Financial Inclusion and Poverty: A Study of Socio-Economic Factors Underlying Financial Exclusion in Ghana

by

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Abbreviations and Acronyms

APF	Access Possibilities Frontier
ARB	Association of Rural Banks
BOG	Bank of Ghana
CAR	Capital Adequacy Ratio
CBD	Central Business District
CUA	Ghana Co-operative Credit Unions Association
DFID	Department for International Development
EC	European Commission
ERP	Economic Recovery Program
FI	Financial Institutions
FINSAP	Financial Institutions Structural Adjustment Programs
FNGO	Financial Non- Governmental Organisation
GCB	Ghana Commercial Bank
GCSCA	Ghana Cooperative SUSU Collectors Association
GHAMFIN	Ghana Microfinance Network
GLSS	Ghana Living Standards Survey
GPRS	Ghana's Poverty Reduction Strategy
IDA	International Development Association
IFSC	International Financial Services Centre
IMF	International Monetary Fund
MASLOC	Microfinance and Small Loans Centre
MDGs	Millennium Development Goals
MEs	Microenterprises
MFIs	Microfinance Institutions

MPC	Monetary Policy Committee
MSEs	Micro and Small Scale Enterprises
NBFIs	Non-Bank Financial Institutions
NGOs	Non-governmental Organisations
NPART	Non-Performing Assets Recovery Trust
NPL	Non-Performing Loans
PCT	Personal Construct Theory
PNDC	Provisional National Defence Council
POH	Pecking Order Hypothesis
RCBs	Rural and Community Banks
RFM	Rural Financial Market
ROSCA	Rotating Savings and Credit Associations
S&L	Savings and Loans Companies
SAP	Structural Adjustment Programs
SSA	Sub-Saharan African
STT	Static Trade-off Theory
TFP	Total Factor Productivity
WOCCU	World Council of Credit Unions

CHAPTER 1

1.1 Introduction

The role of financial system and the relationship between broad access to finance and poverty reduction have come to be seen as significant aspects of development agenda in recent times. This is appropriate because various theories and empirical evidence have shown that financial development can lead to poverty reduction mainly in two ways. First, indirectly through its positive impact on growth and secondly, directly, if it causes restructuring of the financial system in a manner that widens access to financial services or makes credit available to the poor. However, whereas there is a wide array of empirical evidence on the former, suggesting significant and robust relationships between financial depth, growth, poverty and inequality[1], empirical evidence on the latter, which links finance more directly and broadly to the poor households, small firms and rural communities, has been very limited; thus providing only tentative guidance for public policy initiatives in this area despite its poverty reducing potentials (World Bank, 2008).

Research in this area of direct and broad access to finance, particularly from formal financial services, has even become more pressing when viewed from the fact that the majority of people in developing countries, especially in Sub-Saharan African (SSA), have been financially excluded from mainstream financial institutions. Many people, particularly the poor and small businesses, cannot access mainstream financial products such as a basic bank deposit account and affordable credits. It is believed that this situation imposes real cost not only on individuals and their households, who are often the most vulnerable in the society, but also on the community they live in. Lack of inclusive financial system suggests that poor households and

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[1]Financial depth and growth: Levine (1993); Levine 1997; Rajan and Zingales (1998), Demirguc-Kunt and Maksimoc (1998); Beck, Levine and Loaza, (2000) and Levine (2005).

micro and small scale enterprises (MSEs) may be forced to rely on an alternative high cost credit market, on their own wealth or internally generated meagre resources. Thus, their abilities to invest in their wards education, build profitable MSEs, or actively participate in and benefit from the growing opportunities are limited. The extent of the financial exclusion in developing countries therefore needs critical attention. This access problem is also echoed in the following quotation by the former UN Secretary General, Kofi Annan:[2]

> "The stark reality is that most poor people in the world still lack access to sustainable financial services, whether it is savings, credit or insurance. The great challenge before us is to address the constraints that exclude people from full participation in the financial sector.... Together, we can and must build inclusive financial sectors that help people improve their lives."

Whereas in many developed countries having a simple bank deposit account is a necessity, in most developing countries it is considered a luxury, to say the least. An analysis of formal financial system access indicator data produced by Beck *et al* (2007) shows that there is a wide disparity between developed and developing countries in terms of households' access to formal financial services. Whereas in developed countries the average number of adult population with access to formal finance is about 95 percent and 45 percent for emerging markets, the average access in Sub-Saharan Africa is below 23 percent[3]. This lends credence to the fact that financial exclusion, which is largely seen as a subset of the broader concept of social exclusion, is a poverty phenomenon. The formal banking sector has been reluctant to provide micro services to

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[2] This was in a speech delivered when UN Secretary General was announcing 2005 as the International Year of Microcredit in 29th December, 2003.

[3] See the Appendix for comparisons of a range of access to finance indicators across countries and regions globally.

the poor households and microenterprises due, perhaps, to their lack of viable collateral, perceived high risk and high transaction costs often associated with smallholders. These have left a huge gap in financial service provision to a vast majority of people.

In trying to fill this gap, most developing-countries' governments, donor agencies and NGOs have in the last three decades supported or directly set up micro-finance institutional schemes (MFIs). However, although the emergence of these MFIs has shown that providing direct access of finance to the poor is feasible, can be lucrative and also poverty reducing, their resources have been shown to be largely limited; both in terms of relative amount of funds available, coverage and capability to providing such services as micro savings and insurances to the poor. This, according to Barth and Calari (2006), has culminated in a large unbanked population in these countries.

A recent World Bank (2008) report, which highlights the importance of broad access to finance, contends that while it is important to learn from the experience of microfinance programs, there is a considerable scepticism about the ability of microfinance programs to reduce poverty, lower income inequality, or stimulate economic growth on the aggregate level. According to the report, one complexity associated with evaluating the aggregate ramifications of microfinance is that MFIs around the world have been very non-uniform, with significant penetration rates only in a few countries like Bangladesh, Indonesia and Thailand[4]. Thus, the emphasis should be shifted from microfinance to financial inclusion of the formal financial system to ensure greater accessibility, since it is not only the poor that lack financial services, but also the middle class and SMEs.

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[4] Honohan (2004b) has also shown that microfinance institutions reach less than 2% of the population in most countries.

In a similar viewpoint, DFID (2004) reporting on a study of financial development and poverty reduction, observes that MFIs cannot generally mobilize funds on a large scale and pool risks over very large areas in the way that more traditional, formal financial institutions can. And most MFIs have only limited coverage and can only reach minority of the bankable population. Thus, a widening of financial services provision by formal private sector institutions (such as commercial banks and insurance companies) is necessary to tackle this problem on an adequate scale, and the barriers to achieving this must therefore be identified and addressed where possible. For these reasons, the policy and research agenda of the development community in recent times with regard to household and small firms finance in developing countries have focused on the need to broaden access. The emphasis is on ensuring financial services to all people as part of embracing the concept of all-inclusive financial system as a tool for poverty reduction and facilitation towards the attainment of MDGs.

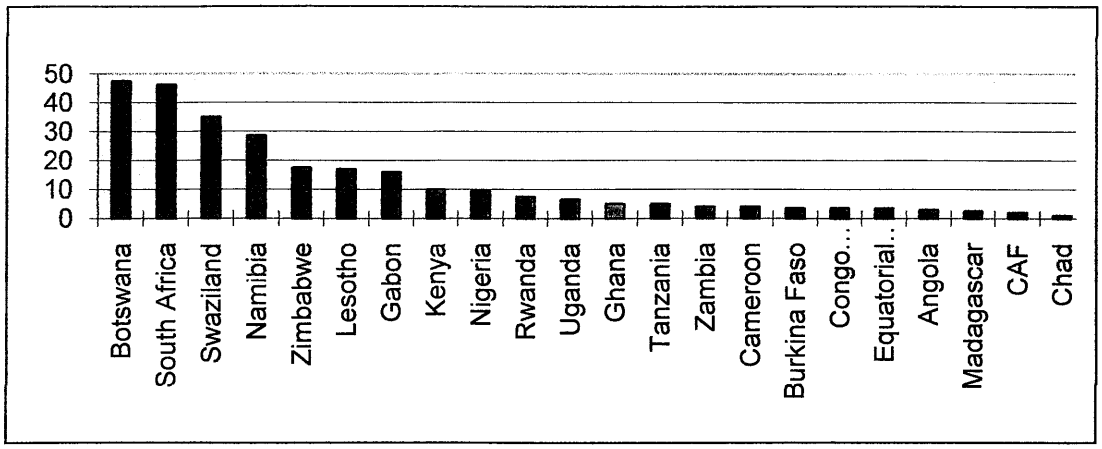
How then can we achieve a more financially inclusive society? We think that policymakers must first be aware of the underlying factors explaining the huge financial exclusion in most developing countries and the benefits a greater inclusiveness have on development outcomes. However, this is missing in the development finance literature, as there is a wide evidence gap particularly in African context. Very little is known about access constraints and underlying socio-economic factors driving financial exclusion in Ghana in particular, and in Africa as a whole. In this regard, we believe that for the purpose of achieving a more financially inclusive society, our collective understanding of the nature and extent of financial exclusion is crucial. Thus, undertaken an in-depth empirical study of this nature will not only fill the gap in the literature, but also help to identify the most appropriate policy response to addressing the issue of financial exclusion or building all-inclusive financial services.

1.2 Statement of the Problem

Ghana's effort at building financial inclusion can be said to have begun in the later part of 1980s when the country embarked on comprehensive reforms of the financial sector. Prior to this period, the country's financial system was shallow, fragmented and almost on the verge of collapsing as a result of excessive state control and weak institutional framework (Aryeetey and Udry, 1997). Mainly driven by liberalisation policies, significant efforts had since been made to enhance the soundness and competiveness of the banking system through an improved regulatory and supervisory framework, restructured and capitalised distressed banks; deregulated interest rates and credit allocations, developed capital market, reduced public-ownership of banks and allowed massive entry of foreign banks. All these were geared towards enhancing banking intermediation that would improve savings mobilisation and enhance the efficiency in credit allocation.

It is noteworthy, however, that while these efforts have yielded some positive results, especially in the area of banking competition and expansion in banks' total assets and branch networks, most of these new expansions are concentrated in urban centres or are mainly in the hands of few people – wealthy households and big firms. Thus, financial services are available only to a small percentage of the population. Access indicators provided by Beck *et al.* (2007) show that the formal banking sector's outreach in Ghana is one of the lowest in SSA, reaching only about 5 percent of the adult population with a bank deposit account.

Figure 1.1 Percentage of Adult Population with Bank Account in Sub-Saharan Africa



Source: Compiled from Beck *et al* (2005)

The inability of these formal institutions to meet the demands of households and MSEs has created a critical gap that needed to be filled. Consequently, Nissanke (2001) observes that since the reforms there has been a rapid increase in demand for savings and credit services from the informal and some semi-formal financial institutions such as the SUSU operators and financial NGOs. However, the apparent weakness, fragmentation and relative underdevelopment of the informal financial market in the country imply that neither the semi-formal nor the informal financial institutions has been able to meet the financing needs of the majority of the people excluded from mainstream formal finance. A study by Bank of Ghana (2007) on MFIs in Ghana, while acknowledging the important role MFIs play in reducing poverty, concludes that just like the formal banking sector, the MFIs have not been able to meet the financing needs of the rural poor and the majority of MSEs[5].

Despite these facts, the extent of financial exclusion and the underlying constraints in achieving financial inclusion have not been given enough attention by both policy makers and researchers

[5] Basu *et al* (2004) puts the total outreach of MFIs in Ghana to 60,000.

alike. Yet, it has been argued that without broad access or financial inclusion, financial market imperfections such as informational asymmetry, transaction and contract enforcement costs are more binding on the poor households or small entrepreneurs who lack collateral, credit histories and connections (Beck *et al*, 2007). In this regard, and in the context of Ghana's Poverty Reduction Strategy (GPRS) that seeks to reduce wide-spread poverty and growing income inequality, especially among the productive poor or those in the informal sector (who constitute about 80 percent of the working population in Ghana), removing access barriers to ensure all inclusive finance is imperative, if poverty is to be reduced significantly.

It is against this background that this empirical study takes a comprehensive look at the issue of financial exclusion in Ghana from both demand and supply perspectives. Focussing on the extent of availability, use and quality of financial services, particularly from mainstream formal financial institutions to marginal users, this study assesses the problem from three societal levels which are often on the fringes of formal finance – rural community, poor households and microenterprises.

1.4 Objectives of the Study

The study therefore seeks to generally investigate the drivers of financial exclusion and how inclusive finance can be used as a tool for facilitating poverty reduction in Ghana. The specific objectives are as follows:

1. To examine which socio-economic conditions of the household are important drivers of households' demand and use of basic savings account from commercial banks.

2. To examine the factors determining commercial banks' branch placement decisions or geographic penetration to rural communities in Ghana.

3. To investigate the underlying socio-cultural factors driving the majority of microentrepreneurs to voluntarily exclude themselves from seeking external finance, despite complaints of severe financial constraints.

4. To investigate the determinants of financing preference of Micro and Small Enterprises whilst distinguishing a broader range of financing sources beyond what is typically the case within the corporate finance literature.

5. To investigate the determinants of the performance of formal commercial banks compared to the traditional MFIs in microlending as it relates to non-performing loans and growth performance, largely from the perspectives of local branch managers within the context of Ghana's rural financial market.

6. To investigate how the nature and varying institutional sources of MSEs' financing influence MSEs' productivity edge and growth.

7. To assess the regulatory regime and key developments of the Ghana rural financial system in the pre and post reform periods, and to propose relevant policy recommendations to facilitate financial inclusion in Ghana.

1.3 Research Questions and Study Hypotheses

Demand Side Evidence

Focusing on demand deficiency problems or a situation where individuals, households and microenterprises face access to finance barriers due to their own socio-economic conditions, the study seeks answers to the following questions:

1. *At the household level:* To what extent do socio-economic conditions of the household are important drivers of the household's demand and use of a basic bank deposit account from a commercial bank.

   H_1: Household's demographic and socio-economic conditions are important drivers of financial exclusion in Ghana

2. *At the microenterprise level:* What are the underlying socio-cultural factors that drive the majority of microentrepreneurs to voluntarily exclude themselves from seeking external finance despite complaints of severe financial constraints?

   H_1: A microentrepreneur with negative past experience of seeking finance or with strong perceptions of access to finance difficulty is more likely to be voluntarily constrained (self-excluded)

   H_2: A microentrepreneur with negative perception about indebtedness or credit use based on certain cultural or religious beliefs is more likely to be voluntarily constrained (self-excluded)

   H_3: A risk averse or a high interest sensitive microentrepreneur is more likely to be voluntarily constrained (self-excluded)

   H_4: In areas where there are information gaps or information flow is slow, microentrepreneurs in such localities are more likely to be voluntarily constrained (self-excluded)

3. *At the microenterprise level:* i) Does a microentrepreneur relatively limited use of mainstream formal finance (as proven in a myriad of studies) a supply–side constraint or an issue of preference for other forms financing? ii) What determines MSE's financing pattern, does it conform to a hierarchical preference order as Pecking Order Hypothesis (POH) predicts?

H_1: MSEs' specific level characteristics are important in explaining external financing preference or access to formal finance

H_2: A microentrepreneur's demographic characteristics influence access to external finance and enterprise financing pattern

H_3: Microenterprises financing preference/pattern follows a hierarchical preference ordering ranging from: self-raised finance, bootstrap finance, informal finance, semi-formal finance to formal finance.

4. *Assessing impact of finance at the microenterprise level:* How do the nature and varying institutional sources of financing influence MSEs' productivity growth?

   H_1: Debt finance is more associated with MSE's productivity growth than both Grant and Self-raised finance.

   H_2: External Source of finance of any kind is more associated with MSE's productivity growth than Internal or Equity finance.

   H_3: A greater formality of institutional source of finance is more associated with MSE's productivity growth than a more informal source.

Supply Side Evidence

As problems of financial exclusion in Africa, in large part, emanate from inadequate supply of financial services, this study also focuses on supply constraints by asking the following questions:

5. *At the Community level:* What determines commercial banks' branch placement decision or geographic penetration to rural communities in Ghana?

   H_1: Geographic exclusion or banks' decision to open or close a bank in rural community is highly associated with existing state variables such as: macroeconomics fundamentals,

market size, physical infrastructure, available technology, contractual and informational framework and general level of security in the area.

6. *At the Financial Institutions level:* What are the incentives and disincentives for formal banks to engage in microenterprise financing in Ghana? Are the performance (both in terms of Non-performing loans and management own assessment of growth performance) of formal commercial banks in microfinancing different from the traditional MFIs?

   H_1: Outreach indicators such as cost, breadth, scope, depth and length are important determinants of performance in microenterprise financing

   H_2: A financial Institution's image and ownership type are important in explaining performance in microenterprise financing

1.5 Methodological Issues

The study employs a variety of econometric estimation methods to empirically analyse and run regressions to test the specified hypotheses. Among some of the econometric tools we employed are binary response models such as Probit and logistic regression estimations, multinomial response models such as Ordered Probit estimation and Ordinary Least Squares (OLS) estimation method for linear models. However, it is noteworthy that the choice of a methodology in answering a particular question is informed by the underlying theoretical framework and its practicability as far as the available datasets permit. For the exploratory parts, descriptive statistical tools, graphs and cross tabulations were employed where practicable.

1.6 Data Source

The study utilises two sources of datasets. The first is a primary data from a field survey in Ghana, which was undertaken in the period from August to September, 2009. The sampling procedure and the type of data collected have been explained in detail in Chapter 5 and 7 of this

thesis. The second data source was from Ghana Statistical Service's latest round of Ghana Living Standard Survey (GLSS 5) between September 2005 and September 2006, but launched in 2008. The GLSS 5 is a multi-purpose survey of households in Ghana, which collects information on the many different dimensions of households' living conditions. These datasets, which are collected on a countrywide basis, consist of 396 rural communities and a nationally representative sample of 8687 households. The survey covered a plethora of variables that include rural community characteristics, households' demographics, transfers, physical and basic financial assets, employments, health, education etc. The datasets also include a unique comprehensive baseline survey of some 5057 non-farm household micro and small-scale enterprises.

