UNIVERSITY OF CAPE COAST

EFFECT OF CAPITAL INFLOWS ON FINANCIAL MARKET

DEVELOPMENT: EVIDENCE FROM GHANA

BY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research
and that no part of it has been submitted for another degree in this university
or elsewhere.

Candidate's Signature: ……………………… Date: …………….……….

Name: Joop Lloyd Crabbe

Supervisors' Declaration

I hereby declare that the preparation and presentation of this project work was
supervised in accordance with the guidelines on supervision of thesis laid
down by the University of Cape Coast.

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ABSTRACT

The study examines the effect of capital inflow variables on financial development in Ghana. Annual data on foreign direct investment and external debt was extracted from the World Bank World Development Indicators from 1970 to 2014 while data on domestic access to credit by the private sector and remittance inflows was extracted from the Global Financial Development Dataset from 1970 to 2014. Data was analysed by using the descriptive, causal and the Johansen and Juselius (1990) multivariate cointegration model. The results revealed that foreign direct investment; external debt and remittance inflows have a significant negative relationship with financial development in the long run. Also, the study documents a significant negative relationship between external debt, remittance inflows and financial development in the short run. However, the study recorded an insignificant relationship between foreign direct investment and financial development in the short run. For foreign direct investment to fully contribute to financial development, issues of capital flight must be addressed by government. Government must adopt policies that are expected to reduce the debt burden and ensure that external debt did not reach unsustainable level. Policy makers should take pragmatic steps to channel remittances inflows to productive sectors of the economy. Finally, government should make policies that will make foreign capital inflows complement but not to replace domestic investment.

KEY WORDS

Access to credit

External debt

Financial development

Foreign direct investment

Remittance inflows

Liquid liabilities

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DEDICATION

To my wife, Cynthia Vanderpuye

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CHAPTER ONE

INTRODUCTION

Liberation of the financial system, freeing it from government interference allow for a more efficient and effective allocation of resources by economic agents while liberalizing trade ease the power of interest groups who compel politicians to make policies in their favour which otherwise hinder financial development (Takyi & Obeng, 2013). In this vein, the financial and trade liberalization process mitigates inefficiency in the financial system, improves transparency in financial transactions, and as well promote a competitive environment which is conducive for the economic development (Seetanah, Padachi & Hosany, 2010). Considering all the benefits that accrue an economy when it is characterised by a developed financial system, one would anticipate that foreign direct investment and external debt stock would result in financial development.

The study aims at examining the effect of external debt stock and foreign direct investment on financial market development in Ghana. This chapter focused on the introductory aspect of the study. The study identified the problem to be investigated and developed objectives, which seeks to determine the relationship between foreign direct investment, external debt, and financial development. The study will provide information as to whether external debt stock and foreign direct investment affect financial market development in Ghana over the period under review.

Background to the Study

The Financial systems of most economies have witnessed remarkable development over the past two decades (Ma & Lin, 2016). This development

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is characterised by a big development in business and policy practice that saw rapid growth in the number of bank and non-bank financial institutions, products offered and regulation of the financial sector (Kwakye, 2012). A well-developed financial system is fundamental in achieving viable and sustainable economic growth (Esso, 2010). Developed financial system intensifies the availability of capital by mobilising savings from the surplus spending unit, expediting transactions as well as attracting foreign investments. Such markets are characterised by efficient allocation of monetary resources and better risk management, enhanced transparency and good corporate governance practices (Naceur & De Groen, 2013; Kwakye, 2012). Furthermore, a developed financial sector could ease access to credit to first-time businesses as well as low-income (low collateral) borrowers such as small- and medium enterprises (Ayadi, Arbak, Ben-Naceur, & De Groen, 2013)

As suggested by The savings–investment gap theorist, inadequate savings mobilization in developing economies translate into inadequate investment resulting in savings investment constraints as well as balance of payment deficit (Adepoju, Salau & Obayelu, 2007). Hence, the need to source for external capital flow to complement domestic savings so as to achieve the desired level of growth and development of the economy. These foreign capital inflows in perspective could be in the form of foreign direct investment (FDI), foreign remittances, external debt, foreign portfolio investment (FPI) among others. Capital inflows and mobility of capital across economies generally allows economies with limited savings to attract finance for industrious investment projects, promote diversification of investment risk,

encourage international trade, and more importantly contributes greatly to financial markets development (IMF, 2010).

Proponents of foreign capital inflows suggest that foreign capital inflow to developing economies could be of great benefit to receiving economies as it might augment domestic investment that aid stimulate economic growth and development as well as ease prospective balance of payments constraints (Siddiqui, 2014; IMF, 2010). As well, some authors argued that multinational companies, via foreign capital inflows, could assist fill the gap existing between developed and developing economies (Romer, 1993).

Added to the above, foreign capital inflows are essential for the stability of the macro economy as they influence a number of macroeconomic variables such as the exchange rates, the interest rates of borrowing, foreign exchange reserves, monetary policy mechanisms as well as national savings and investments. Foreign capital inflows stimulate economic development; support employment; encourage the development of human capital; improves on the income level of citizenry; encourages capital formation among others. To speed up the rate of fixed capital formation via investment, there is the need for domestic savings mobilization to be improved far beyond the percent point recorded in Ghana (Angmortey & Tandoh-Offin, 2014).

Improvement in growth and development of the economy further attracts investment and more investments invites further inflows of foreign capital. Ghana as a developing economy is characterised by huge current account deficit, which triggers the enormous inflow of foreign capital (Angmortey & Tandoh-Offin, 2014). The domineering of capital inflows to

developing economies is perceived to enhance external constraints confronting such economies. Feldstein (1994) argued that theoretically, the effect of foreign capital influxes on domestic investment is materially ambiguous. Suggesting that, incoming capital may promote domestic investment; nonetheless it could also escalate imports and hence can reduce domestic production and investment. He further contends that if access to foreign capital permits a firm to raise capital for investment, that firm's growth may cause another firm to decrease investment.

Literature on the role foreign capital plays in the development of developing economies is inconclusive. The empirical question that however arises is the implication of foreign capital inflow for financial development of developing economy like that of Ghana. This is compelled by the misgivings being raised as to whether the enormous inflows of foreign capital into developing economies like Ghana over the period have translated to financial development. Given this background, the role of foreign capital inflows in influencing financial development in the Ghanaian economy needs to be examined critically, since the financial sector is found to have played a significant role in stimulating economic growth.

Statement of the Problem

The Ghanaian economy has since the year 2010 transitioned from a lower income economy to a lower middle income earning economy. This transition has played a major role in the establishment of new as well as the strengthening of existing state institutions (Agyemang, Fantini & Ansong, 2016). This development is characterised by improvement in foreign capital inflows into the economy since foreign investors develop interest in investing

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in the economy as it appears there is an apt level of protection of investor's right (GCR, 2010). This notwithstanding, the transition to lower middle income earning economy as well has been characterized by increase in demand for domestic investment requiring that sufficient funds be made available in the financial system out of which businesses could access credits or loans (Kwakye, 2012). The quest to improve access to credit by the private sector through domestic capital formation and domestic investment raises a policy dilemma.

To circumvent this kind of dilemma, Ghana, as well as other developing economies, ought to find alternative sources of funding to finance the gap created within the domestic setting as far as savings mobilisation and investment is concerned. The inflow of foreign capital into the economy is in support of the proposition by the proponents of the dual gap theory that developing economies are characterized by inadequate domestic savings mobilisation, persistent low productivity, low income; which results in inadequate investment (Adepoju, Salau & Obayelu, 2007). Some studies concentrated on the role capital inflows play in affecting economic growth (Chigbu, Ubah & Chigbu, 2015; Ukeje & Obiechina,2013); others focus on the mediation role of financial development in influencing the impact of capital inflows on real effective exchange rates (Lamouchi & Zouari, 2013).

However, empirical evidence on the factors that influence financial development in Ghana to govern policy makers is few (Takyi & Obeng, 2013; Acheampong, 2007; Adam & Tweneboah, 2009). Aryeetey and Harrigan (2000) suggest that most of the investment financing in Ghana comes from external sources and could take the form foreign direct investment (FDI),

foreign remittances, external debt, foreign portfolio investment (FPI). However, a relevant gap that exists untapped is the role played by foreign capital inflow in realising development of the financial system of the Ghanaian economy. This study seeks to empirically deepen our understanding of the phenomena by exploring the role foreign direct investment, remittance inflow and external debt play in influencing financial development. The study strives to add to literature on financial development by divulging empirical evidence from the Ghanaian economy to reconnoitre the long and short run effect external debt stock, foreign direct investment, remittances inflows on financial development in Ghana.

Purpose of the Study

The study seeks to examine the relationship between foreign capital inflows variables (foreign direct investment, remittance inflows, and external debt stock) and financial market development (domestic access to credit and liquid liability) in the Ghanaian economy.

Research Objectives

In order to achieve the purpose of examining the relationship between foreign capital inflows variables and financial market development in Ghana, the study specifically seeks to:

a. Analyse the trend of financial market development in Ghana.

b. Test the long-run relationship between foreign direct investment and financial market development in Ghana.

c. Assess the long-run relationship between remittance inflows influence and financial market development in Ghana.

d. Examine the long-run relationship between external debt stock and financial development in Ghana.

e. Test the short-run relationship between foreign direct investment and financial development in Ghana.

f. Examine the short-run relationship between remittance inflows influence and financial development in Ghana.

g. Ascertain the short-run relationship between external debt stock and financial development in Ghana.

Hypotheses of the Study

Subject to the research objectives stated above, the following hypotheses were formulated to be tested.

H_1: There is no significant long-run relationship between foreign direct investment and financial development in Ghana

H_2: There is no significant long-run relationship between remittance inflows and financial development in Ghana

H_3: There is no significant long-run relationship between external debt stock and financial development in Ghana

H_4: There is no significant short-run relationship between foreign direct investment and financial development in Ghana

H_5: There is no significant short-run relationship between remittance inflows and financial development in Ghana

H_6: There is no significant short-run relationship between external debt stock and financial development in Ghana.

