Determinants of Foreign Direct Investment in Ghana

G. Kwaku Tsikata Yaw Asante E.M. Gyasi

Overseas Development Institute University of Ghana

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ODI Research Study



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University of Ghana and **Overseas Development Institute**

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Contents

Ał	obreviations and acronyms	vii
Fo	reword	ix
Ac	knowledgements	xi
	ostract	xiii
1	Introduction	1
	Background	1
	The role of FDI in the development process Objectives of the study	8 9
2	Theoretical and Empirical Foundations and Recent Evidence	10
	Theoretical foundations	10 14
	Selected empirical evidence Some country experiences in investment promotion in Africa	24
3	Investment Policies, Institutional Framework and Effects	28
	Investment incentives	28
	The mining sector and Foreign Direct Investment	34 40
	The free zones scheme and FDI flows Privatisation and FDI	40
4		
	Approach	45
	Variable specifications Regression results	45 50
5	Survey Outcomes and Implications	56
	Introduction	56
	Determinants of investment	58 70
	Obstacles and policy decision benchmark	70
	Start-up problems and post-investment issues Performance and confidence in the economy	72
	Investment trends and potentials	84
	Production cost effect	91
6	Conclusions and recommendations	95

References

Tables	
Table I. Matrix of empirical results	XV
Table 1. Selected economic indicators	6
Table 2. Issues in FDI	12
Table 3. Fiscal regime: The Pre-ERP and ERP policy matrix	36
Table 4. Investments in the mineral sector: post-ERP	38
Table 5. Gold output and revenue trends	39
Table 6. Divestiture profiles	42
Table 7. FDI regression results	54
Table 8. Estimated correlation matrix of variables	55
Table 9. Positive determinants of FDI	59
Table 10. Obstacles to FDI	66
Table 11. Uncertainties as major obstacle to FDI	71
Table 12. Operational difficulties	74
Table 13. Utilities as obstacle to FDI	76
Table 14. Capacity utilisation	80
Table 15. Performance status of enterprises	81
Table 16. Perception on Ghana	84
Table 17. Investment trends	85
Table 18. Regional categorisation of mining companies in Ghana	86
Table 19. Energy shock and capacity utilisation	91
Table 20. Energy shock and extra energy cost	92
Table 21. Energy shock and employment	92
Table 22. Energy shock and investment outcomes	93
Table A1. Origin, composition and government participation	102
Table A2. Most serious among uncertainties	103
Table A3. Outcomes on the Investment Code	104
Table A4. Extent of dependence on the Code	104
Table A5. FDI and technology transfer	105

127

Appendices

Appendix I. Statistical appendix	102
Appendix II. Questionnaire on domestic and foreign direct investme	nt 106
Appendix III. Questionnaire on the energy crisis and investment	124

vi

Abbreviations and acronyms

ADF	Augmented Dickey-Fuller
AGC	Ashanti Goldfields Company
APDF	Africa Project Development Facility
BOP	Balance of Payments
CDC	Commonwealth Development Corporation
CEPS	Customs Excise and Preventive Service
DF	Dickey-Fuller
DIC	Divestiture Implementation Committee
ECA	Economic Commission for Africa
ECG	Electricity Company of Ghana
ED	Economic Development Institute
EPZs	Export Processing Zones
ERP	Economic Recovery Programme
FDI	Foreign Direct Investment
FIAS	Foreign Investment Advisory Service
FINSAP	Financial Sector Adjustment Programme
GDP	Gross Domestic Product
GFZB	Ghana Free Zones Board
GIPC	Ghana Investment Promotion Centre
ICOR	Incremental Capital Output Ratio
ICSID	International Court for the Settlement of Industrial
IFC	International Finance Corporation
IPPA	Investment Promotion and Protection Agreements
MIGA	Multilateral Investment Guarantee Agency
NICs	Newly Industrialising Countries
NLC	National Liberation Council
NRC	National Redemption Council
OLS	Ordinary Least Squares
PNDC	Provisional National Defence Council

viii

R&D	Research and Development
SAP	Structural Adjustment Programme
SMC	Supreme Military Council
SOEs	State-owned Enterprises
TNCs	Transnational Corporations
TUC	Trades Union Congress
UNCTAD	United Nations Conference on Trade and Development
UNCTC	United Nations Centre on Transnational Corporations
VALCO	Volta Aluminium Company
VAT	Value-Added Tax
VRA	Volta River Authority

Foreword

Since the early-1980s, under successive administrations headed by President Rawlings, economic policies have been pursued which contrast rather strongly with the 'controlled economy' approaches of most earlier governments in Ghana's post-independence history. Greater weight has been placed on the maintenance of macroeconomic stability, albeit with only limited success, and a more positive view has been taken of markets and private enterprise. It was both intended and expected that, as it became recognised that this policy shift would be persevered with, private entrepreneurs – Ghanaian and foreign – would respond by lifting investment from the extremely low levels to which it fell in the nadir years of the 1970s. However, as this study shows, with the important exception of major new investments in gold mining, these expectations were largely disappointed and confidence has been slow to return.

While raising the levels of *domestic* saving and investment remains crucial to the sustained growth of Ghana's economy, policies which successfully attract foreign investors also have a potentially important contribution to make. But successful policies must rest on an accurate appreciation of the motivations for foreign direct investment and of the factors likely to weigh most heavily in investors' expectations of future profitability. The purpose of this study is precisely to throw light on such factors. Blending econometric, survey and qualitative methods, the authors highlight as obstacles continuing uncertainties about the future of the economy, exchange rate instability, high inflation and interest rates, red tape at the ports, and unreliable power and water supplies.

This volume is the latest output of a programme of collaborative research funded by Britain's Department for International Development, undertaken by members of the Department of Economics of the University of Ghana, and administered by ODI. The first two products of this programme were published in 1992:

Small Enterprises and Adjustment: The Impact of Ghana's Economic Recovery Programme by Nii K. Sowa, A. Baah-Nuakoh, K.A. Tutu and B. Osei.

Diversifying Exports: The Supply Responses of Non-Traditional Exports to Ghana's Economic Recovery Programme by C.D. Jebuni, Abena Oduro, Yaw Asante and G.K. Tsikata.

There was then a follow-up to the second of the above titles, published in 1996:

Exporting Manufactures from Ghana: Is Adjustment Enough? by Amoah Baah-Nuakoh, Charles D. Jebuni, Abena D. Oduro and Yaw Asante.

There is also a companion volume to the present study, which focuses on how commercial banks have responded to banking reforms:

Financial Sector Reforms and Bank Performance in Ghana by T.O Antwi-Asare and E.K.Y Addison.

Ghana's banks have performed poorly in the past, but reform measures were introduced from the late 1980's. Based on original research, the authors of the companion volume conclude that measures such as the liberalisation of interest rates and credit allocations have enhanced financial development. A wider range of financial services is now available and there is greater competition between banks. However, they may make clear that there remain weaknesses. State-owned banks remain particularly inefficient, the banking sector is still oligopolistic and loan recovery remains a problem.

All the above titles may be ordered from ODI.

My own association with the University of Ghana's Economics Department goes back to 1961, when I joined it as the most junior of Assistant Lectures. It has been a source of particular pleasure to be associated with this programme of research and this way to be able to renew my links.

> Tony Killick Overseas Development Institute, London January 2000

Acknowledgements

The following three researchers undertook this study: Mr G. Kwaku Tsikata (Co-ordinator) and Dr Yaw Asante, both of the Department of Economics, University of Ghana, and Mr Emmanuel M. Gyasi of the Ghana Investment Promotion Centre, Accra.

Undertaking economic research on a subject like foreign direct investment (FDI), where the theoretical underpinnings cannot be said to be wellestablished, can pose formidable problems. Even Dunning's 'eclectic' approach still carries some question marks. Indeed, a theoretical enquiry might at first glance, question the compelling need for such research and the validity of its results. Furthermore, where political economy constitutes a large component of the issues under investigation, caution, experience, *diplomatic candour* and patience are necessary conditions for attaining insightful and rewarding outcomes. Adequate funding and intellectual support are major prerequisites. It is against this backdrop that we acknowledge the contributions from the undermentioned institutions and personalities.

The Department for International Development DFID, formerly the Overseas Development Administration, ODA of Britain, through the Overseas Development Institute (ODI), generously provided funding for the study. As one of the two research groups in Phase III of the DFID's assistance to the research effort of the Department of Economics at Legon, we are profoundly grateful. It is hoped that this vital link will be sustained for a long time.

Special mention must be made of Professor Tony Killick whose involvement in the economic development of Ghana and the research he achieved on it, dates back more than three decades. Firstly, the liaison he achieved between the Department of Economics and DFID made the funding possible. Secondly, the research team benefited immensely from his vast knowledge and research experience in economic development in sub-Saharan Africa in general and in EDI in particular. He provided valuable supporting literature as well as insightful suggestions on the draft report, thus enhancing the quality of the final product. Without doubt, the 'old Prof' has again demonstrated his *affaire de coeur* with Ghana. We are also grateful to other members of ODI who administratively co-operated with us during the study period, especially Ms Margaret Cornell whose excellent expertise in editing was positively brought to bear on the final report for production.

All the field/research assistants must be commended for their excellent work. Mr Bernardin Senadza, in particular, provided very dependable service during and after the survey phases. He closely monitored the questionnaire in the field to ensure accuracy in the responses. He also provided valuable help in searching the literature, secondary data collection, verification and computation as well as proof-reading the draft. Messrs Albert Klevor and Erasmus Achianor provided reliable computer services whilst Ms Grace Annan and Mr Mohammed Osmanu helped with the secretarial services at various stages.

We also appreciate the co-operation of all the enterprises surveyed via the questionnaire and direct interviews. The enthusiasm and the objective comments from both public and private sector stakeholders at the Workshop demonstrated the relevance of the study and the need for revisiting some of the strategies and existing policies for promoting foreign direct investment in Ghana.

Finally, the old adage 'Cui multum datum' (To whom much is given, much is expected) may reflect the motivation and ultimate objective of the research effort. We hope this virtually pioneering attempt at a comprehensive empirical investigation will prove a modest contribution to the policy framework and empirical knowledge and/or debate on FDI in Ghana. The traditional caveat on errors of research is applicable.

Abstract

In recent years, especially since 1994, the Government of Ghana has been making strenuous efforts through institutional and legal frameworks, fora and, above all, promotion campaigns to encourage overseas foreign direct investment(FDI). The President himself has led several delegations in order to 'demonstrate the premium' his government places on FDI. Various measures are also being taken to cast the country as possessing an FDIfriendly environment. It appears the government has now completely abandoned its concept of radical socialism and has accepted FDI as a component part of the engine of growth.

This study is a direct response to the aforesaid government interest and effort in stimulating FDI flows. Its principal objective is to investigate the factors which determine the flow of FDI to Ghana and to provide recommendations which will facilitate policy formulation and implementation. Three research methodologies were used in the study, namely, econometric time series, a questionnaire survey and direct nonquestionnaire interviews to ensure the authenticity of responses to the questionnaire.

Although it cannot be said that giant strides have been made in wooing foreign investors to Ghana, the mining sector at least has emerged from a prolonged slump and virtual decay to become the largest beneficiary of FDI flows. It has, in turn, become the economy's largest foreign-exchange earner. Records at the Ghana Investment Promotion Centre indicate a positive trend of inflows in the non-mining sectors, albeit less rapidly. To augment government efforts at promoting FDI, Export Processing Zones (EPZs) are being established in the country under the 1995 Free Zone Act.

In all probability, the incentive structure has been highly instrumental in re-shaping the economy into a relatively FDI-friendly environment. The ongoing democratic experiment seems to provide reassurance to investors, in terms of property and human rights guarantees in their operations. Most importantly, investors deem the investment climate the overriding factor in their decision-making.

In terms of obstacles, uncertainties in the economy, exchange-rate instability, exorbitant interest rates, bureaucratic red tape at the ports, inadequate supply of utilities, especially electricity and water, and the gradual emergence of market pollution in terms of shoddy goods repackaged under reputable company brands are among factors inhibiting FDI inflows. While political instability appears not to be crucial to the foreign investor, the experience of the domestic investors makes them concerned about the need for stability.

In general terms, FDI-based companies seem to be quite confident about the economy and, by means of an implicit method used in the study, it could be said that investors have found Ghana a profitable place to invest.

For the benefit of the time-constrained policy-maker, a matrix presentation on the findings of the study is provided below. It must be admitted from the outset that the survey-cum-interview results are more robust and, therefore, more dependable for contemporary policy-making purposes than those derived from the econometric approach.

xiv

Variable/factor	Econometric	Survey	Comment
Market potential	Statistically insignificant	The market ranks third in FDI sample and first in domestic sample amongst other determinants listed	The survey suggests that the market has limited influence on FDI decisions, partly due to the mining-intensity of FDI inflows (gold exports).
Trade Regime (REGIM)	Statistically significant		Controlled regime has been detrimental to FDI flows
Democratic Governance (DEMOCRA)	Statistically significant		Democracy is crucial to FDI flows
Political Instability (POLINS)	Statistically insignificant	Political stability ranks fourth in FDI sample amongst other determinants listed	The survey outcome suggests that political stability has little influence on FDI. However, domestic investors stressed the need for stability in the interview approach.
Investment Climate (LAGFDI)	Statistically significant	73% of FDI firms perceived the investment climate as favourable	The survey results indicate that investment promotion strategy is generating positive results.
Government Activity (PUB,DEFGD P,TAXGDP)	Statistically insignificant	Infrastructure ranks last amongst a list of factors inhibiting investment in both FDI and Domestic samples	The survey suggests that infrastructure has limited inhibiting effect on FDI.
Export Orientation	Statistically significant		Export orientation significantly impacted on FDI because of the dominance of minerals in exports

Variable/factor	Econometric	Survey	Comment
Interest rates (LRATE)	Statistically insignificant	High interest rates rank second in a list of factors inhibiting investment in both FDI and Domestic samples	The survey results indicate high interest rates as having a retarding effect on FDI decisions
Exchange rate variability (CVRER)	Statistically insignificant	Exchange rate uncertainty ranks first in both FDI and Domestic samples as the most scrious amongst a list of uncertainties	Uncertainty about the exchange rate is an important factor inhibiting FDI flows. Statistical insignificance may be due to time series in which prior to ERP?SAP the exchange rate was stable.
Investment incentives		Investment incentives emerged first in the FDI sample and fourth in the Domestic sample amongst a list of determinants of investment.	The survey suggests that incentives exert the most important influence on FDI flows.
Raw materials		Raw material availability ranks second in FDI sample but first in Domestic sample amongst a list of determinants of investment.	The significance of raw material availability on FDI investment flows is because of the mining sector which is ore-dependent.
Uncertainty about the Economy		Ranks first in FDI sample and third in domestic sample amongst list of obstacles to investment	Uncertainty about the economy emerges as the most crucial obstacle to FDI flows.
Cheap labour		Ranks fifth in both FDI and Domestic samples amongst a list of determinants of investment	Cheap labour seems not to be a major consideration in FDI investment flows.
Lack of demand		It is joint-third with high taxes and the problem of getting credit as an obstacle to FDI flows and second in Domestic sample.	Lack of demand is not an important obstacle to FDI flows.

1 Introduction

Background

On the eve of independence in 1957, Ghana was regarded by Third World observers as a model new nation with considerable potential for growth and development, indeed, one of the jewels in the crown of British colonialism It had a buoyant economy based on cocoa, forestry products and minerals in particular gold. The British Government 'bequeathed' it more than £240 million as a result of its sound foreign reserve position, plus a quite advanced and dependable civil service, an educational system geared towards enhancing the administration of the country, and basic infrastructura facilities, including hospitals and access roads/railway lines linking the major towns in the hinterland to Accra(the capital) and the Port of Takoradi, which served as an exit point for the country's cocoa and mineral exports. By colonial African standards, therefore, Ghana's economy was poised for rapid growth through both domestic and external resources, especially foreign investment. The precedent already existed in the mining sector and in commerce and banking for enhancing the country's standing as a useful destination for foreign direct investment, hereafter referred to as FDI.

After independence, major public investments were made in education (a number of Trust Secondary Schools and a third university at Cape Coast as well as the expansion of two existing ones), and in port facilities at Tema, including the Tema motorway linking Tema with Accra. The outstanding public investment, partly aimed at opening up the country for foreign investment, was the construction of the Akosombo Hydro electric Dam.

The Nkrumah government's position on FDI and economic development appeared to be somewhat controversial. Whilst FDI was regarded developmentally as an important component of the 'engine of growth', Nkrumah's Marxist-Leninist political stance identified the foreign investor as a primary agent of neocolonialism and Western capitalist exploitation. It therefore became difficult to attract as much investment from the West as Nkrumah envisaged. A major breakthrough came, however, with the agreement with the American aluminium consortium Kaiser-Reynolds, over the establishment of an aluminium smelter, Volta Aluminium Company (VALCO), at Tema to exploit the power facilities being generated from the Akosombo Dam.

The over-generous terms of the initial agreement are a classic example of the compromises a young and an over-zealous socialist country in search of rapid growth and development and in an unequal bargaining position is obliged to make in order to entice foreign investors. Very low tariffs or electricity and water supplies and a ten-year tax holiday were among the soft terms granted to VALCO. In return, Ghana looked forward to a link between the smelter and the exploitation of the country's vast bauxite reserves to feed it. This expectation has yet to materialise.

Following the VALCO success, there were only trickles of FDI into mining. manufacturing, forestry and services sectors. The reasons for this small inflow include, inter alia the less than conducive investment climate which began with the overthrow of the democratically elected government of Dr Abrefa Busia by the then Colonel Acheampong. The irresponsible 'Yentua' (We shall not pay) declaration which sought to repudiate the country's external debts with private investors as well as bilateral and multilateral agencies cast a dark shadow over Ghana; the country had made itself a pariah in terms of FDI. Furthermore, the resurgence of socialist-based programmes and the dubious nationalisations of foreign capital drove ar additional wedge between the Ghanaian economy and theWestern sources which traditionally provided the bulk of FDI flows. The spate of attempted coups d'état and the pervasive corruption, rendered the country a virtua 'banana republic' during the period before the successful insurrection by Flight-Lieut Jerry Rawlings in 1979 and its sequel (Rawlings II) in 1981. Probably most importantly, the negative economic growth rates during the period prior to the Economic Recovery Programme (ERP) portrayed the economy as holding no promise for foreign investors. In sum, many of the key determinants of FDI flows were lacking.

The launching of the ERP in 1983 sought to arrest the general decline. From 1984 onwards, there was a turn-around in the economy, with growth averaging 5% per annum up to 1991. Indeed, by the mid-1980s the economy could be described as having been stabilised. The threats to political stability were also brought under control. An Investment Code was promulgated in 1985, aimed at establishing an enabling environment, especially for foreign direct investment. The new policy framework, together with a reasonable degree of political stability, led to a renewal of FDI flows, especially in the mining sector, by the late 1980s. The Structural Adjustment Programme (SAP) loans to the sector, with Ashanti Goldfields Company(AGC) the principal beneficiary, also went a long way towards giving a new lease of life to the gold industry and opened up opportunities for the government to enter into joint ventures with foreign investors. FDI flows into the non-mining sectors were sluggish, however. Evidence shows that government policy initiatives under the ERP/SAP, especially the revision of the Investment Code, were partly responsible for the increased FDI flows in the mining sector (Tsikata,1995b). Gold has now taken the place of cocoa as the country's largest foreign-exchange earner.

By 1992, the pace of economic growth began to slacken, exacerbated by a huge budgetary deficit undertaken to finance the electoral process of tha year. The deceleration has also been variously interpreted as partly emanating from structural adjustment fatigue.

In a bid to restore the trend, remedial policies were initiated to create ar enabling environment for medium- and long-term growth. More specifically in its *Ghana: Vision 2020* (The First Step: 1996–2000) the government identified its goal of formulating and implementing policies which would enable the attainment of a 'middle -income country status and standard o living' by 2020. In part, this will entail a long-term average GDP growth rate of over 8% per annum and thereby increasing average real incomes fourfold. At the sectoral level, agriculture's share of GDP was projected to fall to below 20%, whilst that of industry was to rise to 37% by 2020.

In partial fulfilment of this 'Vision' the government has embarked on a vigorous programme to promote the flow of FDI. Various delegations, headed either by President Rawlings himself or his top aides and cabinet members, have toured Europe, North America and South and East Asia to whip up investor confidence and interest in the opportunities available ir Ghana. The present is therefore an opportune time to investigate the major influences bearing upon FDI, in the hope of providing policy guidance to the government.

The urgency of the government's FDI agenda led to a re-assessment of the 1985 Code, culminating in the 1994 Investment Act which set up the Ghana Investment Promotion Centre (GIPC) as an aggressive promotion body. So far, the Centre has recorded modest success. Up to 1998, it had registered 735 companies, 506 are them joint ventures, involving total investment outlays of US\$989 million, and 229 wholly foreign-owned projects. The investments are expected to generate a total employment of around 43,000 (GIPC,1998).

Trends in FDI

The historical trends in FDI flows shown in Table 1 indicate the following three phases since 1983:

• 1983-8 was a period of sluggish inflows, averaging \$4 million per annum, the highest and lowest inflows during the period being \$5.6 million in 1985 and \$2 million in 1984 respectively.

4 Determinants of Foreign Direct Investment in Ghana

- 1989–92 recorded moderate inflows averaging \$18 million per annum, the highest and lowest being \$22.5 million in 1992 and \$14.8 million in 1990 respectively.
- 1993–1996 it was a period of significant, but oscillatory, inflows which peaked in 1994 at \$233 million, fell by more than 50% (\$107) million in 1995, and rose again to \$120 million in 1996. The period average was slightly above \$146 million. There were indications (Ghana Investment Promotion Centre and the Minerals Commission, March, 1998)that the upward trend might continue.

Thereafter FDI increased substantially, reaching a peak of \$233 million in 1994 but falling back to less than half the amount (\$106.5m) the following year but still remaining considerably more than in previous years.

An equally important feature is the three-way nexus of economic growth, investment and political stability which has emerged since the coup d'état of 1972.

In that year, a negative growth rate of 2.5% was recorded, accompanied by a more than 60% drop in the inflow of FDI (from \$30.6 million in 1971 to \$11.5 million in 1972). In 1979 when Rawlings first seized power and adopted a radical and anti-business stance, growth fell to as low as -3.2%; there was also an outflow of \$2.8 million of FDI. The state of the economy worsened further in the year of his second advent, namely, from a negative growth rate of 3.5% in 1981 to 6.9% in 1982; however, inflow of FDI remained constant at \$16.3 million. The relationship emerged again when a parliamentary democracy replaced the military junta in 1992. The rate of growth of 5.3% in 1991 fell to 3.9% in 1992; this has been variously attributed to deficit financing undertaken to finance the democratic process. The FDI flow, however, increased from \$20 million in 1991 to \$22.5 million in 1992.

In developing countries as a whole, FDI grew very little during the 1980s, yet it is now the largest source of external financing after official aid. Commercial bank lending to developing countries peaked in the early 1980s, but, as a result of the debt problems it created, its role has declined dramatically. In the African context, even though FDI flows have not been very encouraging, especially in sectors other than natural resources, the United Nations Conference on Trade and Development expects the situation to improve, due to the fact that 'Growth, economic reform, and improvements in the regulatory frameworks of many countries on the continent are being increasingly recognised by both domestic and foreign investors'.

1 Introduction

Background

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Following the VALCO success, there were only trickles of FDI into mining. manufacturing, forestry and services sectors. The reasons for this small inflow include, inter alia the less than conducive investment climate which began with the overthrow of the democratically elected government of D1 Abrefa Busia by the then Colonel Acheampong. The irresponsible 'Yentua' (We shall not pay) declaration which sought to repudiate the country's external debts with private investors as well as bilateral and multilateral agencies cast a dark shadow over Ghana; the country had made itself a pariah in terms of FDI. Furthermore, the resurgence of socialist-based programmes and the dubious nationalisations of foreign capital drove ar additional wedge between the Ghanaian economy and the Western sources which traditionally provided the bulk of FDI flows. The spate of attempted coups d'état and the pervasive corruption, rendered the country a virtua 'banana republic' during the period before the successful insurrection by Flight-Lieut Jerry Rawlings in 1979 and its sequel (Rawlings II) in 1981. Probably most importantly, the negative economic growth rates during the period prior to the Economic Recovery Programme (ERP) portrayed the economy as holding no promise for foreign investors. In sum, many of the key determinants of FDI flows were lacking.

The launching of the ERP in 1983 sought to arrest the general decline. From 1984 onwards, there was a turn-around in the economy, with growth averaging 5% per annum up to 1991. Indeed, by the mid-1980s the economy could be described as having been stabilised. The threats to political stability were also brought under control. An Investment Code was promulgated in 1985, aimed at establishing an enabling environment, especially for foreign direct investment. The new policy framework, together with a reasonable degree of political stability, led to a renewal of FDI flows, especially in the mining sector, by the late 1980s. The Structural Adjustment Programme (SAP) loans to the sector, with Ashanti Goldfields Company(AGC) the principal beneficiary, also went a long way towards giving a new lease of life to the gold industry and opened up opportunities for the government to enter into joint ventures with foreign investors. FDI flows into the non-mining sectors were sluggish, however. Evidence shows that government policy initiatives under the ERP/SAP, especially the revision of the Investment Code, were partly responsible for the increased FDI flows in the mining sector (Tsikata,1995b). Gold has now taken the place of cocoa as the country's

largest foreign-exchange earner.

By 1992, the pace of economic growth began to slacken, exacerbated by a huge budgetary deficit undertaken to finance the electoral process of tha year. The deceleration has also been variously interpreted as partly emanating from structural adjustment fatigue.

In a bid to restore the trend, remedial policies were initiated to create ar enabling environment for medium- and long-term growth. More specifically, in its *Ghana: Vision 2020* (The First Step: 1996–2000) the government identified its goal of formulating and implementing policies which would enable the attainment of a 'middle -income country status and standard o living' by 2020. In part, this will entail a long-term average GDP growth rate of over 8% per annum and thereby increasing average real incomes fourfold. At the sectoral level, agriculture's share of GDP was projected to fall to below 20%, whilst that of industry was to rise to 37% by 2020.

In partial fulfilment of this 'Vision' the government has embarked on a vigorous programme to promote the flow of FDI. Various delegations, headed either by President Rawlings himself or his top aides and cabinet members, have toured Europe, North America and South and East Asia to whip up investor confidence and interest in the opportunities available ir Ghana. The present is therefore an opportune time to investigate the major influences bearing upon FDI, in the hope of providing policy guidance to the government.

