The Development of Capital Markets and Growth in Sub-Saharan Africa: The Case of Ghana

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Abstract

This study identifies constraints to capital market development in Ghana and looks at how recent policy changes impact capital market development, growth, and poverty alleviation. The many problems of capital market development in Ghana is discussed. One problem is the underdevelopment of capital markets such as stocks/securities markets, and other financial institutions that intermediate the capital markets. Various policy, institutional, and structural impediments that constrain capital market development in Ghana are also explored. Finally, the challenges of regionalizing and globalizing capital markets and the relationship between capital market development and real sector growth in the Ghanaian economy are discussed.

Based on the analysis of the primary and secondary data, the study shows that the commitment of the Ghanaian government to comprehensive structural and financial sector reforms has started to bear useful results. The establishment of the Ghana Stock Exchange (GSE) has provided an avenue for corporations to raise long-term capital and given opportunities for investor diversification.

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Abbreviations and Acronyms

AGC	Ashanti Goldfields Corporation
BOG	Bank of Ghana
BOT	Bank of Tanzania
CEPA	Center for Policy Analysis
CMO	Collaterized Mortgage Obligation
EAGER	Equity and Growth through Economic Research
ESOP	Employee Stock Ownership Program
ESRF	Economic Social Research Foundation
FINSAP	Financial Institutions Sector Adjustment Program
GDP	Gross Domestic Product
GSE	Ghana Stock Exchange
IMF	International Monetary Fund
MOFA	Ministry of Finance
NBC	National Bank of Commerce
NBFI	Non-banking Financial Institution
OAU	Organization of Africa Unity
OLS	Ordinary least squares
OTC	Over-the-counter
PSGE	Public Sector Growth and Equity
PTF	Privatization Trust Fund
RSC	Research Supervision Committee
SME	Small and medium enterprises
SRC	Securities and Regulatory Commission
SSA	Sub-Saharan Africa
SSNIT	Social Security and National Insurance Trust
TSLS	Two Stage Least Squares
NDPC	National Development Planning Commission

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Executive Summary

In 1990, the World Bank initiated a study to identify constraints to growth and private sector development in Sub-Saharan Africa (SSA). The study concludes that the most severe constraint on private sector development and growth in SSA is the scarcity of capital or credit allocation to the private sector. In the 1980s, as part of their structural adjustment programs, many SSA countries embarked on comprehensive structural and financial sector reforms in order to enhance savings mobilization and credit allocation to the private sector for growth and poverty alleviation. In its first Medium Development Plan (1997-2000), the Ghana Development Planning Commission states that a major obstacle to sustainable growth in Ghana is the lack of sustained capital investment.

The objective of this study is to identify the various constraints to capital market development in Ghana and how recent policy changes impact capital market development, growth, and poverty alleviation. The study provides a detailed examination of the problems of capital market development in Ghana. This problem has been traced to the underdevelopment of capital markets such as stocks/securities markets, and other financial institutions that intermediate the capital markets. The study also identifies various policy, institutional, and structural impediments that constrain capital market development in Ghana. Additionally, the study examines the challenges of regionalizing and globalizing capital markets and the relationship between capital market development and real sector growth in the Ghanaian economy.

The study relies on descriptive statistical analysis of secondary and primary data obtained from field surveys and interviews of various private financial and regulatory institutions in Ghana. Based on the analysis of the primary and secondary data, the study shows that the commitment of the Ghanaian government to comprehensive structural and financial sector reforms began to bear useful results. The establishment of the Ghana Stock Exchange (GSE) has provided an avenue for corporations to raise long-term capital to the tune of 153.5 billion cedis ($125.8 million) from 1991 to December 1998. The increase in the number of listed companies from 11 in 1989 to 21 has provided opportunities for investor diversification.

The policy environment has been greatly improved because of various initiatives to liberalize the foreign exchange market, privatize state–owned public enterprises, and implement other market-based policy changes that have the potential to deepen the capital market. The passage of various regulatory laws such as the Securities Industry Law (SIL), the Securities and Regulatory Commission (SRC), and the non-banking financial institutions (NBFI) law have provided strong legal foundations for efficient development of the capital market.

Among the visible successes resulting from these policy changes is the GSE's active role in raising domestic and international capital through the issue of initial public offerings (IPOs). In addition, active secondary market performance of the GSE distinguished the exchange as the best performing stock exchange among the emerging capital markets in 1994. The spectacular performance of the GSE has attracted Wall Street and other foreign investors, both institutional and individual investors to the market. The globalization of Ghana's capital market is becoming evident in the cross listing of AGC in New York, London, Toronto, South Africa, and other international Exchanges.

The study also shows that although Ghana experienced some significant success in its capital market developing and deepening, some major challenges remain. The instability in the macro-environment has impeded the Ghanaian capital market's full potential to contribute to growth and poverty alleviation. The macroeconomic indicators that stabilized around 1991 worsened after 1992. The fiscal deficits accommodated by issuing high-yield government securities have adversely affected the demand for securities issued by private firms to raise long-term capital. As a result, many potential investors prefer to hold short-term government Treasury bills. This has led to the disintermediation of financial resources from the securities markets. Furthermore, this has led to the "crowding out" of small and medium-sized enterprises from the capital market.

Additionally, the tax system in Ghana is biased in favor of fixed income securities. As an example, interest income on short-term government Treasury bills is exempt from tax withholdings while dividends on equity investment is subject to withholding of taxes. This serves a disincentive to invest in the stock market.

The lack of product innovation and the limited number of investment instruments traded on the stock exchange limit the exchange's attractiveness to domestic and foreign investors. In addition, the quality of accounting information and disclosure by listed firms constrain efficient price discovery and valuation of underlying companies listed on the exchange.

The impact of the inflationary pressures on the foreign exchange rates in Ghana has increased the risk of investing in the Ghanaian capital markets for foreign investors. At the national level, inflation has become more pervasive over the past four years. However, in the face of persistent inflationary pressures, the real effective exchange rate (REER) appreciated from 1994 until mid-1999. This has a tendency to make Ghana's exports less competitive in the international market.

Furthermore, the absence of a hedging mechanism through financial derivatives, futures, and options has increased investors' risk exposure. The thinness of the market and the limited number of shares traded on the stock exchange also limit the potential to diversify and deepen the market.

The study also finds that Ghana's capital market structure makes it difficult for small and medium-sized firms to raise capital. In addition, the absence of investment banks, underwriters, and venture capital firms constrain the development of primary and secondary capital markets for raising long-term capital through initial public offerings (IPOs).

The role of the stock exchange in promoting capital market deepening is also hampered by the government's divestiture programs, which emphasize privatization through strategic investor financing rather than through the stock exchange. Furthermore, the lack of automated trading practices has lead to inefficient trading and settlement practices. The market is still illiquid. The number of listed companies is small and the businesses are not fully representative of the country's main economic activities.

Regionalization and globalization of the Ghanaian capital market has the potential to diversify and attract international capital. It also enables domestic companies to be cross-listed in major international capital markets for greater exposure. However, the greatest challenge facing those domestic companies is their price fluctuations associated with their fundamentals and external shocks. The study found that Ashanti Goldfield, priced at $20.00 in 1994 at the time of its IPO, closed at $1.87 on the New York Stock Exchange (NYSE) as of mid-May, 2000. Thus, a major lesson for the country is the importance of ensuring efficient management of domestic firms based on openness, transparency, and honesty. The governance of those firms should also be free of government interference.

The study shows that, contrary to expectations, credit allocation to the small and medium-sized entrepreneurs was curtailed after financial sector reform. Prudential regulations that govern bank lending work against small enterprises. The requirements such as collateral, disclosure of financial reports and guarantors for loans make it harder for small and medium-sized enterprises to obtain loans from the banking sector. The overall effects of such regulations are the reduction of Ghana's post-reform potential to impact growth and alleviate poverty.

Ghana's Vision-2020 has as its goal the transformation of Ghana from a poor, underdeveloped, and low-income country into a prosperous middle-income country by the year 2020. However, at the current rate of GDP and per capita income growth, that goal may not be possible within the targeted time. In order for the country to move from its present state of growth to a more sustainable growth, it is necessary to adopt policies that promote stable macroeconomic environment conducive to sustainable growth and development.

In view of complexities of developmental problems in Ghana and other SSA countries, policy recommendations should be formulated to satisfy short- and long-term goals and objectives. The sequencing of implementation of policy recommendations may be at the discretion of policy makers based on their policy objectives. With this in mind, we offer the following policy recommendations designed to address some of the problems and challenges facing Ghana's capital market.

Policy recommendations

1. The urgent task facing Ghana is to stabilize its macroeconomic variables in order to create an enabling environment for capital market development. This implies adopting policies that lead to low inflation, stable foreign exchange rates, low fiscal deficits, and a balanced budget. The attainment of these goals is essential to ensure the public's confidence to increase their financial asset holdings.

2. The role of monetary policy in stabilizing macroeconomic indicators will be enhanced by a complementary fiscal policy undertaken by the government. The establishment of an independent Central Bank will ensure expedient monetary policy and therefore enhance resource mobilization.

3. The current tax regime favors short-term investments at the expense of long-term investments. In order to equalize the tax treatment on income from equity and fixed income securities, the withholding tax on dividends should be abolished. Additionally, capital gains tax exemption on listed securities should be extended indefinitely.

4. Government borrowing from the short-term securities market puts heavy upward pressure on short-term interest rates. The government should adopt deficit reduction and budget balancing strategy. Additionally, synchronizing long-term government projects with long-term sources of financing through the issue of medium-term to long-term bonds will stabilize interest rates and encourage greater private participation in the securities market.

5. The operations of the stock brokerage firms are highly centralized and concentrated in Accra. The brokers should be encouraged to open branches at regional capitals in order to reach a wider pool of investors. In addition, in order to ensure wider patronage, the activities of the GSE must be decentralized to other parts of the country, especially the regional capital cities.