Significance of the Study

Some economies place a restriction on movement of capital to and fro their economy due to the mixed effect espoused by literature. The findings of this study would enable the Ghanaian economic policymakers identify the role played by foreign capital inflows to the development of the finance sector so as to make informed policy that regulate the foreign capital flows. The availability of empirical evidence on the role of foreign capital inflows would help in improving financial surveillance, evaluation of the investment climate as well as improve policy-making procedures in the financial sector of Ghana.

Delimitation

The choice of Ghana is not uninformed. Ghana has transition into middle income earning economy and has since then been experiencing monumental increment in capital inflows. The study therefore seeks to examine the effect of capital inflows on financial development in Ghana. The study span over a period of forty-four (44) years; 1970 to 2014, due to the non-availability of data on the variables. It is however argued that inferences can be made from the result of 44 observations adopting the Johansson multivariate cointegration test estimation method.

Limitations

Various measures of the variables adopted in the study may yield varied results. The study however fails to access other measures of financial development (such as bank deposit/GDP, stock market development) but concentrated on only access to credit by the private sector as a percentage of gross domestic product (GDP) and banks liquid liability as a percentage of gross domestic product. Also, other measures of capital inflow (foreign

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portfolio investment) have not been captured as the study focused only on foreign direct investment as a percentage of gross domestic product, remittance inflows as a percentage of gross domestic product and external debt as a percentage of gross domestic product as proxy measures of capital inflows.

Definition of Terms

This section presents the definition of variables as used in the study.

Variables of interest

Domestic access to credit - refers to financial resources made available to the private sector by financial firms through loans, procurement of non-equity securities, trade credits as well as other accounts receivable, that establish a claim for repayment.

Liquid liabilities-ratio of liquid liabilities to GDP. It is also referred to as M3.

Foreign direct investment - refers to net inflows of investment to obtain a permanent management interest in a venture operating in a country other than the investors'. It is divided by GDP.

External debt- refers to debt owed to non-residents repayable in currency, goods, or services. It is divided by gross national income.

Remittance inflows- refer to current transfers by migrant workers and wages and salaries earned by non-resident workers. It is divided by GDP.

Controlled variables

Broad money supply- refers to demand deposits other than those of the central government.

Bank deposits- refer to the total value of demand, time, and saving deposits at domestic deposit money banks as a share of GDP.

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Gross domestic product per capita -gross domestic product divided by total population.

Inflation- this refers to the annual percent change in the consumer price index.

Organisation of the Study

This study is comprised of five chapters. The first chapter is referred to as the introductory chapter. This chapter principally cover of background of the study, statement of the problem, objectives of the study, hypotheses, the significance of the study, scope of the study, delimitation, limitation of the study and organization of the study. The second chapter presents the review of related literatures. Theoretical and empirical review of capital inflows and financial development are presented accordingly in this chapter. It also presents the constructed conceptual framework.

The third chapter summarize the methodology adopted for the study. This chapter outlines the research design, research approach, sources of data collection procedure and the estimation method engaged in the analysis segment of the study. The fourth chapter reports of the results and discussion. Finally, the fifth chapter presents the findings, conclusions, and recommendations for the study.

Chapter Summary

This chapter represents the introductory part of the study. It mainly presents the essential theme on which the study is grounded. The study argues that capital inflows variables enhance the level of financial development in Ghana. Furthermore, the chapter presents the statement of problem; the main purpose of the study; the six hypotheses formulated; the significance of the study, delimitation, limitation, and organization of the study.

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CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter presents the review of the relevant theories that relates to capital inflows and financial development; thereafter, extent empirical literature establishing a link between capital inflow variables and financial development are reviewed.

Theoretical Review

There exist a number of theories offering justification for the movement of capital across borders. Capital inflow theories are mainly based on imperfect market situations but for a few among them which are based on imperfect capital market conditions. Others are based on institutional factors. Others as well explained the arrival of Multi-National Corporations (MNCs) entirely in developing economies. The current study is grounded on the MacDougall-Kemp theory and the industrial organisation theory.

MacDougall-Kemp Theory

The MacDougall-Kemp theory is one of the initial theories of capital inflows developed by MacDougall (1960) and consequently expounded by Kemp (1964). According to the MacDougall-Kemp hypothesis, in a two-country model – one representing an investing economy and the other representing host economy, when the price of capital which is assumed to be equal to the countries marginal productivity, capital would move liberally from a capital abundant economy to a capital scarce economy. When this happens, the marginal productivity of capital will interned equalize between the two economies. This would lead to enhancement in efficiency in the usage

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of capital across nations. Even though the output in the investing economy decreases as a result of foreign investment outflow, GDP does not drop in so far as the investing economy receives returns on the capital invested overseas, which is practically equivalent to the marginal productivity of capital invested times the volume of foreign investment. As long as the income received from foreign investment is more than the loss in output, the investing economy should continue to invest overseas as it enjoys greater national income prior to foreign investment. The host economy on the other hand would as well witness rise in national income as a result of greater level of investment, which could not have been possible in the absence of foreign capital inflow.

The finance-growth nexus (finance-growth theory)

Plethora of studies, dating back to Schumpeter (1912), Shaw (1973) and McKinnon (1973) have attempted to establish a link between financial development and economic growth even though there has been a great deal of debate on the relationship between the two concepts. The debate conventionally revolved around two main issues: first among them relates to whether development in the financial system results in a faster economic growth and the second recount how financial development could affect economic growth.

According to Levine (2004), financial development entail development in the (i) production of *ex-ante* information on potential investments opportunities, (ii) monitoring of investments and implementation of sound corporate governance mechanisms, (iii) trading, diversification, and risk management, (iv) mobilization and of savings, and (v) effective exchange of

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goods and services. Each of the above stated financial functions might influence savings and investment decisions and hence economic growth.

The work of Schumpeter (1911) is often regarded as the first framework on the relationship between financial development and economic growth. Schumpeter (1911) argued that a well-performing financial system would stimulate technological innovations via effective and efficient allocation of resource from sterile sectors to productive sectors. Patrick (1966) also argues that the growth of a robust financial system could inspire economic growth. Thus, the creation of financial markets and financial services far ahead of their demand would drive the non-financial sector of an economy along the growth path, as a result of the reassignment of scarce financial resources from the surplus units to the deficit spending units in accordance with the highest rates of return on investment.

Goldsmith (1969) focused on the relationship between financial development and effectiveness in achieving economic growth. The theoretical link between financial development and economic growth has been summed up in four hypotheses (Chuah & Thai, 2004). First, the conservative view of the supply-leading hypothesis hypothesized that the direction of causality flows from financial development to economic growth. A well-functioning financial system provides vital services to reduce costs and thus increase efficiency of financial intermediation. It marshals savings, discovers and fund high-quality business projects, monitors the performance of management, and promotes effective exchange of goods and services. These services enhance efficient allocation of financial resources; provide a more rapid amassing of

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physical and human capital, and rapid technological modernization, thus inducing faster long-term economic growth.

Secondly, the demand-following hypothesis suggests that economic growth leads to financial development. The growth of the real sector of an economy trigger increased demand for financial services, which in turn, create the introduction of innovative financial institutions and markets to satisfy that increased demand for financial services (Robinson, 1952; Patrick, 1966; Demetriades & Hussein, 1996).

Third, the bi-directional causality hypothesis is a mixture of the supply-leading and demand-following hypotheses. It proposes that financial development and economic growth are bi-directionally causal (Greenwood & Jovanovic, 1990; Demetriades & Hussein, 1996; Greenwood & Smith, 1997; Blackburn & Hung, 1998). Financial deepening progressively encourages economic growth which in turn, causes feedback and induces further financial deepening.

Fourth, the independent hypothesis hypothesize that financial development and economic growth are causally independent. King and Levine (1993), argues that financial development plays a very trivial role in economic growth; Stern (1989) ignores the role of financial development in the growth process. The above argument postulates that actors attempt to establish a link between finance and growth. However, the role monetary policy play in regulating the financial system to ensure stability has been given less attention in literature.From the foregoing, it is obvious that financial development directly affects economic growth. This notwithstanding, the factors that affect financial development remain scant. The study seeks to examine the

contribution of monetary policy and country-level governance to financial development in African economies.

Application of the finance-growth nexus and MacDougall-Kemp theory to the study

Differences in the level of investment among developed and developing economies could be complemented by the movement of capital from resource rich economies to resource scares economies. As far as the host economy pays interest on capital receive which will then be repatriated to the investment economy, gross domestic product would not be affected. Capital inflows in the form of remittance inflow, external borrowing and foreign direct investment could trigger financial development of the receiving economy-. The study therefore seeks to examine the effect of capital inflow variables on financial development, hence the relevance of this theories. The study is however grounded on the finance-growth theory and the Industrial organization theory.

Empirical Review

The role foreign capital inflow plays in economic growth remains debatable in recent economics literature. Some studies show that capital inflows have a positive effect on the host countries economic development while others contend that it has an inverse effect on economic development. This section presents the review of works of some scholars and their corresponding findings.

Foreign Direct Investment and Financial Development

Proponents of the dual gap theory argue that developing economies are characterised by low savings which eventually translate into low investment.

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The difference between the required investment and domestic savings mobilised account for what is referred to as the saving-investment gap (Adepujo *et' al.,* 2007). The dual gap analysis offers a framework that indicates that any economy's growth is a function of its investment however, such investment is inadequate for the desired growth to take place (Utomi, 2014). Omoruyi (2005) and Hunt (2007) argue that many economies will encounter a decline in their quest to bridge the gap between the level of saving and investment and so will rely on external capital to supplement it domestic activities so as to achieve the desired growth rate. An empirical question that remains unanswered is whether the foreign capital inflows improve on financial development.

The relationship between foreign direct investment inflow and financial development has long been explored. Foreign direct investment inflow is deemed to be a determinant of growth of access to credit and a cause of credit booms (Lane & Mcquade, 2013; Calderon & Kubota, 2012; Mendoza & Terrones, 2012; Elekdag & Wu, 2011; Sa, 2006; Hernandez & Landerretche, 2002). Foreign direct investment to African economies boosts the availability of domestic capital which serves as the beginning of transition process of the financial system of these economies (Lane & Mcquade, 2013). The development of the banking sector as a result of capital availability through takeovers and Greenfield investment is good evidence to the effect that access to credit is improved (Elekdag & Wu, 2011).

