sub-Saharan Africa	..	..	32.3	65.4
All developing countries	..	5.4	33.2	39.2
Comparator countries	..	13.2	39.9	26.2
<b>Market Capitalisation of Listed Companies as % of GDP</b>				
Ghana	..	1.2	10.1	25.0
Sub-Saharan Africa	..	..	89.9	159.9
All developing countries	..	18.1	35.6	73.3
Comparator countries	..	35.6	59.3	58.6

Source: World Bank (2008c). See Table 35 for notes.

While it is beyond the scope of this study to explore the reasons for the underdevelopment of the financial sector and the lack of access to credit (or the high cost of credit) in detail, a few broader reasons that are common knowledge in macroeconomic theory have been pointed out by the World Bank (2007). First of all, banks usually provide loans against collaterals. If secured access to land is a major problem, as has been pointed out in Section 3, fewer loans can be provided for the private sector. Secondly, due to the persistent financing needs of the government, crowding out effects might occur. As a consequence of the public budget deficit, interest rates rise and, thus, crowd out private investment, since banks prefer government securities. Thirdly, the relatively high spread between lending and borrowing could be due to relatively large overhead costs, pointing to a lack of competition in the banking sector. All these factors contribute to the underdevelopment of Ghana's financial markets. Therefore, restricted access to growth (and high borrowing costs) clearly reduces total investment and acts as a major growth constraint.

Finally, Ghana’s overall performance in regards to the regulatory environment for companies is relatively good. In fact, Ghana did not belong to the group of countries with overall excessive regulations, for which Busse and Groizard (2008) found a negative impact of FDI on economic growth. Moreover, as noted in the first section, Ghana has further improved the overall quality of regulations considerably in recent years. Indeed, the World Bank (2008a) ranks Ghana as a top reformer for the second year running. The government of Ghana continues to enhance the efficiency of its public services, partly by cutting bottlenecks in property registration, by changing the port authority operations to speed up imports, and by reducing the time needed to enforce a contract through the introduction of new civil procedure rules and mandatory arbitration and mediation.

As a consequence, Ghana was ranked 87 out of 178 countries in 2007, moving up from position 109 in 2006 (Table 37). While Brazil, China and Vietnam are somewhat similarly ranked as Ghana, the business environment is much better in Malaysia and Thailand. Moreover, since some of the comparator countries (and many other countries included in the Doing Business dataset) are reforming as well, Ghana will have to continue to reform the public sector to keep its relative ranking.

Table 37: Ease of Doing Business: Overall Ranking, 2006-2007

<b>Country</b>	<b>2006</b>	<b>2007</b>
Ghana	109	87
Brazil	113	122
China	92	83
Malaysia	21	24
Thailand	17	15
Vietnam	94	91

Source: World Bank (2008d). Note: The figures for 2006 (2007) refer to the Doing Business 2007 (2008) report.

Ghana’s performance for starting a business, the most important sub-indicator for the growth effects of FDI, is clearly below its overall ranking. In fact, the country ranks only 138 out of 178 economies in 2007 for this sub-indicator. While Ghana’s government slightly reduced the number of procedures and halved the time required to start a business, the costs involved to set up a new company are relatively high (Table 38). Similar to previous policy indicators, Ghana scores well in direct comparison with other sub-Saharan African countries. Yet the

performance of the five selected comparator countries is somewhat better than that of Ghana. This applies in particular to the costs of starting a business, which is of high importance if firms are established by locals. If start-up costs are too high, fewer firms are being created and spillovers and positive growth effects are less likely to occur.

Table 38: Doing Business Indicators: Starting a Business, 2003-2007

<b>Indicator and Country/Region</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>Procedures (Number)</b>					
Ghana	12	12	12	12	11
Sub-Saharan Africa	11	11	11	11	11
All developing countries	11	10	10	10	10
Comparator countries	12	12	12	12	12
<b>Time (Days)</b>					
Ghana	85	85	81	81	42
Sub-Saharan Africa	61	59	60	61	56
All developing countries	60	54	52	53	49
Comparator countries	65	64	63	60	59
<b>Costs (% of Income per Capita)</b>					
Ghana	84.7	65.1	58.6	49.6	41.4
Sub-Saharan Africa	257.3	216.6	170.5	163.1	148.1
All developing countries	118.6	95.9	84.5	82.0	74.5
Comparator countries	19.1	18.0	15.7	13.8	12.5
<b>Minimum Capital (% of Income per Capita)</b>					
Ghana	41.6	31.4	27.9	23.2	20.9
Sub-Saharan Africa	261.6	256.9	290.1	202.5	188.8
All developing countries	237.6	197.9	216.1	154.8	134.4
Comparator countries	247.3	220.8	189.3	42.6	38.0

Source: World Bank (2008d).