6. In order to encourage foreign investment in the Ghanaian capital market, the 10% limit for foreign individual investors in one listed company and a total capital of 74% holdings by non-resident foreigners should be abolished. This restriction has a negative impact on the provision of long-term capital for listed companies. This restriction is also biased in the sense that it does not apply to unlisted companies. Moreover, as experience has shown, such government regulations are burdensome and difficult to enforce.

7. Modern information technology and the Internet have become integral to e-commerce and investment channels. The use of online trading has the potential to increase the demand for securities and lower the average cost of trading. Additionally, discount brokerage houses could potentially reduce the public's investment transaction costs.

8. In order to attract a wider audience of both foreign and local investors, product innovation and development is crucial. Products such as preferred shares, options and futures, and financial derivatives for risk management would increase the attractiveness of the stock exchange.

9. Competitive trading activities on the exchange will reduce transaction costs. It is recommended that the fixed commission rates on trading activities be liberalized in order to induce price and product competition.

10. In order to provide incentives for companies to be listed on the exchange, special tax rebates should be considered. This tax rebate should include deductions for the cost of IPOs and investment tax credit for machinery that will improve production efficiency.

11. In order to encourage individual participation in the GSE and to avoid the disruptive tendencies of privatizing of state corporations, employee stock ownership programs (ESOPs) should be encouraged.

12. In order to increase the number of shares listed on the exchange, the government divestiture program should be channeled through the exchange.

13. There is the need to revive the over-the-counter (OTC) market where small and undercapitalized companies may list their shares. The current three-tier system is unworkable,

since all shares are listed under tier 1 and no stocks are listed under the second or third tiers.

14. The introduction of various classes of stocks with adjusted voting rights will enable individual corporate owners who fear losing control of their companies to list their shares on the stock exchange.

15. Regionalization of the West African Sub-region capital markets should be encouraged. The current negotiations over the creation of a monetary union for the Anglophone West African countries should therefore embrace the existing West African Monetary Union (OMOA) of the Franchophone West African countries. This will prevent the fragmentation of the West African states into Francophone and Anglophone zones.

16. In the light of Ashanti Goldfield's recent international financial crisis, it is essential to ensure that management of domestic corporations is conducted in a more transparent, efficient, and accountable manner in order to sustain the confidence of domestic and foreign investors. In addition, efficient corporate governance requires freedom from government interference and excessive outside regulation. Thus, AGC's example should provide a useful lesson to policy makers and the public regarding efficient corporate governance and management, transparency of information, and information disclosure to the public for efficient price discovery.

17. The creation of an automated central clearing, settlement, and depository system is needed to enhance the efficiency of capital market transactions. The computerization of GSE operations is thus strongly emphasized for efficient operations, clearings and settlements. In addition, technical infrastructure for continuous trading should be in place in anticipation of future demand. This has the potential to increase market liquidity and reduce extreme volatility of share price movements.

18. The current fragmentation of regulatory and supervisory roles among a multitude of regulatory agencies should be consolidated under the control of the SRC. In addition, the self-regulating roles of the GSE should be maintained.

19. In the absence of information disclosure and a rating agency of corporate performance and risk profiles, it is difficult for investors to assess companies' risk before undertaking any investment. The lack of information on domestic companies (information asymmetry) also affects their pricing in domestic and international capital markets. It is therefore recommended that the government should encourage the establishment of a national rating agency to perform risk assessment and performance evaluation of listed and unlisted companies. This will enable domestic and foreign investors to assess the risk and valuations of domestic companies before making informed investment decisions.

1. The Statement of Topic and Its Importance

1.1 The statement of the problem

In the 1980s, as part of their structural adjustment programs, many countries in Sub-Saharan Africa (SSA) embarked on comprehensive financial sector reforms in order to mobilize financial resources for investment and growth. The financial sector reform had as its primary objective the enhancement of banking institutions' soundness in order to improve deposit mobilization and credit allocation to the private sector for investment and growth. However, recent studies have shown that the financial sector reform did not make adequate provisions for the development of the capital markets in SSA (World Bank, 1994, 1990; De Melo and Tybout, 1986).

In 1990, the World Bank initiated a study to identify constraints to private sector development and growth in selected countries of SSA. The study concludes that the most severe constraint on private sector development is the scarcity of credit allocation to the private sector (World Bank 1990). This finding was corroborated in separate studies by Steel et al. (1991), Marsden et al. (1987), Aryeetey (1994), Levy (1993), USAID Project No. 940-2028.03 (1991), and Levitsky (1990). Marsden and others conclude that private sector development is hampered by the shortage of investment funds and working capital, especially for small and medium enterprises (SMEs) throughout Africa.

In its recent blueprint for Ghana Vision-2020, the Medium-Term Development Commission (MTDC) set as its goal the transformation of the country from a poor, underdeveloped, low-income country by the year 2020. The Commission also identifies the lack of capital investment as a major obstacle to sustainable growth in Ghana.

It has been recognized that capital market development plays a crucial role in the development efforts of Ghana and other African countries. This importance is underscored by the convening of the African Capital Market Forum in Accra, Ghana in June 1996 to explore various ways of developing efficient capital markets in Africa for mobilizing long-term capital for private sector development and growth. This sentiment was also echoed at the Abuja summit of OAU Heads of States convened in 1991. At that meeting there was a declaration that each country should be encouraged to set up a stock exchange to mobilize long-term capital towards the establishment of a proposed African Economic Community. More recently, the 1997 conference of Council of African Ministers of Finance passed a unanimous declaration on the need for speedy development of capital markets and privatization of state-owned enterprises through capital markets.

Cho (1986) concludes that a well-functioning capital market is vital for enhancing the allocative efficiency of channeling credit to the productive sectors of the economy. Capital markets provide the avenue for mobilizing domestic financial resources in the form of individual's investing in stocks, bonds, mutual funds, and other forms of investment portfolios. Corporations can raise long-term capital by issuing equity shares and fixed income securities (bonds). Capital markets also lead to risk diversification whereby individuals may hold portfolio investments in various corporate stocks and bonds. In addition, capital markets provide the avenue for commercial banks to raise needed liquidity by securitization of their long-term loans and other collateralized mortgage obligations (CMO). This will increase commercial banks' ability to augment credit to the private sector.

Privatization of state-owned enterprises is considered key to the future development and growth of African economies. However, privatization efforts have been constrained by the shortage of capital in the private sector. This is a direct result of the underdevelopment of capital markets in SSA. Thus, a well-functioning capital market would raise needed capital for purchases of state-owned enterprises, the start of new enterprises, and the expansion of existing companies.

Furthermore, the end of the cold war, the globalization of business activities, political and financial sector reforms in many developing countries have led to the attraction of foreign portfolio investments in emerging capital markets of developing countries. Between 1989 and 1995, the flow of foreign equity capital to the developing countries increased from $3.5 billion to $120 billion (World Bank, 1996). However, only one percent went to SSA.

Others argue that various institutional, policy, and structural factors impede the development of capital markets in SSA. The lack of good governance, political instability, and imprudent government regulations inhibit the growth of capital markets. Financial repression and macroeconomic instability resulting from high inflation and the depreciating value of local currencies have caused individual savers and investors to lose confidence in the formal financial institutions.

Furthermore, the inefficiency of information and the lack of data on capital markets in SSA make it impossible for investors to assess the risk of stocks of underlying companies for rational decision-making. It has also been suggested that the underdevelopment of the general economy, the poor performance of underlying companies, and the narrow selection of stocks and other financial instruments affect capital markets in African countries. It is alleged that the small size of African national economies could not sustain viable capital markets in each individual sovereign nation. However, others argue that the converse may also be true. There is evidence in a World Bank study that the underdevelopment of capital markets impede the development of national economies in SSA. Thus, the small size of African economies has prompted government officials and policy makers to seriously consider regional and global integration of the individual capital markets in order to attract foreign capital inflows. This consideration gave impetus to the 1997 initiative to set up the Abidjan Stock Exchange as a regional anchor for the Francophone West African countries within the West African Economic and Monetary Union (WAEMU).

The good news is that there are now seventeen stock exchanges in SSA, including Ghana, Botswana, Côte d'Ivoire, Nigeria, Zimbabwe, Kenya, Swaziland, Zambia, South African, Uganda, Tanzania, Egypt, Malawi, Mauritius, Morocco, Namibia, and Tunisia. Indeed, these markets have begun receiving the attention of Wall Street and European investors, as proven by the establishment of over fifteen Africa funds now trading in New York and Europe. This is remarkable, given that there was none investing in SSA (except South Africa) by 1992.
The bad news is that these markets have displayed extreme thinness and illiquidity as compared with developed and emerging capital markets of Southeast Asia and the developed capital markets of Europe and the U.S. (Senbet, 1997). With the exception of South Africa, the stock markets in

Africa are the smallest and the least developed in the world, when measured by listing size and capitalization. In addition, the ability of some of the stock exchanges to attract domestic and foreign investors remains very weak.

The underdevelopment of legal and regulatory institutions also contributes to the underdevelopment of capital markets in SSA. The lack of automation, information technology, and telecommunication also hampers their development.

1.2 Policy research questions

The previous discussions raise the following policy research questions: (a) What are the major constraints to the development of capital markets and the operations of non-banking financial institutions (NBFI) that intermediate in the capital markets? (b) What is the impact of the financial sector reform on the development of the capital markets and institutions in Ghana? (c) To what extent has the existence of stock exchanges been a source of supply of long-term capital for private corporations for the purpose of growth and poverty alleviation in Ghana? (d) What are the benefits and challenges of regionalizing and globalizing Ghana's capital market?
(e) How strong is the link between capital market development and real sector growth? (f) What are the policy implications of reform and capital market developments on equity and poverty issues in Ghana?

1.3 The objectives of the study

The objective of this study is to provide a systematic investigation of the foregoing research questions using Ghana as a case study. Specifically, the study examines: (a) the structure of the capital markets and NBFI that intermediate in the capital markets; (b) the various constraints impeding the development of efficient capital markets and how these constraints can be removed; (c) the role of financial sector reform on capital market development; (d) the impact of prudential regulation/supervision on capital market development; (e) an examination of the linkage between capital market development and real sector growth, and (f) the effect of policy changes on post-reform equity and poverty issues.