1.7 Organisation of the Study

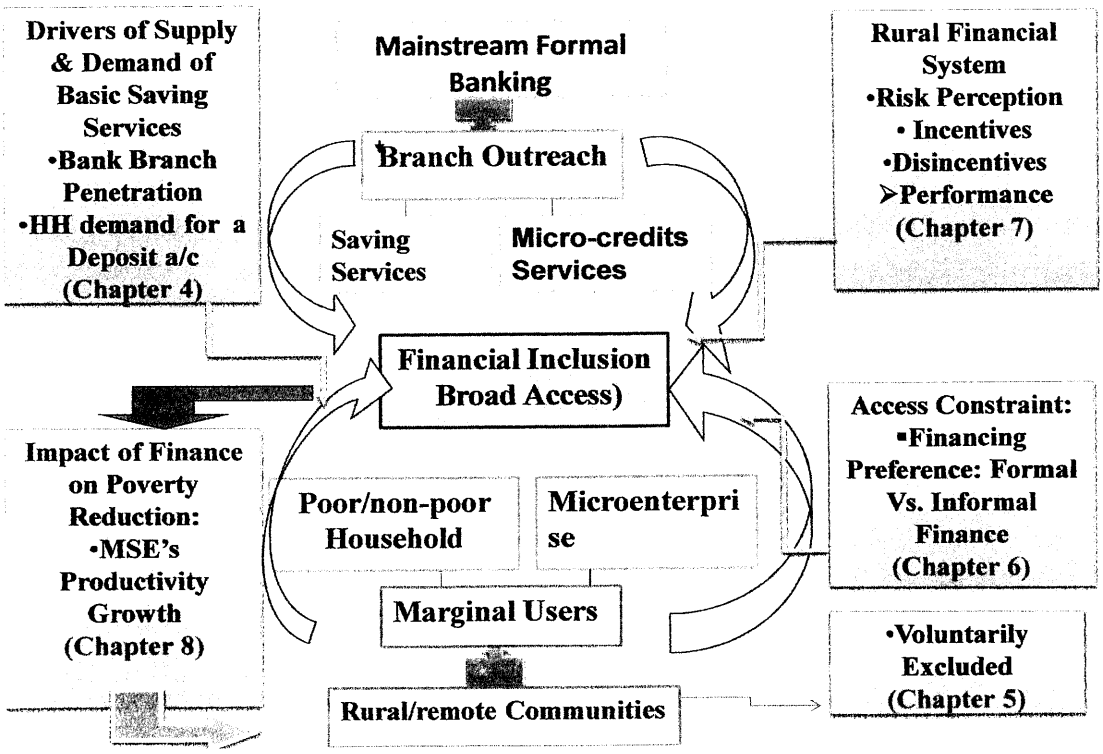
The study is organised in nine chapters including five main analytical chapters, which are based on the study's conceptual framework shown in the Figure 1.2 below. Following this introductory chapter is the Chapter 2, which takes an overview of the regulatory environment and key developments of the Ghana's financial sector in both the pre and post financial sector reforms. Ghana operates a three-tiered financial system in terms of regulatory framework, namely formal, semi-formal and informal financial systems. The first section of this chapter focuses on the regulatory environment and developments within mainstream formal banking industry. The second section reviews the semi-formal financial sector with focus on regulations, key developments and challenges. Similarly, the third section looks at the development in informal financial sector and the challenges facing it.

The next chapter is Chapter 3, which is organised in two main sections. First, the chapter reviews the generic literature underpinning the linkages (both directly and indirectly) through which finance affect poverty, highlighting its economic growth and income redistributive

effects as well as financial market imperfections that give rise to financial exclusion. Second, the chapter presents debates on basic notions, dimensions and typologies of what constitutes access to financial services and financial inclusion (or exclusion as the case may be) for the purpose of clarifying the concepts used in this study.

The study continues with the first empirical analysis in Chapter 4. This chapter focuses on the drivers of supply and demand for basic financial services in Ghana. The section two of this chapter explains the analytical frameworks of access possibility frontier for basic saving services, and model specifications. The third section focuses on data source and variable descriptions. The following section four discusses the results of the estimation of the model for determinants of banks outreach decisions, while section five discusses the results of the determinants of households' savings demand model. The sixth section summarizes the findings, policy recommendations and implications.

Figure 1.2 The Structure of the Dissertation



After the community and household-based study, the next chapter switches to microentrepreneurs' access constraints and external financing preference. The Chapter 5 evaluates perception and socio-cultural factors underlying voluntary self-exclusion or when a microentrepreneur chooses not to borrow. The section two of the chapter presents a conceptual framework for classification of constrained and unconstrained MEs and the development of the study hypotheses. Section three highlights data sources and preliminary survey results, section four presents econometrics specification and discussion of the results and finally the section five presents concluding remarks, policy implications and future research.

The Chapter 6 looks at the issue of the financing preference of those who choose to borrow. The Chapter proceeds as follows: section two briefly discusses the rural financial system in Ghana within the context of information asymmetry and formulates the study testable hypotheses. Section three presents data description and some qualitative analyses, while section four presents econometric specification and a discussion of the estimation results. Finally, section five concludes and highlights policy and further research implications of the findings.

Turning attention to providers of finance, Chapter 7 presents a comparative study of performance of the formal versus informal rural financial institutions in microenterprise financing in Ghana. Section two of this chapter presents an account of the evolution of microfinance in Ghana. Section three briefly explains the conceptual framework of analysis and presents specification of empirical models, and hypothesis development. Section four describes the data collection procedure and qualitative analysis of the preliminary results. Section five reports and discusses the regression results. Lastly, section six concludes with some policy recommendations.

Last but not least, the next analytical Chapter 8 focuses on sources of finance and their impacts on small enterprise productivity edge. Following the introduction is section two, which explores the theoretical and empirical literature of the relationship between sources of finance and productivity growth. Section three describes the data source and estimation procedure. Section four reports the estimation results and discussions. Finally, section five summarises the study findings and policy implications.

Finally, the last Chapter 9 summarises and concludes the entire study. The chapter begins with a synthesis of the study findings. The next section summarises the findings of the core analytical chapters of the dissertation as well as a summary of observation on the field. Following this section is the policy implications of the findings. In particular, the section briefly discusses the implications of the study findings and presents various policy options and recommendations for the government, monetary authorities and financial service providers. This is followed by the limitation of the study and future research considerations.

CHAPTER 2

Regulatory Regime and Key Developments in Ghana's Financial Sector

2.1 Introduction

This chapter takes an overview of the regulatory environment and key developments of the Ghana's financial sector in both the pre and post financial sector reforms. Ghana operates a three-tiered financial system in terms of regulatory framework, namely formal, semi-formal and informal financial systems. The first section of this chapter focuses on the regulatory environment and developments within mainstream formal banking industry. The second section reviews the semi-formal financial industry with focus on regulations, key developments and challenges. Similarly, the third section looks at the development in informal financial sector and the challenges confronting it.

2.2 The Pre-Financial Sector Reform Period in the Formal Sector

In 1983, the Government in collaboration with the World Bank and the International Monetary Fund (IMF) initiated comprehensive Economic Recovery Program (ERP) and the Structural Adjustment Programs (SAP) aimed at reversing more than a decade of poor economic conditions and downturns in Ghana. The policy reform in respect of the financial sector, however, began in 1988 and was referred to as the Financial Institutions Structural Adjustment Programs (FINSAP). Prior to this, the country's financial system can best be described as shallow, fragmented and almost on the verge of collapsing as a result of excessive state control and weak institutional framework (Aryeetey and Udry, 1997).

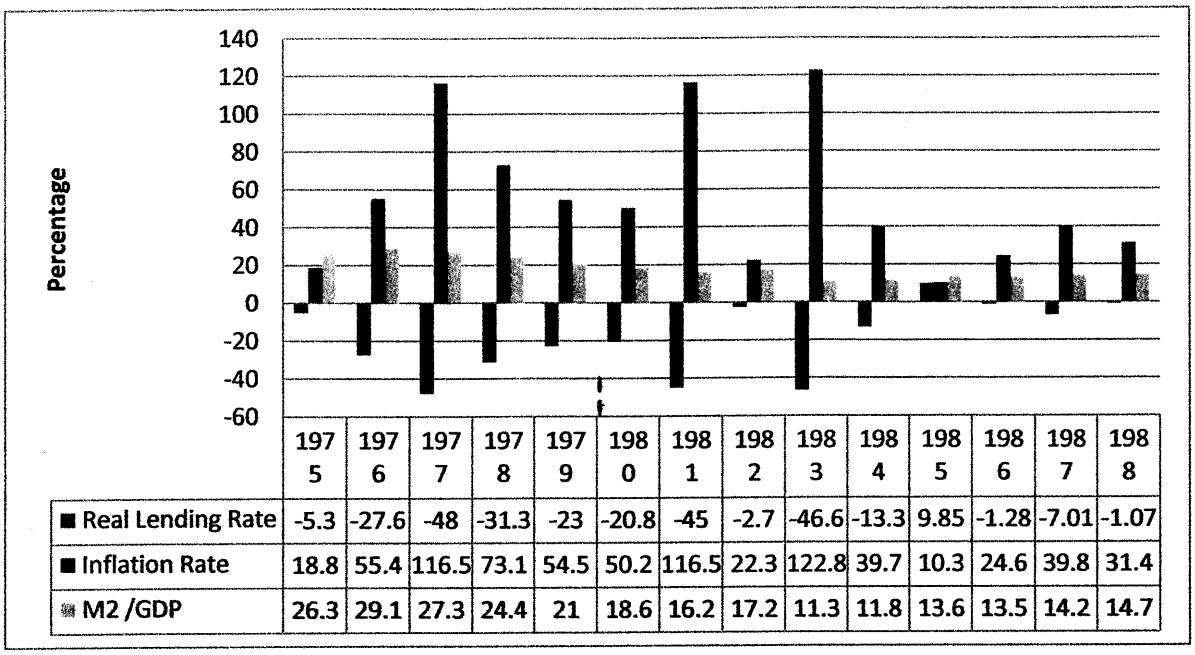
The government's interventionist approach began in the 1950s with the establishment of Ghana Commercial Bank (GCB) and Bank of Ghana (BOG) for both political and economic objectives. Directing the allocation of credit and controlling of interest rates were policy

responses to the skewed activities of the already existing two foreign banks. It must be argued that there is always a distinction between intervening in order to assist the market to function and intervening to replace the market (Stiglitz, 1998). However, it is believed the interventionist policies that dominated financial sector development in Ghana in the 1960s and 1970s were generally more of the latter type - replacing the market. These were encompassed in administered interest rates, sectoral credit guidelines and high reserve requirements, apparently to ensure credit flows to designated productive sectors of the economy. The monetary authority then strictly controlled interest rates in Ghana. The rational for this policy were informed by the desire to:

- Increase the level of investment;
- Improve the allocation of investment among the various productive sectors of the economy;
- Keep cost of borrowing down in order to avoid what was believed to be inflationary effects of liberalized markets rates of interest;
- Maintain low and stable interest rates to offset the perceived unfavourable effects of exorbitant rates in the informal financial markets.

In a bid to keep interest rates low to meet the above objectives, the monetary authorities operated a fixed interest rates regime by imposing a ceiling on the nominal interest rates.
This led to excess liquidity outside the banking system, which fuelled inflation and further weakened the monetary control powers of the BOG (Aryeetey, 1996). However, with inflation rate running at double or triple digits, real interest rates were persistently negative in the 1970's and early 1980's (see Figure 2.1).

Figure 2:1 Real Interest, Inflation Rate and M2/GDP



	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Real Lending Rate	-5.3	-27.6	-48	-31.3	-23	-20.8	-45	-2.7	-46.6	-13.3	9.85	-1.28	-7.01	-1.07
Inflation Rate	18.8	55.4	116.5	73.1	54.5	50.2	116.5	22.3	122.8	39.7	10.3	24.6	39.8	31.4
M2 /GDP	26.3	29.1	27.3	24.4	21	18.6	16.2	17.2	11.3	11.8	13.6	13.5	14.2	14.7

Source: Author's Computation from BOG Bulletins

In effect, many potential savers refrained from saving in the banking system. In addition, the low lending rates provided little incentive for commercial banks to lend money to the private sector. This again resulted in large excess liquidity in the banking system. For this reason and the fact that banks would have to pay interest on savings accounts, the commercial banks appeared to be discouraging potential depositors from opening savings accounts. Rather, customers were encouraged to open checking accounts, which did not attract interest payments (Sowa and Acquaye, 1999). The unintended consequences were a decrease in private savings and excessive aggregate demand, which among other things fuelled inflation to a record high of 123 percent in 1983 (see Figure 2.1).

As one of its policies measures in controlling aggregate money supply and containing inflation, the BOG further imposed high secondary reserve requirements, credit ceilings and sectoral credit guidelines on bank lending to the private sector. However, these polices also aggravated

the already excess cash reserve holdings of the banking sector since banks did not have enough suitable outlets to channel their funds. Credits were then allocated not on the basis of expected productivity of investment projects, but on transactions cost and default risk consideration – patronage, political clout, covert benefits to loan officers, etc (Aryeetey, 1996). The results were severe misallocation of resources and lack of competition among banks. These apparently did not only inhibit the development of an efficient financial market in the country, but also excluded the majority of the people from accessing formal finance.

The banking sector was consequently depressed as a study by World Bank (1988) on the Ghanaian banking sector revealed. According to the study, the banking sector was characterized by a wide range of problems such as (1) inefficiency and high operating costs; (2) huge non-performing loan portfolios; (3) inadequate provisions for loan losses, (4) insolvency of the banking system; (5) capital inadequacy; and (6) inflated profits. The study also showed that the banking sector had not been able to mobilize enough domestic saving because of the general economic decline and political instability during the 1970s and early 1980s.

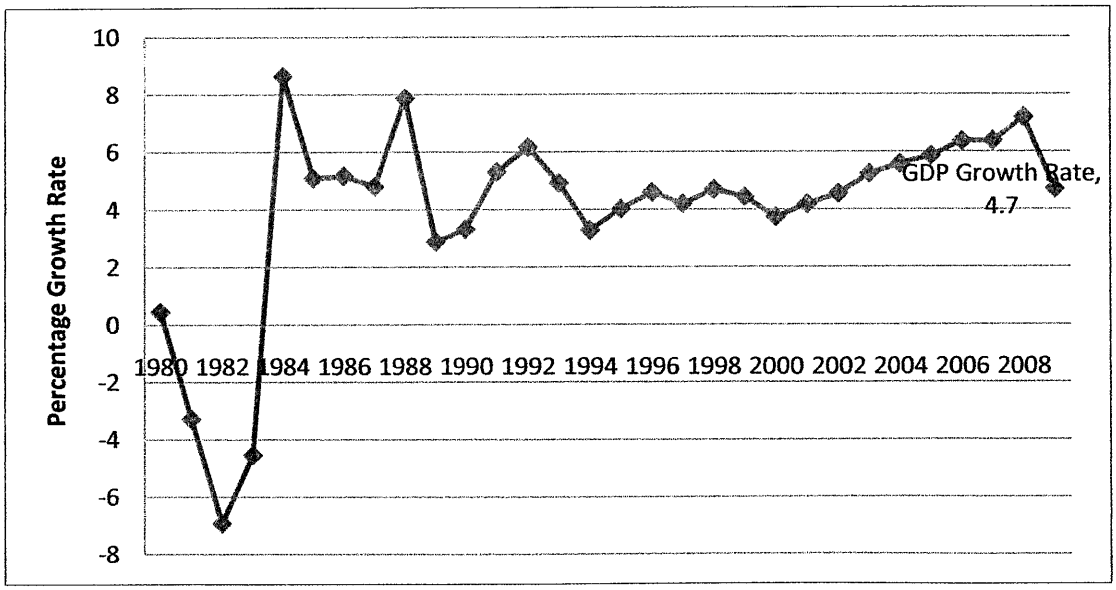
Furthermore, the lack of adequate prudential regulatory enforcement and supervision of commercial banks had also been a major contributory factor to the non-performance of the banking sector during the 1970s and early 1980s. In the absence of vigorous enforcement of prudential regulations and bank supervision, less attention was paid to the provision of required reserve and capital requirements. The consequence has been the insolvency of many banks during those periods.

The failures of the system at the time were profoundly reflected in the way various policies became dysfunctional. Broader macroeconomic indicators showed that Ghana lagged behind many African nations in terms of financial depth. The macroeconomic imbalances, such as high

inflation in large part caused by continuous government budget deficit, discouraged the public from holding financial assets and savings in the banking system. These resulted in large currency holdings and savings outside the banking sector and the creation of a booming informal financial sector, but at the same time large unbanked population. The dismal aftermath then necessitated the ERP/SAP and the subsequent FINSAP in 1988.

It is worth noting that the early results of the ERP saw a significant improvement in many of the macroeconomic indicators. For instance, inflation rate, which was over 100 percent in1983 declined to about 10 percent in 1985 whereas the negative real GDP growth rate of which averaged –3.6 between 1980 and 1983 reached a record high of 5.9 percent between 1984 and 1987 (see Figure 2.2).