Proponents of foreign capital argue that foreign direct investment inflow is essential for the growth of less developed economies (Gupta, 1970). They asserted that there is an association between foreign direct investment

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inflow and growth as it supplements domestic resources and complements domestic savings mobilisation. Likewise, foreign direct investment inflow aid in bridging foreign exchange gap, improves access to credit by the private sector and contemporary technology as well as countenance easier access to foreign market. Some empirical studies as well find sufficient evidence of the existence of a relationship between foreign direct investment inflow and financial development (Aggarwal, Demirgüç-Kunt & Pería, 2011; Gupta, Pattillo & Wagh, 2009).

It is important to state that, foreign direct investment inflow brings with it technological expertise. Multinationals are presumed to have a superior technology relative to domestic firms (Markusen, 2002), hence, foreign direct investment inflow by acquisition, joint venture or other capital transfer methods may result in the setting up of foreign technology in the domestic firm. These developments could manifest themselves in increasing innovative activity that would result in an improved access to credit by businesses. Consequently, increase in foreign direct investment inflows could change the access to credit opportunities for domestic firms (Harrison & McMillan, 2003). Girma, Gong, and Görg (2008) found foreign direct investment inflow to various sectors level to be positively related with domestic innovative activity and improve access to domestic finance.

Baltagi, Demetriades and Law (2007) conducted a study using annual panel data methods and their findings indicate that trade openness and financial openness collectively determines financial development across different economies. Their outcomes revealed that economies that are slightest open could benefit greatly in relations to financial development if they are

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open to trade or foreign capital accounts. These economies could have greater benefits if they open both trade and capital accounts, even though opening at least one could still influence financial development.

Takyi and Obeng (2013) conducted a study aim at examining the determinants of financial development within the Ghanaian economy adopting ARDL methodology. Using quarterly data for the period of 1988 to 2010, their result indicted a unique cointegrating relationship among foreign direct investment inflow and financial development. The regression outcomes demonstrate that foreign direct investment inflow is an essential cause of financial development in Ghana.

Adam and Tweneboah (2009) in their study adopted the multivariate cointegration and the Vector error correction model to ascertain the effect of Foreign Direct Investment (FDI) on stock market development in Ghana. The findings from their study indicated that there exists a long run relationship between foreign direct investment and stock market development. The analysis of their results proposes foreign direct investment (FDI) influence development of the stock market of Ghana for the period under review.

Acheampong (2007) also examined the work of McKinnon-Shaw within the context of the Ghanaian financial sector. He specifically, examined the savings-real interest rate nexus; the investment-real interest rate relationship as well as the investment-growth link by deploying the VAR methodology and making use of quarterly data from 1988 to 2004. His results justified the savings-real interest rate relationship, the investment-real interest rate connection as well as the investment-economic growth interconnection in the long run. Moreover, the causality test authenticated the real interest rate-

savings nexus and the investment-financial development nexus while an inverse causality runs from growth to savings. Capital inflows do not only lead to financial development but also to overall economic growth.

Aurangeb and Haq (2012) examined the influence of foreign direct investment inflow in bringing about growth of the Pakistanis economy using annualised data for the period of 1981 to 2010. Unit root test confirms the stationary of all variables at first difference. As a result of adopting the multiple regression estimation technique, their results show that foreign direct investment inflow has a positive and significant association with growth of the Pakistanis economy. They resolved that foreign direct investment inflow is actually essential for the growth of any economy.

Adeniyi, Omisakin, Egwaikhide and Oyinlola (2012) study the causal relationship between foreign direct investment (FDI) and financial development in Ghana, Gambia, Nigeria, Cote d'Ivoire and Sierra Leone for the period of 1970-2005 by applying Granger causality tests. Measuring financial development by three variables - liquid liabilities/GDP, banking sector credit/GDP and credit to the private sector/GDP, the findings support the view that foreign direct investment matters for financial development in the economies considered except for Nigeria.

Foreign direct investment plays a complementary role by providing financial resources vital for boosting access to credit by the private (Mbulawa, 2015). The extent to which an economy is open to foreign investors has the tendency to affect the levels of financial development. Evidence shows that as the financial market of an economy is opened to foreign investors, volatility would increase in the short term which would subside afterwards but financial

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development would be sustained (Levine, 1997). Levine and Zervos (1998) affirm that financial liberalization makes financial markets become large, volatile, liquid, and more developed.

David, Mlachila and Moheeput (2014) in their studies using data from Sub Saharan African economies conclude that there is no relationship between foreign direct investment and financial development. They however contend that trade openness is vital for financial development for economies characterised by quality institutional. Huang (2010) contend that efficiency in contract enforcement, property rights, and eminence of accounting tradition are critical for financial development. Adjasiand Yartey (2007) found regional integration via the synchronization of legislation on liquidation, quality of accounting practices and private sector appraisal as key factors that enhance financial.

External Debt Stock and Financial Development

Another alternative available to government to sour foreign capital from is the through debt instrument. External debt over the years has proven to be one of the major sources from which the government of Ghana source foreign capital to supplement the domestic savings mobilization. However, the argument of whether external debt has contributed to financial development is inconclusive and demands empirical examination.

Arshanalp and Henry (2004) stated that there is a relationship between external debt flow and economic growth. Expansion of the economy would mean increase participation of the private sector who are major players of the financial market. Growth of an economy is however vital to achieve an improve access to credit. Cohen (1993) found that the level of external debt

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does not explain the slowdown in access to credit for investment in developing economies.

The study by Nawaz, Qureshi and Awan (2012) attest to the fact that there is a long run association and among external debt and economic growth. Consequence to the above, a number of studies emphasis the relation between financial development and economic growth. Theoretically, endogenous financial growth models show scientifically how financial development might have a direct effect on economic growth (Kings & Levine, 1993). Empirically, many cross-country works offer empirical results which support also the positive relationship between finance and growth (Beck & Levine, 2004; Caporale, Howells & Soliman, 2005). Contrary, some studies found a negative influence of finance on growth citing the occurrence of the financial crisis (Stiglitz, 2000).

Takyi and Obeng (2013) carry out a study aim at investigating the determinants of financial development in the Ghanaian economy. By adopting the ARDL methodology and using quarterly data for the period of 1988 to 2010, their result indicted a unique cointegrating relationship among trade government borrowing and financial development. Nonetheless, government borrowing was insignificantly related to financial development in the long-run and short-run time period. This result suggests that increase government borrowing from the banks crowds out private sector credit. Kutivadze (2011) examine the link between external debt stock and financial development and found a significant positive relationship existing between external debt stock and financial development

Inasmuch as the effect of the external debt and financial development on economic growth has been extensively researched; the correlation between external debt and financial development is uncharted. This study aims at examining the role external debt play in influencing financial development in Ghana deploying data from 1970 to 2014.

Remittance Inflows and Financial Development

Remittances refer to migrant workers' income sent back from their country of engagement to their home economy. They could also be deemed as financial resource inflows emanating from cross country movement of natives of a country (Kapur, 2003). The massive scale and extraordinary increase of remittances to developing and evolving economies over the years have attracted the interest of policy-makers and scholars around the globe (Kakhkharov, 2014).

Even though there exist some doubts concerning the positive effect of remittances on economic growth (Jahjah, Chami & Fullenkamp, 2003; Gapen, Chami, Fullenkamp, Barajas, & Montiel, 2009), some other studies found support of the positive connection between remittances and financial development across economies (Gupta, Pattillo & Wagh, 2009; Aggarwal, Demirgüç-Kunt & Pería, 2011). Some other studies found empirical proof of economic growth being facilitated by the positive effect of remittances on financial development (Bettin & Zazzaro, 2012; Mundaca, 2009; Noman & Uddin, 2011)

Esteves and Khoudour-Castéras (2009) concerted that remittance inflow has a significant role to play in influencing financial development of an economy as compared with other forms of capital inflows. They demonstrated

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that remittances assist in reducing the prevalence of financial disturbances thus current account imbalances. Remittance inflows are relevant to developing economies such that they complement the gap in domestic capital mobilisation (Calderón, Fajnzylber & López (2007). Irrespective of the essential role played by remittance inflows to the growth of an economy, empirical studies charting the role remittance inflows play in influencing financial development still remain scant. The current study seeks to examine the effect on remittance inflows on financial development deploying annual data from 1970 to 2014.

Gap in Literature

There are two strands of literature competing on the role played by foreign capital inflows in an economy. The first proponents emphasise that foreign capital inflow is essential and necessary for growth in a developing economy (Gupta, 1970). They assert that there is a direct association between foreign capital inflows and economic growth as the earlier complements domestic resources mobilisation and supplements national savings. Furthermore, they argue foreign capital inflows helps in bridging the foreign exchange gap as it provides access to contemporary foreign technology and managerial skills and countenance easier access to overseas market (Over, 1975).

The second advocates are of the view that foreign capital possess significant negative impact on the growth of the recipient economy. According to them, foreign capital inflows fully substitute's instead of compliments domestic resources mobilisation. Furthermore, foreign capital inflows help to import inappropriate foreign technology distorts the national income sharing

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as well as inspires inefficiency and above all corrupt government officials of developing economies (Griffin & Enos, 1970).

From the above, the subject of low economic growth of developing economies is becoming so worrisome to the extent that it demands a wide range of studies and debates. The study identified capital inflow both theoretically and empirically as an essential substance for the desired growth. Despite the huge inflows of capital into developing economies, it appears to be ineffective as there are significant indication of abject poverty, alarming rate of unemployment, crumbling infrastructure, and high rate of mortality among others (Keiner, Koll-Schretzenmayr & Schmid, 2016). It is against this background that this study is intended to examine how these foreign capital inflows have fared in influencing financial development of the Ghanaian economy.

Chapter Summary

The chapter presents a review of the theories that underpinned the study as well as the review of related empirical literature. The chapter specifically reviewed empirical literature to establish the relationship between capital inflows variables and financial development.