2. Background Information on the Need for Capital Markets Development in Ghana.

2.1 Introduction

In the 1970s and early 1980s, Ghana embraced repressive, state-controlled means of economic development. The repressive policies led to the deterioration of the economy and declining living standards of the masses. In the early 1980s, in collaboration with the World Bank, the International Monetary Fund (IMF), and other donor countries, Ghana undertook a comprehensive structural adjustment program.

However, it was realized that the structural adjustment program would not succeed without an efficient financial sector to mobilize resources for investment in the private sector. Thus, the country embarked on financial sector reforms as part of its structural adjustment program. Ghana's financial sector reform, known as the financial institutions sector adjustment programs (FINSAP) was launched in 1988 with the assistance from the World Bank, the IMF, and other donor nations.

The main objectives of FINSAP were (a) to deregulate interest rates and remove ceilings on deposit and lending rates; (b) to privatize government-owned financial institutions and commercial banks; (c) to enhance the soundness of the banking institutions by improving prudential regulation and supervision by the Bank of Ghana (BOG); (d) to improve deposit mobilization and efficiency of credit allocation; and (e) to develop the money and securities markets.

Because of this reform, various banks and other non-banking financial institutions were licensed in Ghana during the post-reform period. However, evidence from recent studies shows that the financial sector reform did not result in greater allocation of credit to the private sector. High yields on Treasury bills have resulted in the "crowding out" of small and medium-sized enterprises from the credit market. After the reform, banks have begun to exercise their new freedom by reducing lending to sectors considered risky. At the same time, the banks continue to increase their portfolio allocation to the government sector in the form of investment in Treasury bills. Additionally, many commercial banks with branches in the rural areas have begun closing many of their rural branches. As a result, the per capita banking ratios in the rural areas have declined after the financial sector reform.

Bank lending to the private sector has also been constrained by the tight monetary policy of the Central Bank. This development in the banking sector has rekindled interest in developing a well functioning capital market with emphasis on the stock market.

2.2 The early efforts to establish a stock exchange in Ghana

The early efforts to start a stock exchange in Ghana date back to 1968, when a government study concluded that a stock exchange establishment was in the best interest of the country. This led to the promulgation of the Stock Market Exchange Act of 1971, which laid the foundation for the establishment of the Accra Stock Market Limited (ASML) in 1971. However, the stock exchange never took off. Various factors were accountable for the failure. The unfavorable macroeconomic environment, political instability, and the lack of government support undermined the viability of the stock exchange.

2.3 The Establishment of an over-the-counter (OTC) stock exchange in Ghana

Prior to the establishment of the GSE in November 1990, trading in shares of some foreign-owned companies was done over-the-counter (OTC) by two stock brokerage firms, namely National Trust Holding Company, Ltd. (NTHC), and National Stockbrokers, Ltd., now Merban Stockbrokers, Ltd.

The OTC was established in response to the Ghanaian government's decree of 1975 known as the "Investment Policy Decree." This decree required foreign firms operating in Ghana to divest themselves of not less than 40% of their equity capital to indigenous Ghanaians.

This was an attempt to arouse the consciousness of Ghanaians regarding equity investments as well as effective indigenization of economic activity. To facilitate the implementation of the Investment Policy Decree, NTHC was established in 1976 as the nucleus of a capital market to provide buying, selling, and management of equity stocks and debentures. Merban and the NTHC, in the absence of a recognized stock exchange, provided brokerage services to the investing public through a ready mechanism for the purchase and sale of shares. Besides the National Investment Bank, there were no indigenously owned enterprises that were traded on the OTC. The companies listed by then were largely subsidiaries of transnational corporations incorporated in Ghana.

The major weakness of the OTC was that it was out of the reach of small and indigenous firms that could not be traded on the OTC. Also, the design and implementation of the government's decree to divest 40% foreign ownership in domestic firms was met with less enthusiasm from Ghana's private sector. As a result, the OTC existed primarily to serve the interest of the foreign companies in Ghana. The need to establish a stock exchange was presented in a 1989 report on the feasibility of a Ghanaian stock exchange.

2.4 The Establishment of the Ghana Stock Exchange (GSE)

The Ghana Stock Exchange was incorporated in July 1989 as a private company under the Ghana Companies Code, 1963 (Act 179). However, the status of the company was changed to a public company under the Companies Code in April 1994. The exchange was given recognition as an authorized stock exchange under the Stock Exchange Act of 1971. Trading on the floor of the exchange commenced on November 12, 1990. The GSE is a private sector initiative and is not funded by government. The exchange has no shareholders but it has two categories of members, Licensed Dealing Members and Associate Members. A Licensed Dealing Member is a corporate body licensed by the exchange to deal in listed securities. An Associate Member is an individual or corporate body, which has satisfied the Exchange's membership requirements, but is not licensed to act as a stockbroker on the exchange.

Membership of the exchange rose from three initial promoters to 53 by December 1998. It commenced operations with three brokerage firms and 11 listed companies. The exchange has no branches and is located in Accra.

The exchange is governed by a council with representation from Licensed Dealing Members, listed companies, the banks, insurance companies, money market and the general public. The council sets the policies of the exchange, and its functions include preventing frauds and malpractice, maintaining good order among members, regulating stock market business, and granting listing.

2.5 Trading practices and operations of the GSE

Trading is carried out on the floor of the exchange under the call-over system with a limited auction. Trading is done in lots of 100 shares, with the exception of the Ashanti Goldfields

Company (AGC) shares which trade in lots of 10 shares. Trading takes place three times a week on Mondays, Wednesdays, and Fridays starting at 10:00 a.m. The average period of trading is about two hours. OTC trading is also allowed in AGC's shares.

The financial instruments currently traded on the exchange are ordinary shares (common stock) and bonds. There are currently 13-licensed stock brokerage firms trading on the exchange. Common shares of 21 companies are listed and traded on the exchange with four corporate bonds, one cedi, and three-dollar denominated bonds issued by Home Finance Company (HFC).

Securities on the exchange can be purchased by anybody provided he/she is 18 years and above and of sound mind. Resident foreigners are also allowed to buy securities on the exchange. Non-resident Ghanaians and foreigners can purchase of up to 10% of any security approved for listing on the exchange. Furthermore, the total holdings of all external residents in one listed security shall not exceed 74%. This restriction applies to only non-resident foreigners and does not apply to externally resident Ghanaians.

The commission rate is fixed and regulated by the government. The prevailing delivery and settlement system is centralized but not automated. Currently, the settlement period is T+5 business days. It is also strictly delivery versus payment.

3. Analytical Framework

3.1 Introduction

Various theories attempt to explain underdevelopment of SSA capital markets. The financial repression hypothesis has proven relevant to the underdevelopment of these capital markets. McKinnon (1973), Shaw (1973), and Fry (1988, 1982) consider the underdevelopment of the capital market to be a direct result of government regulation of the financial sector allocation of credit and determination of interest rates.

On the other hand, Gurley and Shaw (1955, 1960), and Goldsmith (1969), postulate that economies at various levels of development possess different levels of financial structures[1]. At the early stages of economic development characteristic of underdeveloped countries, business entities' capital investment is mainly self-financed or financed by internally generated capital. However, as the economy begins to develop, depository institutions emerge to intervene between surplus spending and deficit spending units. These deposit institutions issue secondary securities to surplus entities for mobilizing savings for allocation to the deficit entities. Stock markets evolve, as the long-term capital needs of the business community cannot be met by the banking sector, which is essentially focused on providing short-term credit to the private sector.

[1]Financial structure refers to the interaction between financial intermediaries and financial markets through which financial instruments are traded.

The underdevelopment of capital markets may also be due to the lack of an environment that fosters rapid development of capital markets. A major factor is the lack of an incentive structure, resulting from government intervention in the capital markets. Additionally, government deficit financing by borrowing from the short-term securities market has put great pressure on interest rates. This situation has resulted in higher interest rates and higher borrowing costs for the private sector enterprises. Moreover, the inflationary pressures and weak domestic currencies in many SSA countries provide no incentive for holding long-term securities.

Another element of the incentive factor is the tax structure on dividend and capital gains. For example, the fiscal policy of taxing capital gains and exempting interest income on Treasury bills provides a disincentive for holding portfolios in the stock market.

Others point to the disparity in the distribution of income in SSA. It is argued that where wealth is concentrated in the hands of a few individuals, the majority of the public may not have enough funds to invest in the stock market. In such a case, only wealthy individuals may benefit from the stock market establishment. This raises an equity issue regarding the benefits of the stock market accruing to the wealthy few in the SSA countries. In such a case, how can government policies be directed to combat the concentration of shares among a few individuals in the SSA countries?

In some countries, such as the U.S., the problem has been dealt with by giving tax breaks (for example tax deferrals on individual retirement annuities, and so on) to average-income people for investment and savings for retirement.

It is also argued that, due to the underdevelopment of the stock market in SSA countries, only large firms will be able to raise capital by issuing stocks and bonds on the securities exchange. At the same time, small, medium, and micro-enterprises maybe crowded out of the capital market.

On the demand side, the important consideration is the rate of return on capital market instruments such as corporate stocks and bonds versus government short-term Treasury securities and bonds. However, short-term government monetary policies have resulted in higher premiums for holding short-term government Treasury bills. Consequently, investors have become more attracted to low-risk and high-yield Treasury securities.

On the supply side, corporations and private enterprises may issue stocks or borrow from the banking sector to finance their productive entities. However, various studies show that many firms in developing countries are reluctant to increase their shareholder base by issuing equity securities to raise capital. For example, owners of many family operated companies are very protective of their companies and may be very reluctant to dilute their corporate power base through the issuance of additional shares. Such companies may prefer to raise capital through the banking system rather than through the stock market.