Figure 2.2 Real GDP Growth Rate, 1980 - 2009



Source: Bank of Ghana (2008)

2.2.1 Financial Institutions Structural Adjustment Programs (The FINSAP)

As previously mentioned, supported by the World Bank and the IMF with a technical and financial assistance from IDA, Ghana government embarked on a comprehensive financial sector reforms in 1988, which became known as the Financial Institutions Structural Adjustment Programs (FINSAP). This was to address the emerging problems of the sector. The objectives of the program were to:

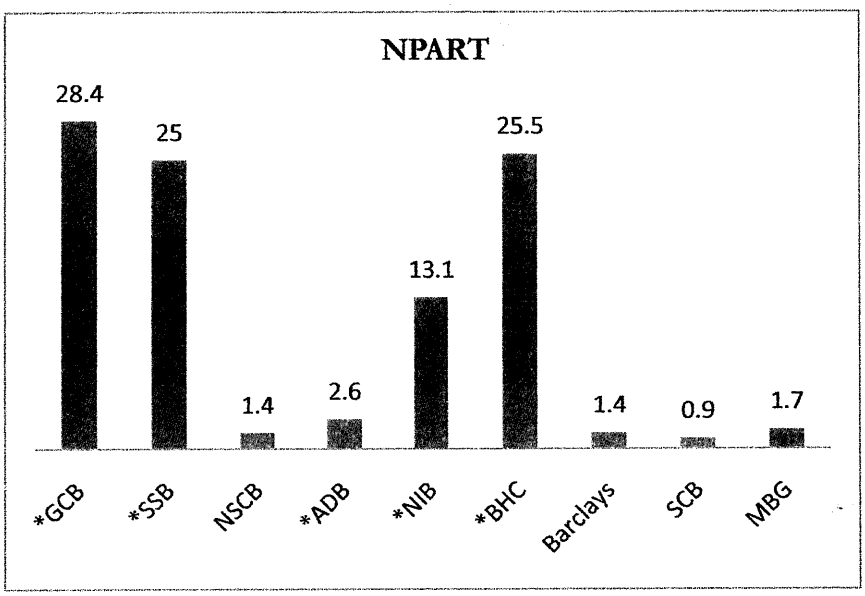
- Undertake restructuring of financially distressed banks;
- Improve savings mobilization and enhance the efficiency in credit allocation;
- Enhance the soundness of the banking system through an improved regulatory and supervisory framework;
- Develop money and capital/securities markets;
- Establish a non-performing assets recovery trust.

The restructuring of the distressed banks involved the following measures: (i) reconstitution and strengthening of affected banks' Board of Directors, (ii) closure of unprofitable branches, (iii) reduction of operating costs through retrenchment of staff, (iv) cleaning of balance sheets by off-loading non-performing loans to state-owned enterprises, loans guaranteed by the government of Ghana, and non-performing loans granted to the private sector. Other changes included upgrading managerial capacity and deficiency of distressed banks, intensified staff training for affected banks, and the provision of sufficient capital and liquidity to enable the distressed banks to operate in a self-sustaining manner after restructuring.

Part of the restructuring process also involved swapping government bond issues with non-performing loans (NPL), and other government-guaranteed obligations to state-owned enterprises. In addition, the non-performing assets of the distressed banks were transferred to a newly created and wholly government-owned agency, the Non-Performing Assets Recovery

Trust (NPART), whose mandate was to realize proceeds from such assets to the extent possible[6]. In return, the distressed banks were issued interest-bearing FINSAP bonds to be redeemed in annual instalments. Apparently, virtually all the NPAs had been incurred by banks wholly owned by the public sector (see Figure 2.3).

Figure 2.3 Non- Performing Assets Recovery Trust (NPART)



Note: This represents the ratio of non-performing assets (e.g. loans) to total assets of the banks.

Source: NPART, Annual Reports 1991 and 1994; Gockel *et al* (1997)

Between 1990 and 1992, a second restructuring exercise was introduced to complete the second phase of the reform exercise. This also became known as FINSAP 2. It had the following objectives:

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1. [6] Legislation (PNDC Law 242) for the Non-Performing Assets Recovery Trust (NPART) and its special judicial tribunal (Loans Recovery Trust) was enacted in February 1990. The Tribunal's mandate was to hear and determine all issues related to non-performing assets.

- To divest state-owned banks in consonance with the financial liberalization paradigm;
- To continue the bank restructuring program which was launched under FINSAP 1,
- To intensify the recovery of non-performing loans by NPART;
- To enhance and strengthen the effectiveness of a broad range of non-bank financial institutions.

In line with the policy of liberalizing the financial sector by reducing the state's direct involvement in the banking system, the government embarked on a policy of privatisation of state-owned banks. Further, under FINSAP 2, steps were taken to strengthen respective bank management and implement new procedures relating to credit risk management, financial management, and human resource management. New and computerized operating procedures were introduced in order to generate public confidence and customer satisfaction. However, the success of all these is, first and foremost, depends on good and effective regulatory and legal frameworks that guide the operation of the sector. In the section that follows, we explore the evolving legal and regulatory environment of the formal financial sector in the post reform period.

2.3 Post Reforms: Key Regulatory and Developments in the Banking Sector

2.3.1 Regulatory Framework and the Institutional Environment in the Formal Financial Sector

Since the inception of the reforms, mainstream Ghana banking sector had undergone a series of new Banking Acts, Amendments and Regulations; all are geared towards building a strong and relevant institutional environment capable of ensuring effective supervision and sound banking system. Prior to FINSAP, as previously mentioned, BOG did not effectively enforce the legal

framework provided by the 1970 Banking Act[7]. The Act also did not provide clear guidelines for minimum capital requirements, risk exposure, prudential lending limits for banks, provisions for possible loan losses, and methods for interest accrual on non-performing loans. Thus, a singular importance to the reform measures was the new Banking Law of 1989[8]. The new Banking Law gave more powers to the BOG to strengthen its inspection and supervisory functions. A comprehensive system of reporting was then introduced to enable BOG to carry out systematic on-site and off-site analyses of any bank's performance and financial condition. Furthermore, the law explicitly defined the minimum capital requirements for various types of banks and for bank ownership.

However, as the global financial regulations, architecture and infrastructure keep changing rapidly in response to frequent unanticipated crises, the central bank had no choice than to respond accordingly with a myriad of new regulations and amendments to its past laws. The belief was that the introduction of these wide-ranging regulations and measures would strengthen the regulatory and supervisory framework, while re-enforcing the ability of banks in Ghana to withstand shocks and protect the soundness of the financial system. Thus, in less than a decade, about 15 different laws and regulations pertaining to the banking industry alone had been passed. For example, in 2008 alone, the bank passed four laws namely, Borrowers and

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[7] The first explicit Banking Law for Ghana was Act 339 promulgated in 1970 to which specifically spelt out the assurance of bank solvency, bank liquidity, bank liquidity and the Bank of Ghana's supervisory powers. However, the financial crisis prior to the reform indicated that the BOG failed to live up to its responsibilities in the area of on-site inspection.

[8] A Legislative Instrument (LI 1329) augmented this law in 1988, which introduced capital adequacy requirements, was then replaced in 1989 by the Banking (1989).

Lenders Act, 2008 (Act773), the Non-Bank Financial Institution Act, 2008 (Act 774), Home Mortgage Finance Act, 2008 (Act 770) and the Anti-Money Laundering Act, 2008 (Act 749).

Preceding these laws was specific banking Acts and regulations that range from the passage of BOG Act (2002) to Banking Act 2004 and Banking (Amendment) Act, 2007 (See Table 2.1 below for a chronology of Acts introduced). Hereafter, I will discuss briefly the relevant portions of some of these Acts as they relate to access to finance.

2.3.2 BOG Act 2002 (Act 612)

The first important Act passed by the Parliament of Ghana in the start of the millennium was the BOG Act 2002 (Act 612). This Act, which came to replace the Bank of Ghana Law, 1992 PNDCL 291, seeks to provide the central bank with stronger regulatory and supervisory powers as well as asserting its operational independence from government. The preamble of the Act is to amend and consolidate the law relating to the Bank of Ghana and to provide for related matters. This Act redefines the primary objective of the bank as to solely maintain stability in the general level of prices. In this regard, the Bank shall, for the purposes of maintaining its core mandate of price stability, perform the following functions[9]:

- formulate and implement monetary policy aimed at achieving the objectives of the Bank;
- promote by monetary measures the stabilization of the value of the currency at all times;

[9] Another important legislation that came with the Act is that Government borrowing from the central bank in any year shall be limited to 10% of its revenue, which ties the hands of government and the central bank in a way that is much stricter than 20% ceiling which prevails in the CFA zone countries at the time.

- institute measures which are likely to have a favourable effect on the balance of payments, the state of public finances and the general development of the national economy;
- regulate, supervise and direct the banking and credit system and ensure the smooth operation of the financial sector;
- promote, regulate and supervise payment and settlement systems;
- issue and redeem the currency notes and coins;
- ensure effective maintenance and management of Ghana's external financial services;
- license, regulate, promote and supervise non-banking financial institutions;
- act as banker and financial adviser to the Government;
- promote and maintain relations with international banking and financial institutions and subject to the Constitution or any other relevant enactment, implement international monetary agreements to which Ghana is a party; and
- do all other things that are incidental or conducive to the efficient performance of its functions under this Act and any other enactment.

2.3.2.1 The Monetary Policy Committee and Conduct of Monetary Policy in Ghana

One fall-out of the BOG Act that has significantly changed the way the central bank conduct the monetary policy function is the establishment of the Monetary Policy Committee (MPC), which derives its mandate from the Act described above. The Act requires the establishment of an MPC to be responsible for formulating and implementing policy in the areas of money, banking and credit with the main aim of maintaining stable prices conducive to a balanced and stable economic growth as well as promoting and preserving monetary stability. The committee sets

an interest rate it believed to be consistent with an inflation target and an objective of growth[10]. The MPC is made up of seven (7) members with the Governor as the chair. The main objective of the committee is to work to achieve the primary objective of the bank (i.e., general price stability) and to bring down and maintain inflation at a single digit. The inflation target is announced each year in the national budget and this target is set jointly by the Central Bank and the Ministry of Finance. The MPC meets six times each year to deliberate on the economy and to fix the prime rate (or what is currently known as the policy rate)[11].

The MPC uses the prime rate as the key policy rate to set the stance of monetary policy. It is a signalling rate that sets the tone for monetary policy stance. This rate remains the main rate at which the Central Bank deals and transacts business with the Commercial Banks. As the main operational target, the Prime Rate, now known as the Policy Rate, also influences the short term money market rates, the medium term rates for open market operations, the deposit money banks' holdings of excess reserves and indeed their own lending and deposit rates. A band is set around the central target of +/- 2 percent. After debating on the issues exhaustively and weighing the balance of risks in inflation and output, each committee member makes a case for

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[10] Inflation targeting here means a framework for the conduct of monetary policy in which the central bank uses its policy instruments to drive inflation near a preannounced target.

[11] This Prime Rate in Ghana is like the Federal Discount Rate in the USA, which the Fed uses to control the supply of available funds, which in turn influences inflation and overall interest rates. It could also be likened to the benchmark official interest rate (or discount rate) in Japan set by the Bank of Japan's Policy Board in its Monetary Policy Meetings.

Table 2.1 Regulatory Regime of the Ghana Banking Industry since 2000

	Act Name	Act objective	Date of Assent
1	BOG Act 2002, Act 612	AN ACT to amend and consolidate the law relating to the Bank of Ghana and to provide for related matters.	24th Jan, 02
2	Universal Banking License, 2003	The Licence was introduced to permit banks with ¢70 billion in capital to carry out any form of banking without the need to acquire separate licences.	Jan. 03
3	Banking Act 2004, Act 673	AN ACT to amend and consolidate the laws relating to banking, to regulate institutions which carry on banking business and to provide for other related matters.	29th Jan, 04
4	Venture Capital Trust Fund Act 2004, Act 680	AN ACT to provide for the establishment of a Fund to be known as the Venture Capital Trust Fund to provide financial resources for the development and promotion of venture capital financing for SMEs in specified sectors; the management of the Fund and to provide for related matters.	17th Nov 04
5	Foreign Exchange Act, 2006, Act 723	AN ACT to provide for the exchange of foreign currency, for international payment transactions and foreign exchange transfers; to regulate foreign exchange business and to provide for related matters.	29th Dec, 06
6	Secondary Reserve, 2006	Secondary deposits reserves requirement (15%) was Abolished	2006
7	Banking (Amendment) Act, 2007, Act 738	AN ACT to amend the Banking Act, 2004 (Act 673) to facilitate the establishment of an International Financial Services Centre that seeks to attract foreign direct investment, income from license fees payable in foreign currencies.	18th June, 07
8	Central Securities Depository Act, 2007, Act 733	AN ACT to establish central securities depositories to regulate dealings in securities and to provide for related matters.	16th May, 07
9	Credit Reporting Act, 2007, Act 726	AN ACT to provide a framework for credit bureaus, to establish the conditions for credit reporting and to provide for related matters.	5th April, 07
10	Adoption of IFRS	Banks are to comply with International Financial Reporting Standard (IFRS)	1st Jan. 08
11	Anti-Money Laundering Act, 2008, Act 749	AN ACT to prohibit money laundering, establish a Financial Intelligence Centre and to provide for related matters.	22nd Jan. 08
12	Borrowers and Lenders Act, 2008, Act 773	An Act to provide the legal framework for credit, to improve standards of disclosure of information by borrowers and lenders, to prohibit certain credit practices, to promote a consistent enforcement framework related to credit, and to provide for related matters.	23rd Dec.08
13	Home Mortgage Finance Act, 2008, Act 770	AN ACT to regulate home mortgage financing and for related matters.	11th Dec.08.
14	Non-Bank FI Act, 2008, Act 774	An Act to provide for the regulation of non-bank financial institutions and for related purposes.	23rd Dec.08.

Source: Compiled from Bank of Ghana Archives

moving the key policy rate in a preferred direction, citing their economic reasoning. The majority vote represents the decision of the committee.

Additionally, the MPC is supposed to use certain transparency measures to enhance credibility to the policy framework. These include promulgation and publication of research; briefings of academia and market participants on technical issues; discussion of currency policy issues; and participation in (including hosting) conferences on inflation targeting issues.

2.3.3 Banking Act 2004 - In a Systematic Response to Basel II Accord

As the banking industries across Africa began bracing themselves to adopting the new risk-based supervision and a more complex capital adequacy framework, known as the Basel II[12], the BOG responded by repealing the existing banking Act (Banking Law 1989 (PNDCL 225) and replaced with Banking Act, 2004 (Act 673). This Act thus incorporates the requirements of the core principles of Basel II. Therefore, the main purpose of the Act was to amend and consolidate the laws relating to banking, to regulate institutions which carry on banking business and to provide for other related matters. Further, under this Act, in order to ensure that the local banking industry meets the more rigorous requirements of the Basle II and to make the

[12] In 2004 the Basel Committee on Banking Supervision revised the standards governing the capital adequacy of internationally active banks, also known as Basel I. The Basel I which had been in place since 1988, emphasised the 5 Cs of Credit - Character, Cash Flow, Collateral, Conditions and Capital, while the Basel II makes one single criterion by making significant alterations to the interpretation or the calculation of the capital requirement based on risk-weighted asset .

banking sector well capitalised, the minimum capital adequacy ratio was increased from 6 percent to 10 percent.

Furthermore, in line with the Basel II, the BOG has begun putting in place measures to align the country's supervision methodology to a more Risk-Based Supervisory Approach since 2007. However, it recognizes that the effectiveness of the risk based supervision would invariably depend on banks' preparedness in certain critical areas, such as quality and reliability of data, soundness of systems and technology, appropriateness of risk control mechanism, supporting human resources and organizational back-up.

Consequently, banks operating in the local industry are expected to construct and report the risk profile of the assets they carry within the medium to long-term in order to adequately justify their capital allocation processes. Moreover, banks are also expected to disclose their assessment of the risk levels of the various sectors in which they invest and to continually adjust their provisioning levels as the complexion of risk changes in those sectors. Even though this new Basel II Accord is expected to be fully operational in Ghana beginning 1st January 2011, a Ghana Banking Survey Report (2010) observes that it would represent the most significant change to the supervision of Banks, where the focus will be on establishing how much capital a bank requires, given its risk profile and improve risk management.

The following are some of the specific provisions of the law that guide the fundamental conduct of the commercial banks in the country:

- acceptance of deposits and other repayable funds from the public
- lending
- money transmission services

- issuing and administering means of payment including credit cards, travellers cheques and bankers' drafts
- guarantees and commitments
- trading for own account or for account of customers in money market instruments and foreign exchange
- advice to undertakings on capital structure, acquisition and merger of undertaking
- credit reference services
- safe custody of valuables
- electronic banking and
- any other services as the Bank of Ghana may determine

The Act also spells out restrictions on commercial, agricultural or industrial activities and immovable property that banks can engage in. In particular, a bank shall not directly engage in any commercial, agricultural or industrial undertaking unless it establishes for that purpose a subsidiary company of the bank registered in Ghana. Furthermore, the equity capital invested in a subsidiary company by the bank shall not exceed fifteen per cent of the net worth of the bank and where the bank has more than one subsidiary company, the equity capital invested in those subsidiary companies by the bank shall not exceed in the aggregate twenty-five per cent of the net worth of the bank. Again, in order to control loans and advances and exposure to risk, the banks must ensure the following: The aggregate amount of any loan, advance, credit or other facility and equity capital which a bank may grant and invest shall not at any one time exceed (a) twenty-five per cent of the net worth of the bank, in the case where the bank owns one subsidiary company; or (b) thirty-five per cent of the net worth of the bank, in the case where the bank owns more than one subsidiary company.

2.3.4 The New Banking (Amendment) Act, 2007 Act (738) -*Introducing Off-shore Financial Centre*

In furtherance of the liberalisation policies in the banking system and to further give more freedom to the financial institutions to be innovative, diversify their products, integrate into international markets and spread the risks both domestically and internationally, the BOG amended the Banking Act 2004 in 2007. The Banking (Amendment) Act was passed on June 18th 2007 to introduce an International Financial Services Centre (IFSC), otherwise known as Off-shore Banking, as a key aspect of BOG financial sector development strategy. The Act provides the framework for an international services gateway that would provide access to a diversified range of financial instruments and services on the global financial market. The Act is one of the pieces of overall legislative reforms, including the New Foreign Exchange Act, 2006, to develop an efficient financial services industry in Ghana with the outside world. The Act provides three categories of banking licence;

- Class I Banking Licence: allows the holder to transact domestic banking business, currently classified as Universal Banking Licence.
- Class II Banking Licence: allows the holder to conduct banking business or investment banking business with non-residents and other Class II bank licence holders in currencies other than the Ghanaian currency except to the extent permitted by the Bank of Ghana for trading on the foreign exchange market of Ghana and investment in money market instruments; and

• General Banking Licence: allows both Class I and Class II banking business in and from within Ghana.