CHAPTER THREE

RESEARCH METHODS

Introduction

Research methods defines the systematic technique that a study adopts in seeking answers to the role played by capital inflows in influencing financial development in Ghana. Basically, research method defines the procedures to be followed in describing, explaining and predicting the influence of capital inflows on financial development in Ghana. Specifically, this chapter presents the research design, the source of data being used, description and measurement of variables. Finally, the model specification and the estimation technique have been presented.

Research Design

With regard to this study, causal design was employed since the study sought to examine the effect of capital inflows on financial development. Causal research designs apply to studies that aim to examine the cause and effect of one variable on the other. The study seeks to ascertain the effect of capital inflows variables on financial development in Ghana, hence, the choice of the causal and descriptive research design.

Research Approach

The study aims at aggregately testing hypotheses on the role capital inflows plays in influencing financial development in Ghana. The study therefore is grounded on quantitative research approach as it deploys secondary data on quantitative variables both dependent and independent variables in testing hypotheses on the role of capital inflows in influencing financial development. Additionally, the study developed hypotheses

grounded on theory which would be tested to either support the theory empirically or to reject it.

Model Specification

To examine the role played by capital inflows in influencing financial development; the study seeks follow the standard literature of Obeng and Takyi (2013); Huang (2006) and Chinn and Ito (2005) and McKinnon and Shaw (1973) to estimate an economic model for financial development as follows:

Model 1: Access to Credit by the Private Sector and Capital Inflows

$$\Delta ACC_t = \beta_0 + \beta_1 ACC_{t-1} + \beta_2 FDI_{t-1} + \beta_3 ED_{t-1} + \beta_4 RI_{t-1}$$
$$+ \beta_5 GDPPC_{t-1} + \beta_6 BD_{t-1} + \beta_7 BM_{t-1} + \beta_8 INFL_{t-1}$$
$$+ \beta_9 LLB_{t-1} + \sum_{i=1}^{p} \alpha_1 \Delta ACC_{t-i} + \sum_{i=1}^{p} \alpha_2 \Delta FDI_{t-i}$$
$$+ \sum_{i=1}^{p} \alpha_3 \Delta ED_{t-i} + \sum_{i=1}^{p} \alpha_4 \Delta RI_{t-i} + \sum_{i=1}^{p} \alpha_5 \Delta GDPPC_{t-i}$$
$$+ \sum_{i=1}^{p} \alpha_6 \Delta BD_{t-i} + \sum_{i=0}^{p} \alpha_7 \Delta BM_{t-i} + \sum_{i=0}^{p} \alpha_8 \Delta INFL_{t-i}$$
$$+ \sum_{i=0}^{p} \alpha_9 \Delta LLB_{t-i} + \pi ECM_t + \epsilon_t \dots \dots (1)$$

Model 2: Liquid Liability and Capital Inflows

The study adopted another measure of financial development (liquid liability) in order to ascertain how different the results would be when different measures of financial development is employed.

$$\Delta LLB_t = \beta_0 + \beta_1 LLB_{t-1} + \beta_2 FDI_{t-1} + \beta_3 ED_{t-1} + \beta_4 RI_{t-1}$$

$$+ \beta_5 GDPPC_{t-1} + \beta_6 BD_{t-1} + \beta_7 BM_{t-1} + \beta_8 INFL_{t-1}$$

$$+ \beta_9 ACC_{t-1} + \sum_{i=1}^{p} \alpha_1 \Delta ACC_{t-i} + \sum_{i=1}^{p} \alpha_2 \Delta FDI_{t-i}$$

$$+ \sum_{i=1}^{p} \alpha_3 \Delta ED_{t-i} + \sum_{i=1}^{p} \alpha_4 \Delta RI_{t-i} + \sum_{i=1}^{p} \alpha_5 \Delta GDPPC_{t-i}$$

$$+ \sum_{i=1}^{p} \alpha_6 \Delta BD_{t-i} + \sum_{i=0}^{p} \alpha_7 \Delta BM_{t-i} + \sum_{i=0}^{p} \alpha_8 \Delta INFL_{t-i}$$

$$+ \sum_{i=0}^{p} \alpha_9 \Delta ACC_{t-i} + \pi ECM_t + \epsilon_t \dots\dots (1)$$

The variables in model one and two are defined below as:

Δ=Denotes the first difference operator,

β_0 = is the constant,

$\beta_1 - \beta_8$= are long run coefficients,

$\alpha_1 - \alpha_8$ = are Parameters of the short run dynamic model,

π=is the error correction term and

ε_t = is the error term

t=time period

ACC= access to credit by the private sector/GDP

LLB=Liquid liability/GDP

FDI=Foreign Direct Investment /GDP

ED= External debt/GDP

RI= Remittance inflows/GDP

GDPPC=Gross Domestic Product per capita

INFL = Inflation Rate

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BM=Broad money supply

BD=Bank deposit/GDP

Justification of the Model

The study aims at examining the effect of capital inflows on financial development. McKinnon (1973) and Shaw (1973) advocated for an unhindered more liberalized financial system; this according to them would lead to more growth. In the same vein, the endogenous growth literature also forecasts a positive relationship between financial depth, financial innovation real income, investment and real interest rate (King & Levine, 1993). A Well-developed financial market encourage investment and growth by means of effectively channelling financial resources from the surplus spending unit to the most productive by the deficit spending unit.

Takyi and Obeng (2013) demonstrate that foreign direct investment inflow is an essential cause of financial development in Ghana. This is however confirmed by the results of Adam and Tweneboah (2009); Mbulawa (2015) when they contend that there exists a long run relationship between foreign direct investment and stock market development. Nawaz, Qureshi and Awan (2012) attest that there is a long run association and among external debt and economic growth. Consequence, supposedly, endogenous financial growth models demonstrate scientifically how financial development may have a positive impact on economic growth (Kings & Levine, 1993). Empirically, many cross-country studies suggest results which support the positive relationship between finance and growth (Beck & Levine, 2004; Caporale, Howells & Soliman, 2005). Some works found support of the positive association between remittances and financial development (Gupta,

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Pattillo & Wagh, 2009 Aggarwal, Demirgüç-Kunt & Pería (2011). Some other studies found that targeted economic growth is being facilitated by the direct role of remittances on financial development (Bettin & Zazzaro, 2012; Mundaca, 2009; Noman & Uddin, 2011). This study however considers the effect of foreign direct investment, external debt, and remittance inflow on financial development in Ghana.

Measurement of Variables

In seeking to collectively test the hypotheses advanced above so as to achieve the objective of the study, the independent variable; capital inflows, shall be measured by foreign direct investment inflows/GDP, external debt/GDP, remittance inflows/GDP. As well, the dependent variable; financial development shall be measured by access to credit by the private sector credit/GDP and banks liquid liability/GDP. However, in order to successfully and efficiently realise the above stated purpose, a number of macroeconomic variables have been controlled for in the model; such variables include economic growth per capital; year on year inflation; broad money supply and banks deposit/GDP. These control variables are said to have considerably contributed to financial development. However, they are not observed as variables of concentration although they have been integrated in the model. The description of the above mentioned variables is summarised in the table below.

Table 1: Description and explanation and source of data

Variables	Explanation	Data source
Access to credit by the private sector/GDP	Domestic credit to private sector refers to financial resources provided to the private sector by financial corporations, such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment	Global Financial Development Dataset 1970-2014
Liquid liability/GDP	Ratio of liquid liabilities to GDP. Liquid liabilities are also known as M3.	Global Financial Development Dataset 1970-2014
Foreign direct investment/GDP	Foreign direct investment inflows to Ghana as a percentage of GDP	World bank World Development Indicators 1970-2014
External debt/ GDP	Total external debt stocks to gross national income. Total external debt is debt owed to non-residents repayable in currency, goods, or services.	World bank World Development Indicators 1970-2014
Remittance inflows/GDP	Workers' remittances and compensation of employees comprise current transfers by migrant workers and wages and salaries earned by non-resident workers.	Global Financial Development Dataset 1970-2014
Broad money supply	Demand deposits other than those of the central government.	World bank World Development Indicators 1970-2014
Bank deposit/GDP	The total value of demand, time, and saving deposits at domestic deposit money banks as a share of GDP.	Global Financial Development Dataset 1970-2014
GDPPC	Gross Domestic Product Per the total population	Global Financial Development Dataset 1970-2014

Source: World Bank World Development Indicators

Data Collection Procedure and Data Source

The study is mainly quantitative therefore all the data used are extracted from secondary source. Data on the dependent variable; financial development measured by access to credit by private sector per gross domestic product (GDP) and banks liquid liability per gross domestic product (GDP) and remittance inflows per gross domestic product (GDP) were extracted from global financial development dataset (GFDD) from 1970 to 2014. As well, data on the independent variable; capital inflows measured by foreign direct investment, external debts have been extracted from the World Bank World development indicators (WDI) from 1970 to 2014. Also, data on the control variables; gross domestic product per capita (GDPPC), year on year changes in consumer price index (inflation) and bank deposit per gross domestic product (GDP) have been extracted from global financial development dataset (GFDD) while data on broad money supply have been mined from the World Bank World development indicators (WDI). It is relevant to stake that annual data on the variables span from 1970 to 2014.

Data Analysis Techniques

Mostly time series data contains unit root (non-stationary) at levels (Engle & Granger, 1987) in order to streamline the results so as to avoid spurious results, it is commonly presumed that time series variables be subjected to stationary test. After a pre-diagnostic test conducted on the variables to check the stationarity of the variables, it was observed that all variables were stationary at first difference as illustrated in table 3. This informs the decision to estimate a cointegration relationship using the Johansen and Juselius (1990) multivariate cointegration model. The Johansen

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and Juselius (1990) multivariate cointegration model allows you to combine a variable that is stationary at first order of integration I (1) in the same model. This estimation approach permits the model to take adequate number of lags that captures the data generating procedure from a general to a more specific modeling framework. A dynamic Error Correction Model (ECM) can be derived from Johansen and Juselius (1990) multivariate cointegration model that helps integrate the short-run dynamics with the long-run equilibrium without losing long-run information. Finally, this technique is suitable for large sample size which is evident in the duration under consideration.