In addition, a major attraction of increased leverage resulting from raising debt in the banking system is the differential treatment of interest payment on debt versus dividend payment on equity securities. The tax deductibility of interest rates on borrowing from the banking sector has increased the attractiveness of borrowing from the banking sector rather than issuing equity securities to raise capital.

However, for those companies that may want to raise capital through the issue of stocks, the additional pressure to compete with high-yield government securities may discourage those companies from raising capital in the securities market.

Others point to the low level of national income as a major constraint to the development of stock exchanges in SSA. The argument is that, due to the low level of income and small size of the national economies of the SSA countries, they cannot compete with the rest of the emerging capital markets of Southeast Asia and Latin America. Thus, it is realized that regional and global integration of the domestic capital markets will offer greater opportunity to compete with the Southeast Asian and Latin American countries in attracting foreign capital. Integrated capital markets allow for greater access to a wider market and more diversified sources of external capital, which will lead to less reliance on dwindling foreign aid. Integrated capital markets also lead to greater risk sharing by investors, especially through equity investment, and to the reversal of capital flight. The assumption is that integrated markets lead to competitive markets where financial capital will seek higher returns to investment. This implies that capital market integration will be accompanied by re-allocation of capital from the markets in which it is relatively abundant (the developed countries) to the markets in which it is relatively scarce (the developing countries).

Integrated capital markets enable corporations to operate in the international capital markets by optimizing their capital structure and hedging against foreign exchange and interest rate risk. It also enables firms to minimize the cost of raising capital in the integrated international capital market. It is assumed that the marginal cost of raising capital in the domestic capital market will be higher than the marginal cost of raising capital in the international capital markets.

Capital market integration is also expected to enhance efficiency of the domestic capital market in allocating financial resources to the most productive sectors of the economy.
In order to examine the impact of capital market development on the general economy, in the next section, we examine the link between capital market development and economic growth.

3.2 The Link between Capital Market Development and Growth

The issue of whether capital market development has any direct impact on economic growth has been debated in the academic literature. The early proponents of finance-led economic growth include Bagehort (1873), Hicks (1969), and Schumpeter (1912). Bagehot and Hicks argue strongly for the important role capital market development plays in promoting economic growth. They support their claim by arguing that the industrial revolution in England was the result of a functioning capital market that was instrumental in mobilizing and allocating long-term capital to the productive enterprises of the country. Their position was buttressed by Schumpeter, who argued that a well functioning banking system provides intermediation services to productive entrepreneurial activities that spur technological, innovative, and productive activities that increase real sector growth.

On the other hand, Robinson (1952) indicates that demand-pull initiatives from the private sector growth have the propensity to spur the financial sector to respond to financial or capital needs of the private sector. In her view, real sector developments (growth) and financial needs create the demand for a certain financial structure (equity versus debt) to cater to the needs of the private sector. Lucas (1988), in support of Robinson's position, argues that the proponents of finance-led growth exaggerate the impact of capital market development on real sector growth.

Various empirical studies have investigated the link between financial sector development and economic growth. Early studies supporting the finance-led growth hypotheses include Greenwood and Smith (1996); Smith, Bencivernag, and Starr (1996); and Levine (1991, 1993, 1997). While many of these studies emphasize the role of the banking sector in providing credit to the productive sectors of the economy, others emphasize the capital (equity) market in mobilizing and allocating long-term capital to promote economic growth.

Greenwood and Smith (1996) conclude that stock markets lower the cost of mobilizing financial savings for investing in productive business entities. Other empirical evidence strongly suggests that well-functioning capital markets have the potential to promote long-term economic growth. Such studies postulate that capital market indicators such as market liquidity, capitalization, turnover, and efficient allocation of financial resources are strongly associated with economic growth and capital accumulation for high productivity. This finding was corroborated by Smith, Bencivernag, and Starr (1996) and Levine (1991), who conclude that the stock markets provide investors with insurance of easy liquidity for selling their investments in the stock markets.

In his recent empirical work, published in a 1997 issue of *The Journal of Economic Literature,* Levine reviewed a body of literature relevant to our understanding of whether there is any strong evidence to support the finance-led growth paradign. His study hypothesized the relationship between four capital market indices and real sector growth.

These include DEPTH, a measure of liquid liabilities, comprising currency plus demand deposits of banks and non-banking institutions, divided by GDP. The second proxy, BANK, is represented by the ratio of bank credit divided by bank credit plus central bank domestic net assets. Credit allocation to the private sector is represented by PRIVATE, which is the ratio of credit allocated to private enterprises divided by total domestic credit. A second measure of credit to the private sector is proxied by PRIVY, which stands for credit to the private sector divided by GDP.

Levine also examined another empirical work by Atje and Jovanovic (1996) that sought to test the hypothesis of any strong relationship between indices of stock market developments and economic growth. That study used exogenous variables of stock market liquidity as measured by (a) total value of shares traded (capitalization) divided by GDP, and (b) stock market turnover ratio, which is measured by the total value of shares traded on the exchange divided by market capitalization. These hypotheses form the basis of our modeling of the relationship between capital market development and growth.

4. Research Program, Methodology, Data, and Sources

4.1 Introduction

This study is an integration of an analytical framework with a synthesis of secondary financial and primary data collected through field survey questionnaires and interviews. Descriptive statistical tests and econometric analysis have been guided by the analytical foundations and stylized facts of capital markets in Ghana. The study utilizes parametric techniques in the analysis of issues and policy research questions raised in this study.

We also perform qualitative statistical analysis of primary data in an attempt to validate these policy research questions. Regression modeling and estimation are undertaken to examine the link between various indices of capital market development and real sector growth.

4.2 Regression modeling of the linkage between capital market development and growth

Our regression model is an adaptation of the work cited by Levine (1997) as represented in equation 1 below.

$$GDPRG = f(C, K) \quad \ldots\ldots(1)$$

Where,
GDPRG is real GDP growth rate; C is a vector of proxies representing capital markets for debt securities or credit. **K** is a vector of proxies for equity capital (stock) market development. The above regression model is represented in a matrix form as follows:

$$\mathbf{y} = \boldsymbol{\beta}\mathbf{X} + \mathbf{u} \quad \ldots\ldots(2)$$

Where,
y is the (N x 1) column vector of observations on the dependent variable;
X is the (N x k-1) pre-determined variables;
$\boldsymbol{\beta}$ is k x 1 column vector of the regression parameters;
u is (N x 1) column vector of N stochastic disturbances.

The regression model is based on the assumption that the error term is normally distributed with zero mean and constant variance or homoscedastic distribution ($\mathbf{U} \sim \mathbf{N}(\mathbf{0}, \mathbf{I})$).
It is also assumed that there is no serial autocorrelation between the independent variables.

4.3 Data and sources

Primary and secondary data were collected to test the relevant hypotheses. Primary data were collected to supplement secondary data for the analysis of qualitative aspects of the study. The secondary data were collected to provide systematic analysis of the policy research questions and the link between capital market developments and real sector growth.

4.4 Primary data collection

A field survey was conducted to administer survey questionnaires to a stratified sample of capital market institutions and intermediaries. These include: (1) listed companies, (2) unlisted companies, (3) stock brokers, (4) Ghana Stock Exchange, (5) Bank of Ghana, (6) commercial banks, (7) non-banking financial institutions, (8) insurance companies, and (9) employees of private and public corporations.

Table 1 presents the list of the sample of the capital market institutions and intermediaries that are surveyed in the field. Column 1 of Table 1 shows the category of the firms interviewed, while the second column shows the number of survey instruments distributed to the various institutions in the field. Column 3 summarizes the number of survey instruments collected and found to be satisfactory in terms of how the questions were answered. The last column summarizes the success rate of the survey instruments that were returned.

Table 1: The Field Survey Returns

Financial institutions/ Company	Number of survey instruments sent	Number of survey instruments returned	Percentage returned
Listed companies	18	9	50%
Unlisted companies	55	32	58%
Stock brokers	11	5	45%
Ghana Stock Exchange	1	1	100%
Bank of Ghana	4	4	100%
Banks	15	11	73%
NBFIs	12	12	100%
Insurance	15	8	53%
Employee/Public	830	398	48%

Source: *Survey results, June/July 1998*

Our main concern at the onset of the field survey was "survey fatigue" in the Ghanaian private and public sector. As a result, we consider any returns of survey questionnaires in excess of 50% a success. With this criterion in mind, all the sectors, except stockbrokers and employees, exceeded our expectations.

4.5 Secondary data collection

Secondary and time series data include macroeconomic and financial data on the financial and capital market variables. These include firm level and macro-financial data on the financial system. Various sources of this data include national and international sources.

In the case of the GSE, data include stock closing prices, market capitalization figures, trading volumes, the GSE market index, dividends, and the corresponding data for AGC from London, New York, Toronto, South Africa, and Zimbabwe. The scope of the secondary data on the stock exchange is from January 1990 to December 1998.

5. The Findings of the study

5.1 Introduction

The policy changes initiated as part of the financial sector reform have resulted in growth of various commercial banks and NBFI that intermediate in the capital market. The development and growth of these institutions have created the potential to deepen the capital market in Ghana. We discuss some of the developments, findings, and challenges in the next sections.

5.2 The policy environment

The operations of the GSE have been affected by various post-reform policy changes. The survey results show that the following policy changes have had favorable impact on the operations of the GSE (a) regulatory reforms and legal framework relating to the operations of the exchange, (b) liberalization of interest rates and foreign exchange operations, (c) relaxation of restrictions on foreign participation in the stock exchange, and (d) privatization of state-owned enterprises through the exchange which has also added some depth to shares listed on the GSE.

On the other hand, respondents indicated that the introduction of government Treasury bills, which possess higher yields than stock yields, provides disincentives to invest in the stock exchange. The current tax regime also favors investments in risk free government bills, which do not attract tax for the interest income earned by individuals. In addition, persistent high inflationary pressures and constant depreciation of the cedi impose high risk on investment in the stock exchange.