The primary orientation of banking business under the class II is towards non residents, suggesting also that foreign banks can now establish branches in Ghana to undertake financial services. A BOG (2008) study points out that Off-shore banking enjoys a favourable regulatory

environment (i.e., low supervisory requirements and minimal information disclosure). Consequently, the financial system, for that matter the country as a whole, stands to gain a great deal from large volumes of foreign currency deposits, which will form the basis for developing more lending solutions to Ghana's private sector so as to help generate employments and create wealth. Furthermore, with the avowed aim of making the country a gateway to West Africa financial hub and linking the Ghanaian economy to global markets, the BOG believes that the introduction of Off-shore banking will facilitate these in areas such as aircraft financing and leasing, ship registration, trust incorporations, assets management, insurance, pension funds, and consultancy services.

However, the BOG has put in place a strict policy of licensing only reputable and internationally active banks in order to forestall any potential risks that offshore-banking may pose to the domestic financial stability. In light of this, Barclays Bank of Ghana Limited - a fully-owned subsidiary of Barclays Bank PLC, UK - is the first and only one bank (out of the 26 banks currently operating in the country) that had been issued with the General Banking License (that combines both Classes I and II licenses) since 2008. This allowed Barclays Bank of Ghana Limited to operate the first banking business under the International Banking component of the IFSC.

2.3.5 Key Developments and Performs of the Banking Industry

2.3.5.1 Universal Banking and Minimum Capital Requirements

The universal banking concept was introduced in Ghana in January 2003. This was a departure from decades of operating a special purpose compartment/categorisation of banking and financial services, where three-pillar banking model existed – development, merchant and

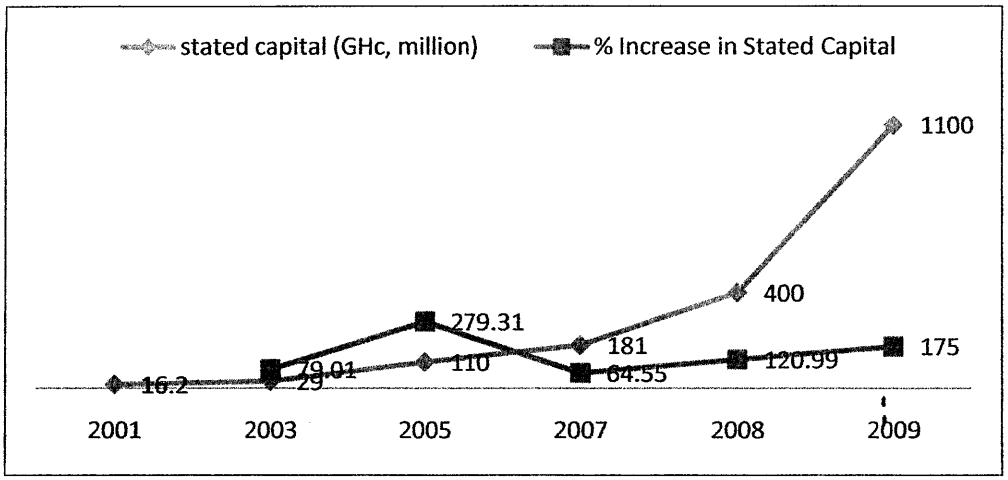
commercial banking. The universal licence has allowed the banks to undertake retail, merchant, development, and/or investment banking without the need to acquire separate licences. In order to ensure well capitalised institutions with the capability to meet the enormous challenges universal banking presents, BOG, in 2003, issued a directive requiring all banks to increase their stated capital to GH¢7million by the end of 2006 in order to hold a universal banking licence. A Ghana Banking Survey (2008) reveals that all banks in operation at the time of this directive complied with this BOG directive before the expiry of the deadline. This thereby increased the industry's stated capital from GH¢29million (2003) to GH¢181million (2007).

In early 2008, after the New Banking (Amendment) Act (2007), BOG issued another directive to all banks that in order to obtain a Class 1 banking license (Universal Banking), foreign banks operating in the country were to increase minimum capital requirement to at least GH¢60 million by the end of 2009, while the local banks were to increase theirs to at least GH¢25 million by the end of 2012. A report by BOG suggests that most foreign banks by the end of the expiry period 31st December 2009 had complied and increased their stated capital to at least the GH¢60 million required, whereas some of the local banks had already met the required capital even before the expiry date in 2012.

2.3.5.2 The Impact of Regulatory Capital Changes

These increases in the regulatory capital mean the banking industry is now well capitalised as the Figure 4.2 below reveals. The industry's stated capital had increased from GH¢16.2 million in 2001 to about GH¢1100 million at the end of 2009, representing a growth of more than 6690%. In each of the year considered, the growth rate had been more than 100% and well over 200% in some cases.

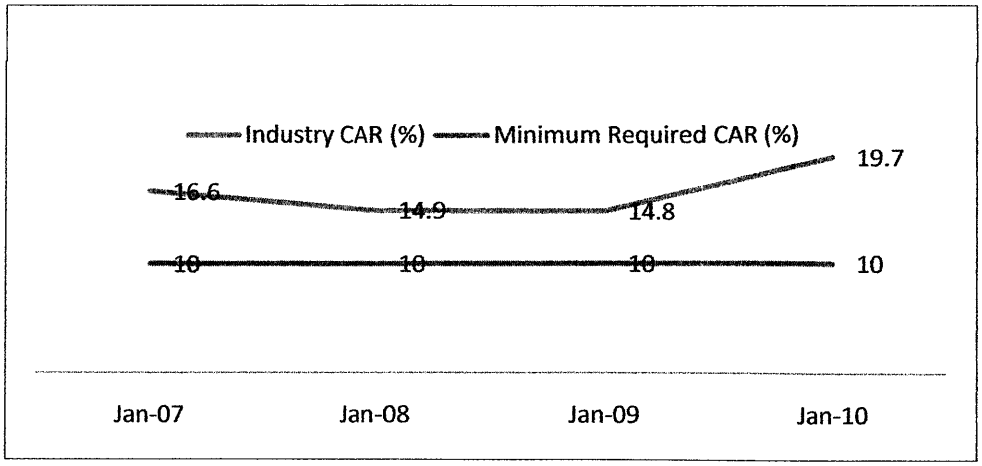
Figure 2.4 Growths in Stated Capital of the Banking Industry



Source: Data from Financial Stability Report (2010) and Ghana Banking Survey Reports

Moreover, there has also been a significant increase in the industry's capital adequacy ratio (CAR), as measured by the ratio of risk weighted capital to risk-weighted assets (or ratio of adjusted equity base to risk adjusted asset base). For example, it increased from 14.8 percent in 2009 to 19.7 percent in February 2010 (Figure 2.5). Thus, even though the minimum capital adequacy is currently set at 10%, the actual values have been consistently kept above 14% since the new rates were announced.

Figure 2.5 Capital Adequacy Ratio (CAR)

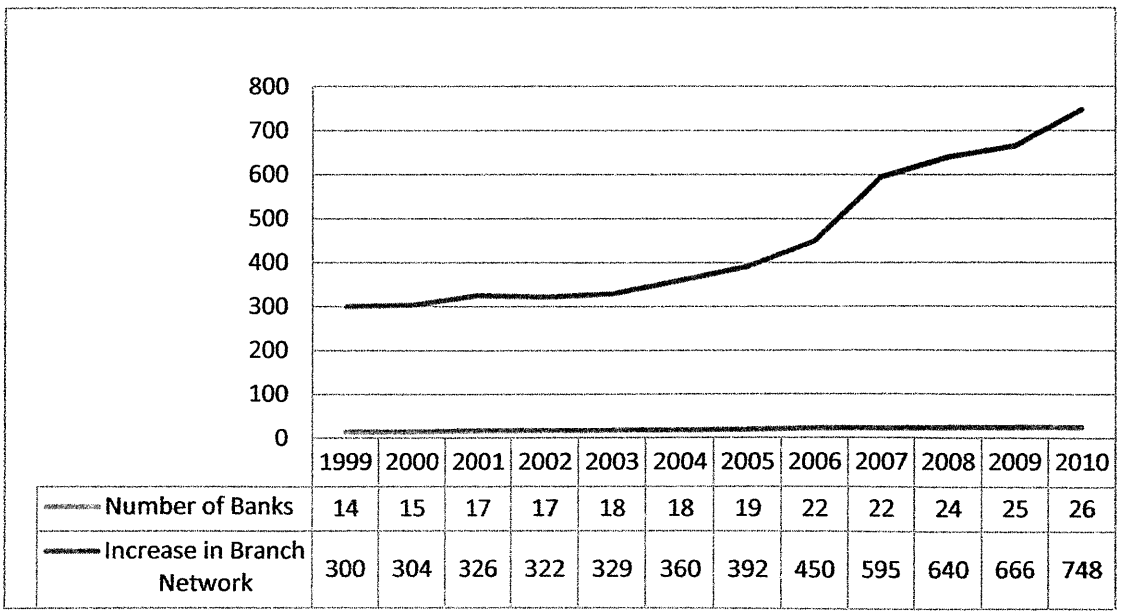


Source: Data from Financial Stability Report (2010) and Ghana Banking Survey Reports

2.3.5.3 Banks Entry, Branch Networks and Operating Assets

What do all the increases in regulatory capital mean for the banking industry? The banking industry is currently one of the fastest growing sectors in the country. The widely deregulated environment and the introduction of the universal banking concept as well as the relatively stable macroeconomic environment have resulted in the banking industry witnessing a phenomenal growth in the number of new entrants and the most remarkable expansion in banks' network of branches (see Figure 2.6 below). For example, as at the time of the financial sector reforms in 1989, there were not more than 9 commercial banks operating in the country. But, in a little over two decades after the inception of the reform, the number of banks had consistently increased year by year to its present number of 26 (see the Figure 2.6). Out of this, 14 are foreign owned (or majority shareholders) and 12 have local ownership (with government having majority shares in only 3 of these banks). Likewise, the Figure 2.6 below reveals that the number of branches had increased from 300 in 2000 to 748 by the end of mid-2010, representing a growth of more than 146% in a decade.

Figure 2.6 Banks Entry and Expansion in Branch Network



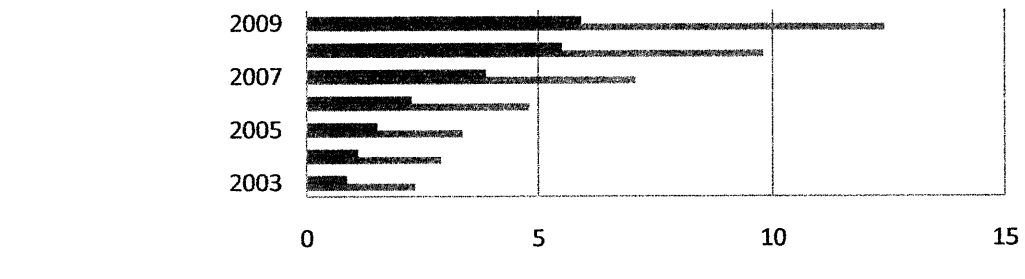
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Banks	14	15	17	17	18	18	19	22	22	24	25	26
Increase in Branch Network	300	304	326	322	329	360	392	450	595	640	666	748

Source: Data from BOG

2.3.5.4 Developments in the Banking Industry's Operating Assets

Another knock-on effect of the massive injection of capital is the continued increase in total operating assets of the banking industry. This indicates a growing capacity of banks to do business and create value for stakeholders. The Figure 2.7 reveals that the total operating assets of the industry had increased from GH¢ 2.3 billion in 2003 to approximately GH¢12.42 billion in 2009, representing a growth of well over 400% over the period. The bank's operating assets mainly consist of three components - Net loans and advances, cash assets and liquid assets. However, net loans and advances have over the years constituted the most significant component of operating assets, averaging close to 50% since 2003.

Figure 2.7 Operating Assets and Net Loans and Advances (Gh, Billion)



	2003	2004	2005	2006	2007	2008	2009
Net Loans and Advances	0.89	1.13	1.58	2.3	3.88	5.51	5.92
Operating Assets	2.37	2.92	3.39	4.82	7.08	9.8	12.42

Source: Data from BOG and Ghana Banking Survey (2006-2010)

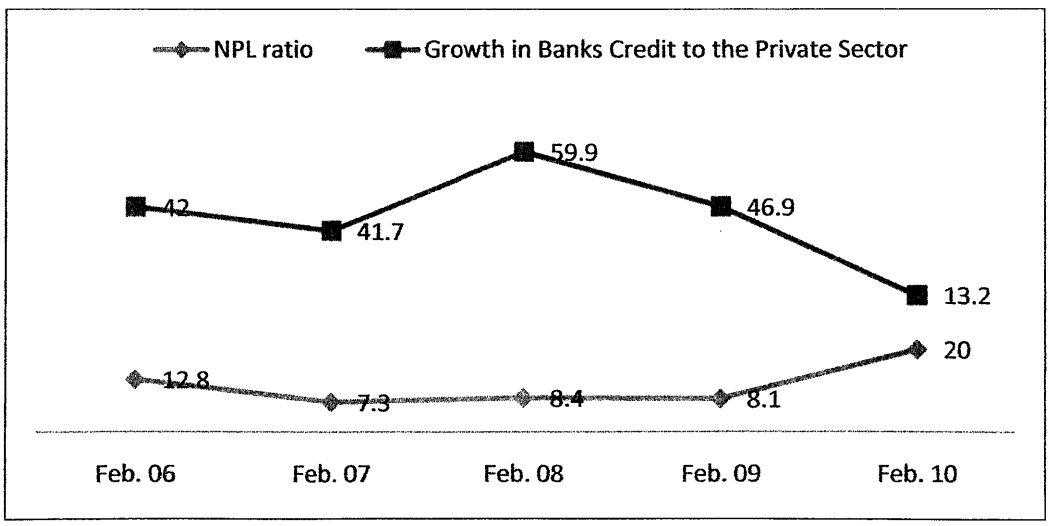
In terms of liabilities of the banking industry, there have not been any significant changes in its structure over the years. Deposits continue to be the main source of funding for the banks, consistently averaging about 64 percent of total liabilities in the past decade (BOG, 2010).

Other major components of liabilities are borrowings and shareholder funds. The share of shareholder fund or equity capital, however, increased marginally from approximately 11 percent in 2007 to about 13.3 percent at the end of 2009.

2.3.5.5 Emerging Challenges - Rising NPL, High Interest Spread and Falling Profitability

Despite a plethora of banking Acts and regulations introduced and the resultant considerable improvements in the regulatory landscape, the banking industry is still bedevilled with some challenges, especially the deteriorating quality of its assets in recent times. As noted above, the high solvency of banks resulting from a series of recapitalisations, had led to massive increases in banks' lending. In particular, Ghana Banking Survey (2008) reports that a key result of compliance with recapitalisation directive in 2007 was that bank lending increased from GH¢1.055billion (2003) to GH¢2.464billion (2007), representing an increase of 133 percent. Thereafter, the growth of credit had been kept well over 40 percent until a dramatic downturned in 2009 - when there was a sharp declined to 13.2 percent (see Figure 11).

Figure 2.8 NPL Ratios and Growth in Private Sector Credit



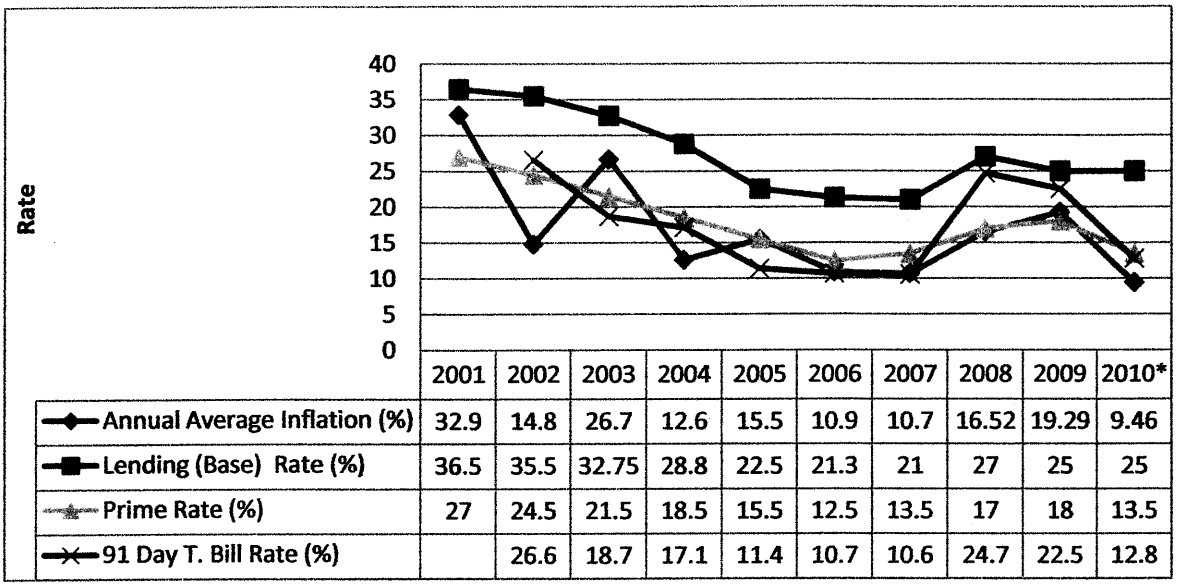
Source: Data from BOG Stability Report (2010)

This sharp downturned in credit growth is believed to be a result of a tightening (particularly of retail credit to small enterprises and households) response to a sharp upturned in impairment allowances for non-performing loans (NPL). The quality of loan portfolio of the banking industry as measured by NPL ratio increased to 20 percent in February 2010 from 8.1 percent in the corresponding period in 2009. Although this increase in NPL has been partly attributed to the global financial crisis and the resulting unfavourable macro- economic conditions that prevailed for most part of 2008/2009, the banks might also have been pushed to give "toxic loans" (loans which has a high risk of default) or not-so-good credit decisions made by banks in the preceding years. The industry watchers believed that there is a temptation of bad lending to erode the gains made thus far, as banks have capital on their books in volumes unprecedented in Ghana's economic history, for which they need to find profitable business to generate returns for providers of capital (Ghana Banking Survey, 2008). There are also concerns whether Ghana's economy would have enough capacity and opportunities to create effective demand for the amount of capital that had been injected into the banking industry - notwithstanding the recent oil find which is expected to bring inflow of capital, create employment (and turn the country's fortune around).