Chapter Summary

This chapter presents the research methods. Specifically, it presents the research methodology, research design, model specification and its justifications, measurement of variables, data collection procedure and the estimation technique.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the discussion of the findings of the study in accordance with the specific objectives presented in chapter one. This is to allow for a suitable conclusions and recommendations to be drawn basis on empirical results. The chapter first presents the trend analysis of financial development variables thus access to credit by the private sector and banks liquid liability. This is to assist examine if there subsist some form of trend in both variables within the Ghanaian contest. A test of stationarity of variables was also examined. Thereafter the descriptive statistics of the variables were presented. These descriptive statistics include the mean, standard deviations, minimum and maximum observations. The chapter proceeds with the discussion of the cointegration regression analysis results generated by adopting the Johansen and Juselius (1990) multivariate cointegration test. Finally, the chapter summary was presented.

Summary Statistics

Table 2 presents the descriptive statistics for data employed on capital inflows variables and financial development components. The mean values, medians, minimum and maximum value, the standard deviation, as well as the total numbers of observations were presented.

Table 2: Descriptive Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
ACC	8.389797	5.9027	19.907	1.54227	5.213875	45
LLB	20.4184	19.77012	29.33219	10.16163	5.634794	45
FDI	2.285607	0.955674	9.517043	-0.660372	2.899563	45
EXD	54.5613	44.89431	129.315	18.10901	30.68977	45
RMT	0.633506	0.115433	5.39509	0.010476	1.297255	45
BKD	13.45575	13.4197	23.01493	4.520234	5.223113	45
BMS	23.00391	22.85738	34.10831	11.30499	6.395321	45
GDPPC	461.5962	431.941	763.938	320.781	106.7634	45
INFL	30.83573	22.29557	122.8745	3.030303	28.44021	45

Source: World Bank World Development Indicators

Note: ACC denotes domestic access to credit by the private sector, LLB means liquid liability, FDI refers to foreign direct investment, EXD stands for external debt stock, RMT refers to remittance inflows, BKD stands for bank deposit, BMS denotes broad money supply, INFL means inflation and GDPPC stands for gross domestic product per capita.

Table 2 presents the descriptive statistics of financial development components and capital inflows variables for the period of 1970 to 2014. The mean values, medians, minimum and maximums values, the standard deviation as well as the total number of observations of financial development components and capital inflows variables as well as the control variables over the period of 1970 to 2014 have been reported.

Specifically, 45 observations have been documented as far as the study is concerned. It is obvious from Table 2 that the average level of domestic credit to the private sector is 8.4 units with a degree of deviation of 5.2. This mean is however characterized by a median, minimum and a maximum of 5.9, 1.5 and 19.9 units respectively. It is therefore apparent that outliers do have not any significant impact on the mean value of domestic credit to the private sector. Over the period under review, the average of liquid liability to gross domestic product was 20.4 with the level of variability of 5.6,

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and a range of 10.2 units to 29.3 units. The median value which is 19.8 units is almost as equal as the mean value for the period. Foreign direct investment of the mean economy was about 2.3 units (SD=2.9) while recording a median, maximum and minimum value of 0.96, 9.52 and -0.7 units respectively.

Concerning the external debt stock of the Ghanaian economy for the period under consideration record a mean figure of 54.6 units (SD=30.7) and a median value of 44.9 units. This mean and median are characterized by a minimum value of 18.1 units and a maximum value observed as 129.3 units. Remittance inflows to the Ghanaian economy recorded a mean value of 0.6 units (SD=1.3) while a median value of 0.11 was recorded. This average is however defined by a minimum figure of 0.01 units and a maximum of 5.4 units.

Regarding the control variables; bank deposit to gross domestic products, broad money supply, gross domestic product per capital and inflation recorded mean values of 13.5, 23.0, 461 and 30.8 units respectively as well as a median score of 13.4, 22.9, 431.9 and 22.3 units respectively. These mean and median values are characterized by a range of 4.5, 11.3, 320.8 and 28.4 units for bank deposit to gross domestic products, broad money supply, gross domestic product per capital and inflation respectively. The mean performance of the Ghanaian economies as far as these macroeconomic indicators are concerned for the period under review is arguably satisfactory.

Trend Analysis of Financial Development

The trend analysis of a variable offers a pictorial view of the behaviour of the variable over a period of time. Trend analyses are essential as they reveal any pattern developed by the variables over a period. Over the years,

the Ghanaian economy witnessed a much more increase in domestic credit to the private sector and banks liquid liability. However, there have been discrepancies in domestic access to credit by the private sector and banks liquid liability in the Ghanaian economy over the years. This section presents the trend of how the Ghanaian economy fared regarding domestic access to credit by the private sector and banks liquid liability over the period of 1970 to 2014.

Figure 1: Trend of Financial Development Variables
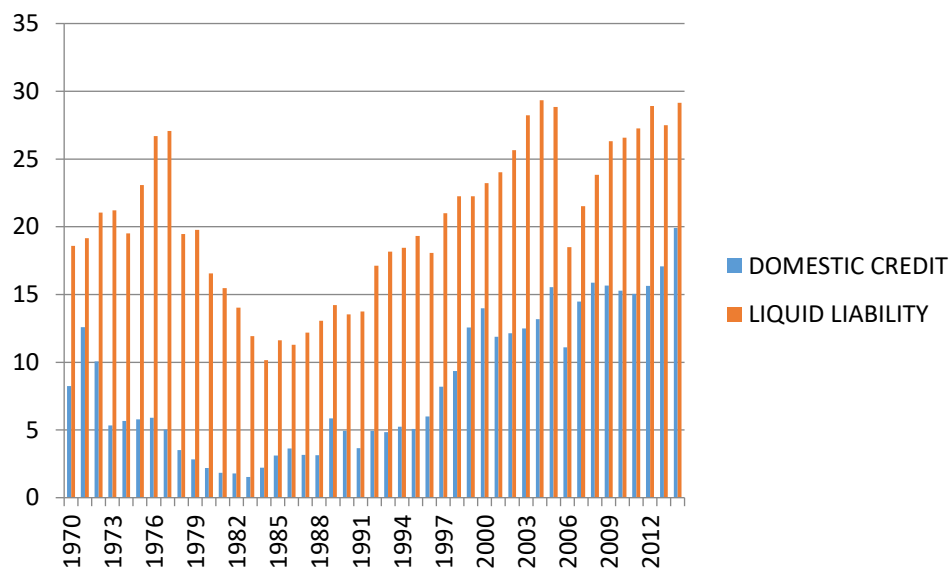
Source: World Bank World Development Indicators

Figure 1 presents the trend of domestic access to credit by the private sector over the period of 1970 to 2014. Over the period under review, it is obvious that there are inconsistencies in domestic access to credit by the private sector within the Ghanaian economy. Specifically, it could be seen that the Ghanaian economy witnessed a downward trend in access to credit from 1972 to 1982. This period was characterized by changes in government through political coup d'état. This occurrence might account for the

difficulties in doing business hence the hesitation of financial institution to grant the private individuals businessmen access to credit.

Following the structural adjustment programme the country enrolled on, the Ghanaian economy experience a rise in financial development (access to credit) for the period of 1982 to 2000 except for 1990 to 1992 where the economy was characterized by a fall in access to credit. It is however relevant to state that this is the period in which the country was going to the polls to elect a president under democratic constitutional rule for the first time hence the fear of banks to grant access to credit facilities. Subsequent to the change in government in the year 2000 that saw a slight fall in access to credit, the Ghanaian economy witnessed an increased access to credit by the private sector from the year 2000 to 2014 except for another post-election year (2004 to 2006) where the economy witnessed a fall in financial development (access to credit).

Figure 1 as well presents the trend of how the Ghanaian economy has fared regarding liquid liability over the period of 1970 to 2014. Graphically, there have been discrepancies in financial development-liquid liability over the period of 1970 to 2014. Obviously, the Ghanaian economy witnessed a rise in liquid liability from 1970 to 1978 after which it begins to perform abysmally from 1978 to 1983. It is essential to state that this is a period where the economy was being characterized by political instability. Consequent to this downturn, the Ghanaian economy begin to experience an upward trend of financial development-liquid liability as it endeavours to outperform previous year's average. It is however clear from figure 3 that from the start of 1983 to

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2014, liquid liabilities of banks have been increasing except for the period of 2004 to 2006 where there has been a sharp fall in liquid liability of banks.

It is argued that the rise in the trend of financial development variable is as a result of a rise in foreign direct investment, external debt and remittance inflows. However, this assertion is hypothetical and required empirical examination. The study therefore examines the role foreign direct investment, external debt and remittance inflows play in influencing financial development in Ghana by employing data from 1970 to 2014.

Test for Stationarity of Variables

Issues of stationarity of the data extracted for both dependent and independent variables as well as the control variables is essential in the quest to produce a useful and reliable results. Dickey and Fuller (1979) contend that in time series estimations, there is the need to examine stationarity of the data deployed so as to avoid spurious regression. Common approaches used in testing unit root include but not limited to Dickey-Fuller GLS, Augmented Dickey-Fuller, Phillips-Perron, and Kwiatkowski-Phillips-Schmidt-Shin test of stationarity. The study adopted the Augmented Dickey-Fuller (ADF) and Phillips-Parron (PP) unit root tests in testing for stationarity at both levels and first difference. The variables in the model were subjected to the tests at 1%, 5% and 10% level of confidence. The results of the stationarity test conducted on the variables are presented below.

Unit Root Test

Table 3 displays the results of unit root (stationary) test result employing the ADF statistics test with lag length automatically chosen with the Schwarz Information Criterion (SIC) and the extreme lag length fixed at 9.

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The test for stationarity of the variables were subjected to the null hypothesis that, "the data has a unit root". The results of the Augmented Dickey-Fuller test statistics at levels displayed results that are insignificant results at 1%, 5%, and 10% level of significance. It is obvious from Table 3 that none of the variables under discussion; dependent and independent variables is stationary at levels I (0) when the Augmented Dickey-Fuller test statistics tool for examining stationarity is deployed. However, at 1 percent significant level, Augmented Dickey-Fuller test statistics results indicate that all the variables under consideration are stationary at first order I (1).