5.3 The legal framework and constraint

One of the strong foundations of a capital market is the regulatory framework that protects investor assets and promotes confidence in the public. The stock exchange operates within a certain legal framework. The exchange has its own regulations, including membership regulations, listing regulations, trading, settlement rules, mergers, and takeover rules.

The 1993 Securities Industry Law (SIL) made a provision for the establishment of the Securities Regulatory Commission (SRC) to regulate the activities of the securities industry. However, due to various roadblocks, the SRC was not revived until 1998. Thus, from its inception, the governor of the BOG was the sole acting regulatory commissioner of the securities industry. The functions of the commission include: (a) maintaining surveillance over securities to ensure orderly, fair, and equitable dealings in securities, (b) registering, licensing, authorizing, or regulating the stock exchange, investment advisors, security dealers, and (c) protecting the integrity of the securities market against any abuses arising from the practice of insider trading.

The securities industry is also regulated by Companies Code of 1963 and the Exchange Control Act, which governs the transfer of capital out of the country. A careful analysis of the securities law reveals that the law does not make disclosure of information by listed companies mandatory nor does it make provision for the introduction of innovative investment products such as financial derivatives, options/futures, margin trading, and short selling. Additionally, the Companies Code of 1963 constrains investment activities of companies in the capital market. The insurance law also imposes severe constraints on the operations of insurance companies' investments in the stock exchange.

5.4 The capital market development

5.4.1 Introduction

In this section, we discuss the developments in the equity capital market. This includes the developments of the GSE and its performance indicators. Those indicators include (a) stock listings, (b) market capitalization, and (c) the performance of primary and secondary markets.

5.4.2 Listing of stocks

The number of companies listed on the exchange increased from 11 in 1990, when the exchange began operations, to 19 after 5 years of operations by December 31, 1995. As of December 1996, the number of listed companies had increased to 21 (see Table 2). However, from 1996 to the end of 1998, no new companies were listed on the exchange. In 1999, one new company was listed; this has increased the stock listings to 22.

Among the new listings, five were the result of government privatization and divestiture of its shares in these state-owned enterprises. Pioneer Aluminum Company is a transnational company that went public in 1994. Of the new companies listed on the GSE, only two at the time of the initial listing were private, locally owned companies without original foreign ownership.

However, compared with other emerging capital markets, the number of company listings on the GSE was very small. Ghana's listings of 21 companies in 1998 compares marginally with that of Côte d'Ivoire (35), Kenya (58), South Africa (668), and Malaysia (736), (see Table 2 for illustration).

The policy question arising from the nature of the companies listed on the GSE is - why are indigenously owned private enterprises reluctant to go public and be listed on the GSE? The number of listed companies was low due to several factors such as lack of education and private company owners fears of loosing control. Additionally, high interest rates on low risk Treasury bills have attracted many investors away from the stock exchange. The government's privatization outside the stock exchange has also contributed to the low activities on the market.

Table 2: Comparative Listings of Shares

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Ghana	11	11	13	15	17	19	21	21	21
Botswana		9	11	11	11	12	12	12	21
Côte d'Ivoire	23	25	27	24	27	24	31	35	35
Kenya	54	53	57	56	56	56	56	58	58
South Africa	732	688	683	647	640	640	626	642	668
Malaysia	282	321	369	410	478	529	621	708	736

Source: *Emerging Stock Markets Factbook, IFC, 1999*

Some of the reasons mentioned previously were confirmed by the results of our survey questionnaires. A survey of 60 randomly chosen unlisted firms revealed that 93.3 percent were aware of the GSE as an alternative source of raising capital for business expansion. However, in response to a question about why those companies were not listed on the GSE, various reasons were given, ranging from (a) only large firms can be listed on the exchange (16.7 percent), (b) listing on the exchange will lead to loss of control over the company (13.3 percent), (c) high cost of listing on the GSE (13.3 percent), and (d) difficulty of getting listed on the GSE (3.3 percent). In response to whether those companies would like to be listed on the OTC market, an overwhelming majority, 53.3 percent, responded in the affirmative.

The lack of product diversity is shown by the limited amount of products traded on the exchange. The only capital market instruments traded are ordinary shares and a few corporate bonds. There are no financial derivatives, mutual funds, or municipal bonds to raise funds for public projects. Another major limitation is the slow clearing system and settlement. The prevailing delivery and settlement system is a centralized and manually operated system.

5.4.3 Market capitalization

Ghana's market capitalization, which is a measure of stock prices multiplied by the number of outstanding shares amounted to 30.46 billion cedis by the end of the first year of trading on the GSE. This increased by eighty-five folds to ¢3,245.61 billion in nominal terms by the end of December 1998. The reasons for such a massive increase are new listings over the years, especially AGC in 1994, and share price appreciation. However, in US dollar terms, the market capitalization decreased from US$1.87 billion in 1994 (December) to US$1.64 billion in 1995 (December); as of December 1998, it was US$1.38 billion. This decline is due to the depreciation of the local currency over the years. This implies an increase in foreign exchange risk for foreign investors in Ghana's capital market.

Table 3 shows a comparative analysis of market capitalization of Ghanaian companies as compared with four other African countries and one Southeast Asian country, Malaysia. The rate of capital accumulation by companies listed on the GSE was sluggish between 1990 and 1994. As a percent of GDP, Ghana's capitalization was below 2 percent between 1990 and 1993. However, with the floatation of a larger share of AGC, Ghana's capitalization jumped from less than 2 percent to over 34 percent in 1994. However, since 1994, Ghana's capitalization dropped from 34 percent to 16.53 percent by 1998. This may be due to the sharp drop in the value of AGC resulting from its poor performance.

In comparison with Malaysia and other listed countries of SSA, Ghana's rate of capital accumulation, as a ratio of GDP was the lowest until 1994. Ghana's capitalization/GDP in 1994 leaped to 34.43 percent, bringing Ghana's average annual capitalization ratio to 14.64 percent. However, Ghana's average capitalization of 14.64 percent was dwarfed by the larger capitalization/GDP ratio of South Africa (164 percent), Malaysia (223.35 percent), and Kenya (19.11 percent).

Table 3: Comparative Capitalization/GDP Ratios (%)

	1991	1992	1993	1994	1995	1996	1997	Avg.
Ghana*	1.15	1.31	1.98	4.67	2.97	1.57	4.55	2.60
Ghana	1.15	1.31	1.98	34.43	25.5	21.55	16.53	14.64
Botswana	6.62	7.44	6.37	8.73	6.60	12.13	12.13	8.08
Côte d'Ivoire	5.16	4.33	3.98	5.58	8.67	8.54	12.45	6.96
Kenya	5.63	8.01	18.43	43.11	20.83	19.97	17.81	19.11
South Africa	1.50	86.40	146.96	185.86	209.95	191.36	179.77	164.33
Malaysia	124.62	161.22	343.30	274.84	255.02	309.40	95.06	223.35

Source: *Emerging Stock Markets Factbook, IFC, 1999*
********Ghana's capitalization excluding AGC*

The phenomenal increase in capital accumulation by the Malaysian Stock Exchange had surpassed the rest of the countries in the sample. From a capitalization ratio of 124.62 percent in 1991, the rate increased to 343.30 percent in 1993. It moderated slightly in the subsequent years between 1994 and 1995. It increased to 309.40 percent in 1996 before it plunged to 95.06 percent in 1998 when Malaysia and other Southeast Asian Tigers suffered a major financial crisis.

The experience of Malaysia and other Southeast Asian Tigers offers useful lessons for Ghana and other SSA countries. The first lesson is the impact of stable economic environment on the development of the capital market. The average inflation rate in Malaysia between 1990 and 1997 was 3.81 percent as compared with Ghana's average double-digit inflation of 31.45 percent during 1990 to 998 (see Table 6 in Appendix). The second lesson is the extent to which excessive debt in the domestic market, in the face of globalization of domestic markets, can undermine the stability of domestic currency exchange rates. This may lead to a free fall of the exchange rate, as has happened in Southeast Asia, leading to capital flight in affected countries.

5.4.4 The market performance

Market performance was measured by the percentage of changes in the GSE index over the past eight years. On 12 November 1990, when the market opened for the first time, GSE All Index was 77.65 points. It declined to 70.08 points by the end of 1990. In 1991 and 1992, the index dropped by 7.95 percent and 3.63 percent to close at 62.17 points by the end of 1992. In 1993 and 1994, the index made remarkable gains and closed at 132.9 points and 298.10 points, respectively. The index shot up by 113.74 percent and 124.34 percent in 1993 and 1994, respectively. This has distinguished the GSE as the best performing emerging market in 1994 as recognized by the International Federation of Stock Exchanges.

In 1995 and 1996, the index rose slightly by 6.33 percent and 13.82 percent, respectively. The low gains in those two years were due to a number of factors, among which were the high nominal interest rates, high depreciation of the local currency, and the spiraling inflation rates. The index in 1997 made some modest gains. It appreciated by 41.85 percent and closed at 511.74 points. By the end of December 1998, the index had risen by 69.69 percent and closed at 868.35 points.

This tremendous increase was due to renewed interest in the market, which saw trading activities picking up. The renewed interest resulted from the falling inflation, declining interest rates, and relative stability of the cedi.

GSE ranked number 1 in terms of comparative average nominal performance between 1991 and 1998 (see Table 5). This increase in share prices may be the result of high demand for equity shares, which can be attributed to several factors. The declining inflationary pressure has dampened pressures on interest rates. In addition, investors are now discovering the potential benefits of capital appreciation associated with investing in the stock exchange.