Another challenge in the banking industry, for that matter in the overall macroeconomic environment, is the wide spread between lending rates and interest payment on deposits. Even though all major macroeconomic indicators such as inflation rates, Treasury bill rates and BOG prime rate show downward trends in recent times, the lending base rates by the banks are much higher (see Figure 2.9). The country reached a single-digit inflation (9.46 percent) in the third quarter of 2010 for the first time in many years, while the policy rate (which is an indicative rate around which all the other rates revolve) had also fallen from a high of 18 percent in 2008 to 13.4 percent by mid-year 2010. Yet, the base rates (i.e., the minimum lending rate quote by

banks) have refused to fall as expected. The base rates are still around 25-27 percent - albeit the actual rates charged are between 30-34%.

Figure 2.9 Financial Indicators



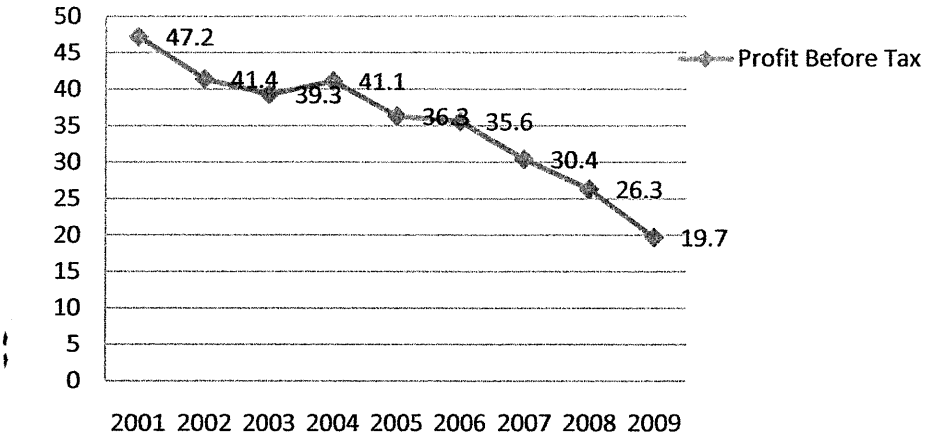
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*
Annual Average Inflation (%)	32.9	14.8	26.7	12.6	15.5	10.9	10.7	16.52	19.29	9.46
Lending (Base) Rate (%)	36.5	35.5	32.75	28.8	22.5	21.3	21	27	25	25
Prime Rate (%)	27	24.5	21.5	18.5	15.5	12.5	13.5	17	18	13.5
91 Day T. Bill Rate (%)		26.6	18.7	17.1	11.4	10.7	10.6	24.7	22.5	12.8

Note: 2010* refers to mid-year indicators. Source: BOG Financial Development Reports (2010)

Meanwhile, deposit rates have been kept so low at about 5 percent, raising questions about the intermediation efficiency of the banking industry. Furthermore, a Ghana Banking Survey (2008) Report observes that in addition to asset quality becoming impaired over time, the industry is also at risk of inappropriate interest pricing by banks as they seek to ensure positive returns, over and above the hurdle available to shareholders.

Interestingly, however, the industry's percentage of profits before tax has been nose-diving since 2001. From a high of 47.2 percent in 2001, profits had plunged to 19.7 percent in 2009 (Figure 2.10). Although this might signal a keen competition in the industry, as a result of influx of foreign banks the declining Treasury bill rates (as it forms a significant component of banks liquid assets) cannot not be overlooked.

Figure 2.10 Percentage of Banks' Profit Before Tax



Source: Data from Ghana Banking Survey Reports (2006; 2008; 2010)

Moreover, costs of compliance of many regulations that have been introduced might be having a toll on banks profitability as they have to invest in training to enhance the quality of their workforce or engage the services of a consultant to unravel the complexities surrounding many of the new regulations. The challenge therefore for the banks now is how to be more ingenious with their portfolio, reaching out to the vast majority of the unbanked population, while remaining profitable and at the same time minimising their risk exposures.

2.3.6 Rural Banking Regulations and Key Developments

2.3.6.1 History of Rural and Community Banks in Ghana

The Rural and Community Banks (hereafter referred to as RCBs) were established in 1976 as unit banks owned by members of the rural community through purchase of shares. They were registered under the Companies Code 1963, Act 179 as a public limited liability company and licensed by the Bank of Ghana under the then Banking Law, as repealed by the Banking Act

2004, (Act 673). However, the operations of RCBs are limited to a clearly-defined geographical (rural) area, and are permitted to offer banking services limited to loans and to checking, savings and time deposits. They cannot undertake foreign exchange operations, and their minimum capital requirement is significantly lower than the commercial banks[13].

The main purpose of establishing the RCBs was to expand savings mobilization and credit services in rural areas not served by the commercial and development banks. The traditional mainstream banking institutions were all structured, equipped and managed as city-centered institutions with their clients mostly in the export/import business and in the mining sector. It was, therefore, necessary to bring the rural population into the banking system under rules designed to suit their socio-economic circumstances and the peculiarities of their occupation in farming and craft-making. After the initial set-up in few places, the number expanded rapidly in the early 1980s to almost all the 10 regions of Ghana. This was believed to be in response to the demand for rural banking services created by the government's introduction of special cheques instead of cash payments to cocoa farmers.

Steel and Andah (2003) observe that the small number of rural outlets of commercial banks was woefully inadequate to meet the demand to cash these cheques, let alone provide other banking services. This was creating undue hardships on farmers who often had to travel long distances or spent days at the banks to cash their checks. More RCBs and agencies were, therefore, hurriedly opened to help service areas without banking facilities. However, soon after their

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[13] For example, while the commercial banks Minimum Initial Paid-Up Capital was pegged at GH¢7million by the latest Banking (Amendment) Act, 2007 Act (738), that of RCBs was not to be less than fifty thousand Ghana Cedis (GH¢50,000). This, however, has since 2008 been increased to GHc150, 000 for new entrants, while the existing RCBs have been advised by BOG to take steps to attain this new level in due course.

establishment, most of the RCBs (about 100 out of 123 at the time) were hit by the economic turmoil in the early 1980s, and many were reported to have been in a serious distress, leading to their classification as "unsatisfactory" in 1992. A combination of factors such as rapid inflation rates, currency depreciation, economic decline, mismanagement of funds and natural disasters (especially in 1983) as well as weak supervision were believed to be the underlying factors to the near collapse of the entire RCBs (Steel and Andah, 2003). It took the intervention of a World Bank's Rural Finance Project in the period from 1990 to 1994 to address their obvious need for re-capitalization and capacity building. Even with these policy interventions, 23 had their licence revoked and closed down by1999.

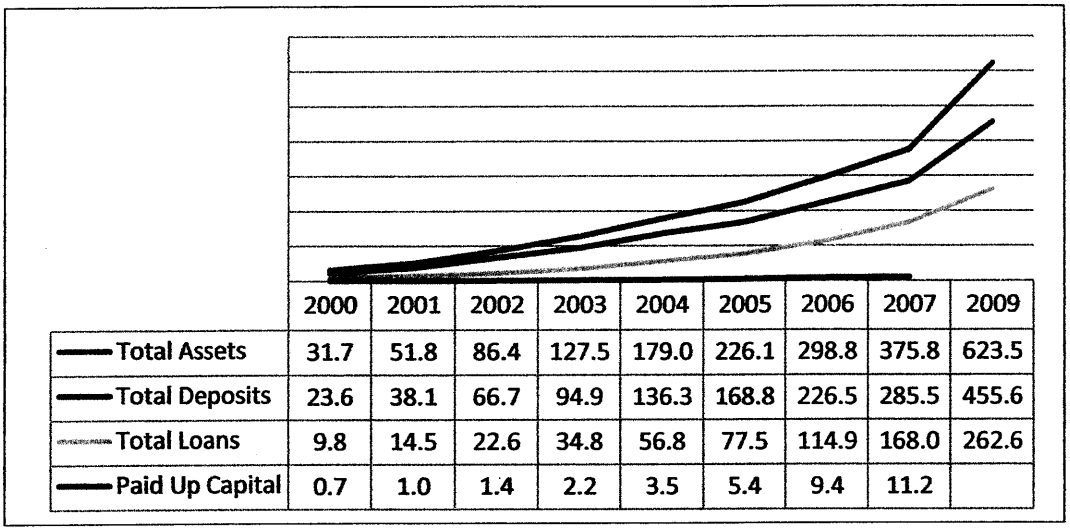
2.3.6.2 The Establishment of ARB Apex Bank and Recent Developments

The problems, as described above, also necessitated the establishment of an umbrella organisation known as the Association of Rural Banks (ARB) Apex Bank Limited, which was incorporated as a public limited liability company on 4th January, 2000. Its shareholders are the Rural and Community banks and serves as a mini central bank in this sub-sector under the regulation of 2004 Banking Act of Ghana. The ARB Apex Bank Limited is responsible for the effective implementation of all the banking laws and regulations pertaining to the sector in Ghana. Specifically, its main objectives are, but not limited to, the following: (a) promote the interest of the members of the Bank through the provision of banking services; and the provision of related non-banking services; and (b) engage in banking business.

All the RCBs are mandated to belong to the ARB membership and hold shares in this company. It is noteworthy that since the ARB Apex Bank began operations, the fortunes of most RCBs have been turned around. Most of them are now churning out substantial profits. For example, the recent sterling performances of the many reflect in the fact that the total assets of the sector had increased more than 20 folds from GHc 31.7 million in 2000 to about GHc623.5 million by

the end of December 2009 (see Figure 2.11). The former represents about 5% of the operating assets of all the commercial/universal banks.

Figure 2.11 Assets and Liabilities of RCBs

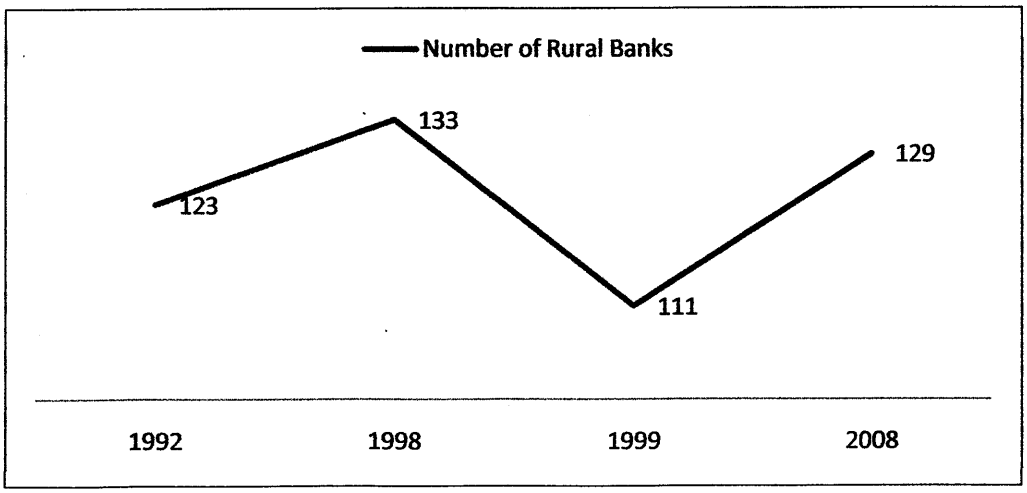


	2000	2001	2002	2003	2004	2005	2006	2007	2009
Total Assets	31.7	51.8	86.4	127.5	179.0	226.1	298.8	375.8	623.5
Total Deposits	23.6	38.1	66.7	94.9	136.3	168.8	226.5	285.5	455.6
Total Loans	9.8	14.5	22.6	34.8	56.8	77.5	114.9	168.0	262.6
Paid Up Capital	0.7	1.0	1.4	2.2	3.5	5.4	9.4	11.2	

Source: ARB Apex Bank

The number of banks also increased considerably over the period. For instance, from a low of 111 in 1998, their number had increased to 129 in 2008 with about 486 agencies or branch networks that are scattered across the length and breadth of all the ten regions of Ghana.

Figure 2.12 Number of Rural Banks



Source: ARB Apex Bank

Today, the RCBs are driving the rural banking industry with important financial services to ensure growth in a predominantly agro-based economy. The majority of these banks are now undertaking mix microfinance and commercial banking activities structured to satisfy the needs of the rural people. They provide banking services by way of savings mobilization and credit to cottage industry operators, farmers, fishermen and regular salaried employees. They also grant credits to customers for the payment of their wards school fees, acquisition/rehabilitation of houses and to meet medical expenses as well as offering scholarships to needy and brilliant students. Sometimes, they also provide other essential social amenities in their area of operations. Furthermore, as indicated by the ARB recent report, some of the RCBs are also devoting part of their profits to meet social developmental activities such as specific gender programmes focusing on women-in-development and credit-with-education activities for rural women.

2.3.6.3 Challenges

However, despite these achievements, most of the rural banks remain under-capitalised and weak, which are hampering their effective intermediations in their catchment areas. Even though at the time of this study, the number of RCBs had reached 136, 15 had been earmarked for liquidation by the BOG. According to the BOG auditor's report, this is due to the fact that their operations are considered impractical and unsatisfactory. Besides, their engagements in operational and reputation risks could pose a bigger risk to the entire financial sector. Another, challenge the RCBs are facing is competition from the commercial banks in recent times. Since the inception of the universal banking concept, most of the commercial banks are beginning to open branches in areas which hitherto were preserved of the RCBs. These banks are not only attracting customers with enticing packages and products, but also poaching some of the experience workforce of the RCBs.

In the midst of these challenges, however, there are increasing criticisms that the RCBs are deviating from their core mandate of serving the rural communities and small scale farmers. Most of them tend to open branches in the big cities or serve mostly the rural elites, wealthy farmers, contractors and importers to the neglect of the peasant farmers and microentrepreneurs, who may equally (or even much more) need credit to survive or grow their businesses. To overcome some of these challenges, therefore, the RCBs through the Apex bank should be encouraged to establish strong management systems, adopt innovative business portfolios and penetrate into remote communities in order to avoid the competition being posed by the universal banks' infiltration into their catchment zones.

2.4 Non-Bank Financial Institutions (NBFIs) - the semi-formal institutions

2.4.1 Regulatory Regime and Key Developments

Likewise the commercial banks, the regulations and rules governing the Non-Bank Financial Institutions (NBFIs) since the FINSAP have evolved with the changing market conditions. These regulations have either tempted to open up opportunities for new types of institutions or, where necessary, tightened up to restrain excessive entry and weak performance as a result of previous inadequate supervision or regulatory capacity. The first Financial Institutions [Non-Banking] Law was passed in 1993, (PNDC Law 328). However, the law was repealed in 2008 and replaced with NBFI Act, 2008. Before the coming into effect of this new law, the previous Act specified nine types of financial activity or business that fall under the ambit of its regulation.

These were further grouped under three broad classifications, namely Deposit taking Institutions, Non-deposit taking Institutions in credit business and Discount houses. By function, all but two categories of the nine were credit institutions – Discount Houses and Venture Capital fund Companies which were described as investment companies (the Box 2.1 below

presents a description of all the nine NBFIs categories). However, in the coming into force of this new Act (2008), the NBFs have been reclassified and regulated based on their business orientation as follows:

- Leasing Operations
- Money lending operations
- Money Transfer services
- Mortgage Finance operations
- Non-deposit-taking microfinance services
- Credit Union operations

This means that NBFIs that were previously grouped as Acceptance Houses, Building Societies and Discount Houses have now been reclassified under the appropriate categories as specified above. However, in the case of Credit Unions (i.e., mutually-owned cooperative associations of individual members), although they are required to be registered and licensed by the BOG under the NBFI Law, they are still regulated under the Co-operative Societies Act, 1968 (NLCD 252).

Further, the majority of the NBFIs that are engaged in microfinance, such as the S&L and Credit Unions as well as the financial NGOs, belong to an umbrella organization called Ghana Micro Finance Network (GHAMF1N). This is an informal network of institutions and organisations that operates within Ghana's Microfinance Industry. The organisation provides staff training and organizational capacity-building assistance and disseminates best practice guidelines and standards for governance, operations and performance efficiency.

Box 2.1: Core Business of NBFIs Categories

Credit Unions are mutually owned (i.e.co operative) organizations formed by homogenous group[s] or interest for mobilization of savings from members for meeting their credit needs.

Finance Houses are companies engaged in the provision of a range of financial services but principally providing consumer credit and business finance. They may also provide other financial services as may be specifically authorized by the licensing authority.

Leasing Companies undertake the business of leasing of equipment, heavy-duty vehicles and such other assets, and mostly provide credit under finance lease contracts.

Mortgage Finance Companies are companies engaged in lending funds for acquisition of residential and commercial property which are secured by mortgages on the properties financed. Additionally, they may deal in the securities collateralized by such mortgages.

Discount Houses are companies that intermediate between inter-bank money market participants as also between banks and the Central Bank [BOG] under special agency/refinance arrangements with the latter, for management of liquidity in the money market.

Sources: Excerpted from BOG NBFIs Business Rules, 2000"

They invest in money market assets, notably in short-dated Government securities, T. bill and inter-bank placements/repos/money market loans and take wholesale/call deposits for funding them.

Savings and Loans Companies (S&L) engage in mobilization of retail savings by acceptance of deposits from the public - mainly, households and small business enterprises and provide credit largely with target group orientation (such as micro and small business financing) but also extending personal /consumer credits and finance to mid-market business. Target group oriented credits are usually "linked to savings".