The urgency of the government's FDI agenda led to a re-assessment of the 1985 Code, culminating in the 1994 Investment Act which set up the Ghana Investment Promotion Centre (GIPC) as an aggressive promotion body. So far, the Centre has recorded modest success. Up to 1998, it had registered 735 companies, 506 are them joint ventures, involving total investment outlays of US\$989 million, and 229 wholly foreign-owned projects. The investments are expected to generate a total employment of around 43,000 (GIPC,1998).

Trends in FDI

The historical trends in FDI flows shown in Table 1 indicate the following three phases since 1983:

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4 Determinants of Foreign Direct Investment in Ghana

- 1989–92 recorded moderate inflows averaging \$18 million per annum, the highest and lowest being \$22.5 million in 1992 and \$14.8 million in 1990 respectively.
- 1993-1996 it was a period of significant, but oscillatory, inflows which peaked in 1994 at \$233 million, fell by more than 50% (\$107) million in 1995, and rose again to \$120 million in 1996. The period average was slightly above \$146 million. There were indications (Ghana Investment Promotion Centre and the Minerals Commission, March, 1998)that the upward trend might continue.

Thereafter FDI increased substantially, reaching a peak of \$233 million in 1994 but falling back to less than half the amount (\$106.5m) the following year but still remaining considerably more than in previous years.

An equally important feature is the three-way nexus of economic growth, investment and political stability which has emerged since the coup d'état of 1972.

In that year, a negative growth rate of 2.5% was recorded, accompanied by a more than 60% drop in the inflow of FDI (from \$30.6 million in 1971 to \$11.5 million in 1972). In 1979 when Rawlings first seized power and adopted a radical and anti-business stance, growth fell to as low as -3.2%; there was also an outflow of \$2.8 million of FDI. The state of the economy worsened further in the year of his second advent, namely, from a negative growth rate of 3.5% in 1981 to 6.9% in 1982; however, inflow of FDI remained constant at \$16.3 million. The relationship emerged again when a parliamentary democracy replaced the military junta in 1992. The rate of growth of 5.3% in 1991 fell to 3.9% in 1992; this has been variously attributed to deficit financing undertaken to finance the democratic process. The FDI flow, however, increased from \$20 million in 1991 to \$22.5 million in 1992.

In developing countries as a whole, FDI grew very little during the 1980s, yet it is now the largest source of external financing after official aid. Commercial bank lending to developing countries peaked in the early 1980s, but, as a result of the debt problems it created, its role has declined dramatically. In the African context, even though FDI flows have not been very encouraging, especially in sectors other than natural resources, the United Nations Conference on Trade and Development expects the situation to improve, due to the fact that 'Growth, economic reform, and improvements in the regulatory frameworks of many countries on the continent are being increasingly recognised by both domestic and foreign investors'.

(UNCTAD, 1998). The foregoing press release was based on the main UNCTAD World Investment Report (1998). The report was not accessible at the time of finalisation of this study.

In the light of the above outline of the economy, it is clear that, a wellfounded strategy is essential if Ghana is to become a significant FDI destination. The keen global competition for FDI, especially from Eastern Europe, further reinforces the need for such a strategy, which, in turn, requires careful research into various aspects of FDI. Table 1 demonstrates the trends in some selected economic indicators which provide the rationak for an environmentally self-sustaining FDI strategy which can carry the country well into the next century.

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
A. General													
Economic Growth 2. Inflation(Ann. Avg) 3. Budget Balance(\$m) 4. Exports	6.8 3.0 -48.9	5.6 8.8 -85.8	-2.5 10.8 -121.2	15.3 17.1 -159.5	3.4 18.8 70.5	-12.9 29.8 -348.9	-3.5 55.4 -640.2	2.3 116.5 -918.9	8.5 73.1 -1077.7	-3.2 54.5 -654.5	0.0 50.2 -657.5	-3.5 110.5 -1711.6	-6.9 22.3 -1762.9
Coccoa Beans 1990=100 Coccoa Beans (\$m)	150.6 295.1	13 4.8 197.1	163.8 206.8	184.3 339.3	127.8 405.2	120.1 483.5	122.2 448.7	94.3 591.3	79.6 561.4	70.6 671.3	96.0 932.4	67.7 406.5	83.3 389.8
Minerals (\$m) 5. Imports (U\$\$m) Balance of Payments(\$m) 7. Exchange Rate 8. FDI (U\$\$m) 9. PUBINV as % GDP 10. PRINV as % GDP 11. FDI as % GDP	1.02 67.8 4.13 7.88 3.06	1.03 30.6 4.91 7.52 1.26	1.33 11.5 3.39 5.29 0.54	1.17 14.4 3.60 4.05 0.48	1.15 10.5 5.03 6.86 0.26	650.5 106.3 1.15 70.9 5.21 6.41 1.54	690.3 -137.3 1.15 -18.3 4.49 5.32 5.32 -0.32	860.2 -8.4 1.15 19.2 4.62 4.62 0.20	780.3 62.4 1.76 9.7 3.14 3.31	803.1 69.8 2.75 -2.8 1.20 4.74 -0.03	228.8 908.3 -1.3 2.75 15.6 1.86 4.24 0.10	186.0 954.3 -228.3 2.75 16.3 3.03 3.03 0.06	136.6 588.7 -17.9 2.75 16.3 0.91 0.05
B. Mining													
a. Gold Output ('00002 Earrings (\$m)											342.9 202.4	338.0 167.0	337.7 126.6
o. Diamonds Output (Carrat) Earnings (\$m)											1150.0 12.8	836.5 7.4	683.5 3.2
c. Manganese Output (MT)h Earnings (\$m)											262.0 10.4	229.0 8.9	163.0 5.0
d. bauxite Output (MT)h Farnings (\$m)											225.0	180.0	64.0

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
A. General															
 Economic Growth Inflation(Ann. Avg) Budget Balance (US\$m) 	-4.6 122.8 -558.7	8.7 39.7 -134.6	8.6 11.1 -139.4	5.1 24.3 3.4	5.2 39.8 26.7	4.8 31.4 19.3	5.1 25.2 38.2	3.3 37.3 10.1	5.3 18.1 106.0	3.9 10.0 -330.4	5.0 25.0 -149.9	3.8 24.9 129.4	4.5 59.4 58.6	5.2 45.9 -204.9	5.1 29.9 -145.2
4. Exports Cocoa Beans 1990=100	64.9	56.8	62.4	79.9	81.2	82.5	101.0	100.0	90.6	83.4	95.7	88.7	94.2	134.3	
Cocoa Beans (\$m) Minerals (\$m) 5. Imports (US\$m)	/18.3 121.7 499.7	533.0 533.0	557.0 107.8 668.7	470.9 124.4 735.1		464.5 187.8 993.4	414.8 185.9 1011.6	3/0.8 242.3 1205.0	351.8 351.8 1318.7	267.7 388.7 1456.5	247.6 473.6 1728.0	2/8.0 588.2 1579.9	580./ 678.9 1687.8	483.1 641.3 1937.0	612.9
6. Balance of Payments 7. Exchange Rate 8. FDI (US\$m)	-180.9 8.83 2.4	35.6 35.99 2.0		-60.8 89.20 4.3	140.1 153.73 4.7	181.1 202.35 5.0	156.6 270.00 15.0	(()	136.7 367.83 20.0	-122.8 437.09 22.5	53.3 649.06 125.0	172.1 956.71 233.0	256.5 1200.4 106.5	-20.4 1637.2 120.0	2050.2
9. PUBINV as % GDP 10. PRINV as % GDP 11. FDI as % GDP	0.81 2.95 0.01	1.61 5.24 0.03	2.21 7.32 0.09	2.24 7.05 0.08		3.71 7.14 0.10	4.94 8.53 0.29	4.73 7.46 0.24		9.09 4.65 0.35	11.27 4.63 2.21	12.73 3.17 4.50	11.16 2.77 1.72		
B. Mining															
a. Gold Output ('000oz)	285.3	282.3	299.6	287.1	329.0	373.9	429.5	541.4	845.9	998.2	1261.4	1430.8	1708.5	1586.1	758.0
Earnings (\$m) b. Diamonds	114.1	103.3	90.6	106.4	142.5	168.5	159.9	201.6	304,4	343.4	434.0	548.6	647.3	612.4	579.2
Output ('000carat)	336.3	342.0	636.1	560.5	440.7	259.4	285.6	636.5	687.7	656.4	590.8	758.0	631.7	714.7	829.5
Earnings (\$m) c. Manganese	2.8	2.8	5.5	4.8	4.0	3.5	5.2	16.5	18.6	19.3	17.3	20.4	14.8	13.4	11.3
Output ('000MT)h Earnings (\$m)	175.2 3.1	268.0 8.3	357.3 9.0	263.0 8.2	242.4 7.8	285.0 8.9	274.0 11.7	246.9 14.2	311.8 20.2	276.0 16.5	295.3 13.9	238.4 9.6	187.0 6.4	266.4 7.1	332.4 11.6
Li Dauxite Output ('000MT)h	82.3 4	4.2	124.5	226.5	201.5	300.0	374.6	368.7	324.3	399.2	364.6	451.8	530.4	383.4	536.7
Earnings (Sm)	1.7		2.7	5.0	5.2	6.9	9.1	10.0	8.6	9.5	8.4	9.6	10.4	8.4	10.8

Notes: tarnings = Gross (Sales) Revenue; Balance of Payments = Overall Balance; Budget Balance: (+) = Deficit & (+) = Surplus

The role of FDI in the development process

Foreign direct investment can be understood as a package of resources that complements other financial flows and makes a distinctive contribution to the development process. As Helleiner (1988, p.123) rightly asserts,'among the most consistent instruments suggested for achieving the twin objectives of more stable development finance and structural adjustment in production is quite a traditional one: direct foreign investment'. FDI projects typically involve a transfer of technology and managerial skills from the source country to the recipient country. They can also provide greater access to world markets for recipient country exports. Because of their ties to parent corporations in the home country and affiliated corporations in other markets, FDI projects in developing countries can facilitate market penetration and market expansion in countries where they have corporate connections. In addition to these benefits these are the employment and income-generating effects of the investment and the immediate or long-term balance of payments implications. A more detailed analysis of derived benefits which can have a significant impact on a host country economy is provided later in this study.

Directness implies, inter alia, that the investor maintains overall control of the asset (Casson,1990). There are, of course, socio-economic costs which FDI projects impose and which must therefore, be weighed against the benefits. For instance, FDI can have adverse effects in a highly protected market, since its operations may lead to high-cost production. Admittedly, the same problem would arise in the case of domestic investors protected by high tariff barriers. There is therefore the need for governments to adopt policies that not only are conducive to the inflow of FDI but also minimises its negative effects in order to enhance its role in the development process. The foregoing underscores the need and motivation for undertaking the present study.

More specifically, the choice of this research agenda is premised on general governmental recognition of and interest in promoting private investment and profit as an *engine of growth*. The government's promotional efforts and in June 1996 the Economic Commission for Africa/World Bank conference on 'Reviving Private Investment in Africa', hosted by the Ghana Government, amply reinforce the need for a solid basis of information on FDI in Ghana.

9

The following specific objectives have been addressed in this study:

- (I) investigation of the determinants of FDI flows in Ghana;
- (ii) evaluation of existing government incentives directed towards FDI activities;
- (iii) examination of some of the empirical issues concerning FDI in selected African countries; and,
- (iv) based on the findings of the study, policy recommendations which could be expected to enhance the flow of FDI and thus accelerate the country's growth and development.

Coverage

The study mainly covers firms operating in the Greater-Accra, Western and Eastern Regions. Since the Greater-Accra Region alone receives not only over 70% of FDI flows but also most of the strategic investment activities, the sample is skewed in favour of that region.

Plan of the study

The following section looks at the major arguments for and against foreign direct investment. Chapter 2 examines the theoretical and empirical foundations of FDI and recent evidence from a number of selected countries in Africa. Ghana's investment policies and institutional framework and their effects are analysed in Chapter 3, whilst Chapter 4 covers the empirical specifications and econmetric estimations of the econometric approach. Chapter 5 deals with the field survey on FDI and its implications, and the final chapter contains the study's conclusions and policy recommendations.

Theoretical and Empirical Foundations and Recent Evidence

Theoretical foundations

The literature on FDI continues to generate a lot of controversy due to differences in geographical direction, ideological underpinnings and the microeconomic framework for analysis. A case in point is the argument of some analysts that FDI is theoretically a 'logical intersection' of the three distinct theories of (I) international capital markets; (ii) international trade; and (iii) the international firm (Casson, 1990). However, in recent times, emphasis has been placed on underpinnings (I) and (iii).

Three main theoretical issues tend to pervade the literature on FDI, namely:

- the reasons for the evolution of transnational Corporations (TNCs);
- the *raison d'être* for the location of TNC's production activities in foreign countries instead of, for example, exporting to them; and
- the factors which determine the choice of host countries.

Theoretical propositions by Hymer (1960), Vernon (1971), Dunning (1973,1981), Caves (1971), Lucas (1993), Helleiner (1988,89) and Casson (1990) who have been at the forefront are briefly examined below.

(I) Hymer (1960) was the pioneer in analysing the main advantages accruing to transnational corporations (TNCs). To him, a foreign direct investor is a monopolist, or an oligopolist in product markets. He invests in foreign enterprises in order to avoid competition and protect his market power. Hymer's approach helps to explain the pattern of 'defensive investment'. Major companies often seem to set up enterprises abroad that often appear marginally profitable, yet do so with the stated purpose of beating their main competitors. geographically more diffused nature of location and the fact that the product cycle has been substantially narrowed in certain cases.

- Dunning (1973,1981) was the first to provide an elaborate analysis on ownership, location, and locational factors and advantages of TNCs. He took an eclectic approach which has received much criticism but which has been viewed by others as, at least, providing a promising start towards a general theory of FDI (Agarwal, 1980).
- iv) Caves (1971) dealt mainly with the *raison d'être* for (a) horizontal integration, entailing intangible assets with low marginal costs of expansion; and (b) vertical integration involving the reduction of uncertainty and the building of entry barriers.
- (v) Lucas (1993) proposed a neoclassical-type derived-factor demand approach to FDI analysis. As in the case of demand for labour, this is derived from profit maximisation, subject to a number of constraints, including a neo-classical production function, increasing average cost of adjusting the capital stock and perfect competition. The approach has been subjected to various criticisms because it precludes some of the traditionally accepted FDI determinant paradigms.
- (vi) Helleiner (1988,1989) posits that, instead of the consideration for FDI (in manufacturing for exports) in terms of traditional international trade theory, it must be viewed in the context of global industrial organisation because the world's nations are being gradually relegated to global villages.
- (vii) Casson (1990) argued that a theory of FDI can be obtained by integrating the theory of international capital markets, the theory of the firm and international trade theory, suggesting that a pair-wise combination of the theories would provide a framework for easy analysis of the results. Additionally, the integration of the three theories would facilitate answers to issues listed in Table 2 below:

Table	2.	Issues	in	FDI	

Issue	Relevant Theory
Origins of finance Funding Risk-bearing Ownership risks Utilisation risks	Theory of international capital markets
Location of control Country of registration Location of headquarters Cultural affiliation Source of management	Theory of the firm
Location of production (includes the location of each individual asset)	Trade Theory
Destination of sales (taken as given in the market servicing decision)	

Source: Casson (1990).

It must be reiterated that, as of now, it is difficult to find a clear theoretical framework which can stand on its own as the theory of foreign direct investment. However, the industrial organisation approach seems to be the most pervasive in the literature. As Agarwal (1980:763) maintains, Dunning's 'eclectic' approach (1977, 1979), which considers FDI as dependent on ownership, internalisation and locational advantages, provides some ray of hope for an integrated theory on FDI.

Method of testing

Three basic approaches have generally been employed in empirical investigation into the determinants of FDI. These are (i) aggregate econometric, (ii) microeconomic (econometric), and (iii) qualitative approaches. We outline below the key issues involved in each approach.

(i) Aggregate economic analyses

Aggregate econometric analyses have been undertaken in a number of studies in an attempt to evaluate cross-country and country-specific determinants of the overall trends in FDI flows. By analysing data at the macroeconomic level, these studies provide insights into the type of structural characteristics and macroeconomic policies which encourage FDI flows.

Using a simple model of derived demand for foreign capital by a multiproduct monopolist, Lucas (1993) explored the sensitivity of FDI flows to production costs in seven Asian countries. His estimates showed that FDI inflows were less elastic with respect to capital costs than to wages. He also found that political conditions (reflected in dummy variables to capture specific periods) provided a significant explanation for variations in FDI flows. As to whether domestic and foreign sources of capital are complementary, the results are mixed, though, in the majority, of cases, complementarity prevails.

A study of FDI and manufacturing exports in Sri Lanka by Athukorala (1995) suggests that the overall investment climate is more important in attracting foreign investors than the mere availability of specific investment incentives, no matter how attractive these are, although political and ethnic problems had deleterious effects on the flow of FDI in Sri Lanka (Lall, 1993). The finding of Singh and Jun (1995) of a direct correlation between FDI and a conducive business climate corroborates those above. Furthermore, 'the need for an overall conducive investment climate that goes beyond market size and to include, law and order, secure property rights, enforceable contracts, a functional financial system, market-determined prices, including exchange and interest rates, etc.' has recently been re-emphasised by Pfefferman (p4,1996).

Although a number of other important aggregate econometric studies have been undertaken, consensus on the major determinants of FDI has been elusive. This is partly attributable to the lack of reliable data on FDI flows and the fact that much of the empirical work has been undertaken by pooling groups of imperfectly homogenous countries (Singh and Jun, 1995.). However, the empirical literature does suggest that the most crucial variables to examine include market size, exchange rate, wage costs, export orientation (found to be the most important variable in many studies on FDI), the level of past FDI, the level of domestic investment, fiscal factors (e.g. taxation – Jun, 1994), and political and macroeconomic instability. We explore below other crucial determinants which are relevant to this study.

Selected empirical evidence

Market factor

The domestic market appears as a determinant of FDI in many econometric studies. The market hypothesis maintains that 'once the market attains a size that permits local production to realize effectively economies of scale then. ceteris paribus, the level of foreign direct investment in the market is likely to be closely related to its size' (UNCTC, 1992:32). As correctly pointed out by Lizondo (1991:70), consideration of the market as a determinant of FDI is based on empirical postulation rather than derived from neo-classical investment theory. Two approaches have usually been adopted to investigate the influence of the market on FDI flows: i) market potential represented by real GDP growth, and ii) GDP or per capita GDP as a proxy for market size. Studies which found the market factor to have a have a positive influence on the decision of the foreign investor or transnational corporation to invest abroad include those of Ahroni, (1966:5); Bandera and White (1968:7); Dunning (1973:3); Root and Ahmed (1979); Petrochilas (1989); Wheeler and Mody (1992) and Schneider and Frey (1995). Helleiner (1988, 1989), for example, argues that the prospect of a large and protected market influences the foreign investor and the TNCs positively.

Trade regime

A balanced and stable trade regime creates avenues for effective planning and profitability and therefore encourages foreign investment (Helleiner, 1992:124). In contrast, a distorted trade regime discourages FDI. However, Singh and Jun (1995:6) found mixed results. They argue that protective tariff barriers encourage tariff-hopping, leading to FDI flows. A case in point has been US investment flows to the European Union. Lall (1993:113) maintains that the import-substitution policies pursued by some South Asian countries led to FDI flows into some of the protected areas.

Public investment

Within a Hirschmanian (1958) context of development strategy, social and economic (infrastructure) investments in the public sector will act as a 'permissive' force for directly productive investment. Lall (1993) observed

that infrastructural deficiencies, especially in the power, transportation and communications sectors, were major factors negatively affecting the inflow of FDI in South Asia. In contrast, the newly industrialising countries (NICs) which have accumulated the requisite substantial social overhead capital in the modern sector were more attractive to foreign investors and TNCs. This is in agreement with the 'crowding-in' literature which postulates private investment as being positively correlated with (certain types of) public investment, such as infrastructural services.

Tax regime and incentives

A country with a draconian tax regime will be less attractive to FDI than one with a moderate and less complex tax structure. As Jun (1989, 1994) maintains, taxes potentially affect the international location of capital by influencing its relative net profitability. High domestic taxes can compel an enterprise to seek alternative tax-friendly havens to maximise profits. In his study of some African countries, however, Agodo (1978) found that the role of taxation in influencing FDI was insignificant.

Lim (1983) investigated the relationship between FDI and what he called the 'generosity of fiscal incentives' in 27 developing countries and found a negatively significant relationship, implying that incentives discourage rather than attract foreign investment. According to the UNCTC, this kind of phenomenon reflects a country's 'pessimistic view of its location advantage', which might lead to the improvement of its incentive structure to enhance its ability to attract FDI. Other studies, for example Agarwal (1980), show that, in general, incentives (including tax credits and exemptions, grants, subsidised loans and free trade zones) have limited impact on the flow of FDI.

Historical record on FDI

Perceptions about the past performance of FDI-based firms may influence potential investors. It all boils down to the question: has country X been sufficiently FDI-friendly to past investors to warrant new investment? If it has, then potential investors will be influenced and vice versa. Lall (1995) found that a favourable second on FDI policy could have a positive impact on FDI flows in South Asian countries.

Strength of the currency

Aliber (1970, 1971) was one of the pioneers who examined the influence the strength of a country's currency had on FDI flows. The general proposition was that the stronger a country's currency the more likely it would be for firms from that country to undertake foreign investment, and the less likely it would be for foreign firms to invest in that country- a concept now known in FDI theory as the 'currency area hypothesis' (Lizondo, 1991). Caves's(1988) study of the United States seems to provide the clearest case. His main argument is that the impact of the exchange rate on FDI stems from two sources: (i) changes in the exchange rate resulting in changes in the level of attractiveness of FDI because of changes in a firm's real costs and revenues; and ii) the expectation of the reversal of a currency depreciation providing encouragement to investors to invest in order to take advantage of the capital gains which will accrue when the domestic currency appreciates. Foot and Stein (1989) also argued that a low real value of the domestic currency will encourage the inflow of FDI because of imperfections in information in the capital market which can result in external financing being more expensive than internal financing. According to Lizondo, the US data indicate that the real appreciation of the dollar leads to a decline in FDI inflows.

Export orientation

Export orientation (or openness of the economy) has generally been found to influence significantly FDI. Singh and Jun(1995) using exports as a control variable in their models of FDI determinants, found export orientation to be the single most important determinant in countries they described as 'high-FDI countries'. However, in low-FDI countries they found the relationship to be insignificant. At the industry level, Saunders (1982) found that the level of export orientation in Canada was positively related to FDI.

Political factors

In terms of the political economy of FDI, two main factors – political instability the nature of government (i.e. democratic institutions) – have been prominent. In fact, both factors are receiving rapidly growing attention in

empirical work on the determinants of economic growth in general.

Political instability has generally been regarded as having a negative impact on FDI flows. However, the empirical evidence has been mixed (Agarwal, 1980:760). Surveys conducted in the 1960s and 1970s found a negatively significant relationship between FDI and political instability (Basi, 1963,).In contrast, Reuber (1973) found that in, developing countries, political instability did not have a significant relationship with FDI. Empirical crosscountry studies by Ahmed(1975) and Levis (1979) found a negative correlation between FDI and political instability, whereas Kobrin (1978) could find no such relationship. Most recently, Schneider and Frey(1985) investigated 54 developing countries and established a robust relationship between the two variables. In the African case, Agodo (1978) found political instability to have a statistically significant influence on investments by 33 US firms operating in 20 African countries. As Singh and Jun(1995) rightly observed, 'The empirical evidence on the impact of political instability is not unequivocal. Political instability is a complex phenomenon. Most proxies that are available capture only some aspects of this determinant'.

On the nature of government, what they called 'government ideology', Schneider and Frey (1985) were unable to establish a significant relationship with FDI.

With respect to Ghana, there has not been much econometric analysis in recent times. However, empirical analysis undertaken in 1977 by Tsikata on determinants of FDI flows in Africa, in particular in Ghana and Nigeria, revealed that the market factor, political instability and the nature of government were statistically significant.

Other relevant factors

Using a dummy variable, Owen (1982) found a positively significant relationship between natural resource availability and FDI in the case of Canada. The Agodo (1978) study found that the availability of primary infrastructure is crucial in attracting FDI. Finally, Schneider and Frey (1985) established a negative relationship between balance of payments deficits and inflation, indicating that foreign investors will shy away from countries facing these two macroeconomic setbacks.

Evidence on Ghana

A more recent econometric investigation by Asante (1994) into the determinants of total private investment behaviour (domestic and foreign) in Ghana is also relevant. He used a time series simultaneous equation model and complemented it with a qualitative cross-sectional survey. The study found strong complementarity between public and private investment. The growth of real credit to the private sector also had a positive and statistically significant effect on private investment: credit has been and remains a problem for private investment. Macroeconomic instability was also identified as a major hindrance to private investment in both his time series analysis and his survey.

While the study by Asante is important in suggesting policies that will attract private investment, it does not address the specifics of FDI. Another significant difference between the present study and that of Asante is that the latter was based on survey work in the manufacturing sector, whereas this study embraces other sectors as well. For example, mining, the leading foreign-exchange earner and the sector which benefited most from FDI flows, has been prominently included.

(ii) Microeconomic (econometric) analyses

Microeconomic studies are conducted at the level of the firm or industry. Since the decision to invest is taken at corporate level, these disaggregated studies are useful for capturing the complexity of industry-specific determinants of FDI flows. Although firm-specific studies are in a better position to incorporate the micro decision-making process, they are difficult to generalise from in terms of the overall implications of the results. In the review below, we have made extensive use of the United Nations Centre on Transnational Corporations study – *The Determinants of Foreign Direct Investment: A Survey of the Evidence* – on the grounds that it was the most up-to-date reference material available to us at the time of writing.

Empirically, the determinants of the inflow of FDI at the microeconomic level have been pursued on a cross-industry basis (UNCTC,1992). In what the Centre calls '*inward foreign investment*', the dependent variable is generally measured as follows:

Foreign Firm Production

Inward Production Ratio =

Foreign Firm Production Plus Local Firm Production

Studies conducted have mainly addressed the investment activities of transnational corporations. We review below some of the key determinants in the empirical literature.

R&D intensity

In situations where the ownership of technology constitutes a key advantage of transnational corporations, FDI is usually considered to be important in the growth of the firm/industry. In this respect, R&D intensity has been found to have a positive relationship with FDI. Studies of Canada have, to a large extent, established a positive correlation between the share of foreign investment in Canadian industry and foreign firm/industry R&D intensity (Caves, 1974; Caves, et al., 1979; Saunders, 1982; Owen, 1982; Gupta, 1983. Similarly, Buckley and Dunning, 1976, found R&D intensity to be positively and significantly related to US FDI flows to the United Kingdom.