Table 4: Comparative Nominal Performance (%)

	1991	1992	1993	1994	1995	1996	1997	1998
Ghana	-8.17	-3.63	116.1	117.6	19.8	21.0	41.8	69.7
Botswana	-8.17	-3.63	1.8	12,4	6.4	5.8	101.2	33.6
Côte d'Ivoire	-1.4	-38.5	43.9	38.8	120.7	29.1	22.3	
Kenya	4.7	21.8	115.3	81.4	-23.9	-10.2	0	-4.9
South Africa	26.5	-5.3	50.1	19.9	6.2	6.9	-6.8	-12.4
Malaysia	9.9	15.8	98	-23.8	2.5	24.4	-52.0	-1.4

Source: *Emerging Stock Markets Factbook, IFC, 1999*

However, in order to capture the effect of inflation on real yield of the market activities, we deflated the nominal performance index, using the Fisherian Equation (see Table 6, Appendix). The result of these exercises shows that Ghana's average real performance declined from its nominal rate of 41.8 percent to 7.23 percent over the period from 1990 to 1997. Thus, in terms of real performance, Botswana and Côte d'Ivoire were the two countries with the highest rate of real returns of 18.56 percent and 18.93 percent, respectively, between 1990 and 1997. The dilemma facing the GSE is how to increase market activities in an environment of high inflation that puts pressure on interest rates.

5.4.5 Primary offers as sources of long-term capital

One of the major functions of security markets is to facilitate the mobilization of long-term capital for allocation to the productive sectors of the economy. This requires the existence of capital market intermediaries such as primary dealers or investment banks to undertake the underwriting of IPOs. In terms of raising new capital on the GSE, a total of 153.08 billion cedis ($125.8 million) have been raised from 1991 to December 1998. This includes seven IPOs, one private placement, and additional capital raised through rights issues. The total capital raised through the IPO amounted to 110.75 billion cedis ($91.01 million), of which AGC accounted for over 54 percent. However, the IPO of three companies (Ashanti Goldfields, Social Security Bank, and Ghana Commercial Bank) accounted for 108.89 billion cedis ($89.48 million), which represents over 98 percent of total capital raised through IPOs. Thus, the dominance of only a few companies in raising capital on the GSE has relegated many listed companies to that of marginal players on the exchange.

Furthermore, out of the seven IPOs, four fell short of their target capital requirements. Various reasons may account for this lackluster development in the primary market. The absence of dealers or investment banks in the primary market may also account for the few listings through IPOs. Additionally, the bias toward debt finance by many listed and unlisted firms undermines capital raising through the stock exchange.

In order to compare the contributions of the stock exchange to bank-financed debt, we examine the two sources of financing, debt versus equity. The contribution of the stock exchange to accumulating long-term equity capital has been mixed. This study shows that the average contribution[2] of the stock exchange to raising equity capital was about 4 percent between 1991 and 1998. This varies from as lows as .33 percent in 1991 to 17.78 percent in 1994. However, the high contribution in 1994 declined to about 1.4 percent in 1998. The record contribution in 1994 was due to the floatation of AGC through the GSE.

On a comparative level, the contribution of the stock exchange to raising long-term capital is quite marginal compared with bank-based capital or debt instruments. Thus, the issue of concern is how to deepen the capital market in order to increase equity capital as compared with debt capital. This issue has been examined within the context of the challenges of regionalizing and globalizing of the Ghanaian capital market as a way of broadening the capital market for long-term capital to promote growth and poverty alleviation.

5.5 The challenges of regionalizing and globalizing the capital market

As has been demonstrated in the previous sections, policy makers and researchers have recognized the limitations of the domestic capital markets in raising capital for investment and growth. Factors that have been identified include low domestic economy, low savings, and unfamiliarity with securitization of long-term capital.

It was concluded that because of the small size and low level of savings in SSA countries, they could not compete with the Asian Tigers and Latin American countries in attracting foreign capital to their domestic economies. Regional integration and globalization of domestic capital markets was considered one way of attracting foreign capital. As a result, policy makers began serious considerations of regional and global integration of their individual capital markets.

In terms of regional integration of capital markets, the study found that one of the relics of colonialism that has had adverse effect on regional integration was the partition of African countries into various enclaves under the former colonial powers. For example, the partitioning of the West African region into Francophone and Anglophone countries has militated against promoting a regional capital market integration. The monetary union of the Francophone countries of the West African region has promoted the establishment of the Abidjan Stock Exchange as a regional anchor for the Francophone West African countries. This has left the

[2] Average capital contribution by the stock exchange is measured by capital accumulation through the issue of IPOs divided by total credit created by the banking sector plus total capital accumulation by the stock exchange.

Anglophone countries of West Africa to fend for themselves.

The problem of currency non-convertibility among the Anglophone West African countries hindered the formation of a united regional capital market for the Anglophone countries. Thus, others argue that the best approach is to integrate the Anglophone and Francophone regions. This could be followed by a common currency unit, which may ultimately lead to an integrated capital market for the entire West African countries and the continent of Africa.

On a unilateral level, the policy makers in Ghana have embarked on efforts to link the domestic capital market with the global capital market. Another benefit of globalizing the domestic capital market is the cross listing of the AGC in international stock exchanges such as New York, London, Toronto, South Africa, Zimbabwe, and Canada.

However, others argue that globalization of individual capital markets has benefits and risks associated with the vagaries of capital market volatility, subject to external and internal shocks and potentially affecting equity prices in the domestic market. An example is the aftermath of the cross listing of AGC on the GSE and its subsequent cross listing on other developed capital markets. In June 1994, the IPO of AGC stock was priced at over $20.00. However, as of mid-May, 2000, AGC was trading at $1.87 on the New York Stock Exchange. As a result, some in the government circle argue that this example suggests caution in terms of globalizing domestic capital markets, especially at a time of domestic macroeconomic imbalance such as Ghana is currently facing. An opposing view is that when faced with capital market globalization, inefficient and poorly managed domestic firms will be punished in the international capital market through pricing downgrades. Thus, the proper lesson should be efficient and more transparent management of domestic firms. In addition, the macroeconomic environment should be conducive to limit the risk exposure of foreign investment in the Ghanaian capital market.

In response to the globalization of the capital markets, foreign financial instruments are now available and more competitively priced. Ghana cannot change this situation through regulation except through regulation that promotes transparency, efficient management, and accountability. Additionally, in order to attract foreign capital inflows into the country, it is necessary to reduce uncertainty and market risk and thereby provide a stable environment for domestic and foreign investor confidence in the capital market.

5.6 The link between capital market development and real sector growth

One of the objectives of liberalizing Ghana’s financial sector is to direct credit to the most productive sectors of the economy in order to promote growth and poverty alleviation. As a result, we provide descriptive and regression analysis of the capital market development’s allocation of financial resources to the private sector for growth and poverty alleviation.

Table 7 provides a descriptive statistical computation of real GDP and credit growth relationship between 1982 and 1997. A major unexpected development is the post-reform reduction of aggregate credit to the private sector. The first general picture is the drastic fall in total credit/GDP ratio from about 28 percent in 1987 to about 8 percent in 1988, and the subsequent consistent decline to 1.13 percent in 1991. Total credit/GDP rose dramatically to about 14.91 percent in 1992. It fell to 6.45 percent in 1993 before it rose to 14.35% in 1997.

However, the declining credit/GDP growth rate relative to the rate of GDP growth did not have a pronounced negative effect on GDP growth rates. The data shows that, relative to an average of credit/GDP and GDP growth rates, a higher credit/GDP average growth rate of 24.45 percent annually (pre-reform) was associated with only a 1.87 percent GDP growth rate per year.

Table 7: Real GDP and Credit Growth Relationship

YEAR	GDP GROWTH	CREDIT/GDP
1982	-7.20%	21.69%
1983	0.70%	33.89%
1984	2.65%	17.88%
1985	5.08%	22.25%
1986	5.20%	23.26%
1987	4.81%	27.71%
Mean	1.87%	24.45%
1988	5.62%	7.70%
1989	5.09%	4.97%
1990	3.32%	2.12%
1991	5.31%	1.13%
1992	3.89%	14.91%
1993	4.93%	6.45%
1994	3.81%	8.20%
1995	4.49%	6.59%
1996	5.17%	10.81%
1997	5.10%	14.35%
Mean	4.67%	14.61%

However, an average credit/GDP growth rate of 14.61 percent (between 1988 and 1997) gave rise to a higher average GDP growth rate of 4.67 percent per year. This higher correlation between real GDP and credit/GDP growth rates may be the result of efficiency gains[3] (allocation and operational efficiencies) due to the financial sector reforms and the restructuring of the financial sector. This may also be attributed to a post-reform redirection of credit from the unproductive sectors of the economy to the productive sectors.

[3] It is also likely that the writing-off of non-performing loans in the banking sector after reform may have underestimated the extent of post-reform credit to the private sector.

In order to support the descriptive statistical analysis, we provide regression results of equation 1, section 4.2 above. The initial regression results were not satisfactory relative to hypothetical predictions. Correlation analysis reveals high association between the two exogenous variables (PRIVATE and PRIVY). As a result, the two variables were statistically insignificant. We dropped the PRIVATE variable in the second regression estimate reported in Table 8.

This regression output shows mixed results when compared with that of Levine (1997). Contrary to the null hypothesis of a positive relationship between DEPTH and real sector growth, our DEPTH parameter exhibits a negative relationship with real sector growth. It is also found to be statistically insignificant. Even though the two other proxies of financial market indicators show positive signs as predicted by theory, only the PRIVY variable exhibits a statistically significant relationship with real sector growth. The BANK coefficient exhibits a statistically insignificant relationship with real sector growth.

Table 8: Regression Results of GDP Growth on Capital Market Development (Proxies)

Regression output

Constant	4.054
R Squared	0.446
Adjusted R Square	0.305
F Statistics	3.215
DW	2.70

X coefficients	**DEPTH**	**BANK**	**PRIVY**
	-0.235	0.046	1.32
	(-1.49)	(0.429)	(2.87)*

where,

* The numbers in parentheses are the T-statistics showing statistical significance at the 5 percent level.

DEPTH = measure of liquid liabilities comprising currency plus demand deposits of banks and Non-banking institutions divided by GDP.

BANK = the ratio of bank credit divided by total bank credit plus central bank domestic net asset creation.