Table 3: ADF Unit Root Test

Variables	ADF results at levels I(0)		ADF results at first difference I(1)	
	ADF Test Statistics Value	Critical Value	ADF Test Statistics Value	Critical Value
ACC	-0.001027 (0.9533)	1% = -3.588509 5% = -2.929734 10% = -2.603064	-7.039026 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
LLB	-1.139657 (0.6916)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-0.6242922 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
FDI	-0.599330 (0.8603)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-6.415989 (0.0000) ***	1% = -3.592462 5% = -2.931404 10% = -2.603944
EXD	-10.495679 (0.5265)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-5.139510 (0.0001)***	1% = -3.592462 5% = -2.931404 10% = -2.603944

Table 3 continued

Variable	Level	Critical values	Test stat	Critical values
RMT	4.153342 (1.0000)	1% = -3.632900 5% = -2.948404 10% = -2.612874	-4.935534 (0.0002)***	1% = -3.610453 5% = -2.938987 10% = -2.607932
BD	-0.431763 (0.8945)	1% = -3.588509 5% = -2.929734 10% = -2.603064	-5.897083 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
BMS	-1.088150 (0.7123)	1% = -3.588509 5% = -2.929734 10% = -2.603064	-6.246063 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
INFL	-2.524637 (0.1169)	1% = -3.592462 5% = -2.931404 10% = -2.603944	-11.68123 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
GDPPC	0.937209 (0.9951)	1% = -3.592462 5% = -2.931404 10% = -2.603944	-3.955296 (0.0038)***	1% = -3.592462 5% = -2.931404 10% = -2.603944

Source: Authors Computation (2017)
Note: ACC denotes domestic access to credit by the private sector, LLB means liquid liability, FDI refers to foreign direct investment, EXD stands for external debt stock, RMT refers to remittance inflows, BD stands for bank deposit, BMS denotes broad money supply, INFL means inflation and GDPPC stands for gross domestic product per capita.

The study further deployed the Philip-Perron unit root test statistics tool to examine the robustness of the results produced by the Augmented Dickey-Fuller test statistics tool. The results produced by the Philip-Perron unit root test statistics point out that data on the variables under discussion thus the dependent (domestic credit to the private sector, liquid liability), independent (foreign direct investment, external debt stock and remittance inflow) and control variables (bank deposit, money supply, gross domestic

product per capita and inflation) are non-stationary at level. This mean we fail to reject the null hypothesis that data on the variables contain unit. It is however worth noting that at first difference, domestic credit to the private sector, liquid liability, foreign direct investment, external debt stock, remittance inflow, bank deposit, money supply, gross domestic product per capita, and inflation record probability values that indicate that they are all stationary at first order level.

It could be seen from Table 3 and 4 that both the Augmented Dickey-Fuller test statistics and the Philip-Perron unit root test statistics indicate that domestic credit to the private sector, liquid liability, foreign direct investment, external debt stock, remittance inflow, bank deposit, money supply, gross domestic product per capita, and inflation are all stationary at first order level I (1). This result confirms a prerequisite assumption of cointegration hence the study proceeds to test for the presence of cointegrating relationship between the variables.

Table 4: Philip-Perron Unit Root Test

Variables	Philip-Perron results at levels I(0)		Philip-Perron results at first difference I(1)	
	PP test Statistics Value	Critical Value	PP test Statistics Value	Critical Value
ACC	0.245324 (0.9725)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-7.015770 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
LLB	-1.202765 (0.6650)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-6.240095 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944

Table 4 continued

FDI	-0.490645 (0.8833)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-6.476459 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
EXD	-1.778223 (0.3861)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-5.119072 (0.0001)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
RMT	-1.537162 (0.5057)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-8.224350 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
BKD	-0.511022 (0.8792)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-5.862313 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
BMS	-1.208585 (0.6625)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-6.251048 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
INFL	-4.382998 (0.1100)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-13.88718 (0.0000)***	1% = -3.592462 5% = -2.931404 10% = -2.603944
GDPPC	1.748101 (0.9996)	1% = -3.588509 5% =-2.929734 10% = -2.603064	-3.917871 (0.0042)***	1% = -3.592462 5% = -2.931404 10% = -2.603944

Source: Authors Computation (2017)

Note: ACC denotes domestic access to credit by the private sector, LLB means liquid liability, FDI refers to foreign direct investment, EXD stands for external debt stock, RMT refers to remittance inflows, BKD stands for bank deposit, BMS denotes broad money supply, INFL means inflation and GDPPC stands for gross domestic product per capita.

Johansen Cointegration Test

In the quest to test whether the variables under discussion cointegrate, the study employs the unrestricted cointegration rank (trace) test and the unrestricted cointegration rank (maximum eigen value) test. A significant trace statistics and max-eigen statistics indicate the presence of cointegration relationship between the variables. Table 5 presented the results of Johansen unrestricted cointegration rank (trace) test. The outcome of the Unrestricted Cointegration Rank (Trace) test indicates the presence of 3 cointegration relationship between financial development components and capital inflows variables at 5 percent significance level. This outcome means that there exist a short and long-run equilibrium association between financial development components and capital inflows variables.

Table 5: Johansen cointegration Test: Unrestricted Test Cointegration Rank (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.910684	188.7422	69.81889	0.0000
At most 1 *	0.650832	84.87268	47.85613	0.0000
At most 2 *	0.520829	39.62795	29.79707	0.0027
At most 3	0.152758	7.992982	15.49471	0.4662
At most 4	0.019914	0.864935	3.841466	0.3524

Trace test indicates 3 cointegrating equation at 0.05 significance level

Table 6: Johansen Cointegration test: Unrestricted Cointegration Rank Test or Maximum Eigenvalue test

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.910684	103.8696	33.87687	0.0000
At most 1 *	0.650832	45.24473	27.58434	0.0001
At most 2 *	0.520829	31.63497	21.13162	0.0012
At most 3	0.152758	7.128046	14.26460	0.4741
At most 4	0.019914	0.864935	3.841466	0.3524

Maximum Eigenvalue test indicates 3 cointegrating equations at the 0.05 significance level.

Table 6 presents the results of the unrestricted cointegration rank (maximum eigenvalue) test. The results were tested against the hypothesis that 'there is no cointegrating relationship between financial development components and capital inflows variables'. The results show that at most 2 of the max-eigen values are statistically significant at 5% level of confidence. This means that the unrestricted cointegration rank (maximum eigenvalue) test confirms the presence of three (3) cointegration equation as observed by the trace test. In regard, there exist a long-run cointegration relationship between financial development components and capital inflows variables. The results in Table 5 and 6 indicate that the cointegration model estimated is not spurious hence the results are valid. The study therefore proceeds to present the summary statistics of financial development components and capital inflows variables.

Long Run Cointegration Relation between Capital Inflows and Domestic Access to Credit

This section presents the long-run regression results of model I and 2 (see chapter 3). Table 7 presents the results of model 1 and 2 using the Johansen's multivariate cointegration test by Johansen and Juselius (1990). The first column presents the names of the variables as explained below the tables. Column two (model 1) displays the findings of the relationship between capital inflows variables (independent) and ease of access to credit by the private sector in Ghana (dependent). Finally, column three (model 2) presents the outcomes of the relationship between capital inflows variables (independent) and liquid liability (dependent).

This result was estimated while controlling for bank deposit to gross domestic product, broad money supply, and Gross domestic product per capita (GDPPC) and inflation (INFL). Added to the above, statistical significance of the variables is pegged at an absolute value of 2 and above.

Table 7: Long-Run Cointegration Results

VARIABLES	MODEL 1	MODEL 2
FDI(-1)	-1.651999	0.662292
	(-3.61107)***	(3.69189)***
	[0.45748]	[0.17939]
EXD (-1)	-0.044309	0.029578
	(-2.22927)***	(3.55018)***
	[0.01988]	[0.00833]
RMT(-1)	-2.329259	-0.269185
	(-2.22392)***	(-0.72969)
	[1.04736]	[0.36890]
C	-0.583597	-23.26209

Source: World Bank World Development Indicators
FDI (-1) refers to long-run foreign direct investment lag one, EXD (-1) stands for long-run external debt stock lag one, RMT (-1) refers to long-run remittance inflows lag one and C denotes the constant value. Values in bracket '()' are the t-statistics, figures in parenthesis '[]' are the standard errors whiles values other than those in bracket and in parenthesis are the coefficients.

Hypothesis 1: There is no significant long run relationship between foreign direct investment and financial development in Ghana.

Column 3 (models 2) of Table 7 present the results of the long run relationship between capital inflows components and access to credit by the private sector in Ghana. An absolute t-statistics value of 3.611 units indicates that that foreign direct investment inflow has a significant negative long run relationship with financial development (access to credit by the private sector). Precisely, a unit change in foreign direct investment inflows to the Ghanaian economy would cause a 1.652 units decrease in financial development (access to credit by the private sector) in the long run. Even though the study found a significant relationship between foreign direct investment inflow and financial

development (access to credit by the private sector, this relation is negative and thus contradict the hypothesis 1.

The study therefore, rejects the hypothesis that there is no significant long run relationship between foreign direct investment and financial development in Ghana. This implies that improvement in foreign direct investment inflow to the Ghanaian economy deters financial development (access to credit by the private sector) in the long run. Foreign direct investment inflows to the various sectors of the Ghanaian economy do not pass through the financial system. It is however argued that the results could be justified by the repatriation of profit by foreign investors to their home countries at the expense of reinvestment in the Ghanaian economy. Added to the above the finding could be as a result of the fact that foreign direct investment inflows to the economy has not been directed to the real sectors of the Ghanaian economy to trigger the development of the economy. The result corroborates the findings of Jilenga, Xu and Gondje-Dacka (2016); Azeez, Oladapo and Aluko (2015) where they found a significant but negative effect of foreign direct investment.

Hypothesis 2: There is no significant long run relationship between external debt stock and financial development in Ghana.

Table 7 (models 1) presents the results of the long run relationship between external debt stock and financial development (access to credit by the private sector). A statistically significant absolute t-statistics value of 2.229 units means external debt has a significant negative relationship with financial development (access to credit by the private sector) in the long run. Specifically, a unit change in external debt stock to the Ghanaian economy

would lead to a 0.044 units fall in financial development (access to credit by the private sector) in the long run. Although a significant relationship between external debt and financial development (access to credit by the private sector) was observed, this relation is negative and thus at variance with the hypothesis 2. The study therefore rejects the hypothesis that there is no long run significant positive relationship between external debt stock and financial development in Ghana.