In contrast, Kumar,(1987), found a significant but negative correlation between the shares of FDI-based activities and R&D expenditure in net industry sales. Desai's earlier work, 1980, offered as a reason the fact that the R&D activities of Indian firms comprised minor adaptations of imported technology to render it more suitable for the local market. Lall and Mohammed (1983), however, in their study of 28 FDI-based manufacturing industries, found an insignificant relationship between the foreign share of activity and locally measured R&D intensity.

Skill intensity

Various studies have established that where the ownership of skills confers advantage, FDI flows will be greater in industries which abound in those skills (UNCTC, 1992).

Cross-industry studies which have firmly established this positive relationship include that of Caves and his colleagues on Canada which found FDI statistically significant and positively related to 'professional and technical employees as a percentage of total employees' (1980). Similarly, Buckley and Dunning (1976) found the proportion of skilled workers to all workers significantly positively related to FDI. Lall and Mohammed (1983), using a slightly different measure of skill intensity – the share of highearning employees in total wages and salaries – also found a significantly positive relationship with FDI in India.

Firm size

Empirical results on the relationship between the size of a firm and the flow of FDI have generally been inconclusive. For example, Owen (1982) found firm size to be positively related to FDI in Canada when the total assets of firms were used to measure size. In contrast, when the extent of Canadian control of the firm was used, the result turned out to be negative. This has been partly explained as implying that Canadian control of the firm posed a 'deterrent' to FDI flows. Lall and Mohammmed (1983), however, seem to have arrived at a more conclusive result in their study. Fixed assets per firm, based on Indian data, were found to have a highly significant positive relationship with FDI.

Production costs (wages)

Production costs in terms of wages have been one of the key determinants of FDI and have consequently received quite substantial attention in the literature. Owen (1982) and Gupta (1983) have shown that wages do not significantly influence the flow of FDI into Canadian industry. However, Caves (1974) found the relationship almost significant, indicating that lower costs enhance the promotion of FDI.

Results from studies on developing countries have been inconclusive. For example, Agodo (1978) studied 33 US companies operating in 20 African countries and found that the low cost of African labour had no significant effect on FDI flows. In a cross-country study of 54 developing countries, however, Schneider and Frey (1985) found a significantly negative relationship between labour costs and FDI flows.

Protection (infant industry argument)

The hypothesis that protection for infant firms will promote industrial

growth, including the inflow of FDI, has not received firm empirical support in studies of developing countries. For example, Agodo (1978) found no significant relationship between FDI and protection in Africa. In Kumar's study on India, however, the relationship was almost significant.

Survey-based outcomes

Studies based on survey data (via questionnaires and/or interviews) that analyse the key motivations of investors are ideally suited for studying qualitative factors which may be difficult to incorporate into an econometric model. The literature shows that earlier studies based on surveys contributed to formalising some of the concepts on FDI.

The general disadvantage of these studies, however, is the inherent limitation of survey data analysis, in particular the sensitivity of the subjective responses to questionnaires. As the UNCTC (1992) study noted, 'many of the studies report the *ex post* determinants of *particular* foreigndirect-investment decisions'. A more relevant analytical framework for understanding FDI flows may, however, entail consideration of factors 'perceived as *generally* most relevant by firms *ex ante*'. Consequently, there usually exist discrepancies between 'the *reported* influences on the decisionmaking' and 'the *underlying* influences that the investor normally seeks to take into account'. There is therefore need for caution in the interpretation of survey outcomes.

Drawing on the UNCTC study, we summarise below the key survey findings on the determinants of FDI. The shortcoming of the analysis is that, to a large extent, the survey studies examined are concerned with developed country cases.

Ownership advantages

Traditionally, locational factors were emphasised as key determinants of FDI. However, in recent years, ownership advantages have begun to feature prominently in a number of studies. For example, a study of Australia by Bennett, Merchan and Metcalfe (1982) found that the interest of firms in using patents and expertise developed in Australia ranked second in the list of determinants of firms willing to invest in Australia. One of the most important studies was that of Dunning (1986) on investment by Japanese subsidiaries in the United Kingdom, in which he found product quality and

reliability (the strongest advantage), process technology and access to R&D and organisational expertise to be important ownership advantages. In contrast, the 'nature of the product' and 'dynamic entrepreneurship' were found to be less important ownership attributes.

Market factors

Survey evidence on market factors, such as i) the present market size and ii) its growth potential, constitute major determinants of FDI flows. Studies establishing a strong relationship between a host country's market growth potential and FDI flows include Behrman (1962), Basi (1963), Brash (1966), Forsyth (1972), Bennett et al. (1982) and El-Haddad (1988). Basi and ElHaddad also found the present size of the market to have a significant positive relationship with FDI, though to a lesser extent than the growth potential. Shepherd, Silberston and Strange (1985) found that proximity to the market significantly influenced British firms going abroad.

Two other market-oriented factors which have appeared in surveys as determinants of FDI are the growth and the current size of the market. Studies which found the growth of the market important in influencing FDI include those of Basi(1963), Bennett et al. (1982) and El-Haddad(1988). Hill and Lindsey (1987) in two surveys on manufacturing FDI in the Philippines arrived at the same conclusion.

As might be expected, market factors, though important for a company wishing to go abroad, are less crucial in export-oriented subsidiaries. For example, Bennett et al. found that the growth of the host country's market did not significantly influence Australian export-oriented subsidiaries abroad.

Market defence has played quite an important role in the decision of some firms to go abroad. Whilst this may be the case in a host market in a developed country, may be of less significance in a less developed country where the host market share may constitute an insignificant proportion of the company's global operations. Basi (1963) showed that 'fear of losing a foreign market' was a primary motive for US firms going abroad. Compared with El-Haddad's (1988) findings on investment in Egypt, market defence played a less important role in the decisions of firms investigated. In the case of Australia, Bennett et al. (1982) found market defence the third out of eight most important factor for FDI, whereas for subsidiaries established to 'distribute Australian products', it was the predominant motive.

Trade restrictions

Several studies have provided conclusive evidence that trade restrictions can compel some companies to invest abroad in order to avoid them. Examples of studies which have firmly established this relationship include Brash (1966), Forsyth (1972), Newbould, Buckley and Thurwell (1978), Shepherd et al.,(1985), Dunning (1986) and Hill and Lindsey (1987). However, Bennett et al. (1982) found that trade restrictions had a weak influence on the decision to invest abroad.

Low-cost labour

Findings on the relationship between low wages and FDI flows are rather inconclusive. Studies in which low-cost labour was found to be a crucial factor in investors' decisions to undertake investment abroad include that of Hill and Lindsey (1987), which found that low wages significantly influenced investment by export-oriented subsidiaries in the Philippines. With regard to subsidiaries orientated to the local market, they found a moderate relationship. Others, Basi (1963); El-Haddad (1986); and Dunning (1986) found the relationship to be negligible. In fact, the influence of production costs in general was found to be insignificant (Brash, 1966 and Shepherd et al. 1985). However, Bennett et al. (1982) found that lower unit costs significantly influenced Australian subsidiaries manufacturing for export.

Incentive schemes

Results from studies investigating the influence of incentives on the decision to invest abroad are generally inconclusive. British firms going abroad were found to be only negligibly influenced by host-country incentives and tax regulations (Shepherd et al., 1985). Newbould et al. (1978), however, found that two-thirds of smaller British firms going abroad were influenced by and, indeed, used incentives provided by host countries. In the case of Australian firms investing abroad, Bennett et al. (1982) concluded that incentives were in general the second most important determinant in export-oriented subsidiaries. However, the study on the Philippines by Hill and Lindsey (1987) found that incentives influenced FDI flows only marginally.

Political factors

Two political factors have featured quite prominently in surveys on FDI. The Basi and El-Haddad studies found that political instability strongly influenced the investor's decision to go abroad, as did the host government's attitude to FDI.

Some country experiences in investment promotion in Africa

Background

The following analysis provides a brief review of how policy- makers and stakeholders in FDI see investment promotion within an African context. It is aimed at substantiating some of the issues raised in the previous section. Essentially, it is a summary of the key deliberations at six workshops organised by the Multilateral Investment Guarantee Agency (MIGA) and the Foreign Investment Advisory Service (FIAS) on *Implementing Deregulation and Promoting Foreign Direct Investment in Africa* (Backmann, 1996). The workshops were organized consecutively in six countries – Zimbabwe, Tanzania, Uganda (in 1993) and Senegal, Côte d'Ivoire, and Benin (in 1994). Among the participants were high-ranking civil servants and key private sector stakeholders. A few officials from some of the developing countries which have been successful in attracting FDI (Indonesia, Mauritius, Morocco, Pakistan, Tunisia, and Turkey) were invited to the workshop to share their countries' experiences.

Government attitude and behaviour

Lack of predictability in terms of the government's respect for its own laws and regulations, lack of internal cohesion and the tendency towards interministerial (or inter-agency) conflicts discourage foreign investors. In some cases, lack of reliable information on recent policy changes compounds the problem.

Civil service mentality and attitude

In the French-speaking countries, a strong anti-private sector mentality was

observed within the civil service. This was seen as not providing a conducive environment for investment. In order to curb this attitude in Morocco, for example, it became necessary for the King himself to mount a campaign against the civil service.

Investment approval process

Côte d'Ivoire provided a classic example of a delay of a full year from the time the investment applications were lodged to the start of actual implementation of the investment. In countries such as Morocco, Mauritius, or Tunisia, far less time was involved and they therefore enjoyed a comparative advantage. A suggestion put forward to obviate the problem was a non-objection formula whereby, if the investment application was not formally rejected by the authorities within a specified time, it was deemed to be approved.

The problem of project financing

In five of the six countries, domestic financing of projects was found to be one of the most critical problems, in particular the availability of long-term funds for local investors. Among other recommendations, the need for banking reform and decentralisation, as demonstrated by Indonesian and Pakistani experience, was seen as important.

Taxation

The experience of Côte d'Ivoire in operating a one-stop tax administration was seen as a helpful mechanism for easing the burdens on the investor. Corporate taxes on export industries were generally regarded as too high by international standards, particularly in view of the fact that these industries receive generous tax incentives in a number of developing countries which pursue vigorous FDI promotion programmes. Cases in point include Morocco with a zero tax rate and Mauritius with a 15% flat rate. This indicates that, for other African countries to be competitive in attracting FDI, their tax regimes need to take due cognisance of the fiscal situation elsewhere.

There is also a need to ensure that tax exemptions, once granted, are

26 Determinants of Foreign Direct Investment in Ghana

adequately monitored by the Investment Centre and that Ministry of Finance agencies do not turn round and levy taxes on such firms or subject importers to prolonged delays at the ports.

Expatriate work permits

Two key recommendations were made in respect of acquiring foreign investors/experts:

- visas should be issued to investors on arrival without unnecessary delay; and
- the issuing of work permits should be the responsibility of the institution (centre) responsible for foreign investment activities in order to minimise bureaucratic delays.

Customs and port procedures and administration

The functioning of customs and port services was considered one of the crucial disincentives to FDI in all workshop countries (except Zimbabwe). Other important observations made include the following:

- smooth running of port facilities would constitute a major determinant for an investor in the location of a project;
- the most regimented and anti-private sector mentality of the civil service was manifested by customs officers in their bid to check the incidence of smuggling; and
- there was often an open admission by most senior customs officers of their inability to control their men at the ports.

Control over the customs services was thus seen as paramount in order to attract foreign investors. Also important was the need for a one-stop mechanism to meet all port and customs requirements and regulations. The establishment of longer official working hours, including week-ends, was seen as a viable option in minimising the bureaucratic delays.

Legal and judicial framework

Arbitrariness and lack of transparency in public administration have been found to be some of the biggest disincentives to foreign investors. For example, the behaviour of immigration officers and judges in the courts is at times so unpredictable and inconsistent that a potential investor will prefer a more conducive legal and judicial system. This problem was seen as more pervasive in the French-speaking countries.

In sum, it is evident from the above that, if Africa is to become a major FDI destination, African governments needs to re-examine their attitudes to private investors in general, in particular revamping the bureaucratic structure which promotes corruption and anti-private sector sentiments within the civil service. Fiscal, monetary and customs regulations must be transparent and capable of implementation with, relative ease. Above all, the predictability of government policies and the dependability of existing legal frameworks are crucial in enhancing a country's image in the eyes of the foreign investors. 3

Investment Policies, Institutional Framework and Effects

In order to place the study in its historical and, therefore, correct analytical perspective, this chapter examines two areas of FDI in Ghana - i) the incentive structure in the non-mining sector and ii) the Investment Code and developments in the mining sector.

Investment incentives

The basic rationale for offering investment incentives is to offset market imperfections that distort the aggregate amount or the composition of investment. In many developing countries, including Ghana, the most important source of market imperfections is the government itself. The most direct way of improving the incentives for private investment is therefore to reform the government policies that distort the functioning of the market. If this is not possible, then a second-best case exists for an agency such as the Ghana Investment Promotion Centre to provide investment incentives designed to offset the existing distortions.

History of the climate for private investment

During the 1950s, an Industrial Development Corporation was established which set up a number of publicly owned commercial enterprises. The government had taken the view that these would be sold to private operators after they had become viable. However, Nkrumah changed his mind and asserted in 1960 that his government would henceforth 'place far greater emphasis on the development of Ghanaian co-operatives rather than encourage Ghanaians to start private business enterprises', and that the state enterprises would not be handed over to private interests. In responding to the demands of the private sector for better opportunities and various kinds of assistance, the Nkrumah government frequently expressed its good intentions and, in 1958, set up a committee to investigate the best means of assisting Ghanaian businessmen to overcome their difficulties (Esseks, 1971: 13). However, Nkrumah saw little realistic prospect of fostering an indigenous entrepreneurial class capable of industrialising at the speed and scale he wanted. A further reason was ideological; 'he thought the country would be hampering its advancement to socialism if private capitalism were encouraged (Killick, 1978: 37). There is also some evidence that he feared the threat a wealthy Ghanaian business class might pose to his political power (ibid: 60). However, many small traders had supported his Convention People's Party (CPP) in the 1950s and were therefore owed economic rewards. As a compromise, Nkrumah decided that Ghanaian private enterprise should be limited to small-scale concerns, so long as they were not nominees or partners of foreign interests. The privates sector's existence was to be contingent upon its willingness to operate within the socialist framework, but the opportunities for Ghanaians to operate small-scale businesses were to be enhanced by restricting foreigners in this type of activity.

While Mkrumah's attitude towards local private enterprise was made clear in the early 1960s, his views on foreign private investment remained in doubt. He urged the need for foreign direct investment, arguing that it brought in much needed managerial and technical skills which could be passed on to Ghanaians. A Capital Investments Act was passed in 1963, offering a wide range of fiscal and other concessions to would-be investors. But there were strings attached as indicated by Nkrumah.

The Government accepts the operation in the country of large-scale enterprises by foreign interests, provided that they accept the following conditions : first, that foreign private enterprises give the government the first option to buy their shares, whenever it is intended to sell all or part of their equity capital; and secondly that foreign private enterprises and enterprises jointly owned by the state and foreign private interests be required to reinvest 60% of their net profits in Ghana (Nkrumah, quoted in Friedland and Rosberg (eds), 1964: 271).

He reiterated that no foreign investor would be allowed to interfere in the domestic or external affairs of the country. Although he insisted that socialism could co-exist with private enterprise, he inveighed against neocolonialism. His government starved the private sector of imported raw materials, spare parts and equipment, and used exchange controls to prevent the repatriation of after-tax profits (Killick, 1978: 38). There was little success during the Nkrumah era in attracting foreign direct investment. The main justification for state intervention in the economy at the expense of private enterprise appears to have been the lack of any alternative if industrialisation was to proceed at the required speed and magnitude, since indigenous private enterprise was incapable of doing so on its own and relying on foreign investors would leave the country at the mercy of neocolonialists (Nkrumah, 1970: ch 14).

The National Liberation Council (1966-9) and Busia (1969-72) governments claimed to pursue more open policies, making more serious efforts to secure inflows of long-term public and private capital and embarking on what has been called 'an experiment with import liberalization' (Leith, 1974: ch. 5). Both governments rejected Nkrumah's socialism and made various statements in favour of private enterprise, the NLC stating that the encouragement of private enterprise was one of its basic objectives, and the election manifesto of Busia's Progress Party affirming its 'support for and confidence in private enterprise' (Killick, 1978; 311). Although both governments stated that they wanted more foreign private investment, the major thrust was one of assisting domestic business. The NLC passed a decree setting out a timetable for Ghanaianisation, and the Busia government supplemented this with further legislation accelerating the programme.¹ Various types of special financial assistance were also provided for small-scale Ghanaian businesses. However, there was little change in the degree of state participation in economic activities during the NLC/Busia era. Out of 53 public enterprises and corporations that existed at the end of 1965, 43 remained wholly state-owned at the end of 1971 and 5 new ones had been created(Killick, 1978:313).

The National Redemption Council/Supreme Military Council era of Acheampong and Akuffo (1972-9) was characterised by a return to a quasicommand economy and a resumed expansion of the state in economic activities. The political uncertainty surrounding 1972 coup that toppled the Busia government of and brought in the National Redemption Council (NRC) led by Col. Acheampomg spilled over to the following year. Again, in 1975 a palace coup resulted in the changeover from National Redemption Council to Supreme Military Council, Between 1977 and 1979, four political events - a palace coup (1978), an attempted coup and a successful coup, both led by Flt. Lieut. Rawlings, and general elections in September 1979, won by Dr Limann's People's National Party - all created a climate of uncertainty and acted as a deterrent to private investment. There was extreme repression and control of private sector activity during the period of the PNDC I government (1979) and part of PNDC II (1981-3). The economic climate was clouded by official actions that posed serious threats to private business. Properties were seized and people's lifetime savings were confiscated because they had carried out 'an act with the intent to sabotage

^{1.} Ghanaian Enterprise Decree, No. 322 of 1968, and the Ghanaian Business (Promotion) Act of 1970 (Killick 1978: 325, note 59).

the economy of the state'. Among Ghanaian business people, the terms often used to describe the business environment include 'mistrust', 'harassment', and 'the absence of support' (Leechor :177). The Limann Government (1979–81)had also been characterised by controls. Following the introduction of the Economic Recovery Programme in 1983, despite more liberal economic policies and rhetoric endowing the private sector with a leading role, the government's attitude remained somewhat hostile. The PNDC government made a number of anti-private sector statements. For example, the Head of State made the following remark in 1990:

But I am obliged to state, and to emphasize that we cannot however tolerate foreign investors who think that because Ghana is a small developing nation, they can arrogantly throw their weight around, bribe petty functionaries to cut corners with regard to necessary producers, and even combine a little profitable gold or diamond smuggling with their business trips (The Investor, 1990, Vol. No1: 5).

Measures to improve the investment climate

Investment incentives have been provided under investment codes. The Pioneer Industries and Companies Act of 1959, which instituted a ten-year tax holiday, marked the beginning of investment promotion in postindependence Ghana. This was followed by the Capital Investment Act of 1963 (Act 172) which sought to encourage foreign investment. The 1973 Investment Decree (NRCD 141) and Investment Policy Decree (NRCD 329) of 1975, unlike the 1963 Act, were intended to encourage both local and foreign investors. The 1981 Investment Code (Act 437) sought to centralise investment promotion functions in the Capital Investment Board and consolidate all investment legislation.

The 1985 Investment Code (PNDCL 116) established the Ghana Investments Centre as the central investment promotion agency, and vested it with power to promote and regulate investments on behalf of the government. The Code covers all areas of investment with the exception of petroleum and mineral investments, which have been highlighted under separate regimes for special emphasis. The Code consists of consolidating legislation which assembles under one regime most of the relevant legislation affecting investment approval. Thus under one law, the investor is offered information relating to:

• the government agency dealing with investment promotion;

32 Determinants of Foreign Direct Investment in Ghana

- the declared priority areas for investment;
- the applicable incentives and benefits;
- the dispute settlement procedures;
- the guarantees for the investor and the investment;
- the respective obligations of the host country and the investor; and
- the conditions of approval.

It needs to be emphasised that the Investment Code does not discriminate between foreign and local investors.

All this investment legislation has attempted to provide a favourable investment climate by offering incentives to boost private investment. Those generally provided include tax holidays, accelerated depreciation allowances, exemption from import duties on machinery and equipment, investment allowances and arrangements for profit repatriation. The need for constant review of the code reflects the lack of appropriate response.

The Ghana Investments Promotion Centre was set up under the GIPC Act of 1994 with the prime objective of encouraging and promoting both domestic and foreign investment. The Act aims to revise the 1985 Investment Code in order to place more emphasis on private sector investments as an important segment for accelerated economic growth and to consolidate recent amendments to the Code. According to the Act, the Code was regulatory in content and did not encourage the investment centre to engage in promotional activities. The Act aims to ensure the liberalisation of imports and foreign-exchange transactions, as well as the remittance of dividends. It also includes a comprehensive array of income tax incentives, customs import duty exemptions and investment guarantees, all designed to improve corporate profitability. Under the Act, plant, machinery, equipment and spare parts are zero-rated and no custom duties are paid on them.

The attitude of government towards private investment has also changed over time, with a more favourable climate now (especially since the return to constitutional rule) than in the mid-1980s. Other measures that have been taken in recent years to improve the investment climate include: (a) the gradual removal of administrative and other bottlenecks; (b) review of the tax structure as it relates to private investment (e.g., reduction of corporate tax for some enterprises), and (c) liberalisation of the financial system. At the international level, a number of developments have facilitated the flow of FDI into developing countries. These include:

- an increase in the willingness and ability of developing countries to undertake joint ventures;
- an expansion of activities by facilitating agencies such as the World Bank's International Finance Corporation and its African arm, the African Project Development Facility (APDF), as well as a number of bilateral development finance agencies – the Commonwealth Development Corporation the Caisse Centrale, etc. – which act as a catalyst for FDI;
- a growth in investment insurance arrangements, both bilateral Investment Promotion and Protection Agreements (IPPA) and the Multilateral Investment Guarantee Agency (MIGA);
- the promulgation in a number of countries of investment codes which aim to clarify the respective roles of the parties concerned and lay down clear ground rules.

Ghana has participated in all these initiatives in its efforts to improve the investment climate and reinforce the opportunities provided for private investment in the environment provided by the ERP. It has also ratified the convention establishing the Multilateral Investment Guarantee Agency (MIGA) of the World Bank, which aims to encourage equity investment and other forms of FDI in developing countries, by reducing non-commercial risk. This is done through investment guarantee operations and the provision of advice and technical assistance to developing country governments on investment policies and programmes. In effect, the MIGA Convention seeks to provide insurance cover for foreign investors who participate in eligible investments in the productive sectors of the economies of developing countries.

As part of the measures taken to make credit more readily available to the private sector, Ghana began a process of liberalising its financial system. Specifically, a Financial Sector Adjustment Programme (FINSAP) was initiated and a number of institutional and policy reforms were carried out which culminated in the liberalisation of the financial sector by the beginning of 1989.

These measures, introduced to boost private investment, emphasise the importance the government attaches to investment and underscore the need and motivation to undertake a thorough analysis of FDI in Ghana.

The mining sector and FDI

In recent years, the mining sector has become almost synonymous with foreign direct investment in Ghana. It has also been variously used as the benchmark for assessing the Economic Recovery Programme/Structural Adjustment Programme. This is because the policy reforms initiated under the ERP have enabled the sector to emerge from a state of economic slump to become the country's largest foreign-exchange earner, thus relegating cocoa to second place. Indeed, as observed by Tsikata (1995b), it would seem that a major part of the growth which occurred under the ERP/SAP was led by the growth in the mining sector, especially the gold sub-sector.

A number of factors make it necessary to examine policy initiatives in the mining sector separately from what has been undertaken in the case of the manufacturing and non-industrial sectors:

- Mining was one of the sectors which benefited most from financing under the ERP and which has, in turn, been responding most positively in terms of output and foreign-exchange earnings;
- The introduction of new mining technologies, especially surface mining, makes it imperative to always assess the economic benefits critically against the backdrop of their costs environmental costs;
- The constraints on the sector differ quite considerably from those in the non-mining sectors;
- Some of the provisions in the Mining Code under the administration of the Minerals Commission differ from those under the GIPC Code.

In the light of these considerations, we review some of the problems and constraints which dampened the interest of foreign investors in the sector, the measures pursued under the ERP/SAP to revamp the industry, and the effects of these measures.

This section draws on an earlier study by one of the researchers on the gold sub-sector (Tsikata, 1995b).

Constraints on the sector

Reasons for the gradual deterioration of the mining industry prior to the ERP/SAP have been identified as including, *inter alia*,

...shortages of foreign exchange to maintain and rehabilitate the mines; lack of capital investment for exploration and development; poor management and lack of mining skills; infrastructure deterioration, particularly shortages of rail capacity for manganese and bauxite; mining company financial problems due to the greatly overvalued currency and spiralling inflation; a declining grade of gold ore;...illegal panning and smuggling of gold and diamonds (World Bank, 1984)

From the above observations, there was no doubt that foreign investment could have played a major role in arresting several of the problems identified, especially the dual problems of foreign-exchange strangulation and shortage of the requisite mining expertise. For example, in the gold mining industry, long distances had to be travelled underground to reach work sites due to lack of investment in existing and new shafts.

The fiscal policy regime, however, imposed the severest strain on the development of investment flow to the sector, in particular the gold mining sub-sector. As the Government Committee for Increased Gold Output in Ghana noted in 1980, 'it appears the door has been completely shut to outside investment in the Gold Mining Industry', owing to the existing draconian tax regime. The fiscal regime which operated during the pre-ERP years and the subsequent measures undertaken as reflected in the Minerals and Mining Law of 1986 and the Amendment of 1994, Act 475 are summarised in Table 3.

It can be observed that three main fiscal changes affecting the sector were implemented during the ERP era, namely I) reduction in minimum royalties from 6% to 3%; ii) reduction in corporate tax from 55% to 35%; and iii) tax exemption for imported plant and equipment. In terms of item a) in Table 3, it should be noted that *de facto* most companies pay the minimum royalty of 3%. *De jure*, the exact amount depends on a company's operating costs. Aside from the corporate tax reduction, a company can 'capitalize all expenditures during reconnaissance, prospecting, and development, in accordance with the capital allowance (amortization) with provision of the Law'. (Minerals Commission, 1988).