### 5.3 Summary of the Results

While Ghana has undertaken various policy reforms of the last 25 years, there is considerable scope for improvements to increase the benefits from FDI. On the positive side, the external sector has been liberalised considerably. Moreover, government regulations have been simplified and have become more transparent. However, major improvements in the education and the finance sector are still to be achieved. Enhancing the performance in these various policy areas could not only ensure a better growth performance based on existing FDI, partly in the form of increased technology spillovers. What is more, it would also help to attract more of the type of FDI that is closely related to a pro-development impact. For

example, it has been pointed out in various studies that foreign investment in the form of full-scale plants with cutting-edge technology and management practices, strong export orientation and an integration into the supply chain of the multinational enterprise is much more likely to benefit the host economy than sub-scale plants that produce for the local market and that are protected from international competition.

## 6. Summary and Policy Implications

Foreign investment can make a valuable contribution to development. The positive effects have been clearly pointed out in the literature and some of which have been documented by the company survey, for example, that FDI can both provide additional, much needed capital and offer the possibility of technology spillovers to firms in the host economy, thereby making them more efficient and competitive. For a pro-development impact, host countries have to provide an appropriate policy environment that can enable them to harness the benefits of foreign investment.

As the preceding sections have shown, this applies not only to other developing countries that have taken advantage of foreign investment; but Ghana has benefited from FDI, too. Yet the country is not using its potential to attract the type of foreign investment that has the greatest potential to be pro-development oriented.

Regarding the four key questions raised in the first section, the main findings of this study can be summarised as follows:

- (1) Domestic and foreign firms differ significantly from each other. Foreign-owned firms are not only larger than their domestic competitors; they also employ managers with a higher educational degree and have much easier access to credit. The results show that when key obstacles are removed, such as access to credit, Ghanaian firms could increase their competitiveness by taking advantage of economies of scale in the production process (larger firm size) and enhancing their activities abroad (export intensity).
- (2) In terms of absolute investment levels, the vast majority of FDI in Ghana is concentrated in the mining industry. While this sector provides additional jobs and foreign exchange through increased exports as well as royalties and taxes, extensive technology spillovers are less likely to occur. In contrast, Ghana has not received much FDI in manufacturing and assembly sectors which, on average, offer higher positive growth effects through spillovers in the long run. Among the most important reasons for not receiving more FDI, we identified access to land, property registration and the labour market (regulations, availability of skilled labour, labour productivity). Factors such as credit seem to be less

problematic for foreign investors, particularly the larger MNEs. For inward FDI to the non-mining sector, political stability has been key to attracting and sustaining this kind of investment to Ghana. Outside of the mining sector, the next most attractive sector for FDI in Ghana is the food and beverages sector.

- (3) The activities of multinational enterprises have had beneficial effects for Ghana. Above all, this applies to the manufacturing sector and foreign firms which produce locally. The market entry of MNEs seemed to have benefited (Ghanaian) competitors by increasing their productivity, product quality and variety of products offered in response to intensified competition.

For those Ghanaian firms that engage with foreign firms as suppliers, MNEs provide considerable assistance through financial and strategic support, as well as through product quality control and quality improvements. What is more, MNEs frequently offer various social benefits (in addition to wages and salaries) and training measures to their employees, workers and managers alike.

- (4) Previous studies on the growth effects of FDI showed that Ghana has not maximised benefits from FDI in the past due to shortcomings in domestic policies. The key policy areas for a positive FDI-growth nexus (and an increase in the pro-development effects of FDI) are the external sector (trade policy), education, financial markets, and business regulations. In the past, Ghana scored below average in the first three policy areas. Since the early 1980s, however, it has liberalised its external sector significantly and thus considerably improved its performance in this area. Also, Ghana has a relatively good business environment regarding the overall regulatory quality. However, this does not hold for all sub-categories, such as market entry regulations.

According to the firm survey, the introduction of a Domestic Content Bill which would require firms operating in Ghana to use some minimum proportion of their inputs from domestic firms is not appropriate as a means of increasing technology spillovers. If anything, the bill could act as a deterrent without benefiting domestic firms much, as more than 50 percent of the respondents stated that such a bill would have a negative impact on their future investment in Ghana. This is not surprising as firms have stated that part of the

reason why they do not source from domestic firms is because of quality and reliability problems.

Based on these key results of the study, we are able to draw some policy implications, which would enable Ghana to attract more FDI and enhance the pro-development impact of foreign investment at the same time. We recommend the following ten options for all parties involved, that is, policy makers, development partners, and foreign direct investors:

- To attract more FDI, Ghana needs to speed up reforms in land administration and property registration. Currently, these impose additional costs on foreign firms. Above all, this is important for smaller firms who are unlikely to know important personalities to help them in securing their land and property.
- The role of GIPC as an investor one-stop-shop should be strengthened. For potential foreign investors, easily accessible information and one-stop facilities are key requirements in a competitive environment to attract more FDI. GIPC should also provide “after-care” services, such as a fast-track conflict resolution mechanism, for investors already operating in Ghana.
- It is important that GIPC works more closely with the labour unions in Ghana as well as the labour commission to make the labour market more business friendly. The labour market is an important determinant of FDI as most of these foreign firms are likely to be operating in the tradable sector. Within the context of current trends in the world economy, it is important that firms harness competitive advantage from all areas of their operation. This is not to say that foreign firms should be allowed to exploit workers. However, it is important that the labour unions see themselves as partners of the GIPC in the drive to attract and sustain the right types of foreign investments to Ghana. In a similar vein, the labour commission must be seen and equipped to deal decisively with conflicts that may arise between the labour unions and firms.
- To maximise the pro-development effects, it would be useful to concentrate FDI promotion policies on attracting foreign investment in manufacturing and assembly, in the form of full-scale plants with innovated technologies, strong export focus and integration