This means that as government continues to borrow from external source, domestic credit to the private sector slows down in the long run. The reasoning one could associate with this outcome is that in the domestic economy, government is the biggest client of financial institution hence an attempt to contract credit from an external market trigger a fall in the domestic credit granted the private sector in the long run. This result suggests that increase government borrowing from foreign markets crowds out domestic credit to the private sector. Factors such as corruption could account for such happenings (Ahmed, 2016). This result supports the finding of Arshad, Aslam, Fatima and Muzaffar (2015) where they observed an inverse relationship between external debts.

Hypothesis 3: There is a long run significant positive relationship between remittance inflows and financial development in Ghana.

The results displayed by Table 7, column 2 (models 1) also presents result of the long run relationship between remittance inflows and access to credit by the private sector in Ghana. An absolute t-statistics of 2.224 point out that remittance inflow has a significant negative relationship with financial development (access to credit by the private sector) in the long run.

Particularly, a unit change in remittance inflows to the Ghanaian economy would cause a 2.329 units decrease in financial development (access to credit by the private sector) in the long run. Even though the study found a significant relationship between remittance inflow and financial development (access to credit by the private sector, this relation is negative and thus contradict the hypothesis 3.

The study therefore, rejects the hypothesis that there is no long run significant positive relationship between remittance inflows and financial development in Ghana. This means that the higher the level of remittance inflow, the lower the level of financial development in Ghana in the long run. It is therefore argued that remittance inflows are not channelled to the real sector of the Ghanaian economy to trigger the desired level of economic growth. This result is similar to the findings of Chami, *et' al.,* (2003) and Barajas, *et' al.,* (2009) where they found an inverse relationship between remittance and economic growth.

Long Run Relationship between Capital Inflows Variable and Liquid Liability

The results displayed by Table 7 (model 2) highlights the results of the relationship between capital inflows variables and financial development (liquid liability). With a t-statistics of 3.69, foreign direct investment has a significant positive relationship with financial development (liquid liability) in Ghana. Precisely, a unit change in foreign direct investment leads to 0.66 units increase in financial development (liquid liability) in Ghana. Also, by adopting a different measure of financial development, external debt has a significant positive relationship with financial development (liquid liability). Specifically,

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a unit change in external debt stock leads to a 0.03 units increase in financial development (liquid liability). However, remittance inflows have an insignificant relationship with financial development (liquid liability). What is obvious therefore is that although foreign direct investment, external debt and remittance inflows deters financial development in the long run, the first two increase the amount of liquidity in the Ghanaian economy in the long run.

Short Run Dynamic Results of the Effect of Capital Inflows Variables on Financial Development

Table 8 presents the short-run dynamic results of the relationship foreign direct investment, external debt stock, and remittance inflows and financial development variables by using the Johansen's multivariate cointegration test by Johansen and Juselius (1990). From the short run estimation, any disequilibrium as a result of shocks in the short run can be corrected by the error correction term. Hence, the error correction term measures the speed of adjustment from disequilibrium to equilibrium. It should however be statistically significant with negative sign.

The results above displayed an R-squared of 0.623. This infers that the independent variables thus, foreign direct investment, external debt and remittance inflows together account for about 62.3% of the variations in financial development in the Ghanaian economy. An f-statistic value of approximately 3.561 units is significant for that matter affords a good fit for the model estimated. The degree of the Error Correction Term depicts the rapidity of correction as a result of disequilibrium in the short-run to the long-run equilibrium status.

Drawing lessons from the results displayed above, the projected coefficient of the Error Correction Term was significant at a t-statistics of 4.801 units generated an expected inverse value. The estimated model is dynamically reliable and stable due to the negative coefficient of the Error Correction Term. Moreover, the statistical significance of the Error Correction Term is a sign of dual significance of the measurements under the Vector Error Correction Model (VECM) framework in the long-run. The projected coefficient of the Error Correction Term (ECT) of -0.406, suggest that shocks in the short run is corrected by less than 5 periods to restore equilibrium in the long run.

The results presented in model 1 of Table 8 indicates that the both lag one of domestic access to credit by the private sector ACC (-1) and ACC (-2) has an insignificantly positive and negative relationship with present days' domestic access to credit by the private sector in Ghana respectively. This means that previous years' credit granted does not affect present year's credit grant to the private sector.

Three of the control variables; broad money supply, bank deposit and inflation were observed to have an insignificant relationship with financial development in Ghana from 1970 to 2014. However, gross domestic product per capita with a t-statistics of 2.111 has a significant negative relationship with financial development in Ghana. This means a unit change in gross domestic product per capita leads to a 0.009 units fall in financial development.

Table 8: Vector Error Correction Model Results

Variables	Model 1	Model 2
ACC(-1)	0.031480 (0.22642) [0.13903]	
ACC(-2)	-0.108008 (-0.88593) [0.12191]	
LLB(-1)		-0.025784 (-0.34556) [0.07461]
LLB(-2)		-0.008551 (-0.12462) [0.06861]
FDI(-1)	-0.178225 (-0.88848) [0.20060]	0.140232 (1.09151) [0.12848]
FDI(-2)	-0.087869 (-0.51996) [0.16899]	0.111714 (0.88466) [0.12628]
EXD(-1)	-0.072892 (-3.83631)*** [0.01900]	0.044945 (3.10557)*** [0.01447]
EXD(-2)	-0.029246 (-1.18029) [0.02478]	0.029299 (1.92026) [0.01526]
RMT(-1)	-0.978230 (-3.87774)*** [0.25227]	0.159711 (1.02406) [0.15596]
RMT(-2)	-0.584711 (-1.85368) [0.31543]	0.061452 (0.30544) [0.20119]
ECM	-0.469277 (-4.80143)*** [0.09774]	-0.919134 (-13.1726)*** [0.06978]
C	2.141820 (1.36273) [1.57172]	-16.54767 (-7.38612)*** [2.24037]
BMS	0.142331 (1.30690) [0.10891]	0.273335 (3.00100)*** [0.09108]
BD	-0.014608 (-0.25246) [0.16481]	0.904453 (7.16743) [0.12619]
GDPPC	-0.008627 (-2.11107)*** [0.00409]	-0.008470 (-2.28866)*** [0.00370]

Table 8 continued

INFL	-0.015121	0.013349
	(-1.97585)	(2.06783)***
	[0.00765]	[0.00646]
R-squared	0.623085	0.927795
Adj. R-squared	0.448089	0.890355
F-statistic	3.560565	24.78112
Log likelihood	-59.58971	-44.63613
Akaike AIC	3.504272	2.839816
Schwarz SC	4.083495	3.460412
Mean dependent	0.234443	0.192825
S.D. dependent	1.648360	2.637941

Source: World Bank World Development Indicators

FDI (-1) refers to long-run foreign direct investment lag one, EXD (-1) stands for long-run external debt stock lag one, RMT (-1) refers to long-run remittance inflows lag one and C denotes the constant value. Values in bracket '()' are the t-statistics, figures in parenthesis '[]' are the standard errors whiles values other than those in bracket and in parenthesis are the coefficients.

Hypothesis 4: There is no short run significant positive relationship between foreign direct investment and financial development in Ghana.

The result presented in Table 8 (model 1) indicates that foreign direct investment has an insignificant negative relationship with financial development (access to credit) in Ghana. The insignificant negative relationship observed is consistent with hypothesis 4 that there is no short run significant positive relationship between foreign direct investment and financial development. The short run verdict of the relationship between foreign direct investment and financial development contradict that there is a long run negative relationship foreign direct investment and financial development.

The domination of resource seeking firms and its inadequate interaction with the real domestic economy restricts the Ghanaian economy from garnering the benefits of foreign direct investment (Orji, Uche & Ilori, 2014). They rather siphoned and repatriated all their profits by this means; impeding the economic growth of the Ghanaian economy (Orji *et' al.,* 2014).

This finding however corroborates the findings of David, Mlachila and Moheeput (2014) where they concluded that there is no relationship between foreign direct investment and financial development in Sub Saharan African economies.

Hypothesis 5: There is no short run significant positive relationship between external debt and financial development in Ghana.

The result presented in Table 8 (model 1) highlights that with an absolute t-statistics value of 3.836 units; external debt has a significant negative relationship with financial development in Ghana. Specifically, a unit change in external debt would result to a 0.073 units decrease in financial development in Ghana. Although there is a significant relationship between external debt stock and financial development, this relationship is negative, inconsistent with hypothesis 5 that there is no significant positive relationship between external debt stock and financial development. This result is however consistent with the position of the long run results that external debt negatively influences financial development in Ghana.

This implies that as government persistently borrow from the external source, domestic credit to the private sector fall in the short run. Government is the biggest client of most financial institutions therefore an attempt to contract credit facilities from external market means a fall in the domestic credit granted to the private sector in the short run. This result confirms that increase government external borrowing crowds out domestic credit to the private sector. Factors such as corruption of public official could account for the fact that external borrowings are not channelled to the real sector of the economy to generate the required growth (Tachiwou, 2014). The result is

similar to the findings of Azeez, *et' al.,* (2015) when they found that external debt negatively affects economic growth.

Hypothesis 6: There is a short run significant positive relationship between remittance inflows and financial development in Ghana.

The results displayed by Table 8, column 2 (models 1) indicates result of the short run relationship between remittance inflows and access to credit by the private sector in Ghana. An absolute t-statistics value of 3.888 units means that remittance inflow has a significant negative relationship with financial development (access to credit by the private sector) in the short run. Particularly, a unit change in remittance inflows to the Ghanaian economy would cause a 0.978 units decrease in financial development (access to credit by the private sector) in the short run. Even though the study documented a significant relationship between remittance inflow and financial development (access to credit by the private sector), this relation is negative and thus contradict the hypothesis 6. The study therefore, rejects the hypothesis 6 that there is no short run significant positive relationship between remittance inflows and financial development in Ghana.