Table 3. The pre-ERP and ERP policy matrix

Pre-ERP	ERP Era
a. Royalty at 6% of the gross value of minerals won	a. Set to vary from a minimum of 3% to a maximum of 12%. There is also a deferment clause based the exigencies faced by the beneficiary companies
b. Minimum mineral duty ranging from 5 to 10%	b. Not applicable
c. Corporate tax ranging from 50 to 55%	c. Corporate tax fixed at 35%
d. Minimum turn-over tax of 2.5%	d. Not applicable
e. Import duty of 35%	e. Import duty replaced by an 'Import Subsidy Scheme' which exempts companies from payment of duties on plant and equipment. It also entails exemption from payment of selective Alien Employment Tax
f. Import levy (or currently import license tax) of 10%	f. Not applicable
g. Foreign-exchange tax ranging from 35 to 75%	g. Not applicable
h. Gold export levy at ¢3.00/oz. of gold after 100,000 oz.	h. Not applicable

Source: Government of Ghana (GOG, 1989,1990) Tsikata (1995b).

Additional provisions to promote investment

The government's reduction of its equity participation from an automatic 55% (majority) share to 10% was presumably aimed at sending signals that it was prepared to encourage the participation of the private (including foreign) sector. It was probably also, aimed discretely at using the accrued funds to finance the budget. However the government retains, the option of acquiring an additional 20% upon renegotiations, if minerals discovered are in commercial quantities.

Capital Allowances provision has been made for 75% capital write-off in the first year of assessment and 50% per annum in subsequent years. Subprovisions under this item include the following: a) carrying losses in a particular year forward to be offset against taxable earnings; and b) a 55% investment allowance in the year the investment is undertaken.

Additional Profit Tax (APT) This is an innovative provision aimed at giving the government some leeway in sharing the windfall profits which might accrue from unexpected circumstances such as the discovery of high grade ore deposits. An obviously inherent advantage stems from the minimisation of the time for renegotiation.

External foreign exchange retention account To ensure smooth and steady operation, companies are permitted to retain 35% of their gross foreignexchange earnings abroad for the procurement of equipment, spare parts, raw materials and for payment of expatriate salaries, dividends and debt service. A disadvantage here, however, could stem from transfer pricing in one form or another by unscrupulous beneficiaries.

Some impacts of the reforms on the mining sector

We briefly review the two important impacts relevant to this study, a) investment trends and b) output and revenue outcomes:

Investment Trends. There is no doubt that policies and funding under the ERP/SAP have enabled a strong up-turn in the mining sector and in mining communities such as Obuasi and Tarkwa. For example, the entry and success story of Teberebie Goldfields in the early 1990s could be said to have influenced the investment decisions of other medium-sized mining companies such as Ghana Australian Goldfields (GAG).

Available statistics from the inception of the ERP in 1983 to 1992 show a remarkable rise in investment in the sector, as depicted in Table 4.

At the time of writing, it has been impossible to update the data, due to data reconciliation problems between the Bank of Ghana and the Minerals Commission. Nevertheless, the data demonstrate that the measures taken have resulted in a substantial inflow of investment into the sector, especially between 1989 and 1992. From 1983 to 1992, total investment was estimated at \$844.57 million. The gold sub-sector took the lion's share approximately 97% at \$818.07 million. In fact, prior to 1989, only 1985 witnessed a significant capital inflow into the gold sub sector when Ashanti Goldfields underwent a major recapitalisation exercise to rehabilitate and expand the enterprise. In the sub-period, 1989–92, total investment stood at \$633.37

million, that is, 77% of the total in the industry for the entire period, 1983-92.

Year	Gold	Diamond	Manganese	Bauxite	Annual Total
1983	-	-	6.00	-	6.00
1984	-	11.40	1.30	-	12.70
1985	171.40	-	-	-	171.40
1986	3.69	-	-	-	3.69
1987	-	-	-	-	
1988	9.61	-	-	-	9.61
1989	45.11	-	280.00	-	47.91
1990	210.29	-	-	5.00	215.29
1991	87.97	-	-	-	87.97
1992	290.00	-	-	-	290.00
Total	818.07	11.40	10.10	5.00	844.57

Table 4. Investment in the mineral sector: Post-ERP (Excluding Prospecting Companies US\$ Million)

Source: Minerals Commission, Ghana Chamber of Mines and Company data.

The origins of the investment and government participation, also reveal quite an interesting picture. Investors were from North America, Europe and as far away as Australia. The government, in the spirit of the new mining laws outlined above, acquired a 10% share in most of the new mines. A more detailed picture is given in Table A1 in Appendix I.

Output and Revenue Trends. From 1987 to 1994, there was a boom in the mining industry as a whole as a result of investments in the sector, especially that in the gold sub-sector in 1985. Revenue growth was also positive in most years, albeit at a slower pace than increases in output because of lower increases in bullion prices. The impact of the recent crisis in the bullion market could be partly detected in the negative trend in revenue growth in 1996 and 1997. However, total production increased, despite the fall in gold prices. This was due to new entrants into the industry and increases in output by old firms. Table 5 shows output and revenue trends and the accompanying growth rates.

Year	Total Output	Output Growth	Total Revenue	Revenue Growth
	('000 oz)	(%)	(US\$ M)	(%)
1980	342.9		208.4	-
1981	338.0	- 1.45	155.4	-34.11
1982	337.8	- 0.06	126.9	-22.11
1983	285.3	-18.40	114.1	-11.22
1984	282.3	- 1.06	103.3	-10.45
1985	299.6	5.77	90.6	-14.02
1986	287.1	- 4.35	106.4	14.85
1987	328.9	12.71	142.5	25.33
1988	373.9	12.04	168.5	15.43
1989	429.5	12.95	159.9	- 5.38
1990	541.4	20.67	201.6	20,68
1991	845.9	36.00	304.4	33.77
1992	998.2	15.26	343.4	11.36
1993	1261.4	20.87	434.0	20.88
1994	1430.8	11.84	548.6	20.89
1995	1708.5	16.25	647.3	15.25
1996	1586.1	- 7.72	612.0	- 5.77
1997	1747.0	10.14	579.2	- 5.66
1998	2346.9	34.33	687.8	18.75

Table 5. Gold Output and Revenue Trends

Source: Minerals Commission and Tsikata, 1995b, 1998

As can be observed from the table, major recovery had begun in the industry by 1987. The positive growth trend in output continued until 1996 when a decline of almost 8% was recorded. The explanation provided by the Minerals Commission indicates that at the time the Ashanti Goldfields Company (AGC) leader had reached a *transitional phase*² in some of its

^{2.} A transitional zone is the area between oxide and sulphide ores which produces lower yield of gold.

underground mines where ore yields were low. There was a turn-around in 1997, however, with output growth of almost 10%, and 1998 recorded spectacular growth more than triple (34.3%) that of 1997, raising total output to more than two million ounces. This was mainly due to the rapid investments in the industry.

Although the bullion market is currently facing a downturn, hedging by AGC up to 1999, seems to be cushioning the price effects on earnings and therefore the effect on the performance of the export sector.

Finally, it appears that more discoveries are being made, and there has been a sharp rise in the demand for exploration licences. This is good news for the economy once the environmental implications are fully taken into account.

The free zones scheme and FDI flows

In September 1995, Parliament promulgated the Free Zone Act to accelerate the exploitation of the country's general export potential. The Ghana Free Zones Board (GFZB) was accordingly established to assist and monitor the activities of the Export Processing Zones (EPZs) to be set up throughout the country.

A key objective of the Act was the attraction of foreign direct investment. To this end, an extensive package of incentives was offered, including the following:

- exemption of free zone developers from income or profits tax for 10 years;
- income tax after the ten-year tax holiday, was not to exceed a maximum of 8%;
- exemption from withholding taxes on dividends emanating from free zone investments;
- freedom of a foreign investor to hold a 100% share in any free zone enterprise; and
- various guarantees in respect of repatriation of profits and against an unreasonable nationalisation of assets.

By and large, the incentive package offered under the scheme is more

attractive than those generally administered by the GIPC.

In terms of impact on FDI, it is too early to expect a dramatic impact, by Ghanaian standards. As an 'infant' promotional body, GFZB requires time to assemble the infrastructure, the right calibre of personnel and the requisite finance for its operations. Our interviews indicated prospective funding from the World Bank and other sources to facilitate the promotional strategies as spelled out in the Act. In fact, the success of the scheme will offer a further window of opportunity for the government to demonstrate its commitment to private sector development. Based on its vast potential, the government needs to embrace the scheme wholeheartedly.

Privatisation and FDI

In 1988, the government embarked on the reform of the state-owned enterprises (SOEs) in partial implementation of donor-based recommendations for pruning the overblown public sector and privatising various inefficient governmental activities. Fundamentally, the privatisation concept stems from the government's recognition that it had over-involved itself in activities which on efficiency grounds belonged to the private sector. Key amongst the government's specific reasons (GOG, 1998) for the exercise are the following: excessive bureaucracy, overstaffing, a lackadaisical attitude towards state activity, a lack of entrepreneurial drive and acumen which constitute the hallmarks of private business, poor incentives for management and low working capital and investment. Accordingly, the Divestiture Implementation Committee (DIC) was set up 'to plan, monitor, co-ordinate and evaluate all divestitures'.

In terms of the mode of divestiture, once a firm decision is taken to divest, disposal of the asset is undertaken either in whole or in fragmented parts. In the cases of joint ventures between the government and the private sector, the government's shares are sold to private sector investors.

Two facilitatory aspects of the divestiture process are:

- the indemnification of investors against all costs associated with the termination of employment in the corporation. A built-in advantage for the new investor stems from his option to select new staff; and
- the liabilities of SOEs are usually discharged by the government.

42 Determinants of Foreign Direct Investment in Ghana

Outcomes

Out of over 300 enterprises recommended by the DIC, 201 SOEs (or parts of SOEs) have been authorised by the President for divestiture. Table 6 shows the annual breakdown for 1991–97 according to the DIC records.

Mode	to 1991	1992	1993	1994	1995	1996	1997	Total
Sale of assets	s 16	4	3	30	19	18	15	105
Sale of share	s 11	5	2	2	6	1	2	29
Joint venture	e 6	3	1	4	0	4	1	19
Lease	3	1	0	1	0	0	1	6
Liquidation	24	2	5	5	6	0	0	42
	60	15	11	42	32	23	19	201
19	89/90	1991	1992	1993	1994	1995	1996	1997 ª
Amounts Realised	- 10							
(US\$m) .	5.42	24.43	15.61	4.72	14.27	1.73	5.61	-

Table 6. Divestiture Profiles 1991–97	Table 6.	Divestiture	Profiles	1991-97
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Source: Divestiture Implementation Committee(Govt. of Ghana)

a) Figures are unavailable for 1997.

Investor response was initially rather lukewarm due to (I) the lingering suspicion of government motives within the business community in the aftermath of the expropriations which occurred during the revolutionary era; (ii) the lack of a domestic market because of the stiff competition from importers of cheaper but 'higher quality' foreign products in the wake of the liberalisation programme; and (iii) the deplorable state of disrepair in the enterprises which rendered many of them unattractive to potential buyers. By 1997, sale of assets (105) constituted the bulk of transactions, followed by liquidations (42), sale of shares (29), joint ventures (19) and leases (6). Although the record is not so impressive in monetary terms as in the number of transactions (see the lower part of the table), it is important to add in the savings accruing to the government from the elimination of the perennial budgetary subsidies to ailing enterprises, especially in the form of salaries, in order to obtain a complete picture.

Between 1983 and 1987, FDI inflows averaged only \$3.8 million a year.

This increased to \$5 million in 1988 with the start of privatisation. Between 1989 and 1992, it averaged \$18.1 million and peaked at \$233 million in 1994 with the privatisation of the Ashanti Goldfields Company, followed by \$106.5 million in 1995 and \$120 million in 1996. Its percentage of GDP follows the same trend suggesting that privatisation has improved the inflow of FDI.

Post-divestiture impact

The DIC cites the post-divestiture 'success stories' of several corporations to underpin the rationale behind the exercise. In general, the following two factors have been assessed as having impacted positively on the economy: a) the rise in efficiency and output; and b) the increases in employment and incomes. For illustrative purposes we provide two extracts cited by the DIC to their position on the success of the exercise.

...The story of West Africa Mills Company Limited, Takoradi, is a vivid example of the success of divestiture. In the three years since taking over the SOE, the new German owners have invested over DM 30 million, salvaging it from imminent collapse. With the rehabilitation and modernisation of the two factories, production of cocoa butter has risen from 10,000 to 20,387 metric tonnes a year and processing of cocoa beans from 10,000 to 53,351 metric tonnes a year. The total number of employees has also increased from 170 to 450.

...A notable recent achievement is the creation of a joint venture, known as Ghana Agro-Food Company Limited (GAFCO), out of the former Tema Food Complex Corporation. The Government has a 25% shareholding in GAFCO, with the balance held by Industrie Bau Nord AG, a Swiss company with over thirty years of African experience. GAFCO has undertaken a complete rehabilitation of all four industrial plants previously owned by the Corporation. They are now all operational and are doing well. The number of employees has increased from the pre-divestiture level of 494 to 1,600. Capacity utilisation has gone up since divestiture from 45% to 85%. GAFCO was voted 'Industrial Company of the Year' in 1995 by the Association of Ghana Industries. GAFCO is demonstrating what divested enterprises can do with the right financial resources and good management...(DIC, Government of Ghana,1998).

Although it was not possible to obtain figures for the FDI component of all the transactions, it should be noted that the above examples contain substantial sums of foreign investment.

Interviews with a few of the business executives familiar with the operations of the DIC point to some political undertones in the sale of the assets. Despite the open tender system, the Committee has at times been accused of manipulating the system in favour of its political cronies. The rationale for the divestiture exercise has, however, received massive support in view of the previous drain on the government budget. One school of thought believes that privatising the remaining assets, even at huge loss to the government, on the assumption that the measure would eventually lead to the realisation of profits by investors, would be preferable to the drain on the national budget.

Empirical Specifications and Estimations of the Econometric Approach

This chapter discusses the model used in the time series analysis. The variables on which the specifications are based are first discussed, taking due cognisance of the time series properties of the variables and the latest econometric methods used in approaching the various issues involved, The chapter concludes with the results and their implications thereof. Based on the literature review presented earlier and the politico-economic evolution of Ghana since independence in 1957, we postulate that the determinants of FDI can be broadly categorised under two empirical frameworks - (I) political and (ii) economic conditions. We provide a brief analysis of the variables in each category.

Variable specifications

Political variables

In general, political considerations play a significant role at the decisionmaking of foreign investors who may regard a country as possessing a favourable or hostile political climate. In the case of Ghana, indeed, the investor may find it imperative to factor into his decision-making the nature of the government in power (whether parliamentary democracy or military dictatorship) and the political instability arising from the spate of coups d'état since 1966. A brief analysis is provided below.

(a) Nature of government (DEMOCRA)

The nature of the government will be seen as crucial by the foreign investor, in particular against the backdrop of nationalisations and confiscations during Nkrumah's socialist one-party state and the various military regimes. We therefore argue that a democratically elected parliamentary system which respects human and property rights will be regarded as preferable to a military or socialist autocracy by the foreign investor. A dummy variable is used to distinguish between periods in which either democratically elected or military governments were in power.

(b) Political Instability (POLINS)

The political changes and near-changes which have occurred since

independence cannot be viewed as providing a conducive environment for investment since they have often been accompanied by policy switches and general apprehension in the investment community. In fact, political stability is crucial, especially in situations in which the investment is lumpy, built up ahead of the market and as such may carry a long gestation period. A dummy variable is used for political instability.

Economic variables

(a) Market Factor (CGDP, GDPGR)

Although the market in Ghana cannot be considered as large, compared with Nigeria, there are cases where the primary determinant of investment will be considered in conjunction with the market if the enterprise is a subsidiary of a multinational company. The Market size has been variously represented by the growth rate of GDP(as market potential), real GDP per capita or the ratio of consumption to GDP (as market size).

(b) Trade regime (REGIM)

A number of trade regimes have emerged since the 1950s. They range from controls to the breakdown of controls, attempted liberalisation, trade liberalisation, and liberal trade regimes. Since the 1970s and prior to the implementation of the ERP, the trade regimes were characterised mainly by controls, which were not favourable to FDI flows. After the introduction of the Economic Recovery Programme/Structural Adjustment Programme, a liberalised economy began to emerge. However, it was not until 1990 that a completely liberal regime was established. The trade regime has been defined in such a way that a significantly negative coefficient implies a more liberal economy which is conducive to the flow of foreign investment into Ghana.

© Government economic activity (PUB and tax regime, TXGDP)

The Hirschman-type 'permissive' public investment is assumed to operate in Ghana. In sum, public investments, especially in social and economic infrastructure, are planned to complement directly productive investment, including FDI. In contrast the, government's budgetary over-indulgence by resorting to deficit financing is assumed to portray a negative picture to the foreign investor, who may interpret the deficit as economic mismanagement which will eventually lead to the imposition of higher corporate and personal taxes.

Although the tax regime may be regarded domestically as draconian against the backdrop of escalating poverty, international comparison reveals that Ghana's tax structure is competitive and could therefore encourage FDI.

(d) Recent historical trend of FDI (LAGFDI)

FDI begets FDI, a derivative of the old maxim that 'money begets money'. We argue that the recent track record of FDI in Ghana will engage the attention of a prudent investor in two ways: (I) ensuring that he/she is not alone in the investment wilderness, and (ii) taking precautions against repeating the mistakes of predecessors. In this regard, past investment, especially the most recent, will constitute a good indicator for the decision to invest. The former case can be classified as the bandwagon effect of past investment. The argument here is a variant of the Athukorala (1995) study which found the overall investment climate more important in influencing foreign investors than the availability of specific incentives. A further justification for inclusion of this variable stems from the fact that investment in one period requires investment in later periods, to finish a project, to improve on past investment, expand capacity, etc.

(e) Export orientation of the economy (EXPGDP)

An export-oriented economy is assumed to have a positive influence on the inflow of FDI since it opens the doors for future exportation of excess output. The Ghanaian economy, however, except for traditional exports such as minerals, cocoa and wood products, has been mainly inward-looking rather than outward-orientated. However, since the ERP/SAP, there has been a major improvement from a situation where the market exchange rates exceeded official rates by a factor of 20 to 30 to a unified, largely marketdetermined rate.

(f) Financial market stability (CVRER and LRATE)

Two financial indicators of economic stability will usually be considered in an implicit projection of future profitability rates. Although the deregulation of the financial market and the liberalisation of the economy in general under the ERP/SAP have improved the performance rates in some enterprises, many firms are operating below installed capacity because of outside competition or the inability to recapitalise aspects of their production activities due to high interest rates and the cost of foreign exchange. Any potential investor will doubtless be concerned about these crucial market forces, especially if foreign-exchange transfer will eventually take place in connection with the firm's obligations and purchases abroad. Expansion after the initial investment through local sources may also become necessary. This is where high interest rates and exchange-rate instability may stand in the way of potential investors. For a large part of the period covered, the country experienced an unstable currency regime which was bound to influence FDI negatively.

Symbolically, the general FDI functional relationships presented above will take the following form:

FDI = F [(GDPGR, GDP, CGDP, PERCAP), REGIM, PUB, TXGDP, LAGFDI, CVRER, LRATE, EXPGDP, DEMOCRA, POLINS] (1)

where GDPGR = growth rate of real GDP (market potential) GDP = real GDP (a proxy for market size) CGDP = consumption/GDP ratio (a proxy for the market) PERCAP = per capita GDP REGIM = measure of trade (market) regime.³ PUB = public investment-GDP ratio TXGDP = ratio of corporate tax to GDP LAGFDI = lagged value of FDI CVRER = coefficient of variation of the real exchange Rate LRATE = lending rate EXPGDP = ratio of exports to GDP (export orientation) DEMOCRA = democratic form of government (dummy variable)

POLINS = measure of political instability (dummy for successful coup years)

Estimation

Recent developments in estimation techniques indicate that the classical OLS method needs to be applied with caution in time series estimations where the data set is non-stationary. Stationarity is said to occur if the mean and

^{3.} Two cycles can be identified in the evolution of Ghana's trade regime since the 1950s. Each consists of 5 phases: introduction of controlled regime (phase I), breakdown of controlled system (phase II), attempted liberalisation (phase III), import liberalisation (phase IV), and liberal trade regime (phase V). The cycles are as follows (see Asante,1994): First Cycle: 1950–61, phase I; 1961–63, phase II; 1963–66, phase III; 1966–67, phase IV; 1967–71, phase V; Second Cycle: 1972 phase I; 1973–83, phase II; 1983–86, phase III; 1986–89, phase IV; 1990–present, phase V. Numbers 1 to 5 will be used to represent the different phases : 5 for phase I, 4 for phase II, 3 for phase III, 2 for phase 4, and 1 for phase V, so that the higher the number assigned to a given phase, the greater the control and one would expect a negative relationship between FDI and the measure of trade regime.

variance remain constant over time, while the value of the covariance between two specified periods depends only on the gap between the periods, and not the actual time at which this covariance is considered. Violation of any one of the conditions leads to the non-stationarity of the process. It has been shown in a number of theoretical works (e.g Phillips, 1986), that, in general, the statistical properties of regression analysis using non-stationary time series are dubious. If a series is non-stationary, one is likely to end up with a model showing promising diagnostic test statistics even where there is no sense in the regression analysis (Charemza and Deadman, 1992). Nelson and Plosser (1982) have shown that most econometric time series data are non-stationary.

This section draws substantially on Charemza and Deadman, 1992. These developments have influenced recent econometric analysis of time series data. Stationarity tests need to be performed before any meaningful analysis of time series data. The present study adopts this new approach. A number of tests for example Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) have been developed in the literature for establishing the time series properties of economic data. These tests help to determine whether the time series data being used are stationary (i.e. integrated to the order zero) or nonstationary (i.e integrated to a higher order).⁴ One of the problems of performing regressions using differentiated variables is that differentiating captures only short-run responses in the variables. To incorporate long-run responses, Engle and Granger (1987) have shown that, if the variables are cointegrated, then we can add an error correction term that ties in the short-run behaviour of the dependent variable to its long-run value. In other words, any co-integrated series have an error-correction representation. To determine whether or not the variables are co-integrated, we estimate equation (1) by the OLS method and generate the residuals. If the residuals are integrated of order zero (i.e., stationary) then the variables are cointegrated. For further discussion of co-integration, see Charemza and Deadman(1992) and Engle and Granger(1987). The results show that all the variables were integrated to the order 1 and therefore the estimation was done in first differences.

^{4.} The order of integration of a time series data set is the number of times the series has to be differentiated before it becomes stationary. For example, if the series must be differentiated n times before it becomes stationary, the series is said to be integrated to the order n.

Test for co-integration

Equation (1) was estimated by OLS from which the residuals were generated. The ADF test was then applied to the residuals. The t-value (at lag two) obtained from the residuals is -8.7549. The ADF critical values at the 1% and 5% levels of significance are respectively -2.67 and -1.957. Since the computed ADF statistic is greater (in absolute value) than the critical values, we reject the null hypothesis that the residuals have a unit root and conclude that they are integrated to the order zero. The implication is that the variables in equation (1) are co-integrated. Therefore, an error correction approach was used. An error correction factor LAGRES (the lagged values of the residual from the application of OLS to equation (1)) was added to the right-hand side of equation (1). LAGRES measures the extent of adjustment in a given period to deviations from long-run equilibrium. LAGRES is expected to be negative and less than unity in absolute value.

Data Coverage: The time series data used in the study covered the period from 1970 to 1997.

Regression results

Using the above general empirical framework, we present the results of the various model specifications below.

Modus operandi

In order to avoid the problem of multicollinearity, the correlation matrix of all the variables conceptualised as influencing FDI flows was computed and used in identifying independent variables which were correlated to ensure that they would not be simultaneously included in each equation. See Table 7.

Secondly, several tests based on the empirical literature were conducted to identify which variables best explain the dependent variable, FDI. The exercise also took into account some of the quantifiable factors examined in our field study. The summary of the regressions is shown in Table 8.

The market potential variable carries the wrong sign but is only statistically significant at the 10% level in some of the tests. In addition, its coefficient is very small in all of them (table 8). Experiments with other measures of market potential, such as real total consumption and ratio of consumption to GDP, did not yield any results different from the above. We conclude that the market had very little influence on foreign investors. As noted earlier by Lizondo (1991), the influence of the market on FDI is an empirical issue. The empirical work does not support the market as an important determinant of FDI in Ghana. A plausible explanation stems from the dominance of mining over the non-mining sectors since the resurgence of FDI flows during the late 1980s. Since mining is almost entirely an exportbased activity in Ghana, there would have been no major consideration for the local market prior to investing in the sector. Of course, the world metal market, especially the bullion market, would to some extent, have been a determining factor.

Based on the findings and rationalisations above, we found it analytically expedient to exclude the market variable from at least one supplementary regression (model number 7) to enable us to compare the outcomes of the key non-market variables. Three variables were robustly significant at the 1% level in both regressions and carried the expected signs. The trade regime (REGIM), the lagged FDI and the LAGRES variables were all significant at the 1% level. We therefore categorise them as the wielders of the most potent influence on FDI. The other two variables in regression number 7 carried the expected signs, even though they were insignificant. The democratisation variable (DEMOCRA) was also positively significant at the 10% level in regressions 3, 4, 5 and 6.

The trade regime (REGIM) had the expected sign in all the tests and was robustly significant at the 1% level in all of them. This suggests that the controlled regime has had a detrimental effect on FDI. Ghana's history of controls has been characterised by overvalued exchange rates, the corrupt and erratic issuing of import licences, foreign-exchange quotas for various sectors, and rent-seeking activities. These are likely to discourage FDI inflows. The results of the REGIM variable corroborate the finding by Asante(1994) of its effect on total private investment.

The effect of public investment (PUB) was insignificant even though it had the expected sign. The role of taxation was also insignificant. This result corroborates the result of Agodo (1978) in his study of some African countries.

Surprisingly, the political instability variable only partially fulfilled the conventional wisdom. It was not statistically significant although it had the right negative sign in some of the tests, implying that it influenced FDI negatively but not rigorously so.

The results for lagged FDI, a proxy for the past investment climate, have confirmed our expectation that the investment climate in Ghana is a very important determinant of FDI inflows. The variable had the expected

52 Determinants of Direct Foreign Investment in Ghana

positive sign and was significant at 1% in all the regressions where it was included. This result supports the finding by Lall (1993). As stated earlier, this also suggests that foreign investment in one period requires foreign investment in later periods, for example, to complete a project, to improve on past investment, to expand capacity, etc.