Venture Capital Finance Companies are those specializing in financing the risk capital needs of new and unlisted/high-risk business enterprises ['Greenfield ventures'] by investing in their equity or equity cum debt.

Acceptance Houses engage in the specialised business of lending primarily their name rather than funds; this they do by accepting bills drawn on them usually under credits established in favour of approved customers to finance trade. They may also provide credit by discounting commercial bills of exchange.

Building Societies are mutually owned (i.e. co-operative) organizations promoted for mobilization of savings from members for the purpose of financing their residential/home mortgages.

2.4.2 Regulatory Capital of some NBFIs

With regard to the regulatory capital, it is noteworthy that Savings and Loans Companies, Finance Houses, and deposit-taking microfinance institutions would now be regulated under the Banking Act 2004 (Act 673) as amended. Hence, their regulatory limits are quite similar to mainstream banking industry – albeit significantly lower in terms of minimum capital requirement and CAR (see Table 2.2); and they are also precluded from foreign exchange transactions and direct clearing of cheques. In the case of mortgage and leasing companies, however, their minimum paid-up capital is a little higher than the S&L's. This has even been revised upwards to GHc4.0 million by the end of 2011. They are also expected to maintain a maximum gearing ratio of eight (8) times their paid up capital with effect from January 2012. The minimum capital requirement for new entries is, however, GHc6.0 million, which the existing ones are to comply by the end of 2013.

Table 2.2 NBFI Regulatory Limits

Category	Regulatory Limit
Minimum Capital	GHc1 million
Capital Adequacy Ratio (CAR)	8%
Gearing Ratio (GR) – Number of time borrowings or liabilities could exceed your capital	8
Liquid Assets Ratio	Nil
Single Exposure/Obligor Limit (Secured)	25%
Single Exposure/Obligor Limit (Unsecured)	10%

Source: Bank of Ghana

2.4.3 Key Developments in NBFIs

The NBFIs have experienced tremendous growth in number and in industry's total assets. In 1994, a year after the passage of the first NBFI law, there were only 4 institutions, but in less

than two decades the number had jumped to 45, representing a growth of more than 1000 percent (see Table 2.3).

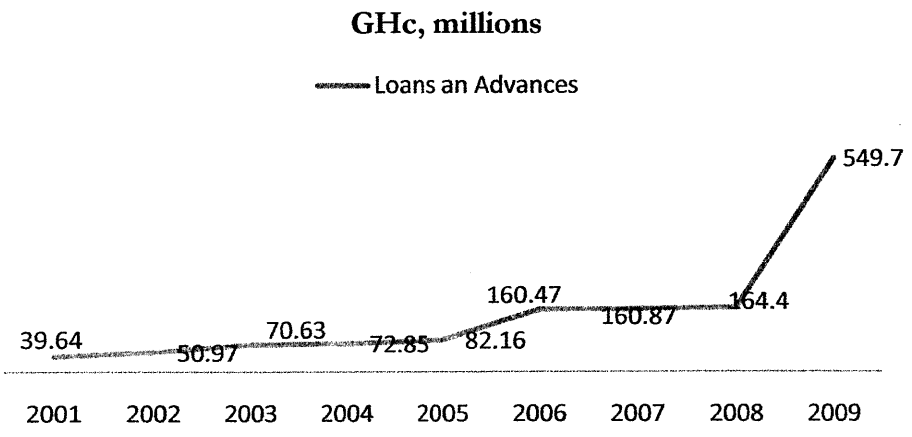
Table 2.3: Growth of Licensed NBFIs by Type

Type of NBFI	1994	1995	1998	2001	2009
Savings & Loans	2	5	7	8	18
Leasing & Finance	0	5	6	6	7
Finance Houses	0	7	12	16	19
Discount Companies	1	2	3	3	-
Building Societies	1	2	2	2	-
Venture Capital	0	1	1	2	-
Mortgage Finance	0	1	1	1	1
Total (excluding CUs)	4	23	32	38	45

Source: Bank of Ghana and Steel and Andah, (2002)

Excluding CUs, the industry's total assets also grew more than three-fold in five years, from GH¢145 million in 2003 to GH¢608.3 million in 2008, representing 5.7% of total assets of the commercial banks. This further increased by 53.6% to GH¢938.1 million in 2009. A greater proportion of these assets were loans and savings that had grown from GH¢39.6 million in 2001 to GH¢549.7 million at the end of 2009, representing a growth of 1288% (Figure 2.13).

Figure 2.13 NBFIs Loans and Advances



Source: Bank of Ghana

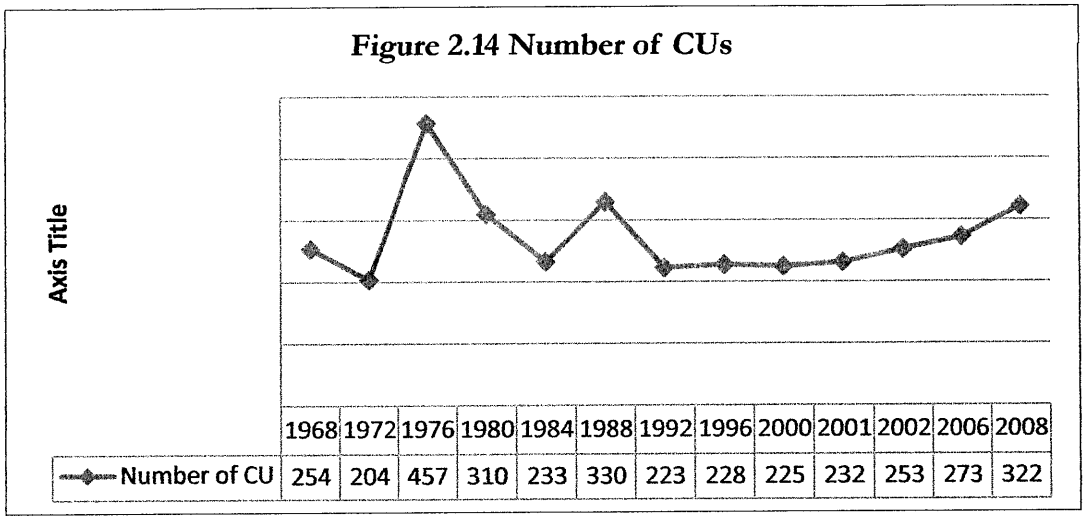
With respect to individual categories, it is S&L and Finance Houses that have witnessed substantial growths in the last decade. For example, the number of S&L in the country increased from 8 in 2001 to 18 in 2009 with their total assets increasing simultaneously by more than thirty-fold from GH¢7.8m to about GH¢280 respectively. These upward- trending assets, particularly loans and advances, which mainly go to individuals, micro and small enterprises, indicate marked improvements in the level of microfinance activities in the country.

2.4.4 Developments within the Credit Unions of Ghana

The Credit Unions in Ghana are under the umbrella organisation of Ghana Co-operative Credit Unions Association (CUA) Limited. This association was incorporated in 1968 as an apex body when it became clear that the number of pre-existing CUs were growing and expanding not only in the Northern part of Ghana (where it all began), but also across the Southern part. Thus, there was a need for an oversight institution. The primary objectives of CUA were to organise, promote, educate, and support the CU movement both nationally and internationally. By the end of the first year of its establishment, CUs number increased to 254 with some 60,000 membership. This number continued to grow to almost 500 by the mid-1970s.

However, according to Steel and Andah (2003), their financial performance was weak as a result of poor macroeconomic condition in the 1970s. The worst catastrophe, however, happened in 1983/84 when over 60% of CUs collapsed when the country's economy was in serious doldrums. This was a consequence of severe prolong droughts and the early effect of ERP/SAP. The Privatisation of SOEs and the subsequent redeployment led many workers to be laid off and most of CUs managers embarked on exodus to Nigeria, a neighbouring country, in such of jobs (Ghana CUA 2002).

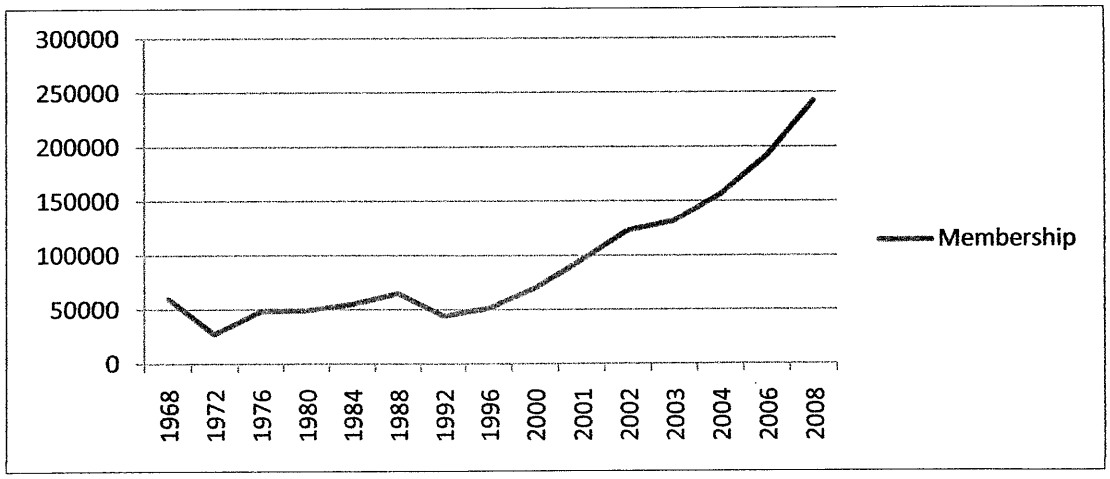
Figure 2.14 The Number of Credit Unions (CUs)



Source: Credit Union Association of Ghana

A combination of restructuring, new regulations and development assistants, especially the introduction of the Ghana Co-operative Credit Union Development Assistance Project (supported by Canadian Government) in 1995, turned the fortunes of the association around. Today, CUA is an integral part of the growth process in the NBFIs sub-sector.

Figure 2.15 Memberships of CUs



Source: Credit Union Association of Ghana

There has been a phenomenal growth in their membership and total assets since 1995 - although the entry of new group or primary societies has been slow but steadier (see Figure 2.13). As of end of 2008, the CUA had 322 member CUs that served 242,000 individual memberships across the country and held US$107 million in total assets. Their sterling performance in recent times has also facilitated their admittance into the membership of the World Council of Credit Unions (WOCCU) in 2009.

2.4.4.1 Challenges

However, there are challenges that have to be overcome, if the growth process is to be sustained. First, the current cutthroat competition emanating from numerous S&L, Financial NGOs, Financing Houses as well as the commercial banking sector entering the microcredit industry must be a great challenge for the CUA, if they are to maintain their membership and break into a new market niche. As the commercial banks are frequently rolling-out innovative financial products with competitive terms and credit retailing, the CUs must innovate and step-up their memberships drive to ensure their sustainability. Second, the regulatory and supervisory powers of CUA are weak, thus its inability to instil discipline and prudential standards in the operations of members. Even though a new Credit Union Act (CUA) is said to be in the offing that will spell out the supervisory functions of CUA as the registering authority, there is an urgent need to strengthen its prudential regulation and on-site supervision.

2.4.5 Financial NGOs

It is important to note that the regulatory act, NBFI Act, 2008 applies to all the NBFIs except financial NGOs (FNGOs). Even though these institutions are engaged in microfinance services, their capital and assets are not up to the amounts prescribed by the BOG and their sources of funds do not include deposits from the public. Thus, for such NGOs, although they provide microloans, they are still considered as trust entities or charitable institutions, whose license to

operate falls under the provisions of the Law on Trusts and Charitable Institutions. In this regard, to a large extent, the FNGOs can be described as unregulated since, to date, there is no specific, legal, prudential regulation and supervision framework governing the operations of the subsector.

That notwithstanding, their operations are legitimised as a MFI when they register with GHAMFIN. Currently, there are about 62 of FNGOs that have registered with GHAMFIN; but it is believed a greater number remain unregistered, and operate illegally. Their clients' base had increased from 60,000 in 2004 to about 130,000 in 2009, with women constituting more than 85 percent. Operating mainly in the rural areas, the FNGOs have about 1357 branch network or agencies scattered around the country. Some of the notable NGOs providing microfinance services in the country are Action Aid Ghana, Sinapi Aba Trust, Widows and Orphans Ministry, Christian Mothers Association, Catholic Relief Service, Hopeline Institute, Ghana Developing Communities Association (GDCA), Youth Development Foundation and a host of others.

2.5 Informal Financial Institutions

The informal financial system refers to the entire range of financial institutions that do not rely on formal nor semiformal contractual obligations enforced through a codified Ghana's legal system or any banking regulations. The informal financial system covers a range of activities known as *SUSU*, (this includes individual savings collectors, rotating savings and credit associations (ROSCA) and moneylenders as well as credit from friends and relatives. To date, there has not been any formal regulation governing the sector, except for the Money Lenders Act, 1941 (Cap 176), which had since been repealed after the coming into force of NBFIs Act 2008. Therefore, the operators of the traditional microfinance industry, particularly the SUSU, are presently loosely governed by a self-regulatory framework, put together by an umbrella

organisation, the Ghana Cooperative Susu Collectors Association (GCSCA) - adopted with the institutional support from the BOG and the Ministry of Finance.

2.5.1 How does the SUSU operation Work?

As a long time traditional saving and credit scheme, the SUSU collectors offer very flexible financial services, which are patronized mainly by small traders at the market or micro-entrepreneur selling from roadside stalls and even households with meagre incomes from farms or laboring work (See the Box 2.2 below for types of SUSU operators). Accepting an agreed upon amount and intervals for collection from a saver, the SUSU collector makes his daily rounds and collects a similar amount over a month rolling period from each of his customers. At the end of the period, the collector pays out lump sum or a large one-time payment of money to the customers, while retaining one day's payment at the end of the month from each customer for his services. This contract does not involve any legal documentation or paperwork, except for a piece of card/book where daily collections are recorded. They are primarily based on trust, personal or business relationship.

Aryeetey (1994) observes that the SUSU operators differ from rural bank or any other kind of financial institutions or group- based organizations, such as the Grameen Bank, in that they are individual entrepreneurs who perform a financial service without any capital of their own. He provided evidence from surveys of three market-places in Ghana that suggests that they could intermediate more fully - use the funds they obtain from savers to lend to borrowers - if they had access to temporary liquidity. Again, the SUSU system functions as a financial management service, where depositors commonly use the accumulated funds not only as working capital to restock their supplies, but also by pledging to set aside savings for their susu collector, market women can protect their savings from the incessant appeals of family and friends.

Box 2.2: Types of SUSU (savings collection) in Ghana

Ghana has at least five different types of institutions known as, or offering products termed SUSU

SUSU collectors: individuals who collect daily amounts set by each of their clients (e.g., traders in the market) and return the accumulated amount at the end of the month, minus one day's amount as a commission.

SUSU associations or mutualistic groups are of two types: (i) a *rotating* savings and credit association (ROSCA), whose members regularly (e.g., weekly or monthly) contribute a fixed amount that is allocated to each member in turn (according to lottery, bidding, or other system that the group establishes); (ii) *accumulating*, whose members make regular contributions and whose funds may be lent to members or paid out under certain circumstances (e.g., death of a family member).

SUSU clubs are a combination of the above systems operated by a single individual, in which members commit to saving toward a sum that each decides over a 50- or 100-week cycle, paying a 10 percent commission on each payment and an additional fee when they are advanced the targeted amount earlier in the cycle; they have existed at least since the mid-1970s, quite likely earlier.

SUSU companies existed only in the late 1980s as registered businesses whose employees collected daily savings using regular SUSU collector methodology, but promised loans (typically twice the amount saved) after a minimum period of at least six months.

Some licensed financial institutions (commercial banks, insurance companies, RCBs, S&Ls, and credit unions) have offered a systematic savings plan termed "SUSU," sometimes hiring employees to go out and gather the savings in the manner of a SUSU collector. The State Insurance Corporation first introduced such a "Money Back" product in the 1980s, including a life insurance benefit for clients as an additional incentive to mobilize savings, but the scheme was discontinued in 1999.

Sources: Culled from World Bank. Finding (234), 2004

2.5.2 Challenges

There is no doubt that the informal financial system plays a crucial role in meeting the financing needs of the majority of the peoppe who do not have access to the formal financial institutions. Yet, the sector is fraught with a plethora of challenges. In particular is the SUSU operation which is facing challenges that stem from, illegality, fraud, competition and weak linkages with the other sectors. Further, there are problems with security on clients' savings and security to the Susu collectors themselves as well as lack of transformation and modernization of their

services. According to the Ghana Cooperative Susu Collectors Association (GCSCA), the worst of it all has to do with unscrupulous collectors who enter the market to defraud clients of their hard earned money and tarnish the image of the trusted ones under their association's umbrella. The Association biggest problem therefore is how to flush out those 'fake' susu collectors since out of the over 4,000 Susu collectors known to be operating in the country as of 2007, only 1,350 are registered members of GCSCA.

However, as stakeholders in the industry mulling the idea of forming an apex body to govern susu collection in the country by the end of 2010, it is expected that effective integration of a well-defined code of conduct to promote ethical and responsible practices for all susu operations in the country, alongside an improved regulatory regime that protect parties in financial transactions would, by no means, transform the rural financial system in Ghana.

2.6 Conclusion

This chapter has attempted to review the entire financial system of Ghana, emphasizing the regulatory regime and key developments in both pre and post FINSAP. From the exploratory studies thus far, it is clear that while Ghana has adopted a three tiered financial regulatory system that has resulted in a wide range of financial institutions - grouped into formal, semi-formal and informal - and with the potential of meeting the financing needs of every segment of the society, it has not allowed for greater linkages and integration among the segments. Therefore, whereas others, especially the formal banking industry, appear to be doing well and flourishing in most fronts, it has not pulled the informal sector along. The informal sector is still fraught with a myriad of operational problems and remains without proper legal and prudential regulatory regime. This might partly explain why the system has failed to achieve impressive outreach, especially to the rural and urban poor leaving the majority of the population unbanked.