PRIVY = credit to private sector divided by GDP

Table 9 below presents results relating to the regression of GDP growth on capital market indicators such as liquidity and market turnovers (volume of sales). The results of the equation do not shed much light on the relationship between the stock exchange and the real sector growth in

Ghana. The regression parameters exhibit the right signs. However, none of the stock market proxies exhibits any statistically significant relationship with real GDP growth. Additionally, the R Squared and the F Statistics reveal the model's weak explanatory power.

The problems with the regression results in Tables 8 and 9 may be attributed to the following factors: (a) the instability of the monetary aggregates and capital market indicators, (b) insufficiency of degrees of freedom of the data, and (c) problem with model specification.

Additionally, problems of assigning causal relationships between capital market development proxies and real sector growth have been addressed in the academic literature. Merton Miller (1988) and Stephen Wells (1994) indicate that the stock market is only one channel through which financial capital or liquidity is provided to the private sector for growth. They noted that liquidity or credit (debt) is also provided by banks and bond markets. Thus, it is difficult to assign any causal relationship between the stock market and real sector growth on one hand and banking sector credit to the private sector and its impact on real sector growth. Consequently, the results of this regression should be taken as preliminary.

Table 9: Summary Results of Regression of real GDP growth on Stock Market Liquidity and Turnover

Regression output

Constant	0.04
Standard error	0.01
R Squared	0.05
No. of observations	8.00
Degrees of freedom	5.00
DW	1.98

X coefficients	**LIQUIDITY**	**TURNOVER**
	0.118	0.052
	(0.266)	(1.278)

The numbers in parentheses are the T-statistics showing statistical significance at the 5 percent level.

5.7 Capital market development, equity, and growth

One of the goals of the EAGER project is to examine whether adjustment programs adopted in SSA countries are beneficial to the poor. Critics of the adjustment programs in SSA argue that the adjustment programs have succeeded in promoting economic growth only at the expense of the "poor." This assertion results from the following consequences of financial reform.

1. Financial reforms have resulted in the decline of credit to the sectors that were the preferred sectors under the previous regimes.

2. Reforms have led to the closure of financial institutions in the rural areas and the concentration of financial institutions, especially commercial banks, in the urban centers, all at the expense of the rural population.
3. Reform is accompanied by higher interest rates that make borrowing by small enterprises very expensive.
4. Lending institutions' collateral requirements favor large business borrowers and hurts small enterprises that lack documentation and landed property for collateral.
5. The preferences of commercial banks for high-yielding and low risk Treasury bills have a tendency to discourage extending credit to sectors considered risky.

As a result, the critics argue that the financial sector reform did not accomplish one of its basic objectives to increase credit to the productive sectors of the economy for growth and poverty alleviation. This finding is corroborated by our survey findings. The majority of the respondents indicated that financial sector reforms have made it difficult for them to receive credit from the banking sector since banks now require stringent documentation and collateral as loan requirements.

The recognition of the negative consequences of reforms on the poor has led to the government's adoption of various poverty alleviation programs with assistance from international organizations and non-governmental organizations (NGOs).

The Poverty Alleviation Fund created by the government, which makes funds available to local assemblies for the purpose of small enterprises has come under serious accusations of fraud and mismanagement. The critics also argue that the funds were used as political instruments to buy allegiance to the party in power. As a result, projects are allegedly not funded based on economic viability but rather on political considerations.

In view of such criticism, others call for alternative measures to make credit available to small and medium-size enterprises outside the political system. As a result, others argue that in the interest of equity, fairness, and efficient allocation of scarce resources, the funds should be replaced by small business development loan programs that can be fashioned along the type adopted in the U.S. Under this plan, potential borrowers may apply for loans at any bank. These loans would be guaranteed by the government after the applicant has satisfied certain minimum requirements as a way of ensuring that the funds are used efficiently.

The study also found that various NGOs provide useful services to various groups and individuals who have fallen through the cracks. These NGOs concentrate on providing various services to the country's poor. However, many of these NGOs are located in the urban centers of the country and, as a result, the rural folks benefit less from these services.

6. Summary, Conclusions, and Policy Recommendations

6.1 Summary and conclusions

The objective of this study is to examine the problems that constrain the development of capital markets and growth in SSA countries in general and Ghana in particular. The study identifies the lack of long-term investment capital as a major constraint to growth and poverty alleviation in Ghana and other SSA countries. This problem has been traced to underdevelopment of capital markets, such as stocks/securities markets and other financial institutions that intermediate in the capital markets. The study also identifies various policy, institutional, and structural impediments that constrain capital market development in Ghana.

The methodology of this study relies on the administration of survey questionnaires to capital market institutions and regulatory agencies, in addition to the analysis of secondary data through parametric statistical analysis. Primary data were collected through interviews and questionnaires that were completed by various private financial and regulatory institutions in Ghana. The study also analyzes secondary data in examining the issues raised in the policy research questions.

Based on the analysis of the primary and secondary data, the study shows that the financial sector reform has addressed some of the major constraints toward the development of the capital market in Ghana. The commitment of the government to a comprehensive structural and financial sector reform began to bear useful results. The restructuring of the banking sector and the liberalization of interest rates have strengthened the banking sector as a competitive sector that complements the capital market institutions' mobilizing and allocating credit to the productive sectors of the economy. The policy environment has been greatly improved because of various initiatives to bring about liberalization of the foreign exchange market, privatization of state-owned public enterprises, and other market-based policy changes that have the potential to deepen the capital market.

Among the visible policy change successes are the GSE's active performance in terms of raising international capital, secondary market performance, and developments. This distinguished the GSE as the best performing stock exchange among the emerging capital markets in 1994. The spectacular performance of the GSE has attracted Wall Street and other foreign institutional and individual investors to the market. The beginning of the globalization of Ghana's capital market is evident in the cross listing of AGC in New York, London, Toronto, South Africa, and other international exchanges.

The study also shows that although Ghana experienced some significant successes in capital market development and deepening, some major challenges remain. Fiscal deficits, accommodated by issuing high yield government securities, has adversely affected the demand for securities being issued by private firms for raising long-term capital. As a result, many potential investors prefer to hold short-term government Treasury bills. This has led to disintermediation of financial resources and the "crowding out" of small and medium-sized enterprises from the capital market.

The study also shows that the financial sector reform did not lead to a greater increase in credit allocation to the private sector, especially to small and medium-sized enterprises. This may be due to stringent requirements imposed by prudential regulation of bank loans after the restructuring of the banking system. The requirements for collateral and disclosure of financial reports as the basis for borrowing loans precludes many small enterprises from raising loans from the formal banking system.

Moreover, the lack of product innovation and the limited number of investment instruments being traded on the stock exchange limit the attractiveness of the exchange. Also, the poor quality of accounting information and disclosure by listed firms constrain the efficiency of price discovery and valuation of underlying companies.

The impact of inflationary pressures on foreign exchange rates in Ghana has increased foreign investor risk of investing in the Ghanaian capital market. In addition, the absence of a hedging mechanism through financial derivatives, futures, and options has increased risk exposure of investors. The thinness of the market and the limited number of shares traded on the stock exchange also limits the potential for diversification and market deepening.

The study also finds that the structure of Ghana's capital market makes it difficult for small and medium-sized firms to raise capital. Additionally, the absence of investment banks, underwriters, and venture capital firms constrain the development of the primary and secondary capital markets for raising long-term capital through IPOs.

The role of the stock exchange in promoting capital market deepening is also hampered by the government's divestiture programs, which emphasize privatization through strategic investor financing rather than through the stock exchange. Furthermore, the lack of automated trading practices has led to inefficiency of trading and settlement.

The market is still illiquid. The number of listed companies is small and the businesses are not fully representative of the main economic activities in the country. Additionally, trading and settlement arrangements are not optimal nor are the technical skills at many levels of the securities industry. There is clearly the need to upgrade and modernize all aspects of the securities business.

At the national level, inflation has become more pervasive over the past four years, interest rates are still high, the cedi weakened against major currencies in the past few years; national export receipts have tended to fall below expectations; and the country's current account deficit persists and national fiscal accounts management have not improved significantly.

In order to enable the capital market and the stock exchange to take full advantage of various opportunities and cope adequately with challenges, some of which are identified above, various measures and recommendations are provided below.

6.2 Policy recommendations

6.2.1 General

1. It is crucial to create a viable macroeconomic environment for capital market development through the following strategies:

a) Deficit reduction and balanced budget strategy
b) Good governance and avoidance of fraud and corruption
c) Stable prices and exchanges rates regimes
d) Maintenance of independent Central Bank to provide an effective monetary policy to stabilize the macroeconomic aggregates

2. It is also important to develop public confidence for capital market deepening through the adoption of the following strategies:

a) Political stability and the nurture of democratic institutions
b) Removal of uncertainty and risk by promoting stable macro environment
c) Enforcement of capital market regulations and sanctions
d) Development of an effective legal system to protect private property
e) Public education and advertisement

6.2.2 Policy changes to increase the demand for securities (long-term resource mobilization)

1. Government borrowing from the short-term securities market exerts heavy pressure on short-term Treasury bill yield curves. This has a tendency to crowd out small and medium-sized enterprises from the credit market. Synchronization of government long-term projects with long-term sources of financing through issuing medium-term to long-term bonds will stabilize short-term interest rates and encourage greater private participation in the capital market.

2. The current tax regime favors short-term investments. In order to equalize the tax treatment on income on equity and fixed income securities, the withholding tax on dividends should be abolished. In addition, capital gains tax exemption on listed securities, which was to expire in year 2000, should be extended indefinitely. We also recommend that the value-added tax (VAT) should not be applied to stock transactions.

3. The current legislation before the Parliament to establish Collective Investment Schemes should be expedited to allow for the introduction of mutual funds as a way of mobilizing savings from the public.

4. Private participation in management of pension funds should be encouraged in order to deepen the capital market and liquidity. Additionally, there should be changes in the Insurance Industry Law in order to allow greater participation in the equity market.

5. The operations of the stock brokerage firms are highly centralized and concentrated mainly in Accra. In order to ensure wider patronage of the GSE, the activities of the stock market must be decentralized to other parts of the country, especially the regional capital cities. The brokers should also be encouraged to open branches at regional capitals in order to reach a wider pool of investors.