The results also show that LAGRES(the lag of the residual from the cointegrating regression) carries the expected sign and significant at the 1% level. This implies that when FDI deviates from its long-run level, there is an built-in mechanism to correct the distortion. The coefficient of about 0.5 indicates that about 50% of the deviation from equilibrium is corrected each year.

Financial market variables

The worry within the private sector over the negative effect of high interest rates on investors was not confirmed in the results. The lending rate (LRATE) was insignificant and was dropped from subsequent tests as mentioned earlier. A plausible explanation is that, while the regression was over a period during which (on average) the lending rate was not a constraint on FDI, the survey was conducted at a point in time when the lending rate was a severe constraint. This is supported by the fact that in 1983, the lending rate was only 19%, but between 1984 and 1996, it more that doubled to 47%.

The variability of the real exchange rate (CVRER) has the expected negative sign in all the trials even though it is insignificant in all of them. This sharply contradicts the survey results where exchange rate uncertainty is cited as a major obstacle to FDI inflows. Again, the differences may be explained by the time dimension of the two results. Whereas it was, on average, not a major obstacle to FDI inflows over the sample period, at the time that the survey was undertaken, it became a major problem.

Export orientation

Export orientation (i.e., exports/GDP ratio) carried the expected positive sign and was statistically significant. It is significant at the 5% level in five of the reported equations and significant at the 10% level in two of them. Given the dominance of minerals, especially gold mining, in FDI, and the expansion of mineral exports, this is not a surprising result. It suggests that the extent of export orientation of the economy is quite significant to reassure the foreign investor as to the broad avenues for exporting. Our results support those of Singh and Jun(1995) in their cross-country study in which export orientation had the strongest positive correlation with FDI.

Democratic pre-conditions for FDI

The worldwide call for democratic traditions as providing an enabling environment for FDI flows was validated by the study. The democracy dummy was found to have the expected positive sign and to be significant at the 10% and 5% levels in some of the equations in Table 7. In a wider sense, this finding was found to be applicable to both FDI and economic growth in Ghana (Tsikata, 1977, 1996a). The variable emerged as one of the robust determinants of FDI in Tsikata's 1997 study.

By implication, if Ghana aims at accelerated economic growth and FDI inflow, the ongoing experiment in parliamentary democracy must be given an adequate chance to succeed.

	FDI	GDPGR	REGIM	PUB	DFGDP	TXGDP	LGFDI	CVRER	LRATE	EXPGDP	DEMOC	POLNS
FDI	1.00	20	20	.16	03	.02	.85	-0.02	.10	44	.15	.11
GDPGR		1.00	30	.15	.10	12	12	0.09	01	15	.31	.27
REGIM			1.00	24	90.	07	.12	-,008	.31	.05	42	39
PUB				1.0	100.	60.	.01	0.04	.06	.12	.26	.30
DEFGDP					1.00	.08	004	.16	07	13	.30	08
TXGDP						1.00	60'-	-0.21	13	.15	.05	.04
LAGFDI							1.00	0.03	.05	57	07	.03
CVRER								1.00	-,08	.04	.18	.32
LRATE									1.00	.10	19	.04
EXGDP [*]										1.0	05	-,08
DEMOCR											1.00	.24
POLNS2												1.00

Table 7. Estimated correlation matrix of variables

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CONST	-0.757*	-0.0858*	-0.0894**	-0.0970**	-0.0970**	-0.906**	-0.0776*
	(1.7401)	(2.2054)	(2.5153)	(2.5130)	92.5224)	(2.4386)	(2.0891)
RGDP	-0.0001	-		-	-	-	-
	(0.1999)	-		-	-	-	-
PCAPGDP	-	-0.0014	-0.0029*	-0.0029*	-0.0033*	-0.0028	-
		(0.8898)	(1.8489)	(1.7828)	(1.9051)	(1.7062)	-
CVER	-0.1091	-0.1351	-2.405*	-0.2177	-0.2546*	-0.2294	-0.1431
	(0.7559)	(0.9542)	(1.7431)	(1.5105)	(1.7852)	(1.5021)	(1.0591)
PUB		-	-	-	0.0210	_	_
	-	-	-	-	(0.5863)	-	-
REGIM	-0.2991**	-0.3091***	-0.2668***	-0.2651***	-0.2601***	02594***	-0.2614
	(5.1864)	(5.4336)	(4.8144)	(4.7066)	(4,5157)	(4.2707)	(4.4490)
LAGFDI	0.3294***	0.3357***	0.3599***	0.3583***	0.3626***	0.3555***	0.3368**
	(6.2802)	(6.5257)	(7.4572)	(7.3036)	(7.3428)	(6.9402)	(6.8047)
EXPGDP	0.0137*	0.0056*	0.0162**	0.0155**	0.0155**	0.0156*	0.0141**
	(2.0640)	(2.2008)	(2.6866)	(2.5053)	(2.4967)	(2.4523)	(2.2423)
DEMOCRA		-	0.2448**	0.2373*	0.2443*	0.2295*	0.1524
			(2.1876)	(2.0781)	(2.1427)	(1.9134)	(1.4335)
POLLINS	-	-	•	-	-	0.0249	•
	-	-	-	-	-	0.3143	•
AGRES	-0.5703***	-0.5455***	-0.4708***	-0.4746***	-0.4458***	-0.4840	-0.5552**
	(3.9836)	(3.9124)	(3.5713)	(3.5424)	(3.1637)	(3.4344)	(4.2279)
TXGDP	-	-	-	0.0696	-	0.0665	-
				(0.0696)	•	(0.6269)	-
Adj. R²	0.8930	0.8971	0.9142	0.9115	0.9109	0.9066	0.9032
o₩-Stat	2.1917	2.2274	1.9825	2.0849	2.0592	2.0587	1.9372

Table 8. FDI regression results

*** Significant at the 1% level ** Significant at the 5% level * Significant at the 10% level: t-ratios are in parentheses

Survey Outcomes and Implications

Introduction

Although it is a labourious exercise, it has become fashionable either to test the validity or to supplement the results of econometric time series work with those based on surveys. In the present study, a number of factors that influence FDI, especially the qualitative ones, cannot be adequately captured in a time series. Thus, the basic goal of the survey was to capture the quantitative and qualitative factors which determine the flow of FDI in Ghana. It is hoped that the outcomes will enhance knowledge acquired from the econometric approach above. More specifically, since time series analysis is undertaken over a number of years and the survey is undertaken at a particular point in time, the survey is also intended to ascertain whether some factors identified in the regression analysis as significant obstacles to (promoters of) FDI inflows are still acting as constraint promoters at the time the survey is undertaken.

Our own experience and the paucity of survey-based research results on FDI flows in Ghana amply indicate the bottlenecks in field studies on FDI, due to both economic and ideological reasons. In the latter case, the radical (Marxist) colouration of some of the previous governments and the expropriations and nationalisations of private sector activities during the period prior to the ERP/SAP continue to haunt investors, especially those who are risk-averse. On the economic (financial) side, the widespread tendency for businesses to associate questionnaires with assessment of their profits and tax obligations limits the scope and quality (veracity) of responses in the field. More pertinently, as noted earlier from the UNCTC report (1982), there are usually discrepancies between 'the *reported* influences on the decision-making' and 'the *underlying* influences that the investor normally seeks to take into account'

These issues became more intractable in our study because of the very nature (foreign) of investment in Ghana. Another dimension is the discriminatory practices whereby various governments provided easier conditions for the operation of state-owned enterprises in the form of guaranteed markets and prices, easier accessibility to finance and, indeed, tolerable degrees of inefficiency within the corporations, as opposed to the profit-seeking goal of the private sector, and as such the need for efficiency. Caution, therefore, plays a significant role in the divulgence of information and data in a number of enterprises. The principal researchers and field assistants conducted the survey. The questionnaire was first pre-tested and, wherever necessary, adjustments were made to ensure clarity and ease of response. In several instances where responses to field assistants were either lukewarm or hostile, the principal researchers had to rework their way into firms considered strategic to the study. To further ensure reliability of the results, questionnaire entries were discarded wherever spurious information and/or data were detected.

In addition to the survey, wherever the researchers found a particular firm's activity was of strategic importance but they could not obtain a response to the questionnaire, an interview was conducted in its place. This approach was found very useful in unravelling some of the information and opinions which a) could not be captured by the questionnaire and b) management found too sensitive to document for fear of industrial piracy and/or political reprisals.

It is against the backdrop of the above information and data and the steps taken to maximise the reliability of results that we provide the analysis below.

Composition of the sample

A total survey sample of 70 enterprises, consisting of 31 domestic and 39 FDI-based firms were covered. At the sectoral level, the distribution comprises 38 manufacturing, 9 mining and 23 non-industrial firms. The non-industrial enterprises include activities in the agricultural and services sectors. In addition to the main sample, FDI-based firms, consisting of 13 in manufacturing, 6 non-industrial and 3 in mining were interviewed. In addition to these, 10 domestic firms in manufacturing were interviewed for clarification to ensure the accuracy of the information provided as well as to obtain additional information they did not wish to document.

The interviews focussed on crucial issues relating to the following questions in the questionnaire: Q35, 40, 41, 42, 47, 49, 60.

General analytical framework

While the main body of the analysis below will concentrate on the complete sample, in selected cases the FDI outcomes will be compared with those of the domestic enterprises in order to ascertain the differences. Sectoral

58 Determinants of Foreign Direct Investment in Ghana

outcomes for FDI-based enterprises will also be analysed. They will include results for the manufacturing and non-industrial sectors lumped together. Mining is treated separately for reasons noted earlier. Aggregate values for the total samples will also be provided in the tables without rigorous analytical references, in the interests of brevity and analytical focus. Their inclusion is intended primarily for ease of reference by any enquirer in search of outcomes beyond the scope outlined above. Question numbers of specific issues in the questionnaire being analysed in the tables are indicated below each table heading.

Determinants of investment

The survey considered two aspects of factors determining investment in general and foreign direct investment in particular: They consist of (I) factors which influence investment positively and (ii) those which tend to inhibit the flow of investment. We examine the two components below:

Factors with positive influence on investment flows

Enterprises were asked to indicate which factors specifically determined their decision to invest. In order to facilitate the work of respondents and thus sustain their interest in the questionnaire, a number of key factors identified in the literature on investment were listed for ticking. Respondents were also offered the opportunity to indicate any other factor(s) they deemed crucial but which were not included in the list. This technique has been utilised with regard to other issues on which we found respondents unforthcoming with answers and where conclusive evidence exists in the literature. Table 9 summarises the various statistical outcomes. The following definitions refer to the survey samples in the tables:

- 1. All Firms: The complete sample in the survey.
- 2. All Firms^{*}: The complete sample minus the mining sector.
- 3. Domestic: All domestic enterprises.
- 4. All FDI: Total FDI-based sample, including activities in the mining sector.
- 5. All FDI^{*}: The sub-sample for all activities covered, except those in the mining sector.

FDI-based enterprises

The results below show that investment incentives constitute the most powerful determinant in the decision of investors in FDI-based non-mining sectors as indicated by 44% of the respondents in the sample. The case of the Volta Aluminium Company provides a classic example in which a generous set of

Table 9. Positive determinants of FDI (Q.34)

S	А	Μ	Р	L	Ε

		(9	% of responder	nts)	
Factor	All Firms	All Firms	Domestic	All FDI	All FE
Investment					
Incentives	28.8	29.4	13.6	44.0	37.8
Raw material					
availability	25.4	19.6	27.3	16.0	24.3
Market potential	23.7	27.5	27.3	28.0	21.6
Cheap labour	6.8	7.8	9.1	8.0	5.6
Political					
stability	5.1	3.9	-	-	8.1
Growth(Macroecon)	1.7	2.0	4.5	-	-
Other factors	8.5	9.8	18.2	4.0	2.7
Total	100.0	100.0	100.0	100.0	100.0

FDI-based sectoral outcomes

	SAMPL	E
	(% of responde	ents)
Manuf	Non-industrial	Mining
36.8	50.0	25.0
21.1	-	62.5
21.1	33.3	-
10.5	-	79
5.3	16.7	12.5
5.3	-	
100.0	100.0	100.0
	36.8 21.1 21.1 10.5 5.3 5.3	(% of responde Manuf Non-industrial 36.8 50.0 21.1 - 21.1 33.3 10.5 - 5.3 16.7 5.3 -

Source: Survey Data

incentives had to be guaranteed before Kaiser agreed to establish the smelter at Tema (Moxon, 1969). Most of the investment activities could be classified as small and medium scale and, traditionally, most were of British origin. The evidence therefore confirms the empirical finding by Newbould et al. (1978) that two-thirds of smaller British firms were influenced by incentives offered by host country governments. Although the ranking remains the same with the inclusion of the mining sample, the influence diminishes slightly to 37.8% of respondents. It should be noted that there are cases in the literature on some of the newly industrialising countries (NICS) (Singh and Jun, 1995) where incentives have not played a significant and conclusive role in determining the flow of direct foreign investment. Our finding, however, falls within the mainstream conclusions.

The second most important factor is market potential represented by 28% of the respondents in the non-mining FDI activities who thought it determined their decision to invest in Ghana. This result, however, does not support the one obtained in our earlier econometric approach. Compared with the market factor, the incentive package exerts more than one and a half (1½) times the influence on the decision of investors to invest in Ghana (see the percentage of responses). Inclusion of mining activities in the sample relegates the role of the market to third position, as mining in Ghana is in general, an export-oriented activity.

Availability of raw materials also plays quite a significant role in decisions on investment. It exerts about one-third the influence of investment incentives. It is necessary to distinguish between raw materials produced locally and those imported. In the case of imported raw materials, the decision to invest may depend largely on other factors, especially the incentive regime. Here the facilities under the incentive structure entice the investor who, in turn, seizes the opportunity to import the raw materials. On the other hand, local raw material availability, as a determinant, may stem not only from the use of the item, but also from the existence of a liberalised economy which enables, inter alia, the repatriation of profits. Under normal circumstances, the direct and indirect benefits conferred on the economy by the use of locally-produced raw materials outweigh those from import sources. Cases in point are the conservation of foreign exchange and the generation of jobs in the local economy where the raw material is produced. In the general FDI sample, raw material availability ranks second (24%) because of the inclusion of the mining sector which is ore-dependent.

Closely related to raw materials is the role of cheap labour, especially in decisions made by transnational corporations which are sensitive to high labour costs in their home countries. The literature maintains that most Western investment flows to the Asian Tigers were initially based on the availability of cheap labour. Probably an additional attribute is the reliability of labour in those countries as compared with some of the strike-prone sub-Saharan African countries. In the Ghanaian situation, however, only 8% of the enterprises considered labour a crucial element in their initial decision to invest. This view is further reinforced by the fact that other labour-related issues, including the potential for strikes, excessive minimum-wage demands, on frequency of leave (e.g maternity), do not constitute a primary concern for investors. Inclusion of the mining sector further reduces the influence of cheap labour to 5.6% because of the preparedness of investors to pay for the skilled labour required for operating the mines. As would be seen later, lapses in industrial work culture, however, raises some concerns for investors.

Although the need for political stability has, surprisingly, not been directly manifested in the FDI-based sub-sample(i.e minus mining), its significance is captured in the general FDI sample and later in the sector-specific subsamples. Thus, to some extent, the conventional wisdom that political instability inhibits FDI flows is, at least, partially confirmed in the study. More specifically, it confirms the findings of Ahmed (1975), Levis (1979), Schneider and Frey (1985) on developing countries in general and Agodo (1978) on African countries. Note the insignificance of political stability in the context of domestic investment below. Here, again, our direct interview results show that, in reality, investors (at least domestic ones) were much more concerned about political stability than the questionnaire results would indicate. Political instability was found to be insignificant in the econometric analysis, probably because the dummy variable could not adequately capture it.

The case of domestic investment

Within a comparative framework, the sample on domestic investment reveals two dominant determinants. Instead of the investment incentives we found in the FDI case, raw materials availability and market potential constitute the primary determinants, each factor being indicated by 27.3% of respondents. If taken jointly (market potential and macroeconomic growth to proxy the extent and stability of the market), the market factor has a slight edge (27.3 + 4.5 = 31.8%) over raw materials (27.3%). All other factors unlisted in the sample rank third (18.2%), followed by incentives (13.6%) and cheap labour (9.1%) respectively. The relegation of incentives to fourth position is understandable in the sense that many domestic firms are not beneficiaries of the incentives. In fact, the incentive scheme has been primarily geared towards attracting foreign investors. Even though some firms qualify to benefit, misgivings about bureaucratic red tape seem to lead to apathy.

Interestingly, the importance of political stability, in comparison with the factors analysed in the foregoing cases, has seemingly not been a major preoccupation of domestic investors. A plausible rationalisation may stem from the fact that, although Ghana has not attained a 'banana republic' status, frequency of instability has become so entrenched in the mind-set of the Ghanaian businessman as to be assumed a constant factor, indeed, a way of life. On a more practical note, this outcome indeed reinforces our conviction about the need for a *tête-à-tête* inquiry from investors who are likely to shy away from presumably sensitive issues of empirical interest. This line of reasoning is confirmed in the interview results provided below.

Eight of the ten domestic company executives interviewed were vociferous about the need for political stability and, indeed, likened political instability to the disaster that befalls companies with frequent changes of management, for example, difficulties in securing loans, client suspicion that a company with such instability is likely to fold up, etc. In fact, the other two executives who were indifferent to the political instability problem were in companies in which the government had equity participation. In the Ghanaian context, their position could be explained as resulting from personal indifference and/or the usual civil service requirements of the 'oath of secrecy'.

Emergence of industrial market pollution

The importance of the market factor above brings into sharp focus the increasing concern of both foreign and domestic investors interviewed about the growing incidence of industrial market pollution, which entails the importation of shoddy and/or unwholesome goods which are re-packaged under high quality brand names. Aside from the market demand limitations and the hazards involved, the credibility of the country in adhering to international patent laws is gradually being eroded, and this might eventually drive away potential investors. So far, the Ghana Standards Board has been making strenuous efforts to track down the sellers of unwholesome goods, but with little minimal success. The second offenders, the re-packagers, seem to be too elusive for an effective police crackdown.

FDI-based sectoral outcomes

In order to obtain more specific and comparative insights into the determinants of FDI, the aggregate FDI sample was disaggregated into sectorspecific outcomes for investigation. We found this approach necessary since sectoral activities differ in composition and the lifespan of projects. For example, investment in plant, equipment and machinery in manufacturing requires time to install, become operational and eventually yield profits. In the process, the key determinants leading to the investment could change to the detriment of the investor. In contrast, some transactions in the services sector are just one-day transactions which normally are not affected by the vagaries of politics or market forces. A case in point is the recent turmoil in the world financial and bullion markets. In general, planned investment in the gold industry was likely to fall. The political upheavals in the Democratic Republic of Congo and Sierra Leone, both mineral-rich countries, are bound to affect FDI inflows in the sector. Our objective here is, therefore, to examine how comparatively sensitive foreign investors are to the factors which determine FDI in the sample sectors. We relate this to the extent of response to each determinant in the sectors.

The incentive structure comes out as the dominant one in both the manufacturing (36.8%) and the non-industrial (50%) sectors. However, in the mining sector, it ranks second after raw materials, that is, ore deposits(62.5%), which is not surprising since mining is a natural-resourcedependent activity. In the case of gold mining in Ghana, we might add that the right to undertake surface mining constitutes an informal (or undocumented) incentive to invest in that line of activity. The costeffectiveness of surface mining has enticed even the big established underground mines, such as AGC, into that technology. It is imperative, however, that the long-term environmental implications (land degradation, atmospheric pollution, etc) are made part of the external cost of mining in arriving at the net benefits to the country. The ranking of incentives as the second determinant in the mining sector can be generalised to escalate to most export-oriented activities. This is validated by the Bennett et al. (1982) study which found that Australian firms in export-oriented activities going abroad categorised incentives as the second most important factor.

In the manufacturing sector, both raw material availability and market potential were found to be of equal importance and have been ranked second (21.1% each) to incentives. As might be expected, raw materials were not a key consideration for companies in the non-industrial sectors since most of them belonged to the services sector. However, the market formed the second most crucial factor (33.3%) in their decision to invest in Ghana.

Labour as a determinant of FDI was relevant only to the manufacturing sector (10.5%). The other two sectors could be described as engaging in activities in which the labour-cost component was not at a level which could seriously affect their investment decisions. In fact, virtually all the companies in manufacturing covered by the survey were paying above the minimum

wage.

In the mining sector, the new open-cast technology in surface mining is capital-intensive and as such, unlike the traditional underground technology, the wage bill was not considered a major determinant. In fact, the new mining culture emerging is more skill than labour-intensive. As the chief executive of one of the successful foreign mines pointed out: future employment in the industry is going to hinge on multiple skills, that is, employing not just a driver but rather a driver-mechanic. As will be observed in a later section, some of the companies interviewed were more concerned with lack of a corporate culture of punctuality and concentration on the job than the effect of labour cost.

At the sectoral level of FDI flows, there is no doubt that political stability is quite an important consideration for investors. The intensity of importance, however, differs among sectors. Political stability emerged as a more important determinant in the mining (12.5%) and the non-industrial (16.7%) sectors than in manufacturing (5%).

It can also be observed from the results that, in manufacturing, there were other factors which investors felt could influence FDI flows. However, respondents were not as forthcoming on specifics as was expected. Only two respondents were specific: a) in mining, high prospects in the bullion market were indicated as important and b) in manufacturing, there was an indication of the need to open up other African markets for exports from Ghana.

FDI and the Investment Code

The government's strategy for attracting FDI has been based substantially on the Investment Code, designed to achieve two goals: a) to ensure a liberal incentive framework and b) to facilitate the application of the provisions of the Code. The survey therefore sought to ascertain, inter alia, the relevance and ease of application of the Code. For analytical purposes, only entries on crucial issues were compared between domestic and FDI-based firms. The statistics on the survey outcomes are in Appendix I, Table A3.

As might be expected, domestic firms are less conversant with the Code (26.1% of respondents) than the FDI-based firms (84.6%). This is partly due to the fact that the Code has been fashioned basically for attracting FDI. However, it could be argued that sparse knowledge about the Code on the part of domestic firms could, to some extent, limit the long-term flow of FDI. Knowledge of the provisions of the Code would be necessary if local entrepreneurs are expected to initiate partnership contracts with new foreign investors. In other words, entrepreneurs might take advantage of the incentives to entice foreign investors to Ghana. There is, therefore, the need

to educate local businessmen and associations on the Code. In terms of the clarity of the Code, the majority of respondents (85.7%) clearly understood the provisions of the Code. In fact, the few who thought there were lapses could not indicate the exact areas which would require modification.

Dependence on the Code to invest was also significant (see Table A4 in Appendix I). Only 24.1 % of respondents did not base their investment plans on the Code. The rest either largely (41.4%) or to a certain extent (34.5%) depended on it. This dependence derived mainly from incentives under the Code, especially tax waivers (22.2%), accelerated depreciation (33.3%), partial foreign-exchange retention (11.1%) and the broad improvement in the investment climate (33.3%). It could be observed that the general investment climate is more crucial to investors than just the tax waivers as a key element in the incentive package. This is a partial confirmation of the empirical findings in our earlier review that the general investment climate tends to supersede all other determinants (Athukorola, 1995); Lall, 1993 and Singh and Jun, 1995. At this juncture, it might be useful to quote our earlier reference to Pfefferman's (1996) emphasis on 'the need for an overall conducive investment climate that goes beyond market size and to include law and order, secure property rights, enforceable contracts, a functional financial system, market-determined prices, including exchange and interest rates, etc.'

Conclusion

By and large, the incentive structure, availability of raw materials (in the case of mining, ore deposits), and market potential have had a dominant effect in the promotion of both domestic and direct foreign investment in Ghana. To some extent, these factors have been supported by the availability of cheap labour and a relatively more stable political environment than could be found in other countries in the sub-region.

Factors inhibiting FDI flows (obstacles to investment)

This part of the survey went into the most important factors identified in the literature as inhibiting investment, especially those with negative influence(s) on FDI. These negative factors can be categorised into three main sets of inhibitions:

(I) government-induced inhibitions such as high tax levels, government attitude towards the private sector;

66 Determinants of Foreign Direct Investment in Ghana

- (ii) private sector-induced inhibitions, for example, lack of demand; and
- (iii) quasi-government-induced inhibitions, for example uncertainties in the economy.

A fourth set of inhibitions comprises those which can be classified as external to the domestic economy, and which cannot therefore, be subject to domestic policy measures or controls for remedial action, for example, the prices of the country's exports on the world market and the policies of other countries, such as banning their citizens from investing in Ghana because of economic and/or political disagreements.

Following our previous format, a number of obstacles identified in the literature were tabulated for respondents to identify as inhibiting the flow of FDI. Table 10 conveys the percentage responses of enterprises which regard the various factors listed as impacting negatively on their decision to invest in Ghana.

		S A	MPLE		
Obstacle	All Firms	(% of All Firms*	respondents) Domestic	All FDI *	All FDI
Uncertainty about					
the economy	27.6	28.0	14.3	38.5	35.1
Govt's unfavourable					
attitude towards					
private investment	3.4	4.0	9.5	-	· -
High level of taxes	8.6	10.0	9.5	11.5	8.1
Problem of obtaining					
Credit	19.0	20.0	38.1	7.7	8.1
High level of					
interest rates	22.4	26.0	23.8	26.9	21.6
Lack of demand	5.2	6.0	-	11.5	8.1
Lack of raw					
materials	3.4	-	-	-	5.4
Infrastructure	3.4	4.0	4.8	-	2.7
Other	6.9	2.0	_	3.8	10.7
Total	100.0	100.0	100.0	100.0	100.0

Table 10. Obstacles to FDI (Q.35)

Obstacle	Manuf.	(% of respondents) Non-industrial	Mining
Uncertainty about			
the economy	42.1	33.3	25.0
Govt's unfavourable attitude towards			
private investment	-	_	
High level of taxes	10.5	-	-
Problem of obtaining			
Credit	10.5	-	12.5
High level of			
interest rates	21.1	50.0	•
Lack of demand	10.5	-	-
Lack of raw			
materials	_	_	25.0
Infrastructure	-	16.7	-
Other	5.3		37.5
Total	100.0	100.0	100.0

FDI-based sectoral outcomes

Source: Survey Data

Note: All Firms* = All Firms minus Mining

The profile of the FDI flows indicates that the degree of uncertainty about the economy constitutes the most important obstacle to investment (35.1%). This factor would largely consist of the macroeconomic growth trend, the movement of factors which fuel inflation, for example, budgetary deficits, etc. As might be expected, at the domestic level, only slightly over 14% regarded it as an obstacle. The potency of this factor is further confirmed at the sectoral level, where over 42% of respondents in the manufacturing sector, 33.3% in the non-industrial and 25% in the mining sectors identified it as a major obstacle to their decision to invest in Ghana. The next significant obstacle identified as inhibiting investment was high interest rates, (21.6% of respondents in the sample). It is followed jointly by the problems of access to credit (8.1%), high level of taxes (8.1%) and lack of demand (8.1%). In terms of domestic investors, the main obstacles to investment are the twin problems of access to credit (38.1%) and high interest rates (23.8), summing up to almost 62% of respondents, compared with 29.7% of foreign investors. Although the role of infrastructure has been portraved as having minimal influence (2.7%) in the sample, at the sectoral

68 Determinants of Foreign Direct Investment in Ghana

level, it emerged as the most crucial obstacle in the mining sector. This again justifies the need for disaggregation in order to unmask important issues hidden in the aggregate sample (i.e. All FDI).