CHAPTER 3

Finance and Poverty Reduction: Review of Theories and Concepts

3.1 Introduction

This chapter is organised in two main sections. The first section reviews the generic literature underpinning the linkage (both directly and indirectly) between finance and poverty. While highlighting economic growth and income redistributive effects, the section also discusses financial market imperfections that give rise to financial exclusion, particularly in SSA. For the purpose of clarifying the concepts used in this study, the second section presents debates on basic notions, dimensions and typologies of what constitutes access to financial services and financial inclusion (or exclusion as the case may be). However, relevant literature linked to specific questions being addressed in each of the subsequent analytical chapters has been explored in more detail.

3.2 Theory: The Role of Finance in Poverty Reduction

-How Does Finance Link with Poverty Reduction?

As previously mentioned, various theories and empirical evidence suggest that financial development or deepening can impact on poverty reduction in two ways. First, indirectly through its positive impact on growth and secondly, more directly if it causes restructuring of the financial system in a manner that broadens access to financial services or makes credit available to the poor. In the sections that follow, we review the literature in respect of these two linkages.

3.2.1 Linking Finance to Poverty Reduction – the Indirect Impact through Growth

The theories that positively link financial sector development to growth have long historical and evolving perspectives. While few theories and studies challenge this consensus [14], the overwhelming majority do provide support for a positive relationship between financial development and economic growth. In about a century ago, Schumpeter (1911) argues that financial intermediation plays a pivotal role in economic development by affecting the allocation of savings, thereby improving productivity, technical change and the rate of economic growth. Goldsmith (1969), on the other hand, noted that a rising financial interrelations ratio (financial assets to real assets) was a universal feature of growth in market-oriented economies. Further, the Financial Repression Theory often referred to as the "McKinnon-Shaw Hypothesis" (1973) contends that financial liberalization in the form of high real interest rate is a vehicle for promoting economic growth and development.

More recent studies by King and Levine (1993); Beck, Levine and Loayza (2000); Demirgüe-Kunt *et al.* (2001) and Levine (2005) provide a further empirical evidence. These studies generally conclude that the level of financial development is a good predictor of future rates of economic growth. Levine (1997), for example, proposes that the five basic functions of financial system (namely Savings mobilization, Facilitating of goods and services, Risk management, Allocating resources, Exerting corporate control) affect growth through capital accumulation and technological innovation. There is therefore ample evidence to suggest that development in financial system, which often comes about when there is effective reform in the sector, promotes economic growth. In economic terms, however, this means that financial sector development boosts long-run growth by increasing the amount of capital in the economy

[14] For example, study by Favara (2003) finds that the relationship between financial sector development and growth is weak.

and through its impact on the rate of technological progress - including human and physical capital through investment in education and health, as well as in machinery and tools.

3.2.1.1 Growth, Inequality and Poverty

The evidence as provided above suggests that finance impacts on growth. However, does growth itself benefit the poor? Generally, yes. All developing countries that have experienced sustained high growth over the last few decades have reduced their absolute poverty levels (Dollar and Kraay, 2000). Growth is a necessary (though not sufficient) condition for sustained poverty reduction. Most empirical evidence have shown that while there are significant differences in the relationship between growth and poverty reduction across countries, the incomes of the poor tend to rise proportionately with average increase in incomes (Dollar and Kraay, 2001). Several other studies have also shown that the income of the poor is responsive to growth (Ravallion and Datt 1994; bell and Rich 1994).

Building on their earlier work, Jalilian and Kirkpatrick (2002) provide the case for pro-poor growth focus. They disentangled the impact of growth on poverty reduction by identifying three potential sources of pro-poor growth (understood as growth that leads to a fall in a given poverty measure). These are: (i) a high growth rate; (ii) a high sensitivity of poverty to growth; and (iii) a poverty-reducing pattern of growth. His results suggest that roughly 70 percent of the variation in short-run changes in poverty can be explained by growth in average incomes. In the medium to long-run, growth would account for an impressive 97 percent of the changes in (headcount) poverty. They further argue that whereas growth equiproportionally leaves income distribution intact, by improving the position of some on the lower scale of the distribution it

reduces poverty. Pro-poor growth, however, will by definition improve the status of the poor and affects income distribution[15].

Similarly, in a recent World Bank (2008) study, it argues that the crucial focus on the financial sector in economic modelling has been strengthened with the historical development of views on links between economic growth and income inequality. Highlighting on the long belief that the early stages of economic development would inevitably be accompanied by inequality and concentration of wealth, the study further contends within the context of Kuznets (1955, 1963) hypothesis that this trade-off means that inequality would increase in the early stages of development until the benefits of growth spread throughout the economy. The reason being that rich people's marginal propensity to save is higher than that of the poor. And since there is the need to finance large, indivisible investment projects in the process of development, it implies that rapid growth would need wealth concentration in the hands of the rich at the early stage - leading to a fundamental trade-off between growth and social justice.

However, in a very recent study by Otsubo *et al.* (2010) on the mutual relationships between Poverty-Growth-Inequality Triangle, they argue that poverty reduction can be achieved from two different effects: economic growth and distribution of income and assets. In their view, however, whether growth effect and distribution effect can be treated independently depends on the growth inequality trade-off. While observing in a short to mid-term perspectives that development strategies that affect economic growth and income distribution can be carried out

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[15] However, other studies tend to suggest that high average growth rate may not benefit the poor if income disparities grew significantly high. This notwithstanding, (Rodrik, 2000) maintains that income distribution (as measured by the Gini coefficient) tends to be stable over time within countries.

independently, they caution, however, that when taking the impact on poverty reduction into account, an economic growth strategy that causes further inequality in income distribution must be avoided - "otherwise it should be supplemented with adequate polices that transfer income and consumption to the poor". The implication of all these is that growth often leads to a reduction in poverty and that redistributions of wealth can in themselves spur growth. Therefore, financial deepening which impacts positively on growth should serve to reduce poverty, albeit indirectly.

3.2.2 Linking Finance to Poverty Reduction -The Direct Impact

A growing body of research shows that financial sector development can impact on the poor through direct access to institutional credits and saving facilities[16]. Why does direct access to finance important for poverty reduction? Studies by Rutherford (1999) and Zellar and Sharma (1998) have pointed out that the poor need financial services such as saving in order to meet life-cycle needs such as marriage, childbirth, funeral, healthcare, housing, education or to set aside emergency funds. Additionally, the poor require financial services in the form of small loans or remittances in order to be able to seize opportunities to invest in existing or new business, buy land or other productive assets.

Furthermore, DFID (2004) observes that providing efficient financial services to the poor directly is important for many respects. First, efficient provision of savings, credit and insurance facilities can enable the poor to smooth their consumption, manage risks better, gradually build assets, develop micro-enterprises, enhance income earning capacity, and generally enjoy an improved quality of life. Second, efficient finance services can also contribute to improvement of resource allocation, development of financial markets and system, and ultimately economic

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[16] See, for example, CGAP study by Helms (2006), Khandker (2003); Claessens (2007)

growth and development. Third, with improved access to institutional finance, the poor can actively participate in and benefit from development opportunities.

Moreover, Eswaran and Kotwai (1990), exploring the implications of credit constraints for risk behaviour in less developed economies, argue that just the knowledge that credit will be available to cushion consumption against income shocks - if a potentially profitable but risky investment should turn out bad - can make the household more willing to adopt more risky technologies. Thus, access to credit can reduce the vulnerability of the poor to shocks in the absence of savings or insurance.

3.2.2.1 How can finance reach the Poor? - Microfinance

Besides the many potential benefits the poor can derive from having a direct access to finance, the next important question is how finance can be delivered directly to the poor. The answers to this question so far have overwhelmingly go in favour of providing a sustainable microfinance scheme. Since its introduction over 30 years ago, microfinance has achieved astonishing accomplishments (Helm, 2006). Helm (2006) points out that MFIs have not only put resources and power into the hands of the poor and low-income people, but also they have demonstrated that poor people are viable customers. Besides, MFIs have also created a number of strong institutions that focus on poor people's financing. Similarly, Simanowitz and Brody (2004) observe that microfinance is a key strategy in reaching the MDGs and in building global financial systems that meet the needs of the poorest people. Supporting this view, Littlefield *et al.* (2003) also reiterate that microfinance is a critical contextual factor with strong impact on the achievements of the MDGs, and is unique among development interventions. According to them, it has the potential to deliver social benefits on a permanent basis and on a large scale. Some existing impact assessment studies of direct access to finance through microfinancing have shown a positive impact on clients. For example, an empirical study from a survey of the

impact of microfinance on the MDGs shows microfinance has contributed to improving health, children's education and nutrition as well as women empowerment (see Box 3.1 below).

Box 3.1: Direct Impact of Finance: beyond income poverty

Microfinance has an impact on more than just the income levels of poor clients. It also reduces their vulnerability to shocks and allows them to make investment in better health and education for their families. A survey of the impact of microfinance on the MDGs highlighted some of the following results.

How does access to financial serves improve education?

Greater access to financial services and increased incomes allow poor people to invest in their children's future. Studies on the impact of microfinance on children's schooling show the following

- In Bangladesh, nearly all girls in Grameen bank client household received schooling compared with 60% of girls in non-client household. Basic education competency (reading, writing and arithmetic among 11-14years old children in BRAC client households doubled in 3 years (from 12 percent in 1992 to 24% in 1995).
- In Uganda, Foccas clients spent one-third more than non-clients on their children's education.

Sources: Culled from CGAP study by Helm (2006), "Finance for All"

How does access to financial services improve the health of children and women?

Access to financial services allows clients to seek health care services when needed, rather than wait until illness has reached crisis proportions. Studies show that financial services have had a strong positive impact on the health of women and children especially in those programmes that combine credit with trading on health issues.

- In Bolivia, Credito con Educacion Rural (CRECER) clients had better breastfeeding practices, responded more readily with rehydration therapy for children with diarrhea and had higher rate of DPT3, immunization among their children.
- In Uganda, 95% of Foccas clients benefited from a microcredit programme that combined financial services with education practices to improve the health and nutrition of their children, compared with 72% of non-clients. In addition, 32% had tried an AIDS prevention technique, twice the percentage of non-clients.

How does access to financial services empower women?

The ability to borrow, save and earn income enhances poor women's confidence enabling them to better confront systemic gender inequities. Studies show that this empowerment takes different forms.

- In Indonesia female clients of bank BRI were more likely than non-clients to make joint decisions with their husbands concerning allocation of household money, children education use of contraceptives and family size.

However, despite the potential of MFIs to meet the financing needs of the poor, other researchers and organizations remain sceptical about their ability to reduce poverty and play any significant role in development. For example, Hulme and Mosley (1996) argue that micro-credit is not a panacea for poverty-alleviation and that in some cases the poorest people have been made worse-off. The study concludes that most contemporary schemes are less effective than they might be.

Several studies have categorized a number of challenges and shortcomings of MFIs to explain why they have so far failed to reduce poverty, particularly on a larger scale (World Bank 2008; Helm 2006; Honohan 2004). First, most MFIs lack self-sustainability - one of the reasons for this might be lack of scale. The literature has it that only eight countries do MFIs' clients account for more than two percent of the population. Thus, most of them seem to be too small to reap the necessary scale economies to become financially sustainable. Second, Cull *et al.* (2007) find that those that become mature and financially sustainable tend to pay less attention to the poor. Third, MFIs more often than not have limited resources to meet the demands of larger microenterprises. Fourth, most MFIs are still non-deposit takers (only engage in microcredit), and are therefore constrained by savings mobilization as well as over-reliance on dwindling donor funds. Lastly, they also charge higher lending rates, which microenterprises are unwilling to pay as they grow.

In order to overcome these challenges, Helms (2006) proposes a drastic improvement in three outreach indicators – scale, depth and cost. He maintains that MFIs must scale up quality of financial services to serve large numbers of people (scale), while reaching increasingly poorer and more remote people (depth). Further, they should be efficient in order to lower their delivery cost that will in turn lower costs to clients (cost). Even if all these challenges are overcome, the World Bank (2008) believes that the broader focus for inclusive financial system

cannot be left in the hands of MFIs alone, since it is not only the poor that need financial services, but also not-too poor households and the middle class, majority of whom are also financially excluded. Hence, development community should shift its attention to building inclusive financial system focusing not only specialized MFIs, but on an array of other financial institutions, such as postal savings banks, consumer credit institutions, and most importantly, the formal or mainstream banking system.

In sum, however, measuring the direct impact of access to finance on the poor has been difficult. The benefits of credits and savings, especially in reducing vulnerability that is a permanent feature in the lives of the poor, have not been properly quantified. Besides, because microcredit looks at only one piece of the puzzle, whatever impact has been proven for it likely under states the potential impact of an inclusive financial system (Helms, 2006). Even if this potential impact cannot be directly measured and the very poor do not themselves gain access to financial services, they may benefit substantially from increased employment opportunities resulting from the activities of less-poor microentrepreneurs, whose access have improved (World, 2008). It is this gap in the development finance literature that the present study seeks to fill.

3.2.3 Imperfect Market and Rural Financial Market in SSA

The issue of access to finance and the constraints thereof arise because of imperfect market and information asymmetry problems. Beck and Torre (2006) observe that in a purely theoretical world characterized by the absence of transaction costs, uncertainty, and asymmetric information there is no problem of access. Access to external finance would be frictionless, limited only by the inter-temporal wealth constraint of the borrower. The implication of this is that the choice between borrowing and lending would be determined entirely by inter-temporal preferences and investment opportunities. Thus, decisions to accumulate savings, take out loans,

and make payments would be equally open to all and the implementation costless[17]. Banks would not be needed to mobilize savings, facilitate payments, and allocate loans, as savers would assign their savings directly to borrowers based on perfect knowledge of investment possibilities (Beck and Torre, 2006).

Therefore, changes in borrowing and lending would only reflect changes in demand and investment opportunities rather than changes in the possibility of access. However, in reality, financial markets are characterised by a number of market imperfections - information in the real world is neither perfect nor costless. This has given rise to the familiar principal-agent contracts and incentives problems - adverse selection and moral hazards (Stiglitz and Weiss, 1981).

In their pioneering work of market with imperfect information, Stiglitz and Weiss (1981) argue that the consequence of incentive problems is such that among observationally identical borrowers some receive loans others do not – even if the latter offer more than the market interest rates or more collateral than is demanded. However, advancing further the theory of imperfect information, Stiglitz (2001) observes simply that if lenders know perfectly the risks associated with each borrower, this would matter little; each borrower would be charged an appropriate risk premium. It is because lenders do not know the default risk probabilities of borrowers perfectly that is why this process of adverse selection has such important consequences. In effect, it is believed financial market imperfection or information asymmetry plays a central role in financial development by influencing key decisions regarding access to finance and capital accumulation. For example, financial market imperfections determine the

[17] Problem of access, according to Beck and Torre (2006), is mainly due to economic frictions such as transaction cost, uncertainty about project outcomes, and information asymmetries.

extent to which the poor can borrow to invest in schooling or physical capital (World Bank, 2008). Further, financial market imperfections determine the extent to which talented but poor individuals can raise external funds to initiate small projects (Beck et al, 2007).

While such problems of information asymmetry inevitably arise, according to Stiglitz (2001), the extent to which they do so and their consequences depend on how the market is structured. Therefore, these problems are severe in the developing countries, particularly SSA, where information asymmetry is more pervasive especially within the rural financial market. Nissanke (2001) argues that in SSA economic transactions are usually conducted in highly uncertain and risky environments, which engender more volatile returns to investment and income streams than in other parts of the world. According to her, this high-risked environment and the large income shocks provoke heightened demand mechanisms and institutions for risk management that ultimately affect effective financial intermediation in most countries within SSA. In this regard, the apparent underdeveloped financial markets in SSA can therefore be attributed to the high risk lenders face when financial transactions are conducted beyond community levels because of poor endowments of information capital (Nissanke and Aryeetey, 2006).

Taken the problem further, Kimuyu and Omiti (2000) argue that financial markets in such countries tend to be highly dualistic and fragmented with weak linkages between the segmented institutions - formal and informal components. In their view, the formal segment of the markets tends to be characterised by market imperfections demonstrated by high concentration ratios with only a small number of financial institutions exerting considerable market power. Similarly, Nissanke and Aryeetey (2006) argue that in SSA economies, as in many other developing economies, formal institutions co-exist alongside informal traditional institutions as a result of modern institutional structures being superimposed on traditional societies, often without necessary adaptations. According to them, this condition could result in an extreme

form of market fragmentation and segmentation with weak effective linkages between formal and informal institutions. Consequently, the financial system in SSA is unable to effectively intermediate by providing broad access to financial service to most people and mobilize resources to facilitate growth-enhancing private investments.

3.3 The Concept of Access to Finance and Financial Inclusion

There is a variety of dimensions of what constitutes access to financial services. Claessens (2005) and Beck *et al.* (2006) observe that access to finance is bordered on a range of issues such as physical availability, cost and a range and quality of products being offered[18]. This means that services need to be available when desired. Again, it is not only the prices of the services that have to be affordable, but also all non-price transaction costs such as information processing costs or physical distance (World Bank, 2008). Furthermore, access implies that credit report and information should not be limited to only borrowers with connections and collateral as well as products with high expected returns that translate into profit for the provider, but also all type of credits that serve the needs of the poor and microenterprises (Beck *et al.* 2006).

A closely related concept is financial inclusion. The definition of financial inclusion varies considerably in the financial development Literature. For example, Beck *et al*, (2007) defines financial inclusion as a broad concept that relates to bringing into mainstream society all those

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[18] However, Daigne, Zeller and Sharma (2000) using the concept of credit limit defines access to formal credit as the ability of the household to borrow from a particular source (although for a variety of reasons it may choose not to), and the extent of access as the maximum amount that household can borrow (i.e. its credit limit).

who do not have access to finance or receive the benefits most people enjoy from using mainstream formal financial services. Alternatively, Chakrabarty (2006) defines financial inclusion as delivering banking facilities/financial services to all people in a transparent and equitable manner at affordable cost. A narrow concept, however, relates to an absence of price or non-price barriers in the use of financial services (Claessens 2005; World Bank 2008). In this regard, financial inclusion concept should not only be limited to the poor and micro enterprises' access or improving the efficiency of financial services to the existing customers, but, more significantly, to broaden access to include the underserved. These are often the non-poor middle class who are more often than not excluded in many development policies in developing countries (World Bank, 2008).