6. Another constraint stifling the development of capital markets is the restriction on participation of non-resident foreign investors in the stock market. The 10 percent limit for individual investors in one listed company and a total of 74 percent holdings by non-resident foreigners should be abolished. This restriction has a negative impact on the provision of long-term capital for listed companies. This restriction is also biased in the sense that it does not apply to unlisted companies and it is cumbersome to enforce.

7. The modern information technology and the Internet has become a useful tool of e-commerce and investment channels. The use of discount brokerage houses has the potential to reduce the public's investment transaction costs. In addition, online trading has the potential to increase the demand for securities and lower average costs of trading.

8. The narrow scope of investment products provides disincentives for investing in the stock exchange. In order to attract a wider audience of both foreign and local investors, product innovation and development is crucial. Innovative products such as preferred shares, options and futures, and financial derivatives for risk management, will increase the attractiveness of the stock exchange.

9. In order to increase the competitive trading activities on the exchange, it is recommended that the fixed commission rates on trading activities be liberalized to induce price and product competition in the market.

6.2.3 Policy changes to increase the supply of securities

1. In order to provide incentives for companies to be listed on the exchange, special tax rebates should be considered. This tax rebate should include deductions for the cost of IPOs and investment tax credit for machinery that will improve labor efficiency.

2. In view of the current thinness and illiquidity in the stock exchange, any attempt to hold back any shares from being traded on the exchange would undermine its development and efficiency. The proposed establishment of the Privatization Trust Fund (PTF) should be reviewed consistent with current developments.

3. In order to encourage individual participation in the stock exchange and to avoid the disruptive tendencies of privatizing state corporations, ESOPs have been employed in many emerging countries with success. This may be considered an alternative strategy in place of the PTF.

4. Many government divestiture programs are currently executed outside the stock exchange through strategic investors. This practice reduces the potential shares that could be listed on the exchange. It is recommended that government divestiture programs be channeled through the exchange in order to increase the number of shares listed on the exchange.

5. It is necessary to revive the OTC market where small and undercapitalized companies may list their shares. The current three-tier system is unworkable, since all shares are listed under tier 1 while no stocks are listed under the second or third tiers.

6. Introduction of various classes of stocks with adjusted voting rights will enable individual corporate owners who fear losing control of their companies to list their shares on the stock exchange.

7. The current negotiation of the creation of a monetary union for the Anglophone West African countries should be applauded as a prelude to the development of a regional capital market for the West African countries. However, in order to avoid the fragmentation of the region into Francophone and Anglophone zones, the current negotiations should embrace the existing West African Monetary Union (OMOA) of the Francophone West African countries. This may speed up the regional integration and make the regional capital market more attractive to domestic and foreign investors because of the size of the integrated markets within the West African regional capital markets.

6.2.4 Policy changes to enhance efficiency of the stock exchange

1. It is necessary to enhance the skills and professionalism of GSE personnel and market operators at all levels through intensive professional and technical training.

2. It is necessary to computerize the exchange operations to increase efficiency. In addition, daily trading of stocks will increase liquidity of the market and reduce extreme volatility.

3. The creation of an automated central clearing, settlement, and depository system is needed to enhance the efficiency of settlement. In addition, a continuous trading method should be introduced for the GSE trading.

4. The improvement of telecommunication between brokers and trading floor managers will enhance the efficiency of trading and other transactions on the floor.

5. It is essential to improve market surveillance, conflict resolution, and enforcement mechanisms in order to enhance public confidence in the stock exchange.

6. Government's financial support of the GSE is essential for market development, education, and staff management training. Support is also needed to upgrade information technology and telecommunication at the GSE.

7. The current fragmentation of regulatory and supervisory roles among a number of regulatory

agencies is detrimental to market development and operational efficiency. In order to enforce the existing regulatory and supervisory provisions, it is necessary to consolidate the regulatory and supervisory roles in the hands of the SRC. The self-regulating role of GSE should be maintained.

8. In the absence of information disclosure and a rating agency of corporate performance and risk profiles, it is difficult for investors to assess companies' risk before undertaking any investment. It is recommended that the government encourage the establishment of a national rating agency to perform risk assessment and performance evaluations of listed and unlisted companies. This information would be useful to foreign and domestic individuals and institutional investors, brokers, traders, the government, commercial banks, and other stakeholders.

6.2.5 Policy changes to address equity and poverty alleviation after reform

1. This study recognizes the negative consequences of reducing credit to the private sector and its subsequent negative impact on poverty alleviation. It is important to develop strategies and programs that ensure long-term credit access for small and medium-sized enterprises that experience difficulty raising capital.

2. The establishment of small business development centers and guaranteed business and project loans will enhance small business prospects of obtaining loans for productive activities in the economy.

3. The role of non-governmental organizations (NGOs) in providing financial services to the poor, especially those in the rural areas, should be encouraged. Thus, we encourage the re-allocation of many of the NGOs from the urban areas to the rural areas where their services are in greater demand.

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8. Appendices

Table 5: Comparative Real Performance Ratios (%)

	1991	1992	1993	1994	1995	1996	1997	Avg.
Ghana	-26.27	-13.63	91.10	92.70	-94.10	-13.0	13.90	7.23
Botswana	-13.20	-54.70	29.60	25.30	110.20	19.0	13.70	18.56
Côte d'Ivoire	3.0	17.60	113.00	55.30	-38.20	-12.70	-5.60	18.93
Kenya	-1.90	-28.80	-44.00	-16.60	5.60	-3.00	-89.20	0.07
South Africa	11.20	-19.20	40.40	19.90	-2.40	-0.50	-15.30	3.59
Malaysia	5.50	11.00	94.50	-27.50	-2.80	20.90	-54.70	7.70

Source: *Computed from Emerging Stock Markets Factbook, 1999*

Table 6: Selected Market/Macro Indicators (%), 1990 to 1997

	Listed Firms	Average Turnover Ratios	Average Capital/ GDP	Nominal Average Return	Real Average Return	Average Inflation Rate	Volatility
Ghana	21 (5)	2.62 (5)	14.64 (4)	41.82 (1)	7.23 (4)	31.45 (1)	51.03 (1)
Botswana	14 (6)	7.49 (3)	8.08 (5)	22.48 (4)	18.56 (2)	11.68 (3)	31.39 (5)
Côte d'Ivoire	35 (4)	2.12 (6)	6.96 (6)	30.27 (2)	18.93 (1)	6.98 (5)	42.18 (3)
Kenya	58 (3)	2.83 (4)	19.11 (3)	23.03 (3)	0.07 (6)	20.16 (2)	45.93 (2)
South Africa	668 (2)	11.48 (2)	164.00 (2)	10.64 (5)	3.59 (5)	10.85 (4)	19.42 (6)
Malaysia	736 (1)	50.80 (1)	223.35 (1)	9.18 (6)	9.18 (3)	3.81 (6)	40.55 (4)

Source: *Emerging Stock Markets Factbook, IFC, 1999*

Table 10: Companies that returned survey materials for analysis

NBFIs

Citi Savings & Loans Co., Ltd.
Consolidated Discount
Ecobank Leasing Co., Ltd.
Export Finance Co., Ltd.
First Ghana Building Society
General Leasing & Finance Co., Ltd.
Ghana Leasing Co., Ltd.
Ghana Venture Co., Ltd.
Home Finance Co., Ltd.
Leasafric Ghana, Ltd.
Merban Finance Leasing Co.
Securities Discount Co., Ltd.

INSURANCE COMPANIES

Donewell Insurance Co., Ltd.
Gemini Life Insurance Co., Ltd.
Ghana Reinsurance Organization
Inter-Life & General Insurance Co.
New India Assurance Co., Ltd.
Provident Insurance Co., Ltd.
State Insurance Corporation
United Ghana Life Insurance, Ltd.

LISTED COMPANIES

Accra Brewery, Ltd.
Enterprise Insurance
Ghana Commercial Bank, Ltd.
Home Finance Company
Mobil Oil Ghana, Ltd.
Pioneer Aluminum Factory
Social Security Bank, Ltd.
Standard chartered Bank Ghana, Ltd.
Supper Paper Products Co., Ltd.

UNLISTED FIRMS

Manufacturing
Agricultural Engineers, Ltd.
Akuaba, Ltd.
Ameyaw Press

Ashanti Furniture Co.
Cadbury Ghana, Ltd.
Dannex, Ltd.
Ghana Mats and Carpets Industries, Ltd.
Golden Spoon Flour Mill, Ltd.
Ikam, Ltd.
Interplast, Ltd.
Lion Aluminum Products, Ltd.
The Assemblies of God Literature Center. Ltd.
Wahome, Ltd.

EXPORTING COMPANIES

Kiku Company, Ltd.
Scanstile Mim, Ltd.
Volta River Estates, Ltd.
Textile Companies
Anitex, Ltd.
Freedom Textile Industries Ltd.
Ghana Textile Printing
House of Herman

FISHING COMPANIES

Afko Group of Companies
Kaas Fisheries, Ltd.
Kaleawo Cold Stores, Ltd.
Konadu Fisheries, Ltd.
Pioneer Food Cannery
Tema Fisheries and Freezing Co., Ltd.

AGRO BUSINESS

African Taste network
Wienco Ghana, Ltd.

SERVICES BUSINESS

Jahvies Communications, Ltd.
Nayak, Ltd.

STOCK BROKERS

Cal Brokers, Ltd
Databank Brokerage, Ltd.

EBG Stockbrokers, Ltd.
SDC Brokerage Services, Ltd.

BANKS

Agricultural Development Bank
Bank for Housing & Construction
Barclays Bank of Ghana, Ltd.
Ecobank (Gh.), Ltd.
First Atlantic Merchant Bank, Ltd.
Ghana Commercial Bank, Ltd.
Ghana Co-operative Bank
Merchant Bank Gh., Ltd.
Metropolitan & Allied Bank, Ltd.
SSB Bank, Ltd.
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