At the sectoral level, estimates for the manufacturing sector also confirm the second and third rankings of interest rates (21.1%), high tax rates (10.5%) and lack of demand (10.5%).

Interest rates, credit availability, tax rates and FDI flows

Based on the concern over high interest rates, availability of credit and high tax rates, the researchers explored the three obstacles further through interviews. Although it might seem anomalous for FDI-based firms to complain about high interest rates and credit accessibility, two main reasons emerged to justify that concern.

Start-up phase: This is the phase where local partners are required to provide counterpart financing to supplement that of the foreign investor. The finance is mainly geared towards the acquisition of local resources (e.g. raw materials). In situations where the partner has limited funds, the availability and cost of credit (interest rates) become crucial for the venture to get off the ground. This phenomenon has earlier been identified as a key constraint on agricultural FDI in particular.

Operational phase: Some firms claimed they occasionally resorted to bank facilities because of low internal cash flows in purchasing raw materials and for wage payments. Moreover, expansion of investment to meet increased market demand may go beyond the reach of internally generated investable funds.

These reasons tend therefore to legitimise the concern over non-availability of credit and high interest rates.

Determination of a realistic interest rate

The high interest rate problem was 'debated' at the various interview sessions in order to establish what might constitute a realistically applicable rate for investment promotion.

As a point of reference, the finding in the Baah-Nuakoh et al., study (1996) was used. That study indicated, *inter alia*, that the majority of entrepreneurs regarded an interest-rate range between 10% and 15% on working capital as appropriate. Out of the 21 company executives who provided recommendations, sixteen 16 (76%)considered an interest-rate range between 21% and 25% tolerable. It must be said that investors do recognise the riskier nature of loans for investment purposes as compared with those pertaining to working capital and, as such, equally recognise the

need for some level of discriminatory rates chargeable on each category. Excluding the commercial banks, the question is: which financial establishment is going to handle the kind of soft loan required to promote long-term investment? This is a crucial question that the government needs to address in the light of the fact that the National Investment Bank has now veered from its primary objective, of providing long-term development finance, into commercial banking and is, moreover, undergoing divestiture.

Tax structure and rates

In general, the results on tax rates from the questionnaire and the interviews were almost the same in the FDI firms. The majority (over 50%) of respondents indicated that the tax rates were tolerable. On the other hand, the domestic firms, despite the majority of them indicating in the questionnaire that the tax rate was too high, admitted in the interviews that it was tolerable. By implication, the existing tax rate could be viewed as not a major hindrance to investment activity, even though, as will be observed in the next section, it might still require further adjustments to shore up private sector activity.

The researchers also took advantage of the interviews to probe into the feasibility of implementing Value-Added Tax (VAT). The reaction of most of the FDI-based firms at the time (prior to the implementation) was one of indifference. This was probably because most of the firms interviewed were familiar with the operation of this tax system either from their home countries or elsewhere. The problem, however, was with the domestic firms, most of which felt the scheme would stifle their businesses because of what they claimed was their past experience with it. Secondly, both the domestic and the FDI-based firms felt that if it had to be implemented at all the rate should not exceed 10% and that sufficient education would be needed prior to implementation. Indeed, a number of economists are in agreement with this rate structure and the requisite educational campaign before the implementation of the scheme (Tsikata and Amuzu, 1997).

In the non-industrial sectors, only three main obstacles have been identified as inhibiting foreign investment, namely, a) high interest rates (50%); b) uncertainty about the economy (33.3%); and c) infrastructure (16.7%).

Aside from infrastructural services as the most important obstacle (37.5%) in the mining sector, three other problems were identified: a) uncertainty about the economy (25%); b) ore discoveries (25%); and c) problem of access to credit (12.5%).

As in the case of interest rates analysed above, difficulty in obtaining

access to credit was a problem too in the mining sector emanating from local partners who needed to borrow from the local financial markets to fulfil their partnership obligations.

Obstacles and policy decisions benchmark

Recognising the need for stability and transparency in public economic management which can enhance investment planning and execution, respondents were asked to rank as a) no obstacle at all; b) minor obstacle; and c) major obstacle various identified uncertainties which they would regard as affecting the expansion of their investment. Table 11 contains the outcomes for the various factors. To allow for policy inferences, we provide a policy implementation criterion below.

After vigorous interaction with the various stakeholders in the sectors covered by our sample, we conceptualised that it would be in the interest of policy-makers to devise a criterion for categorising the magnitude and enormity of the obstacles for policy action. Based on interviews, characterised by a substantial degree of candour and supported by the survey outcomes, we postulate the following benchmark for policy action:

- For responses between 30 and 39%, an obstacle should be viewed as serious enough to generate serious policy debate which should eventually lead to appropriate measures being taken; and
- For responses of 40% and above indicates the need for prompt policy formulation and implementation.

This criterion is not cast in gold. It contains some degree of arbitrariness. It is a prioritisation schema which can be scaled either upwards or downwards, subject to the prevailing politico-economic conditions such as the availability of financial resources and the potential threats to political stability.

It can be observed from the Table 11 below that foreign investors, in general, were most concerned about two specific categories of uncertainties: a) exchange-rate uncertainty (67.9%) and b) interest-rate uncertainty (64.0%), plus c) other unspecified factors (67.7%) including erratic power and water supply and, to some extent, uncertainties in the legal framework of the country. Based on our criterion above, urgent exchange and interest-rate policies would be required to accelerate FDI flows.

		(% of res	pondents)		
Obstacle	All Firms	All Firms*	Domestic	All FDI*	All FDI
Exchange-rate					
uncertainty	71.4	77.8	76.2	81.8	67.9
Demand uncertainty	18.6	20.5	22.2	15.0	16.0
Interest-rate					
uncertainty	71.7	76.2	81.0	75.0	64.0
Political					
uncertainty	15.9	17.9	22.2	10.0	11.5
Uncertainty about					
taxes	32.6	36.6	55.0	20.0	15.4
Other	60.0	66.7	-	67.7	60.0

Table 11. Uncertainties as major obstacles to FDI (Q38)

FDI-based sectoral outcomes

	S A M	PLE	
	(% of resp	ondents)	
Obstacle	Manuf .	Non-industrial	Mining
Exchange-rate			
uncertainty	66.7	71.4	75
Demand uncertainty	21.4	-	-
Interest-rate			
uncertainty	66.7	66.7	25.0
Political			
uncertainty	14.3	**	-
Uncertainty about			
taxes	21.4	57.1	-

Source: Survey Data

Note: All Firms* = All Firms minus Mining

Domestic investors were equally concerned about exchange rate stability (76.2%) and interest-rate uncertainties (81%). However, they were more specific in the third category in which uncertainties about taxes (55%) were specified. Again, all three uncertainties qualified for urgent policy attention. At the sectoral level, the outcomes followed a similar trend. In both the manufacturing and non-industrial sectors, exchange-rate and interest-rate uncertainties were rated high enough to merit policy attention, that is, 66.7% and 71.4%, respectively for exchange rates and 66.9% for interest rates. In the non-industrial sector, in addition to exchange and interest rate

uncertainties, uncertainties about taxes were ranked to the extent (57.1%) which would require urgent policy attention. By their very nature (foreign), the FDI-based enterprises were most concerned about the exchange-rate uncertainties because of their various transactions in foreign exchange such as the purchase of intermediate inputs and the repatriation of profits and dividends to their home countries.

Most serious uncertainty

Asked to indicate the most (only one) serious uncertainty, all the samples revealed that foreign-exchange uncertainty has the most serious influence on investors. It is without doubt considered more seriously in the FDI sub-sample (73.7%) than the domestic (58.3%) enterprises, for reasons related to FDI transactions as stated above. Since earnings from the mining sector are in foreign exchange, the economy-wide sample on FDI (All FDI) reveals a lower premium (53.6%) on the foreign-exchange uncertainty factor. The statistics are given in Table A2 in Appendix I.

The above outcome shows that the mining sector as an export-based activity is less dependent on the country's foreign-exchange transactions than all other sectoral activities. The conservation of foreign exchange, the country's earnings from equity participation, royalties to both the government and the local authorities as well as the employment being generated make the sector an attractive source of economic growth, provided the necessary environmental safeguards are put in place, as indicated by Tsikata (1995).

Start-up problems and post-investment issues

For the study to be more policy-rewarding, selected key start-up and postinvestment activities were examined. The results provide further insight into the intricacies of FDI activities in Ghana.

The main start-up problem encountered by foreign investors was identified as the approval delays by various establishments responsible for clearance in connection with different aspects of the investment process. In recent years, this factor has assumed a critical dimension internationally because of easier access to alternative FDI destinations in the Third World and the transition economies in Europe than used to be the case in the past. Countries such as Indonesia and Malaysia have therefore sought to minimise the bureaucratic time lags not only in terms of project approvals, but also for access to approved incentives and inputs. The one-stop concept which is gradually becoming popular illustrates the concern of host country governments on the issue. The survey revealed that the majority of FDI investors expend an average of four weeks in obtaining the approved applications to establish a business from the Ghana Investment Promotion Centre. This appears to be quite a reasonable time lag but one which will require further improvement. The main problem, however, related to the delay in obtaining land titles where new factory buildings were to be constructed. One should hasten to point out that the problem transcends just FDI start-up activity. In fact, land litigation seems to constitute an ever-present constraint on overall industrial development. The practices inherent in such prolonged delays, and the accompanying frustrations revealed in our corporate interviews, can thus erode Ghana's position as a potential FDI-friendly destination.

The study went further into post-investment issues, which might impact on future investors and therefore require policy attention. Here again, our benchmark for policy action has been applied. From the survey results and interview responses, the following operational difficulties emerged.

Fiscal problems

We have already noted that corporate taxes in general were deemed tolerable and, therefore, do not seem to constitute a major operational bottleneck. However, the scheme under which firms are required to pay taxes up-front has posed problems for businessmen in general. This was indicated in all the relevant samples in the survey and confirmed by the interview outcomes. In Table 12, cumulative percentages of Moderate, Severe and Very Severe are provided.

The tax is actually a withholding tax in which beneficiary ministries and institutions of public projects and programmes are required to withhold 5% of payments due to contractors prior to the assessment of total tax liability for each quarter (or year). Over-payments are refundable, while underpayments are recoupable from the contractors at the end of the quarter (or year). The scheme obviously has two advantages for the government: I) as a quasi-captive tax, it provides an often much-needed short-term source of revenue; and ii)it facilitates efforts at minimising evasion. Its evolution partly emanated from the practice whereby at the end of a project some contractors unscrupulously liquidated their companies in order to evade their tax obligations.

74 Determinants of Foreign Direct Investment in Ghana

Table 12. Operational difficulties (Q.26) S A M P L E

NB: Cumulative perc	entages fo	•	spondents) Severe and Ver	y Severe	
Difficulty	All Firms	All Firms*	Domestic	All FDI*	All FDI
Up-front tax					
payments	69.5	78.4	88.0	69.6	56.0
Minimum wage					
requirements	37.0	34.8	50.0	21.1	26.6
Regulations about					
working conditions					
(e.g maternity leave, vacations,					
hours of work etc.	38.9	34.0	6.0	31.6	43.4
Restrictions on	50.7	54.0	0.0	51.0	т.т
hiring foreigners	37.3	30.2	29.0	36.8	50.0
Strikes or labour	0,10	00.2		0010	0010
union agitations	39.0	29.4	31.6	28.6	45.5
-					

FDI-based sectoral outcomes

		SAMPLE	
		(% of Respondents)	
Difficulty	Manuf.	Non-industrial	Mining
Up-front tax			
payments	70.6	50.0	-
Minimum wage			
requirements	1.4	-	-
Regulations about			
working conditions			
(e.g maternity			
leave, vacations,			
hours of work etc.	35.6	40.0	14.3
Restrictions on			
hiring foreigners	35.7	40.0	-
Strikes or labour			
union agitations	40.0	-	-

Source: Survey Data

Businessmen contented that finance constitutes one of the main constraints on expansionary activities in terms of availability and cost (interest charges) in many sectors. We have already found that accessibility to finance and, to some extent, high interest rates were among the most crucial problems for investment. There is therefore a high opportunity cost attached to the fiscal requirements of a withholding tax; the money could be utilised as investable funds. A second opportunity cost is the inflationary erosion in the value of the money by the time refunds for over-payment are effected. In sum, levying a withholding tax against the backdrop of credit scarcity poses a major constraint on operational finance which, in turn, has a negative impact on industrial growth.

The foregoing calls into sharp focus the need for a policy alternative which can free the monies to be withheld for investment purposes. For example, a collateral scheme could be incorporated into contract bids such that the government could impound items used as collateral just as the banks do.

The problem of utilities

In general, infrastructural facilities constitute a major cost component in industrial activity. In some developing countries where industrialisation is at the forefront of overall economic development strategy, there is often a builtin subsidy for essential economic infrastructural facilities such as electricity and water. This is mostly expressed in prices below the equilibrium market prices based on supply and demand. Until recently, Ghana fell into this category. The survey indicated that electricity and water were the two main utility problems confronting FDI-based, as well as domestic, enterprises. Table 13 shows that for the FDI-based firms, 37% deemed electricity and water supply on its own as an obstacle to investment as compared with 50% for domestic firms. Almost 23% of the FDI firms and 20% of domestic firms saw electricity and water supply jointly as obstacles to investment. In FDIbased manufacturing and mining, almost 44% and 56% respectively considered electricity supply alone as the main obstacle. Thus, electricity, as an intermediate input, constitutes the single most important problem in utilities. On a cumulative basis, electricity and water-related problems implicitly account for 60% in FDI activities and 70% in domestic investment activities. The difference here stems from the fact that most of the FDI companies had stand-by generators and water tanks to cushion the effects of shortfalls in water and electricity supplies.

At the sectoral level, the survey reveals that it is the mining sector which

76 Determinants of Foreign Direct Investment in Ghana

is most affected by inadequacy of electricity supply. This is mainly due to the fact that the nature of the activity is energy-intensive.

Table 13. Utilities as obstacle to FDI (Q.44)

SAMPLE

(% of Respondents)

Utility	All Firms	All Firms	Domestic	FDI-Based
None	10.9	13.0	10.0	11.4
Electricity only	41.8	39.1	50.0	37.1
Electricity and water	21.8	23.9	20.0	22.9
Telephone, fax, letter	9.1	8.7	10.0	8.6
Water, electricity, &	9.1	10.9	10.0	8.6
Other	3.6	4.3	-	5.7
4825	3.6	5.7	-	
Total	100.0	100.0	100.0	100.0

FDI-based sectoral outcomes

S A M P L E

	(% of respondents)		
Utility	Manuf.	Mining	Others
None	12.5		14.3
Electricity only	43.8	55.6	14.3
Electricity and water	31.3	11.1	28.6
Telephone, fax, letter	6.3	11.1	28.6
Water, electricity, &	6.3	22.2	14.3
Other			+
Total	100.0	100.0	100.0
C C D.			

Source: Survey Data

Note: All Firms = All Firms minus Mining

The nature of the problem in the supply of electricity and water is the frequency of disruption and, at times, outright stoppages. In the case of electricity, two main concerns exist in industry:

i) fall in output and redundant workers who must be paid full wages under the contractual arrangements with the labour unions. Indeed, all enterprises pay above the minimum wage stipulated by the government; and ii) damage to machinery and equipment due to frequent voltage variations and power outages.

As indicated, to overcome this virtually perennial energy problem, both large and medium-scale energy-using companies have had to divert investable funds into stand-by power generators (or mini thermal plants) at enormous operating cost. The recent energy shock (March-November 1998) nearly broke the camel's back. It virtually exposed the country as energy-vulnerable.

In terms of water, measures taken by companies to minimise the problem have included the use of wells and storage tanks. Until these two problems are solved permanently, some potential investors are unlikely to see Ghana as a favourable FDI destination. Admittedly, the government is speeding up the establishment of thermal units at strategic locations such as Tema, a major industrial/harbour city near Accra, to supplement the supply of hydroelectricity from the Akosombo Dam.

The energy problem reached a head in January 1998 when the Volta River Authority (VRA) had to resort to curtailment of supplies to save the dam from complete shutdown due the low water level caused by a severe drought in the catchment area. A brief analysis of the impact of this energy shock is provided at the end of this chapter.

Labour-related problems

The Ghanaian economy can be seen in the context of a Lewis-type laboursurplus economy where the low (or zero) opportunity cost of labour as a key production factor can be tapped for industrialisation. While Lewis was concerned with the transfer of surplus labour from the agricultural(ruralbased) sector to the modern sector which is mostly located in the urban area, Ghana already has a large pool of unemployed labour in the urban areas. By implication, low-cost labour should constitute a major attraction to investment and labour-intensive techniques of production. As pointed out earlier, to some extent low labour costs have played a (or almost) significant role in promoting FDI (Schneider and Frey, 1985; Caves, 1974). In the African context, Agodo (1978) found no significant relationship.

The survey showed that high labour costs posed a significant problem only to domestic firms where, cumulatively, 50% of them found the minimum wage requirements were causing moderate, severe and very severe difficulty. The remaining 50% did not consider them as causing any problem. In contrast, as many as 73% of FDI-based firms found the minimum wage posed no obstacle to their investment plans and current operations. In fact, all the FDI-based firms surveyed were paying far above the minimum wage. In some sense, this would imply that Ghana could pass for a low-wage country capable of attracting labour-intensive FDI activity.

Other regulations on working conditions such as maternity leave, hours of work and vacations have featured quite significantly (domestic=36% and FDI=31.6%) and merit a re-visit and some policy adjustments.

Surprisingly, strikes and labour union agitations have also been seen as posing no serious problems which could affect production. The impression we gathered was that there was some degree of calm within the labour ranks due to two factors: i) scarcity of alternative jobs and ii) intensive educational campaigns for the rank and file members of the Trades Union Congress (TUC) and the realities of the labour market. The about-turn from a riotous and confrontational to an understanding labour force is probably an indication that a long-term educational strategy by the TUC to inculcate an industrial sense of responsibility and commitment in their members may, eventually, lead to the Confucian-type work ethic which has been instrumental in the rapid growth and development of some of the newly industrialising countries (NICs) in Asia.

Other socio-economic factors: interviews

Corruption

While corruption was generally considered a bane in FDI activities, most investors admitted that the problem in Ghana was within more manageable proportions than in most countries in sub-Saharan Africa, especially Nigeria. Of greater concern to investors, however, was the incidence of pilferage at the ports, at times with the connivance of the security officers. It appears the surveillance systems at the ports are weak and need to be upgraded.

Work ethic

Lapses in the 'modern' industrial work ethic, and cases of idling on the job were also found to constitute a problem for investors. Cases have been reported where foreign management were blackmailed for reprimanding workers who failed to meet the required industrial standards (honesty and punctuality). In extreme cases, managers were accused of casting 'racial slurs' on Ghanaian workers and the latter embodied on strike action and/or demanded the deportation of the accused person(s). This is a grey area which the government needs to investigate thoroughly to establish the facts before resorting to sanctions against the investor. If not undertaken judiciously, it might negate the country's efforts at establishing an investorfriendly environment in which socio-cultural harmony should be a key ingredient.

The state of the bureaucracy

In general, interviewees stated that in the last few years bureaucratic bottlenecks which tendering to retard investment activities were on the decline. However, they were equally emphatic about the need for government vigilance over the conduct of customs officers who allegedly tend to manipulate the regulations and whitewash bribery/corruption on the part of some officers into what is now dubbed 'goodwill donations'.

Performance and confidence in the economy

Private enterprise as a profit making activity must necessarily consider the chances of success/failure before embarking on an investment venture. If it is a new business area, then confidence in the economy is a crucial factor in the decision- making process. If precedents exist in the line of activity envisaged, then the performance of existing companies provide a measure for deciding whether to invest or not, based on the prevailing rates of profitability.

If the entrepreneur operates under the Baumolian sales maximisation hypothesis (Baumol, 1959), then he will be more concerned with the extent of capacity utilisation, among other factors.

From the above conceptualisations, two methods were therefore used to ascertain the performance status of the enterprises surveyed: I) capacity utilisation and ii) implicit profit approaches. We assumed that the investor would find both of them imperative in the decision-making process.

Capacity utilisation approach

Enterprises were asked what they would consider their full capacity levels and what those levels were in 1994, 1995 and 1996. The results were divided into two parts – enterprises which operated below 50% of capacity and those above 50% during the year. The outcomes are shown in Table 14.

				······
Sample:	Level of Operation	1994	1995	1996
Period Ave	(Percent of Firms) 1994-1996			0
All Firms	Below 50%			
All Firms* 41.4	49	44.1	44.7	35.5
Domestic	rt	38.9	45.0	43.8
42.6 All FDI [*]	Ŗ	46,7	37.5	21.4
35.2 All FDI		42.1	39.1	25.0
35.4				
All Firms	50% and above			
All Firms* 58.6	n	55.9	55.3	64.5
Domestic	29	61.1	55.0	56.2
57.4				
All FDI*	н	53.3	62.5	78.6
64.8				
All FDI		57.9	60.9	75.0
63.5				

Table 14. Capacity utilisation (Q 30: 2a, b, c.)

Sources: Survey Data

Note: All Firms* = All Firms minus Mining

In all three years, the number of FDI-based firms with capacity utilisation levels above 50% increased. This implies a decrease in the number of firms operating below 50% capacity. In the All FDI sample, from 57.9% of firms operating above 50% capacity, the percentage rose to 60.9% and 75.0% in 1995 and 1996, respectively. This sums up to a period average of almost 64%.

In the case of domestic firms, 1995 was a slump year in which the percentage of firms operating above 50% dropped to 55% from the 61% level attained in 1994. A minor recovery, however, occurred in 1996 to raise the figure to 56.2%.

Based on the sample period averages, it could be observed that more FDIbased firms (63.5%) operated at higher capacity levels than domestic firms (57.4%). The most likely reason for this comparative edge was the easier accessibility of operating finance (internally generated or borrowed) by the FDI-based than the domestic firms. It is usually easier for foreign firms to borrow from the financial market than domestic firms because the latter lack the required collateral to cover the loans. Moreover, the default rate is often higher amongst domestic than foreign firms.

Implicit profit approaches

A general problem for surveys at the firm level in developing countries is the non-revelation of profit profiles. In the Ghanaian case, experience from the revolutionary years has made the private sector over-sensitive to questions about profits. At best, direct questions on profit yield either inaccurate data or blank spaces. At worst, the whole questionnaire could be rejected by the targeted respondent with diplomatic excuses. In order to avoid this prevalent suspicion and apprehension, an indirect method entailing the assessment of their activities in four categories as I) very successful, ii) successful, iii) quite successful, and iv) not so successful, was adopted. We have assumed that admission of success implicitly reflects earning of profits. The first three categories were, accordingly, aggregated to obtain a general picture about successful firms. The results show that 72% of the FDI-based firms considered their operations to be generally successful, implying that they were earning profits. Almost 81% of the domestic firms classified themselves as successful. While we suspect some impressionistic exaggerations on the part of the domestic firms, we think it is plausible to posit that the foreign firms might also have acted with some degree of caution by, probably, understating their success levels. The statistical outcomes are shown in Table 15.

	SAM P	LE		
	(% of respon	dents)		
Success Level	All Firms	All Firms*	Domestic	FDI-Based
Very successful	7.9	7.3	3.8	4.0
Successful	36.5	38.2	30.8	52.0
Quite successful	30.2	30.9	46.2	16.0
Not so successful	25.4	23.6	19.2	28.0
Total	100.0	100.0	100.0	100.0
Cumulative values:				
From very to quite successful:	74.6	76.4	80.8	72.0

Table 15. Performance status of enterprises (Q.72)

	(% of Respondents)			
Success Level	Manuf.	Mining	Others	
Very successful	5.6	12.5	28.6	
Successful	50.0	25.0	28.6	
Quite successful	22.2	25.0	14.3	
Not so successful	22.2	37.5	28.6	
Total	100.0	100.0	100.0	
Cumulative Values:				
From very to quite				
successful:	77.8	62.5	71.5	

SAMPLE

FDI-based sectoral outcomes

Source: Survey Data

Note: All Firms* = All Firms minus Mining

We can thus conclude that, even in the absence of any rigorous cost-benefits analysis, the business climate (profitability) indicates that foreign investors are capable of generating profits which will justify any appropriate venture undertaken. This, in turn, should project a positive profit outlook on Ghana. In general, therefore, positive rates of return on investment (success in business) could be considered as implicitly influencing the flow of FDI in Ghana.

Confidence in and direction of the economy

Closely related to the above consideration is the ongoing debate about business confidence in the economy and the future direction of the economy, i.e, market-oriented versus state-guided economic management.

Entrepreneurial confidence in the economy constitutes a crucial element in enhancing corporate planning for future investment and long-term development of a corporate culture conducive to sustainable economic development. This, in turn, depends on factors such as economic growth, monetary and fiscal stability, predictability of the market, adequate guarantees for investment, among others. Guarantees become crucial for potential investment in an economy which had undergone some excesses during a revolutionary era. More specifically, Ghana's revolutionary past, from the Acheampong-Akuffo regimes (1972–9) to the two Rawlingsian dispensations of 1979 and 1981–92 naturally tends to send a message of caution to the prudent and risk-averse investor, especially the domestic business tycoons. The survey, therefore, took due cognisance of this factor by ascertaining the image of Ghana 'as a good place for private investment'. The breakdown in Table 16 shows that efforts being made by the government to create a congenial investment climate are gradually picking up. FDI-based companies appear more confident about the economy (81.6%) than their domestic counterparts (68.0%). The difference is not surprising because the weight of the extra-judicial measures applied during the revolutionary periods under consideration was severer on domestic than foreign firms. The domestic scars are yet to be healed by government gestures and pronouncements.