This implies that higher level of remittance inflow deters financial development in Ghana in the short run. In line with the long run relationship, it is argued that remittance inflows are not channelled to the real sector of the Ghanaian economy to generate the required level of financial development. This result is similar to the findings of Chami, *et' al.,* (2003) and Barajas, *et' al.,* (2009) where they found negative relationship between remittance inflows and economic growth.

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Short Run Relationship between Capital Inflows Variables and Liquid Liability

The results presented by Table 8 (model 2) displayed an R-squared of 0.928. This infers that foreign direct investment, external debt and remittance inflows together account for about 92.8% of the variations in liquid liability in the Ghanaian economy. An f-statistic value of approximately 24.781 units is significant hence affords a good fit for the model estimated. The projected coefficient of the Error Correction Term was significant with a t-statistics of 13.173 units generated an expected inverse value. The estimated model is dynamically reliable and stable due to the negative coefficient of the Error Correction Term.

The estimated coefficient of the Error Correction Term (ECT) value of -0.919 units, suggest that shocks in the short run takes about 9 periods to restore equilibrium in the long run. The results presented in model 1 of table 7 indicate that external debt has a significant positive relationship with financial development (liquid liability) in Ghana. This means that when the study adopts liquid liability as surrogate measure of financial development, a unit change in external debt would mean a 0.045 units increase in financial development. Foreign direct investment and remittance inflows have an insignificant relationship with liquid liability in Ghana from 1970 to 2014.

Results of the Control Variables

In order to ascertain the role capital inflow variables, play in influencing financial development in Ghana, the study controlled for some macroeconomic variables; gross domestic product per capita, inflation, money supply and bank deposits. The results displayed in Table 8 shows that gross

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domestic product per capital have a significant negative relationship with financial development in the short run in all instances. As far as model 2 of Table 8 is concerned, Money supply and inflation has a significant positive effect on financial development in the short run. However, bank deposit has an insignificant relationship on financial development in Ghana.

Chapter Summary

This chapter presents the empirical results and analysis of the role capital inflows variables play in influencing financial development in Ghana. The study employs the Johanson and Julius (1990) multivariate cointegration test estimation techniques to test the long and short run relationship between capital inflows variables and financial development in Ghana. Precisely, it was observed that there is a significant negative relationship between foreign direct investment, external debt, remittance inflows and financial development in the long run. In the short run however, the study documented a significant negative relationship between external debt, remittance inflows and financial development in Ghana but found an insignificant relationship between foreign direct investment and financial development. Nonetheless, the result of Table 8 (model 2) shows that external debt has a significant positive relationship with financial development.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

Introduction

This section presents the overview of the study, summary of results, conclusions, recommendations based on the findings, and suggestions for further study.

Overview of the Study

The dual gap framework demonstrates that developing economies development is a function of its investment nevertheless; such investment is so inadequate for the required growth to take place. This is as a result of low savings accumulation in the economy which eventually translates into insufficient investment. There is therefore the need for economies characterized by savings-investment gap to seek for external source of capital to complement domestic savings mobilization to achieve the required level of growth in the economy. This external capital could be in the form of external borrowing, remittance inflow as well as foreign direct investment.

Ghana has transitioned from a lower income economy to a lower middle income earning economy. This transition has played a major role in the establishment of new as well as the strengthening of existing state institutions. This development is characterized by improvement in foreign capital inflows to the economy since foreign investors develop interest in investing in the economy as it appears there is an apt level of protection of investor's right. A relevant gap that exists unexplored is the role foreign capital inflow play in realizing development of the financial sector in Ghana. The current study seeks to deepen our understanding of the phenomena by exploring the role

foreign direct investment, remittance inflow and external debt play in influencing financial development in Ghana.

In the quest to realize this objective efficiently, the study specifically examines the relationship between foreign direct investment, external debt, remittance inflows and financial development in Ghana. Out of the specific objectives outlined above, six hypotheses were advanced. The first three delved into the long run relationship between capital inflows variables and financial development while the last three relates to the short run relationship between capital inflows variables and financial development in Ghana. Below were the hypotheses tested:

Hypothesis 1: Long run relationship between foreign direct investment and financial development in Ghana.

Hypothesis 2: Long run relationship between remittance inflows and financial development in Ghana.

Hypothesis 3: Long run relationship between external debt stock and financial development in Ghana.

Hypothesis 4: Short run relationship between foreign direct investment and financial development in Ghana.

Hypothesis 5: Short run relationship between remittance inflows and financial development in Ghana.

Hypothesis 6: Short run relationship between external debt stock and financial development in Ghana.

The study is purely quantitative as it employs quantitative variables to examine the contribution of foreign direct investment, external debt and remittance inflows in influencing financial development in Ghana. Capital

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inflows variables (foreign direct investment, external debt remittance inflows) were the independent variables and financial development variables (domestic access to credit by the private sector, liquid liability) were the dependent variables.

Data on the dependent variable; financial development measured by access to credit by private sector per gross domestic product (GDP) and liquid liability per gross domestic product (GDP) and remittance inflows per gross domestic product (GDP) were extracted from global financial development dataset (GFDD) from 1970 to 2014. As well, data on the independent variable; capital inflows measured by foreign direct investment, external debts have been extracted from the World Bank World development indicators (WDI) from 1970 to 2014. Also, data on the control variables; gross domestic product per capita (GDPPC), year on year changes in consumer price index (inflation) and bank deposit per gross domestic product (GDP) have been extracted from global financial development dataset (GFDD) while data on broad money supply have been mined from the World Bank World Development Indicators from 1970 to 2014.

The study adopted the Johansen and Juselius (1990) multivariate cointegration model to estimate the long and short run relationship between capital inflows variables and financial development. The estimation techniques allows for the combination of variables that are stationary at first order of integration I(1) in the same model. This estimation approach permits the model to take adequate number of lags that captures the data generating procedure from a general to a more specific modeling framework. A dynamic Error Correction Model (ECM) can be derived from Johansen and Juselius

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(1990) multivariate cointegration model that helps integrate the short-run dynamics with the long-run equilibrium without losing long-run information.

Summary of Results

This section presents the summary of the Johansen and Juselius (1990) multivariate cointegration test results.

Regarding hypothesis 1, the study recorded a statistically significant negative long run relationship with financial development (access to credit by the private sector).

The study documented a significant negative long run relationship between external debt and financial development (access to credit by the private sector) in the long run. Concerning hypothesis 3, the results point out that remittance inflow has a significant negative long run relationship with financial development (access to credit by the private sector) in the long run.

It is relevant to state that when the study adopted a different measure of financial development; that is liquid liability, foreign direct investment and external debt has a significant positive long run relationship with financial development (liquid liability) in Ghana. However, remittance inflows have an insignificant relationship with financial development (liquid liability). What is obvious therefore is that although foreign direct investment, external debt and remittance inflows deter financial development (domestic access to credit by the private sector) in the long run, the first two increase the level of financial development (liquid liability in the Ghanaian economy in the long run.

Regarding hypothesis 4, the study documented an insignificant negative short run relationship between foreign direct investment and financial development (domestic access to credit by the private sector) in Ghana. Just

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like the result of the long run, the study recorded a significant negative short run relationship between external debt and financial development in Ghana. With regard to hypothesis 6, the study found that remittance inflow has a significant negative relationship with financial development (domestic access to credit by the private sector) in the short run.

As a result of adopting liquidity as a measure of financial development, the results presented indicated that foreign direct investment and remittance inflows have an insignificant relationship with financial development (liquidity liability). This notwithstanding, external debt has a significant positive relationship with financial development (liquid liability) in Ghana.

Conclusion

Most developing economies are characterized by inadequate savings mobilization which translates into insufficient investment. To outwit this kind of dilemma, Ghana, as well as other emerging economies, ought to find other sources of funding the gap created as far as savings mobilization and investment is concerned. The inflow of foreign capital into the economy is in support of the proposition by the proponents of the dual gap theory that developing economies need to secure external finance to supplement domestic savings. The role these external sources of finance play in influencing financial development raises a policy dilemma.

Some studies however, focused on the role capital inflows play in affecting economic growth; others focus on the mediation role of financial development in influencing the impact of capital inflows on real effective exchange rates. However, empirical evidence on the factors that influence financial development in Ghana to govern policy makers is few. The study

therefore employs three capital inflows variables (foreign direct investment, remittances inflows and external debt) and assesses how improvement in these variables could enhance the financial development in Ghana.

The Johansen's multivariate cointegration test by Johansen and Juselius (1990) was used to test the long-run and short-run impact of the independent variables on the dependent variable. Annual data from1970-2014 was made use of. The Augmented Dickey-Fuller (ADF) test and the Philip Perron (PP) unit root test was used in examining the presence of unit root and the result shows that the variables are stationary at I (1). The study documents a significant negative relationship between foreign direct investment, external debt, remittance inflows and financial development in the long run. In the short run however, the study documented a significant negative relationship between external debt, remittance inflows and financial development in Ghana but found an insignificant relationship between foreign direct investment and financial development.

Recommendation

The results of the study revealed that in Ghana, foreign direct investment has a negative relationship with financial development. For foreign direct investment to fully contribute to financial development, issues of capital flight must be addressed. Policy makers should make policies that address issues of repatriation of profit made by foreign firms.

The results of the study mean that heavy dependence on external borrowing must be discouraged. In order to speed up financial development, policy makers must adopt policies that are expected to reduce the level of debt

burden, as well, the level of external debt must not reach unsustainable threshold. External debt must be kept at a level that avert debt overhang.

Policy makers should take pragmatic steps to channel remittances inflows to productive sectors of the economy.

Policy makers should make policies that will make foreign capital inflows complement domestic investment but not to replace domestic investment.

Suggestions for Further Research

The study captures domestic access to credit by the private sector and liquid liability as surrogate measures of financial development and obtained varying results. Further studies should consider including other measures of financial development given that different measures yielded different results. Also, the study adopts foreign direct investment, external debt and remittances inflows as surrogate measures of capital inflows. Further studies should as well consider other measures of capital inflows including but not limited to foreign portfolio investment, foreign aid. Further studies should consider estimating the threshold of external debt in Ghana.

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