into the foreign firm's (global) supply chain. This type of foreign investment is much more likely to ensure a pro-development impact of FDI in the host economy than sub-scale plants that are shielded from international competition and focus on local (or small regional) markets. The former type of FDI is much more likely to imply technology spillovers, strong linkages with local suppliers, and a better export performance.

- Within the manufacturing sector, it could be useful to focus on a few sectors for attracting FDI rather than trying to get FDI from a large number of heterogeneous industries. This approach could partly increase growth and employment effects through clusters, i.e., through positive externalities of a group of firms within the same industry. Possible sectors for this FDI promotion strategy could be, for example, agro-processing, food and beverages, light manufacturing, and tourism (both business and eco-tourism). In the first two sectors, Ghana could take advantage of its natural comparative advantage for a number of agricultural products and increase the total value added of the entire production process. Within the light manufacturing sector, enhanced MNE production of, e.g., wood products could offer sizable gains, as it would make use of both scale economies and MNE knowledge of foreign markets and consumer preferences. Indeed, whatever sectors the FDI strategy focuses on should be consistent with the current seven-year Development Plan being prepared by the National Development Planning Commission (NDPC 2006).
- Apart from manufacturing, other sectors that are particularly relevant for development could be sources of potential benefits with more foreign investment. These could be telecommunications (and other infrastructure) and finance. With respect to the latter, Ghana currently lacks a well-developed financial market. Additional (foreign) investment in this key sector could provide much needed capital for investment and at the same time increase competition in the banking sector, thereby ensuring better access to credit at lower costs. Needless to say, a good telecommunications infrastructure is an important determinant in attracting more foreign firms (from other sectors) and in promoting growth of existing foreign and domestic enterprises.
- To benefit more from the presence of international investors in Ghana through technological spillovers, the linkages between Ghanaian suppliers and MNEs need to be strengthened. Currently, Ghanaian industrial capabilities are inadequate with respect to offering (more of) the high-quality products MNEs would like to source domestically.

They also lack the capacity to benefit from technological spillovers. It could be useful to develop a national technology strategy that focuses on key sectors for development and involves all parties concerned with science and technology. The main advantage of such a programme is that it could raise the awareness of the value of technological knowledge by, for example, beginning with an analysis of current strengths and weaknesses, identifying priority sectors and setting up an action plan that both mobilises resources and enhances commitment by stake holders.

- Despite improvements in secondary school enrolment ratios and – in comparison to other sub-Saharan African countries – the prevalence of relatively high literacy rates, there is a shortage of adequately skilled workers. This applies in particular to technical and managerial skills. As a consequence, Ghanaian firms cannot take advantage of the spillovers as much as would be possible. The GIPC together with AGI, the Ghana Employers' Association, the National Chamber of Commerce and Industry, the Ministry of Manpower, Youth and Employment, and the Ministry of Education should increase their collaboration with the key actors in the education sector to make education more functional and meet the needs of firms. Foreign firms continue to complain about the productivity levels of workers and also the shortfall in skilled work in Ghana. The starting point to solving this problem is to understand which types of foreign investors the country wishes to attract and the manpower needs of these investors. Armed with these, the educational sector should then begin to work to ensure that the country has the right cadre of workers to meet the demands of foreign firms.
- To increase the benefits from FDI, all important prerequisites for a positive FDI-growth nexus have to be met. While Ghana has already liberalised its external sector significantly and reformed business regulations, there is still – as mentioned above – ample of room for improvements in important policy areas, such as education. Importantly, much remains to be done to improve the financial sector in Ghana. This is one of the key sectors for both encouraging the growth effects of FDI and facilitate the overall development of the economy. In addition, government regulations for market entry could be further improved, in particular to enable Ghanaian entrepreneurs to take advantage of new business opportunities.

- There is the need for firms to actively engage with local entrepreneurs, in particular with SMEs, to better integrate them into their supply chain. Such an enhanced local sourcing strategy would have two important results. First, it will in the long term reduce the costs associated with buying good quality goods from outside the country or low quality goods from domestic firms. Secondly, it helps reduce risks such as disruptions from social upheavals (particularly with the mining firms) and also those related to land acquisition. Public Private Partnerships would provide a framework through which local suppliers could develop.

To conclude, Ghana has a great potential to attract more FDI and to use foreign investment to better promote development. With a wealth of natural resources, relative political stability and an excellent geographic position, ensuring access to markets in Europe and the sub-region, Ghana is a suitable place for foreign investors. However, policy makers should continue, and reinforce, the reform agenda.

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