At the interview level, scepticism was much more intense in the domestic business community and views were more forthright and pervasive, especially with regard to the extent of the government's commitment to private sector development. A significant number of chief executives argued that the government's stance on the private sector was perfunctory and that it had been forced on it by the Bretton Woods institutions and was not based on its own convictions. Most of them based their argument partly on past confiscations of businesses and assets. Although the foreign investors seemed quite indifferent, some of the key domestic partners interviewed cited, as a classic example to reinforce their positions, the case of Tata Brewery which was established by a quasi-literate entrepreneur from very modest financial beginnings. The company was confiscated during the Rawlingsian revolution and the owner went into exile in Liberia where he died a few years later. This and a few other cases seem to have made a negative impression on some of the potentially powerful domestic investors. In recent times, businessmen sympathise with the opposition political parties also complain of being denied opportunities (e.g the purchase of SOEs from the ongoing divestiture programme) through various bureaucratic manipulations even if the transaction involved foreign partners holding majority shares. While the allegations might have been true at the time of the interview, it would only be fair to observe that the DIC, in recent times, has appeared to seek to approach its transactions more transparently and judiciously by advertising in the local press. The message, however, is clear that it is imperative for the government to mount an image-building campaign to demonstrate its commitment to private sector development. This, in turn, might impact positively on potential foreign investors. In sum, the government's FDI promotion drive should be guided by the refrain 'charity must begin at home' in order to produce the requisite demonstration effect on foreign investors.

More specifically, we posed the question as to how managers perceived the

84 Determinants of Foreign Direct Investment in Ghana

investment climate. In general, the response was on the 'favourable' side. For example, in the foreign investment community, 73% of respondents felt that the climate was favourable for investment activities, and 27% thought it not so favourable. If the indications are authentic, then it would seem that the strategy of promoting private investment, especially foreign investment, is gradually generating a positive result. In the following section, an attempt will be made to examine how concretely these positive perceptions are being translated into actual investment undertakings.

Table 16. Perception of Ghana

% of respondents				
SAMPLE	Yes	No	Do not know	
All Firms	76.2	12.7	11.1	
All Firms*	75.9	13.0	11.1	
Domestic	68.0	12.0	20.0	
All FDI*	80.8	15.4	3.8	
All FDI	81.6	13.2	5.3	

i) As a good place for investment (Q50)

ii) Investment climate

	Not so Favourable	Favourable	Unfavourable
All Firms	56.7	40.0	3.3
All Firms [*]	51.0	45.1	3.9
Domestic	-	-	-
All FDI*	68.0	32.0	-
All FDI	73.0	27.0	-

Source: Survey data.

Investment trends and potential

On the whole, fixed investments have been on the rise as indicated in Table 17. Of all the firms surveyed, almost 61% indicated that their fixed investment over the previous two years, 1995–96, had increased. Whilst 26% were virtually stagnant, about 14% experienced declining rates of investment.

	Percent of respondents			
SAMPLE	Rising	About the same	Declining	
All Firms	60.8	25.5	13.7	
All Firms [*]	64.4	20.0	15.6	
Domestic	57.1	28.6	14.3	
All FDI	63.3	23.3	13.3	
All FDI [*]	70.0	10.0	20.0	

Table 17. Investment trends (Q. 31)

Source: Survey Data.

The mining sector, as previously stated, has become the largest generator of foreign investment since the late 1980s. It is now the leading foreignexchange earner. New gold ore discoveries, stretching from the Western to the Northern Regions, and the sharp increase in applications for exploration licence, indicate that the sector will continue for some time to attract most of the FDI flows to Ghana. In an earlier study by one of the present authors. (Tsikata, 1995b), the investment heavyweights in the gold industry at the time identified, *inter alia*, the following three main reasons for a bright investment future for the gold industry in Ghana:

- the seemingly more conducive investment climate prevailing prevails in Ghana than can be found in other gold-producing areas in sub-Saharan Africa;
- (ii) the existing gold mining culture and pool of skilled miners and professionals in Gold mining districts such as Tarkwa, Aboso, Konongo and Bibiani and, probably more importantly, the low cost of production due to the relatively cheap labour force; and
- (iii) fairly bright prospects in the international bullion market.

Item (iii) is currently not valid, due to the turmoil in the bullion market. In fact, some of the firms operating underground mines at the time were contemplating not only undertaking further investments in the industry but also diversifying their technology to include surface mining.

The number of firms granted new mineral rights as at October, 1998, and the regional distribution are shown in Table 18 below.

Region	Domestic	Foreign	Others
	Companies	Companies	
Ashanti	48	26	6
Western	51	44	13
Eastern	11	12	5
Brong Ahafo	15	8	-
Central	14	7	2
Volta	1	1	-
Greater Accra	-	1	-
Northern	1	5	-
Upper East	1	5	-
Upper West	-	2	-
Total	142	111	26

Table 18. Regional categorisation of mining companies in Ghana

Source: Minerals Commission, 1998.

Of the 253 rights granted, 111 (i.e 44%) were FDI-based. To some extent, the figure demonstrates the growing foreign interest in Ghana's mining sector.

Apart from mining, both the survey and interviews indicate that FDI trends in manufacturing are mainly directed at pollution-intensive activities such as plastics, chemicals, and aluminium. The environmental implications are obvious. The traditional sector – agriculture – has not received much FDI infusion in recent years. A minor exception is the pineapple sub-sector, but even here there are only trickles of foreign participation despite the elaborate incentives regime applicable. The good news, however, is that the sub-sector is export-oriented and not import-dependent. The survey revealed that, in most of the FDI-based agricultural schemes, scarcity of local credit following the initial foreign investment and high interest rates are the main constraints on rapid growth. We encountered at least two cases in agriculture where foreign investors brought in the initial capital but the local partners could not raise the counterpart funds from their bankers to support the projects.

Tourism is also emerging as an area with some FDI promise. This can be observed mainly in the accommodation sub-sector where old hotels are being rehabilitated and new ones planned using foreign capital; an example is the ongoing establishment of a regional branch of the Accra-based Hotel Novotel at Kumasi with foreign (French) capital. Currently, the tourism sector is the third largest foreign exchange earner after gold and cocoa. According to a study by Tsikata as a component(i.e. Chapter 8) of Ghana's National Tourism Development Plan (1996), the sector is capable, *ceteris paribus*, of earning \$386 million by 2000 and \$757 million and \$1.6 billion by 2005 and 2010 respectively. The government has therefore targeted the sector for foreign participation.

If the strategy in tourism succeeds and large-scale strategic investors are enticed into export-based agricultural activities, the development impact could be significant because of the labour-intensive nature of both activities. Everything points to the fact that the government must not only continue to enhance the general investment climate but also vigorously pursue its campaigns abroad to entice investors.

Technology and skills transfer and FDI

Aside from its income- and employment-generating effects on an economy, FDI confers two other important advantages: namely technology and skills transfer. This can be explained by the fact that much of the world's research and development activities have been undertaken in the industrialised countries within large firms with international dimensions, including subsidiaries. These firms therefore usually become major sources of valuable information on new technology and processes, new marketing methods, and managerial expertise. If this information can be made available to host countries, it may lead to productivity and output growth in the long term. The ability of a developing host country to capitalise on such opportunities depends primarily on it's capacity to absorb new information (based on the skills of its people), the willingness of transnational corporations (TNCs) to accommodate its desires for technological transfer, and the host-country's positive outlook and policies towards technological transfer and information generation and dissemination in general.

It is necessary, however, to examine the labour-using properties of the technology being introduced. If it is labour-displacing, then the resulting productivity and output benefits must outweigh the cost of re-employing the displaced labour elsewhere.

Under the straightforward assumption that FDI confers benefits on the host country, an attempt was made to capture the extent to which new technology had accompanied the flow of investment. Almost 60% of the respondent FDI-based firms claimed to have brought new technologies with them. Based on the type of production, for example large-scale production, this could have had a substantial impact on the economy. As to changes in technology after the initial investment, only 44.8% claimed they had effected changes (see Table A5 in Appendix I for the statistical details.)

In terms of the mining sector, it is difficult to assert that the surface-mining

technology being introduced, although cost-effective for the industry, is in the long-term interest of the country , because of the enormous land degradation and air pollution involved in the mining localities. Although efforts are being made by the Minerals Commission to enforce reclamation regulations on the degraded lands, it will take sometime before they can be judged as adequate or not.

As observed above, an issue closely related to technology transfer is the employment generation capacity of the investment undertaken. Usually a developing country hopes the investment will generate jobs. The empirical evidence on employment expansion from foreign investment, however, is not conclusive. For example, Sunkel(1972) maintains that displacement of local firms by TNCs may actually reduce local employment. This argument hinges on the low labour intensity of the production techniques selected by foreign firms. One basic reason why transnational investments in developing countries have not had the expected impact on employment generation is that host countries frequently, permit entry of foreign firms only in highly capitalintensive sectors, such as minerals, petroleum and chemicals. Critics of transnationals allege that not only do these firms tend to invest in capitalintensive sectors, but they also tend to utilise more capital-intensive technologies than do host-country firms in the same industry. Empirical evidence on this issue, however, is mixed. For instance, Lipsey et al. (1978) found that subsidiaries of US-based firms appeared to use technologies similar to those of locally-owned firms but to operate in a more capitalintensive manner because, as foreign firms, they often face higher labour costs than local firms. Pack (1976) in a study of 42 foreign and local firms in the manufacturing sector of Kenya found that TNCs actually used more labour-intensive methods there than they used in industrialised countries.

Our survey results show that in the majority of cases (65.5%), the original technology was more labour-absorbing than the new one, even though only 7% of respondents claimed that the technological change was aimed at curtailing labour-related problems. On the other hand, 69.2% attributed efficiency and productivity to the decision to change the technology. Increases in demand for their products were given by 23% of respondants as the reason for changing the technology to meet the demand.

In the survey, 78% of enterprises expressed interest in the adoption of labour-intensive technology if the government agreed to provide conditions which would enhance the quality of the available techniques as well as low-cost procurement facilities. Other secondary inducements suggested included the granting of corporate tax concessions and reduction in interest rates. These seemingly hard terms simply indicate the reluctance with which firms

view the adoption of an alternative (i.e labour-intensive) technique in their production activities.

Locational incentives

Spreading FDI as a strategy for rural development was also taken into account in the survey. The high locational concentration of FDI in the Greater-Accra Region has created a quasi FDI-'enclave', resulting in a kind of regional dualism in development. Narrowing the gap would entail policies aimed at enticing both local and foreign investors to other regions, especially the rural areas. Strategically, a cost-effective measure may be the targeting of resource-endowed areas in the initial stages. The enterprises were accordingly asked to indicate which additional incentives would entice them to other regions. Three main factors emerged clearly:

- (I) Availability of infrastructural facilities and services was indicated as a pull factor. Arguments provided fell within the Hirschman-type of 'permissive' social overhead capital which lessens the cost of establishment and, as such, enables the profitable operation of projects.
- (ii) Incentives and subsidies were regarded as equally important in attracting FDI to areas outside Greater Accra.
- (iii) Corporate tax rate reduction and increases in the duration of the various sector-specific tax holidays were also considered very important in deciding to invest in the rural areas.

Impact of the energy shock on investors: An episodal sub-study

Introductory remarks

During the period of the study(1998), there was an unanticipated drastic curtailment of electricity supply to users. Electricity supply was identified in the main study as a major constraint on industrial activity. The crisis stemmed from a severe drop in the water level at the Akosombo Hydroelectric Dam, the main source of energy generation in Ghana, due to severe drought in the catchment area. The Volta River Authority (VRA), which controls the dam, had to resort to this measure in order to save the dam from a complete and catastrophic shutdown. According to the Authority, either the exercise as a whole would have been averted or, at least, the extent of curtailment would have been reduced had export arrangements with Côte d'Ivoire been fulfilled.

The exercise affected both domestic and industrial users. A special case in point was the closure of some of the potlines of Volta Aluminium Company's smelter. It is highly expensive to restart a potline. As noted in Chapter 1 of the main study, VALCO was the first major FDI infusion into the Ghanaian economy after independence and its very establishment was based on cheap electricity from Akosombo. A second case in point is the curtailment of power to the country's mines, especially the gold mines which together the largest foreign-exchange are easier in the country. Ashanti Goldfields Company (AGC) is the industry leader. Such occurrences can therefore send very strong signals to the investor community as well as potential foreign investors if any contractual obligations and related issues are not judiciously handled. This is partly because both VALCO and AGC have become FDI icons and, probably, the two most important leading indicators of Ghana's investment climate.

In order to remain in business, at least with reduced capacity levels, some of the affected companies installed stand-by generators to supplement the rations provided by the Electricity Company of Ghana (ECG). The most seriously affected establishments were heavy-duty industrial and energyintensive activities, especially in the mining, metals and plastics industries.

Rationale for the sub-study

Since the shock occurred during the study period and energy constituted a crucial operating cost of most of the activities being covered at the time, it was deemed appropriate to go beyond the normal to the episodal (the shock) research agenda. A mini questionnaire was, therefore, circulated during March 1999.

Coverage and Timing: The questionnaire covered twenty 27 companies, whilst eleven 11 firm executives were directly interviewed, based on our earlier reasoning for this approach. The timing (March 1999) was based on the understanding that the companies covered would then have closed their annual (1998) accounts and that complete and reliable data would therefore be accessible to the researchers.

The key impacts of the shock investigated included the following: (I) capacity utilisation; (ii) production cost; (iii) employment; (iv) prices: (v) planned investment outcomes; and 6) investment prospects.

Capacity utilisation

1997 was used as a base year to compare outcomes for 1998, the year of the energy shock. Table 19 reveals that all respondent firms operated at an average capacity of 52% during the crisis as against 62% in 1997, a shortfall of 10%. However, by disaggregation, those firms operating below 50% of full capacity indicated that their average rose from 22% in 1997 to 26% in 1998.

	Overall average capacity Utilisation	Average capacity below 50%	Average capacity 50% and above
1997	62%	22%	75%
1998	52%	26%	68%
Net	-10%	4%	-7%

Table 19. Energy shock and capacity utilisation

The increase can be explained by the fact that firms in this category were not largely energy-dependent and, as such, were able to cope with the power rationing and their own supplementary sources through the purchase of power generators. Those firms which operated at 50% and above were the main victims of the shock. From an average of 75% in 1997, capacity utilisation fell to 68% in 1998, a 7 point drop in production. The drop could have been much higher but for the purchase and operation of power generators to supplement the rations from Akosombo. It should be noted that some of the companies in the sample were big enough to purchase the generators at short notice to minimise the effects of the shock.

A closely related impact was the factor substitution which emerged in some industries, due to the escalation in energy cost. The steel industry provides a clear example; billets (processed scrap) are now being imported by some of the companies instead of processing scrap iron from scratch into steel as a cost-minimisation measure. A notable development implication is the reduction in employment in such establishments.

Production cost effect

The shock imposed two types of unplanned costs the cost of the generators and/or operating costs. The extra energy costs incurred are indicated in Table 20.

	No. of firms	Avg. cost Over- run(%)	% of firms
Overall energy cost Over-run	15	139	100
Below 100% energy Cost over-run	7	21	47
Above 100% energy Cost over-run	8	243	53

Table 20. Energy shock and extra energy cost

For the 15 firms which responded, their cost over-runs averaged 139%. The average for 8 of them stood at 243%; the remaining 7 firms incurred an average increase of 21%. The former included big energy users in the steel and mining industries.

Direct employment effect

The direct employment effect was an aspect which proved problematic because of the reluctance of some firms to provide data, presumably because of the country's labour laws. However, 6 respondent firms laid off an average of 26% of this workforce 4 of them re-engaged an average of 10%, as shown in Table 21.

Table 21. Energy shock and employment

	No. of firms	% of labour force
Avg. labour force Laid Off	6	26
Avg. re-engaged Labour	4	10

Price effect

Only 4 (16%) out of 24 firms adjusted their prices at an average rate of about 13% in response to the energy cost over-runs. Against the backdrop of an average energy cost increase of almost 140% (see above), the inflationary impact could be assessed as tolerable. In other words, the shock could not be considered to have fuelled inflation significantly. In fact, it could be said that suppliers operated under Marshallian-type short-run conditions which could not allow for price adjustments to correspond with the increase in energy cost.

Planned investment outcomes

Total investment of the 12 firms which provided information on their planned investment stood at \$318.5 million. Ten of them invested \$176.5 million, ascribing the shortfall mainly to the energy crisis. In fact, it appeared to be a wait- and- see approach to risk aversion. From Table 22 it can be observed that firms investing \$1 million and above on average invested almost \$53 million.

Investment		Planned	Realised	Net outcome
	No. of firms	12	10	_
Overall	Value	\$318.5m	\$176.5m	(\$142.0m)
Total	Percentage	100	55	-45
	No. of firms	6	6	
Below	Average	\$159,004	\$405,340	\$246,336
\$1million	Percentage	100	255	155
	No. of Firms	6	4	
\$1million	Average	\$52.9m	\$43.5m	(\$9.4m)
and Above	Percentage	100	82	-18

Table 22. Energy shock and investment outcomes

Note: Areas of Investment also included standby generators

Investment prospects

By and large, the news here is quite encouraging. Most respondents considered the shock to be an aberration which would not seriously affect their future investment plans. Out of 26 respondents, 20 (77%) indicated that the shock would have no effect; 5 (19.2%) thought it would have a negative impact on their future plans.

In terms of apprehension as to recurrence of the shock, 45% were optimistic that it would not occur again; the pessimists and those on the fence constituted 41% and 14% respectively. Reasons provided for the negative views on future energy supplies included the following:

• unpredictability of rainfall in the catchment area of the Akosombo Hydro-

94 Determinants of Foreign Direct Investment in Ghana

electric Dam;

- absence of realistic energy strategies which take into account the costeffectiveness of energy-intensive production;
- delays in the completion of energy projects on stream.

Environmental impact

For the environmental enthusiast, the proliferation of both domestic and industrial power generators constitute a source of concern. Any reputable manufacturing, establishment and, indeed, most affluent homes have taken contingency measures to supply their own power whenever disruptions occur. The noise and atmospheric (smoke) pollution in residential areas generated intense debate during the crisis.

Limitations of the study

This sub-study has a limited scope because it covers a small number of firms and therefore inferences can only be generalised with caution. Secondly, our main interest was on issues related to the study.

Concluding remarks

The main effect of the energy shock was a decrease in planned investment by 45% (\$142 million). For a country undergoing sluggish growth at the time, the crisis could be viewed as having exacerbated the problem. Secondly, energy cost over-runs stood at 139% on average. However, it did not result in a corresponding forward shift in prices to consumers nor a major backward shift in terms of wage decreases or outright lay-offs in industry. A Bank of Ghana report (1998) to some extent corroborates our findings that the effect of the crisis was not as drastic as was anticipated.

On a more optimistic note, the interview results indicated that, despite the panic, the crisis was handled with uncharacteristic seriousness by the government and quasi-government agencies charged with the various tasks involved. Furthermore, and presumably based on the foregoing assessment by the private sector, the characterisation of the shock as an aberration which would not affect future investment plans should provide relief to campaigners for increased flows of FDI to Ghana.

Finally, a pro-industrialisation economist might pose the question as to the feasibility of discriminatory energy tariffs for energy-intensive and growth-promoting industries such as the steel industry, one of the initial strategies which propelled some of the Asian Tigers towards industrialisation.

Conclusions and Recommendations

A study on the determinants of foreign direct investment should attract a Ghanaian researcher's interest not only as an intellectual exercise, but also because of the policy shift from the neo-Marxist stance of the Rawlingsian administration, which was basically anti-FDI, to enthusiastic advocacy for FDI as a key component of the 'engine of growth'. Furthermore, in an era of keen world-wide competition for FDI, research input is imperative in facilitating policy formulation and implementation which will be attractive to foreign investors.

Methodologically, both econometric time series and survey- plus- interview results have been obtained in this study, thus enabling us to gain further insight into some of the controversies surrounding FDI flows to Ghana. The main constraint on the study, however, was the hesitancy of enterprises in the divulgence of data/information, because of the political economy aspects of FDI activity.

The general contribution of the study stems from our ability to undertake a first-time comprehensive survey-based investigation enabling us either to confirm or question various aspects of the quantitative and/or qualitative conventional wisdom concerning FDI in Ghana. Because of the politicoeconomic polarisations in the nation's industrial complex, caution needs to be used in the interpretation of the survey results. What we have therefore done is to supplement the survey with a *tête-à-tête* interviews, presumably within an environment of candour. We think the approach has to a large extent been useful in getting to the heart of the issues concerning FDI.

What follows specifically outlines the key issues embodied in the study and the policy recommendations we consider feasible where necessary.

Although, in the econometric approach, the market was found to exert either a negative or an infinitesimal positive influence on FDI, depending on the definition of the market, the survey results in contrast showed that the market factor ranked third after incentives and raw materials availability. At the sectoral level, apart from the mining sector where, as expected, the Ghanaian market did not feature at all, it ranked second in both the manufacturing and non-industrial sectors. For the economy to have a magnetic pull on market-determined FDI flows, the survey and interview results/observations indicated, *inter alia*, that aspects of the market which have been either over-liberalised and/or are being 'polluted' need to be reassessed for redress. The excessive inflow of imported manufactures, including unwholesome goods, because of the taste for 'made-in-there' goods has serious implications for the development of local industry and its potential for employment generation. Here it is difficult to imagine a foreign investor plunging his 'infant' company into a manufacturing activity which is already saturated with a so-called 'superior' imported good. In this regard, a revisit of the operation of the trade liberalisation programme may be necessary in order to ascertain the viability of limited protection in priority areas with high linkage effects on other sectors and with export potential. Furthermore, it is imperative to enforce patent and copyright laws in the face of the emerging product counterfeiting through the relabelling of shoddy imported goods in the market. This type of market pollution could pose an investment dilemma for the potential foreign investor who considers the Ghanaian market as the primary determinant of his investment. Effective enforcement would confer an image of credibility on the market.

In support of the above market-enhancing strategies, the incentive structure may require further re-examination and wherever feasible be increased. Its administrative time lag and other obstacles must also be minimised. The survey revealed clearly that incentives have played a crucial role in attracting FDI. This has been abundantly manifested in the mining sector. As a special case, the sector enjoys an additional informal incentive which derives from government endorsement of surface mining which is regarded as pollution-intensive and, therefore, either unacceptable or rigorously monitored in some countries. Institutionally, the survey indicates that both the Ghana Investment Promotion Centre (GIPC) and the Minerals Commission are, on balance, performing well in their respective investment promotion activities. However, there is clear evidence that the GIPC should must vigorously address two key issues to enhance its efforts. In the first place, the provisions of the Investment Code need to be well advertised to ensure awareness on the part of domestic investors with the potential for contracting partnership with foreign investors. A situation in which as many as 73% of domestic firms surveyed claimed that they were not conversant with the Code does not bode well for a successful FDI drive. To this end, a mechanism needs be put in place by the Centre to identify reputable firms with FDI-based potential. Thereafter, the Centre must provide advisory services and be supportive of searches for foreign partners. Furthermore, it may be necessary for the Centre to explore and devise an official support mechanism which facilitates credit acquisition from the banks in cases where counterpart finance from the domestic partner becomes a major constraint. On the part of the Minerals Commission, its efforts to control land degradation needs to be stepped up, especially in the case of small-scale mining. Results from a study on cost-benefit analysis of reclamation indicate a positive net outcome (Tsikata, 1995a). Reclamation is imperative since, after the mining boom, the local residents may have to return to the traditional agricultural sector for survival. In the case of the mines, rigorous enforcement of the existing regulations on land use should be the primary concern of the Commission.

The Export Processing Zone concept seems to be gaining acceptance in the private sector, even though finance is a key constraint on local manufacturers. In the case of FDI, the Ghana Free Zones Board will have to step up its advertising campaigns to ensure that potential investors are aware not only of the existence of the scheme, but also of the very generous incentives available.

Bureaucratic lapses emerged as a major set of constraints on the investment process. At the pre-investment phase, land acquisition and registration are fraught with uncertainties and, at times, subject outright fraudulent behaviour. Fraud from the outset of a foreigner's investment activity can turn into a big de-motivating jolt. It is therefore imperative for the government to rationalise land acquisition and title ownership procedures, especially in the Greater Accra area which attracts the bulk of FDI flows.

A closely related issue is the variability in the interpretation of the provisions under the Investment Code by customs officials at the ports, even though the study positively and unambiguously demonstrated the clarity of the Code. According to some of the entrepreneurs interviewed, legitimate claims had to be abandoned out of frustration. In this regard, three measures seem imperative:

- the GIPC must mount programmes to educate the implementing agencies on the interpretation of provisions/clauses in the Code which are applicable to the respective agencies;
- the Centre must set up a complaints unit to a) monitor the correct application of the provisions regarding incentives; and b) redress the complaints of aggrieved investors in general;
- an innovative effort at networking the implementing agencies will be crucial in accessing information on foreign investment/investors for prompt action. The network could include the GIPC, the Bank of Ghana, the Internal Revenue Service, the CEPS, Ghana Free Zones Board (GFZB), the Registrar Generals Department, etc. Thus, for example, it should take a customs officer at the port less than five minutes to verify whether an investor is entitled to a particular incentive scheme from the GIPC's network.

98 Determinants of Foreign Direct Investment in Ghana

General bureaucracy at the CEPS must be reviewed as often as possible in order to de-congest what might be called the 'action files', especially those relating to machinery, equipment and raw materials imported by investors. A practical solution could be an increase in work schedules (including Saturdays), accompanied by attractive remuneration and perquisites based on productivity.

Against the backdrop of severe revenue constraints, it appears that public investment in social and economic infrastructure has not played a significant role in attracting FDI. However, at the survey level, electricity and water combined were listed by 82.1% of the FDI-based firms as posing an obstacle to foreign investment. At the sectoral level, the problem of infrastructure as a major obstacle has been limited to the non-industrial category of our sample. It is therefore imperative for the government to continue its efforts to improve the socio-economic infrastructure which will eventually cast the economy as a destination with cost-minimising features suitable for FDI.

The pervasive complaints about erratic energy supply, as indicated above, and the energy shock which occurred during the period of the study (1998) logically placed an empirical responsibility on the researchers to investigate the impact of the shock on FDI in a sub-study. In brief, the crisis entailed a drastic curtailment of domestic and industrial electricity supply because of the low water level in the Akosombo hydro-electric dam. The resultant findings from the study include, *inter alia*, the following:

- enterprises covered in the study claimed that their planned investment decreased by 45% (from \$318.5 million to \$176.5 million) in 1998 due to the crisis. For an investment-starved country such as Ghana this would have had a serious impact on economic growth;
- on average, energy cost increased by 139%. However, there was neither a significant corresponding forward shift in terms of prices nor a backward shift with regard to wage decreases or outright lay-offs; and
- heavy industrial users are now resorting to factor substitution. For example, the steel industry is now using billets instead of scrap metal in order to cut down on energy cost. The negative long-term effects on employment are obvious.

Both the questionnaire and interviews also revealed that, in general, industry viewed the crisis as an aberration which would not affect their future investment plans significantly. The main problem, however, remains the high

cost of energy to heavy industry. Within the development perspective, there may be need for some cost-benefit analysis to ascertain the feasibility of growth-promoting discriminatory pricing in favour of selected activities, comparable to the initial strategy of some of the Asian Tigers.

The tax regime variable was found to be insignificant in the time series analysis. The survey results, in which only 8.1% of respondents in the general FDI sample indicated taxes as an obstacle corroborate this finding. From the interviews, corporate tax reductions emerged as having contributed to raising investor confidence in the economy. As such, periodic rate reductions might constitute an appropriate long-term fiscal strategy for building up permanent investor confidence, a sine qua non for long-term growth and development. This strategy may be particularly important in attracting transnational corporations which engage in 'tariff hopping' in order to maximise their global returns. If judiciously undertaken, it could widen the tax base because of an expanded industrial base, and thus revenue gains in the long run would more than offset current losses due to rate reductions. In sum, a conducive fiscal culture of judiciously mapped out low budget deficits and a low tax regime would lay a solid foundation for promoting FDI. The survey also revealed the need to address the burden imposed by the existing 'withholding tax' (or up-front tax). The contention was that it constituted a drag on business performance and investment promotion, especially at a time when the cost of capital (interest rates) remained very high.

Applying lagged FDI to proxy the impact of the investment climate, we found a significantly positive influence of the investment climate on FDI. The overall investment climate is thus very important in influencing foreign investors. The survey showed that 73% of FDI-based enterprises regarded the investment climate as favourable. This positive evaluation was reinforced by 81.6% of FDI-based respondents perceiving Ghana as a good place to invest. On the domestic front, only 68% of respondents perceived Ghana in that light. Through the interviews, domestic investors were found to be very unhappy about what they deemed an 'over-liberalised' economic system which sought to kill productive ventures with longer gestation periods in favour of short-term rent-seeking commercial activities. As stated earlier, the government needs to revisit the infant industry argument which might necessitate modest protection for investors. Closely related to improvement in the investment climate is the need to speed up export promotion programmes to reverse the negative perception on the part of investors of the potential to export.

On financial markets, the variability of the real exchange rate had the

expected negative sign in all the tests even though it was insignificant in all of them. This sharply contradicts the survey results where exchange rate uncertainty is cited as a major obstacle to FDI inflows. The differences may be explained by the time dimension of the two results. Whereas it was, on average, not a major obstacle to FDI inflows over the sample period, at the time that the survey was undertaken, it was a major problem. Exchange-rate uncertainty was placed first in all the FDI-based samples and met the criterion for policy action.

The lending rate was found to be insignificant in the regression analysis. However, the survey results articulate the need for a review. The FDI-based sectoral outcomes revealed the lending rate as the leading problem (50% of respondents) in the non-industrial sector, followed by uncertainties in the economy (33.3%). The reverse was true in the manufacturing sector (21.1% and 42.1% respectively).

The worldwide call for democratic traditions as providing an enabling environment for FDI flows was validated by the study. The democratisation variable had the right sign and was statistically significant in most of the tests. Thus a democratic form of government has a major role to play in enticing FDI to Ghana. This stems from the guarantees, such as for property and human rights, under constitutional governance. Consequently, efforts expended on building a solid democratic tradition must be rigorously pursued by the government and supported by the populace.

The ongoing privatisation exercise seems to be succeeding, albeit slowly. Analysis of information and data on the operations of the Divestiture Implementation Committee (DIC) and interview results on private sector perceptions about the Committee indicate that the divestiture programme has, to some extent, helped in promoting FDI in both light and heavy industries. Old and loss-making enterprises have now been revitalised with FDI infusions and converted into profit-making entities. However, an alleged politicisation of the acquisition of assets by domestic entrepreneurs must be addressed dispassionately. The modus operandi of the Committee needs to be such that sales yet to be made demonstrate the government's fairness and seriousness in developing a private sector devoid of baseless political patronage. After all, there are some *demonstration effects* which guide the prudent foreign investor. The government's good faith and trustworthiness vis-à-vis the investment community as a whole must therefore begin from its treatment of the domestic entrepreneur.

The export orientation variable carried the expected positive sign and was statistically significant. Given the dominance of minerals, especially gold mining in FDI, and the expansion of mineral exports, this is not a surprising result. It suggests that the extent of export orientation of the economy is quite important in reassuring the foreign investor as to the broad avenues for exportation.

The study also found from the survey and interviews that coherence and predictability in the implementation of policies are crucial for accelerating both domestic and foreign investment. These partly confirm the finding of Baah-Nuakoh et al. (1996). In this regard, simplification of policy provisions and caution in pronouncements by key policy opinion leaders constitute a necessary condition.

In terms of locational distribution of FDI to promote regional balance and development, the GIPC (1998) is right to advocate that the 'Social Security and National Insurance Trust must be encouraged to extend the type of industrial parks being developed in the Greater Accra Region to the other regional capitals'.

Admittedly, as could be observed from the above analysis, the survey-cuminterview results are more reliable and insightful for contemporary policymaking purposes than the econometric outcomes. This, of course, does not render the latter useless.

Finally, it must be reiterated that the most important pre-condition for FDI promotion stems from a sound and conducive FDI policy formulation and efficient implementation within a stable and reliable politico-economic environment whose very underpinnings can be likened to the old maxim: *mens sana in corpore sano* - a sound mind in a sound body.

Appendix I

Company	Year	Loan (\$m.)	Equity (\$m.)	Total (\$m.)	Shareholding	%
I) State Gold Mining Corp	1984 1989 1991	36.96 25.09 15.77		36.96	Ghana Govt	100.00
ii) Ashanti goldfields Corp	1985 1985 1990 1992	55.00 32.60 80.00 140.00	83.80 150.00	138.80 32.60 80.00 290.00	Ghana Govt Lonrho Plc	55.00 45.00
iii) Southern Cross Mining Ltd	1986 1988	3.69 3.64		3.69 3.64	NOC Europe Ltd State Gold Mining Corp Ghana Govt	70.00 20.00 10.00
iv) Ghanian Australian Goldfields	1991	55.90	9.90	65.80	Australian Mining & Finance IFC Titan Resources Devt. Trade Agency (UK) Ltd DTA (GH) Ltd Amanda Brewer Brig. H.D Twum Barima (Rtd) Ghana Govt	51.22 20.00 11.67 1.94 2.06 1.05 2.06 10.00
v) Billiton Bogosu Resources	1990	89.00	18.50	107.50	Billiton BV IFC Ghana Govt	81.80 8.20 10.005
vi) Terebie Goldfields Ltd	1989	20.02	1.86	21.88	Pioneer Gp Inc Ghana Govt	90.00 10.00
vii) Goldenrae Mining Company	1988	6.00		6.00	Roan Selection Trust Ghana Govt Akim Abuakwa Devt. Co	85.00 10.00 5.00
viii) Bonte Gold Mines Ltd	1991	4.30		4.30	Akrokeri Ashanti Gold Inc Ghana Govt	90.00 10.00
Bauxite I) Ghana Bauxite Company	1990	5.00		5.00	British Alcan Ghana Govt	45.00 55.00

Table A1. Origin, composition and government participation

Manganese I) Ghana National Manganese Corporation	1983 1984 1989	6.00 1.30 2.80		6.00 1.30 2.80	Ghana Govt	100.00
Diamonds I) Ghana Consolidated Diamonds Ltd	1984	11.40		11.40	Ghana Govt	100.00
Totals		619.36	264.06	883.42		

Source: Minerals Commission, Ghana Chamber of Mines and Company Data.

Table A2. Most serious uncertainties [(Q.39): Indicating only one uncertainty]

SAMPLE	S	A	М	Р	L	E
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Obstacle	All Firms	% of respond All Firms*	ents Domestic	FDI [*]	All FDI
Exchange-rate					
uncertainty	58.8	64.4	58.3	73.7	53.6
Demand uncertainty	7.7	6.7	8.3	5.3	7.1
Interest-rate uncertainty-	11.5	13.3	12.5	15.8	10.7
Political uncertainty	5.8	2.2	-	-	10.7
Uncertainty about					
taxes	11.5	11.1	28.8	-	3.6
Other	7.7	2.2	Ο.	5.3	14.3
Total	100.0	100.0	100.0	100.0	100.0

Source: Survey Data

Note: All Firms* = All Firms minus Mining

Determinants of Foreign Direct Investment in Ghana 104

		S A N	A P L E		
		(% of re	espondents)		
	Dom	estic	FL	DI-(M)	
	Conversant with Code (Q53)	Clarity of Code (Q54)	Conversant with Code (Q53)	Clarity of Code (Q54)	
Yes	26.1	58.3	84.6	85.7	
No	73.1	41.7	15.4	7.1	
Do not know	na	-	na	7.1	

Table A3. Outcomes regarding the Investment Code

Source: Survey Data.

Table A4. Extent of dependence on the Code (Q56)

S	Α	М	P	L	Е

Extent	All Firms	(% of respondents All Firms*	s) Domestic	All FDI
a) Largely dependent	37.0	36.8	29.4	41.4
b) Somewhat dependent	39.1	36.8	47.1	34.5
c) Not dependent	23.9	26.3	23.5	24.1
Summation of [a)+ b)]	76.1	73.6	76.1	75.9

Source: Survey Data

Note: All Firms* = A104ll Firms minus Mining

		Changes in Tech	
	technology	Initial Tech	
	(Q66)	(Q67)	
Yes	58.6	44.8	
No	41.4	55.2	
	Main Reason for Cha (Q69)	nge in Technology (only one)	
Incre	ase in demand for		
prod	uct	23.1	
prou			
Effici	ency and productivity w technology	69.2	
Effici of ne	ency and productivity	••••	

Table A5. FDI and technology transfer (Q66, 67, 68)

Source: Survey Data.

Appendix II Questionnaire on domestic and foreign direct investment in Ghana

BASIC INFORMATION

SECTOR
NAME OF FIRM
LOCATION
ADDRESS
INTERVIEWEE (RESPONDENT)
INTERVIEWER
DATE OF INTERVIEW

FIRM CHARACTERISTICS

- 1) 1. When was approval given for the establishment of your Company? 19 ----
 - 2. Year of actual establishment 19----

3. Location of Company when first established ------

2) Line of activity:

1. What is the main line of activity (i.e. commodity or service) of the enterprise?

2. Secondary line of activity -----

3. Please state the main line of activity initially approved by the Centre.

4. If different from 2.1) above, please indicate the most important reason for the change:

- 1) ----- Higher profit levels in the new venture;
- 2) ----- Better incentive package;
- 3) ----- Less government bureaucracy
- 4) Other (specify) ------
- 3) Is the company a subsidiary of a Parent Company?

---- Yes ---- No

4) If Yes, where is it (Parent Company) located?

1. --- West Africa

2. --- Africa, but not West Africa

3. --- Outside Africa

- 5) If outside Africa, where among the following regions:
 - 1. --- Europe
 - 2. --- North America
 - 3. --- Other (specify) ------
- 6) What is the ownership structure of the enterprise ?
 - 1. --- Private Foreigners Only
 - 2. --- Private Ghanaian-Foreign
 - 3. --- State and Private-Foreign
 - 4. --- State, Private-Ghanaian and Foreign
 - 5. --- Other (specify) ------
- 7) What is the legal status of your firm?
 - 1. --- Sole proprietorship
 - 2. --- Partnership
 - 3. --- Limited Liability
 - 4. --- Co-operative
 - 5. --- Multinational Corporation (MNC)
 - 6. Other (specify) -----

8)	Please state the value of total investment made:					
	1. When the company was first established					
	a. Foreign Investment Component (when first established)					
	b. Local					
	2. Current total value					
	a. Foreign Investment Component					
	b. Local					
PRC	CUREMENT AND SALES					
9)	State what percentage of your inputs are					
)						
	1. Imported %					
	2. Produced locally %					
10)	What percentage of your product/service is exported? %					
11)	Out of the percentage in Q.10, how much goes to ECOWAS countries%					
12)	If you import inputs, how long does it usually take to clear the goods through customs? days.					
13)	If you are an exporter, how long does it take you to clear goods for export? days.					
14)	Currently, are you able to market all your products?					
	Yes No					

- 110 Determinants of Foreign Direct Investment in Ghana
- If Yes, how much more (compared to now) could you produce and sell 15) with your existing equipment?

If more could be produced (with the existing equipment), why are you 16) not producing? Assign '1' to the most important reason, a '2' the second most important, and a '3' to the third most important reason.

1. Insufficient market demand	
2. Not interested in expansion	
3. Cannot face the competition	******
4. Due to procurement problems	
5. Cannot get enough qualified labour	
6. Transport difficulties in shipping products	
7. Bureaucratic problems	
8. Other (type of problem) (specify)	

Please indicate the severity of each of the following procurement or 17) sales problem:

		No obstacle	Moderate obstacle	Severe obstacle	Very severe obstacle
1.	Insufficient market demand	1	2	3	4
2.	Prices of raw materials	1	2	3	4
3.	Raw materials availability problems	1	2	3	4
4.	High cost of machiner and equipment	ry 1	2	3	4

5.	Lack of access to machinery and	1	2	3	1
	equipment	1	Z	3	4
6.	Lack of skilled labour	1	2	3	4
7.	Taxes on exports	1	2	3	4
8.	Tariffs on imports	1	2	3	4
9.	Other (Specify)				
		1	2	3	4

REGULATORY FACTORS

18) In establishing your enterprise, which government regulations did you find most difficult to meet?

19) In registering your business, how much time passed between the time you first approached the Centre and the time the registration was granted?

----- weeks

- 20) Which two government institutions/agencies cause your business the greatest difficulties in its operations?
 - 1. Name of Ministry/Institution/Agency -----

Type of Difficulty -----

2. Name of Ministry/Institution/Agency -----

Type of Difficulty -----

21) How many licences(fees) do you need(pay) each year to legally operate

112 Determinants of Foreign Direct Investment in Ghana

the company? -----

- 22) Total annual cost of licences/fees -----
- 23) What percentage of your labour force is paid the statutory minimum wage ? -----
- 24) What percentage of your labour force is paid more than the minimum wage? ------
- 25) Indicate which of the following factors are most burdensome in the operation of your company.

		No obstacle	Moderate obstacle	Severe obstacle	Very severe obstacle
1.	Up-front tax payments	1	2	3	4
2.	Minimum wage requirements	1	2	3	4
3.	Regulations about working condition (e.g. maternity leave, vacations, hours of work etc.)	1	2	. 3	4
4.	Restrictions on hiring foreigners	1	2	3	4
5.	Strikes or labour union agitations	1	2	3	4

26) Has approval delays ever influenced you to stop an investment?

---- Yes ---- No.

Appendix II 113

27) If you wanted to temporarily reduce your production, please rank the following obstacles in reducing the number of workers employed:

	No obstacle	Moderate obstacle	Severe obstacle	Very severe obstacle
1. Trade Union regulations about layoffs	1	2	3	4
2. Government regulations about layoffs	1	2	3	4
3. Other (Specify)	1	2	3	4

28) Please state the severity of the following problems relating to government regulation of your business:

		No obstacle	Moderate obstacle	Severe obstacle	Very severe obstacle
1.	Government labour regulations	1	2	3	4
2.	Trade Union restrictions	1	2	3	4
3.	Tax-related regulations	1	2	3	4
4.	Investment regulations	1	2	3	4
5.	Other (Specify)				
		1	2	3	4

CAPACITY UTILISATION AND INVESTMENTS

29) 1. What is the full capacity level (given existing equipment) of your establishment? ------

114 Determinants of Foreign Direct Investment in Ghana

2. At what level did you operate in the following years?

(a) 1994 --- % (b) 1995 --- % (c) 1996 --- %

30) Fixed investments over the 2 years have been:

1	rising	2.	 about	the	same
3	declining	4.	 n/a		

31) If fixed investments have not been rising, what reasons may be assigned to this?

- 32) If they have been rising, please state the percentage financed from foreign sources --- %
- 33) What factor(s) specifically determined your decision to invest in Ghana?
 - 1. --- Raw material availability
 - 2. --- Investment incentives
 - 3. --- Cheap labour
 - 4. --- Market Potential
 - 5. --- Political Stability
 - 6. --- Growth (macroeconomic) performance of the economy
 - 7. --- Other (Specify) -----

CONSTRAINTS ON FDI

- 34) What is the most significant obstacle to expanding your investment? (circle only one)
 - 1. ----- Uncertainty about the economy (uncertainty about interest rate, exchange rate, demand for product, etc)
 - 2. ----- Government's unfavourable/lukewarm attitude towards private investment
 - 3. ----- High level of taxes
 - 4. ----- Problem of getting credit
 - 5. ----- High level of interest rates
 - 6. ----- Lack of demand
 - 7. ----- Lack of raw materials
 - 8. ----- Infrastructure problems
 - 9. ----- Other, (specify) ------
- 35) Rank the following obstacles to investment.[0 = not at all, 1 = minor, 2 = major obstacle]
 - 1. Uncertainty about the economy -----
 - 2. Government attitude towards private investment ------
 - 3. High level of taxes -----
 - 4. Problem of getting credit -----
 - 5. High level of interest rates -----
 - 6. Lack of demand ------

116 Determinants of Foreign Direct Investment in Ghana

- 7. Lack of raw materials ------
- 8. Infrastructure -----
- 9. Other, specify -----
- 36) Is any form of uncertainty about the economy a constraint on the expansion of your business?
 - ---- Yes ---- No
- 37) If yes to Q.37, rank the following obstacles to investment.[0 = not at all, 1 = minor, 2 = major]
 - 1. Exchange rate uncertainty ------
 - 2. Demand uncertainty ------
 - 3. Interest rate uncertainty ------
 - 4. Political uncertainty ------
 - 5. Uncertainty about taxes ------
 - 6. Other, (specify and rank) ------
- 38) From the list in Q.38), what is the most serious type of uncertainty? (circle only one)
 - 1. Exchange rate uncertainty
 - 2. Demand uncertainty
 - 3. Interest rate uncertainty
 - 4. Political uncertainty
 - 5. Uncertainty about taxes
 - 6. Other, specify

39) Are you concerned about certain pronouncements/statements from government about business?

---- Yes --- No

40) If Yes in Q40, provide two such statements which you are most concerned about:

1. ------

- 2. -----
- 41) In general, how do you perceive the current investment climate?
 ---- Favourable
 ---- Not so favourable
 ---- Unfavourable

INFRASTRUCTURE AND OTHER SERVICES

- 42) Which public services does your business use?
 - 1. ---- None
 - 2. ---- Electricity only
 - 3. ---- Water only
 - 4. ---- Electricity and water
 - 5. ---- Telephone, fax, letter box
 - 6. ---- Other, specify ------
- 43) Which of the above services constitutes the main problem to your investment activities?

- 118 Determinants of Foreign Direct Investment in Ghana
- 44) What is the nature of the problem?
 - 1. ----- Occasional interruptions
 - 2. ----- Frequent, longer, or serious interruptions
 - 3. ----- Too expensive
 - 4. Other, specify -----

TAXATION

45) Are you currently paying corporate taxes?

----- Yes ----- No.

46) What do you think of the level of these taxes?

---- low ---- tolerable ---- too high

47) Do you know of the tax conditions offered by other countries for private investment?

--- Yes --- No

48) If yes, how does Ghana's tax conditions compare with these other countries?

MARKETING STRATEGIES

49) Do you think Ghana is getting known as a good place for private investment?

----Yes ----- No ----- Don't know

50) If no, what measures should be taken to correct the situation?

1. ---- Improving the performance in the economic bureaux of the embassies abroad to promote private investment

2. ---- Advertise in foreign journals (eg. Newsweek, The Economist, Time, etc)

3. ---- Sponsor Ghanaian entrepreneurs at international trade fairs

4. ----- Other, specify ------

INVESTMENT CODE

- 51) Are you familiar with any investment code or law of any country?
 ----- Yes ----- No
- 52) a) Are you very conversant with Ghana's investment code?

----- Yes ----- No

b) If No, why not? -----

If No to Q.52, please skip to Q.61.

53) If Yes, do you think that the code is clear enough for effective application?

----- Yes ----- No ----- Don't know

54) If no, which areas are unclear?

(Please use separate sheet to complete if necessary)

- 120 Determinants of Foreign Direct Investment in Ghana
- 55) To what extent was your decision to invest dependent on the incentives provided under the Code?

1. ---- largely dependent 2. --- somewhat dependent

3. ---- not dependent.

56) If largely dependent, which specific incentive(s) did you consider as most important in the decision making process?

57) How can they (it) be improved upon to raise investment levels?

- 58) In terms of attracting foreign investors, how do you compare Ghana's latest code (Sept. 1994) with the codes of other countries you are familiar with?
 - 1. ---- Ghana's code is far less attractive
 - 2. ---- Ghana's code is less attractive
 - 3. ---- Ghana's code is about the same as others
 - 4. ---- Ghana's code offers better incentives
 - 5. ---- Ghana's code offers far better incentives
 - 6. ---- Other (specify) -----
- 59) Do you think that there are any inconsistencies between government attitude towards private investors and the investment code?

----- Yes ----- No

60) If yes, explain ------(Please continue on a separate sheet if necessary) 61) What in your view are the three most important changes in the economy or in government policies that would attract more foreign investors? (rank as 1, 2, or 3 with 1 as the most important factor)

(1) _____(2) _____

(3)_____

EMPLOYMENT GENERATION

62) What is your current level of employment?

Total -----

Foreigners -----

63) What was the quota (employment of foreigners) granted to your establishment?

64) What adjustments in the quota system would you recommend to enhance the efficiency of your business?

TECHNOLOGY TRANSFER

65) Was the technology initially approved and installed a new one introduced on the Ghanaian market at the time?

---- Yes ---- No.

- 122 Determinants of Foreign Direct Investment in Ghana
- 66) Since the initial technology was installed have you ever changed that technology?

---- Yes ---- No.

- 67) If Yes, which type (initial versus current) technology is more labourusing?
 - 1. --- Current technology

2. --- Initial technology.

- 68) Please, state the <u>main reason</u> (one only) for the change:
 - 1. --- Increase in demand for product
 - 2. --- Efficiency and productivity of new technology
 - 3. --- Reduce reliance on labour due to excessive wage demands
 - 4. --- Other (specify) -----
- 69) If there exists a more labour-using and equally (or more) efficient technology on the market, please indicate at most three key incentives which will enable you to install that technology?

LOCATIONAL INCENTIVES

- 70) If your enterprise is currently located in the Accra-Tema area, please list the 1) additional and 2) new incentives which will make it possible for your firm or a potential one in your category to locate at other places (regions or districts):
 - 1. Additional (to existing) Incentives

2. New Incentive

STATE OF THE BUSINESS

- 71) How would you describe your business?
 - 1. --- Very successful 2. Successful
 - 3. --- Quite successful 4. --- Not so successful
- 72) If not so successful, state the main reason(s)

We appreciate the time and effort you have put into completing this questionnaire. Thank you.

Appendix III Questionnaire on the energy crisis and investment in Ghana

You might agree with us that the energy crisis which emerged last year introduced another dimension to the investment problem in Ghana. We are, therefore, investigating the impact of the crisis on the performance and future investment plan of your firm. It is hoped that the outcome of the questionnaire will enable us provide an independent assessment of the situation for policy formulation. The information provided by your enterprise will be treated with the strictest confidentiality. Neither the name of the company nor names of its personnel will be used in the write-up based on the survey. Your cooperation will, therefore, be highly appreciated.

BASIC INFORMATION

SECTOR		
--------	--	--

NAME OF FIRM -----

LOCATION -----

ADDRESS -----

PERSON TO CONTACT -----

INTERVIEWER -----

DATE OF INTERVIEW ------

I. On Investment

1.1 How much investment was intended for 1998?

¢----- \$-----

1.2 How much was realised?

¢ ----- \$-----

1.3. If what was realised was below the intended, would you attribute it to the energy (electricity) crisis?

Yes ----- No -----

1.4. If No, then specify the main reason.

II. On Capacity Utilisation

2.1 On average, at what output capacity did you operate

in 1997? -----%

in 1998? -----%

2.2 What extra percentage energy (electricity) cost did you incur in operating at the 1998 level indicated above?

----- %

III. Employment Effect

3.1 What percentage of your labour force were you compelled to lay off during the crisis?

-----%

3.2 What percentage has been re-engaged?

-----%

126 Determinants of Foreign Direct Investment in Ghana

IV. Price Adjustment

4.1 Did you have to re-adjust your prices upward due to the decreased production(supply)?

Yes ----- No -----

- 4.2 If Yes, by what average percentage? -----%
- V. General Impression
- 5.1 With regard to your current/future investment plans, what was the impact of the energy crisis on such plans: (for example, I) if you had to drop or scale down an intended investment due to the energy crisis, then the impact will be considered as negative; ii) if you still intend undertaking the investment, then indicate no impact)

a) Your establishment:

i) ----- Negative ii) ----- No Impact

- iii) ----- Other, explain -----
- b) Impact on Other Establishment(s) you know about:

i) ----- Negative ii) ----- No Impact

- iii) ----- Other, explain -----
- 5.2 a) Despite the steps being taken by the authorities, do you still entertain fears that the crisis may occur again?

i) ----- Yes ii) ----- No iii) ----- Cannot determine.

5.3 b) If Yes, briefly indicate(list) and explain your reason(s) in order of importance below:

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ODI Research Study

Determinants of Foreign Direct Investment in Ghana

G. Kwaku Tsikata, Yaw Asante, and E.M. Gyasi

Ghana's government has long placed a premium on attracting foreign direct investment (FDI). It has had a degree of success but there has been no dramatic breakthrough. This study sets out to investigate the factors which inhibit FDI and to provide policy recommendations. As such, it is of interest to all developing countries, particularly in Africa.

The research results highlight as obstacles continuing uncertainties about the future of the economy, exchange rate instability, high inflation and interest rates, red tape at the ports, and unreliable power and water supplies. Nonetheless, foreign investors seem reasonably content.



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