In a nutshell, access to financial services or financial inclusion implies an absence of obstacles to the use of financial services; whether these obstacles are price, or non-price barriers. The foregoing suggests that measuring access to finance is not an easy task. However, to analyze satisfactorily the socioeconomic determinants of demand and supply factors of access, Beck and Torre (2006) point out that it is important that we distinguish between two different concepts:

1. access – the possibility to use and
2. actual use of financial services

Access is not identical to use because economic agents might have access to financial services, but might decide not to use them. This makes it imperative to discuss the opposite concept of access or financial inclusion, namely financial exclusion and it ramifications. Hereafter, we discuss in detail the concept of financial exclusion – causes and consequence.

3.3.1 Financial Exclusion: What is it?

4.3.1.1 Social Vs Financial Exclusion

Financial exclusion is a relatively new concept, as such, literature on it is scarce. Besides, the few available are mainly centered on advanced economies. This notwithstanding, financial exclusion is seen to be deeply linked to the broader issue of social exclusion. Poor people or socially excluded people are generally denied access to financial services and the lack of access to financial services reinforces the risk of social exclusion (EC, 2008). Thus, financial exclusion may be either a cause or a consequence of social exclusion, or both. In this regard, prevention and treatment of financial exclusion are regarded as a major element of the fight against social exclusion and poverty reduction in the majority of developing countries (EC, 2008). It involves numerous factors that include not only physical and economic barriers, but also psychological barriers to banking, financial illiteracy, and an understanding of poor households' and microentrepreneurs' financial management abilities or lack of it.

3.3.1.2 How is Financial Exclusion Defined?

Defining financial exclusion, like the financial inclusiveness, varies considerably in the extant literature. This makes a specific definition a tricky one since the concept ranges from breadth, relativity to the degree of exclusion, depending on what standard of measurement one is using or in which specific country's context reference is being made - as the level of financial development in the country is important. Nonetheless, the definitions appear interrelated, or essentially similar. For example, while Chant and Link (2004) broadly define it as developments that prevent poor and disadvantaged social groups from gaining access to mainstream financial system, Goodwin *et al.* (1999) simply describes it as a situation in which people do not have access to mainstream financial services such as banking accounts, credit cards and insurance policies.

More specifically, Kempson (2006) defines the concept to reflect a particular circumstance such as: geographic exclusion; exclusion on the grounds that charges are prohibitively high; exclusion from marketing efforts; or even self exclusion. According to him, the idea of self-exclusion comes up when an individual believes that there is little point in applying for a financial product because they expect to be refused, sometimes because of a previous experience of refusal, because they know someone else who had been refused, or because of a belief that people from a particular social, religious or ethnic background are not accepted. In a nutshell however, these various definitions seem to have been summed up in the definition provided by Connolly and Hajaj (2001). They describe financial exclusion as having lack of access to financial services by individuals or communities due to their geographic location, economic situation or other social condition that prevent people from fully participating in the structures or institutions of mainstream society.

3.3.2 Dimensions, Forms or Typology of Financial Exclusion

3.3.2.1 Dimensions of Financial Exclusion

Voluntary vs. Involuntary Exclusion

As well as its definition, financial exclusion also has varied dimensions and typologies. Notable among them is the distinction between voluntary and involuntary exclusion. As previously mentioned, the individual can voluntarily exclude him/herself from mainstream financial services even though he might have physical access to a bank or other financial institutions. The reason for this has been attributed to certain socio- cultural, religious and ethnic reasons, as well as, some historical experiences (Beck and Torre, 2006). On the contrary, individuals, households or some segment of the society, despite their demand for financial services, could be involuntarily excluded. Involuntary exclusion may be as a result of a range of factors such as low incomes or high risk, discrimination, contractual and informational framework to price or

kind of products provided (Claessens 2006; World Bank 2008). These factors have been explained in detail as follows:

- **Low income or high risk:** There is a group of households and enterprises that are considered unbankable by mainstream financial institutions and markets because they do not have sufficient income or present too high lending risk.
- **Discrimination**: Some people or certain population groups might be discriminated against because of their social, religious, or ethnic grounds often refers to as *red-lining.*
- **Contractual and informational framework:** this might put off some financial institutions from reaching out to certain population groups because the outreach is too costly to be commercially viable.
- **Price or Product features:** Price of financial services may be prohibitively high or the features of the product being offered may not be suitable for certain population groups. For example micro-entrepreneurs might be unwilling to take out loans that require them to pledge their personal assets as collateral, as it is commonly done in most developing countries.

However, in an alternative approach to the dimensions of financial exclusion, Kempson (2000; 2006) outlines different underlying reasons or typologies of financial exclusion, although he believes the precise balance varies somewhat from country to country. These include access barriers such as identity requirements, the terms and conditions of bank accounts, levels of bank charges, physical access problems brought about by bank branch closures and psychological and cultural barriers are all important. Moreover, the way government social security benefits and pensions are paid also plays a part in exclusion as does refusal by banks. The explanation for each type of exclusion is summarized below as follows:

- **Identity Requirements (or Access Exclusion):** In countries where there is no obligatory use of identity card, many people on low incomes and homeless people as well as foreigners in particular, find it very difficult to supply the types of proof of identity required by banks to open an account: Banks now routinely require both proof of home address and photographic identification before they open a bank account, with passports and driving licences being the most widely accepted. People without either of these often face real difficulties finding alternatives that banks are confident will be acceptable to regulators. These restrictions are necessary for the banks to undertake proper risk assessment and due diligence.

- **Terms and conditions (or Condition exclusion):** A range of different types of term and conditions deters or prevents people with low incomes from opening an account. The nature of these barriers differs between countries, although there are clearly similarities between them. Citing example in Belgium, Kempson reviews that accounts have been closed by banks because customers either use them too little or withdraw the money in the account too soon after it has been deposited. In other places like Ghana, for example, banks impose charges, if account balance falls below the required minimum balance and may close the accounts after some specified period of non-use.

- **Bank charges (or Price Exclusion):** Some customers are put off from using transaction account or taking up loans because levels of bank charges or high interest payments. This is a major problem in many countries not only in developed countries but worse of it in developing countries. In Kempson's view, however, there is a range of other charges that has a disproportionate effect on people with low incomes. These include:

➢ Fees for failing to maintain a minimum balance in an account;

- Higher fees for over-the-counter transactions, which tend to be used most by people on low incomes;
- Monthly lump sum fees, which discriminate against those who make few transactions;
- High fees, if the number of free transactions is exceeded.

- **Segmentations (Marketing exclusion):** this is where some people are effectively excluded by targeted marketing and sales. In this condition, products are offered through segmentation and targeting by financial service providers. In market segmentation and targeting, certain products and services may not be advertised, offered, or physically available to certain consumers or group of people based on their geographic location and access to distribution channels (Chant and Link, 2004). In many countries banks have redirected credit away from socially disadvantaged groups towards wealthier households and large firms who are perceived to present less risk and yield higher profit margins (Kempson and Whiley, 2000)

- **Physical access problems (Geographic Exclusion):** This is caused by either bank branch closures or remoteness that prevents penetration. According to Kempson (2006), increased competition and the economics of international banking have resulted in programmes of bank branch closures across most developed countries. This trend has been accelerated mainly by technological developments such as cash machines, telephone and internet banking in particular. He concludes that these closures tend to hit poor urban neighbourhoods and small rural communities quite disproportionately. Providing similar conclusion, Chant and Link (2004) reveal that remote locations in Australia suffer some form of financial exclusion irrespective of their income or savings. Rural bank branch closures in recent years were mentioned as a driver of community financial exclusion, and ultimately of killing county towns. In their view,

rural branch closures and a lack of ATMs in some regions is an exclusion issue, as it forces people to drive further for banking, or carry more cash with them and other work-arounds. It is also a possible cause of rural urban drift in many countries.

- **Psychological and cultural barriers (Self-exclusion):** This relates to beliefs or perceptions regarding the likelihood of or anticipated refusal of accessing mainstream financial services. Quite apart from cultural, religious and ethical inclinations of some groups of people in society that impede access, psychological effect of poverty is also a driver of financial exclusion. Studies have revealed that poverty or many people on low incomes feel quite disengaged from banking services (Beck and Torre 2006, Kempson 2006).

According to many of these studies, the types of barriers noted above fuel their beliefs that banks are not really interested in the needs of people like them and that the services offered are not appropriate to their needs. In the case of religion being a barrier to banking services, one classical example that has been cited is from a study in Britain, where the Pakistani and Bangladeshi communities face religious barriers to banking, because transaction accounts that can be overdrawn (even if inadvertently) are haram (forbidden) under Islamic law (Kempson, 2006). Kempson observes that self-exclusion is therefore more important than direct banking exclusion especially in low income countries.

In what appears as a summary to the range of dimensions of financial exclusion in the literature, Chant and Link (2004) have sought to put together two broad dimensions for financial exclusion. These are Access Exclusion and Utility Exclusion. According to the study, Access Exclusion represents barriers of various types, including physical and social that commonly

prevent some individuals from accessing financial services, or makes their access significantly more difficult. Although this dimension is quite similar to those outlined above, the point of departure is that they distinctly highlight physical factors (e.g. disability), education and information (e.g. lack of financial literacy) as well as Communication (e.g. lack of access to online facilities; language barriers) as important factors explaining financial exclusion.

In the case of Utility Exclusion, the authors observe that while some financial services and products may be physically accessible to a given consumer, the consumer's particular circumstances may make such products much less valuable to him or her. According to them, many authors and authorities cite examples of exclusion that are based, not on physical or other barriers, but on what can be characterized broadly as the lack of utility of financial services/products for those who are said to be excluded. In this case, utility can be thought of as the perceived benefits of a product or service weighed against its costs (both monetary and non-monetary) and the trade-offs the consumer must make in order to enjoy those benefits. For example, forgoing a benefit provided by a competitive service, or give up some aspect of perceived financial control. The study outlined the following as examples of what could be described as Utility Exclusion:

- Low income consumers without a bank account often have limited choices. Options currently available in the marketplace, they say, do not actually meet the needs of all low income consumers, such as concerns about overdrawing, loss of control or simply lack of awareness of "the advantages of having a bank account".
- Psychological barriers and mistrust of banks represent a form of utility exclusion. Consumers are discounting the benefits of banking because of the costs and risks they perceive in dealing with a bank.

- It has also been shown that people on low incomes generally make little use of bank accounts for day-to-day money management. This is largely because these people feel that a cash budget gives them more financial control.

3.3.2.2 Who is financially excluded?

The answer to this question obviously appears easy and simple, but in reality it is more complex than we thought as embodied in the quotation below.

"The likelihood of being on the margins of financial services is clearly related to who you are, your financial circumstances and where you live" Kempson and Whiley (2000)

There is a wide range of studies into the common characteristics of those sections of a society or households or even individuals regarded as financially excluded under different definitions and/or in respect of a country's specific level of financial development. This ranges from qualitative study that focuses on the experiences, views and attitudes of the financially excluded to quantitative surveys and statistical analysis mapping the take-up of various financial products among different socioeconomic groups and geographical areas. Reviewing these various sources – albeit limited, we hope to build up a thorough image of the attributes, characteristics and likely location of those who are financially excluded or the unbanked.

Even though there are commonalities of characteristics of financially excluded, various writers have outlined these depending on the country's specific condition. There is no one size-fit-all definition for all countries, groups, and income levels. This notwithstanding, the common thread that runs through all the characteristics is poverty and geographical remoteness being the major driving force. This also reflects Kempson and Whiley (2000) assertion that the likelihood of being on the margins of financial services is concentrated geographically and among certain groups of people.

In Kempson and Whiley (2000) study, focusing on UK, they view the following as the likelihood for those individuals or household to fall within the financial exclusion segment of the societies (also cited in Kempson 2006):

- People on low incomes: those on low incomes are twice as likely to be without a bank account.
- Households and individuals who have never had a secure job and living on social security payments;
- Elderly people who are part of a cash only generation;
- Young people and households who have not yet made use of financial services;
- People from low-income indigenous and ethnic minority communities have very low levels of engagement with banking. For example, particularly Pakistani and Bangladeshi households living in UK- make limited use of financial products due to language barriers, religious beliefs and lack of knowledge.
- Women who become single mothers at an early age;
- Age and geographical location: The very young and very old are more at risk of banking exclusion and more likely to be unbanked than the general population, as are people living in rural communities.

Similarly, Treasury (2004) outlines the common characteristics of those who lack access to banking facilities and affordable credit and are likely to require face-to-face money advice include: living on a low income; being in receipt of benefits; living in socially rented accommodation; and lone parenthood. In addition, it points out that available evidence suggests that financial exclusion is a localized problem, with certain areas of the country (UK) particularly affected. In this respect therefore, the study concludes that policy to tackle financial exclusion must be targeted in terms of who and where.

In a similar study in USA, Seidman *et al.* (2005) categorize the unbanked segment of the USA population as being typically immigrants, ethnic minorities, the youth, and widows as well as divorcees without credit histories in their own names, and people who have filed for bankruptcy and are rebuilding their credit-worthiness. However, in Australia, Chant and Link (2004) categorize people who are excluded into two, namely those that are temporally (or acutely) excluded and those that are permanently (or chronically) excluded from mainstream financial services. According to the study, temporally excluded occurs when a state of low income is temporally as in the following situations:

- Illness
- Family break-up or recently separated women with young children.
- Temporary visa holders.
- Recent low income immigrants.
- Early school leavers

Permanent (chronic) financial exclusion, however, occurs due to the following:

- Financial illiteracy - inability of individuals or enterprises to make appropriate decisions in managing their own finances or lack understanding of products owned, or products available often resulting in poor financial habits.
- Learned dysfunctional credit or savings behavior.
- Long term unemployment.
- Intergenerational exclusion

There is, however, a contrasting view about whether individual personal characteristics such as gender, age, race or ethnic background are independently associated with financial exclusion. It is argued that these are commonly related in themselves to income, employment and other variables, and thus could explain their apparent association with financial exclusion (Chant and link 2004). For example, in South Africa, Makgetla (2008) points out that to a large extent exclusion or discrepancy reflects not subjective discrimination against Africans and women, but

the fact that they are more likely to be poor. According to the study, if only households with similar incomes are selected, the differences by race and gender almost disappear. He, however, asserts that this does not mean that the banks do not discriminate on the basis of race and gender.

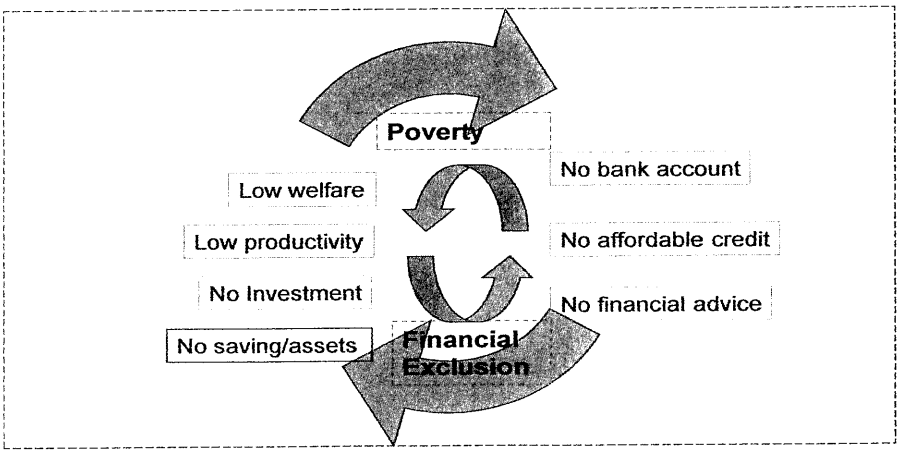
In developing countries even though there is scanty of studies on financial exclusion, most of these characteristics outlined above are relevant as far as large segment of the population who is financially excluded is concerned. However, other authors believe that quite apart from poverty, low level of education, which in itself is highly correlated with poverty, is the most important driver of exclusion in Africa. For example, Amaeshi (2006), studying the causes of financial exclusion in Nigeria, argues that illiteracy is one of the major drivers of financial exclusion in Africa. In this regard, the study concludes that banks in Nigeria could leverage on the seeming obstacles constituted by the prevalence of illiteracy-driven financial exclusion to enhance their brands by tackling financial exclusion through corporate social responsibility; and in so doing, mitigate the probable risk of 'harsh' social regulations on the part of policy makers to address the existence of financial exclusion in Nigeria.

3.3.2.3 What are the Costs or Consequences of Financial Exclusion?

The review of the relevant literature shows that just as its dimensions, financial exclusion has wide ranging consequences and costs. This often imposes significant varying effects on individuals, households, enterprises, their wider community, and on society as a whole. Financial exclusion implies that poor individuals and small enterprises need to rely on their personal wealth or internal resources to invest in their education, become entrepreneur or take advantage of promising growth opportunity (Word Bank, 2008).

Evidence abounds that this situation often results in financial stress and hardship or entire lost of financial opportunities. It also reinforces financial and social exclusion, which in turn exacerbates poverty levels (Honohan, 2006; Chant and link, 2004; Claessens, 2005). Showing a cyclical relationship between financial exclusion and poverty, Chakrabarty (2006) observes that there is a large overlap between poverty and financial exclusion. Both poverty and financial exclusion result in a reduction of choices which affects social interaction and leads to reduced participation in society. Thus, in all levels of the argument in financial exclusion, there appears to be cases available to support the fact that poverty drives financial exclusion in some cases and vice versa in others. As depicted in the framework below (Figure 3.1), having no account, no affordable credit nor proper financial advice means that the individual, household or an enterprise is not making savings. Lack of savings or credit may imply low or no investment in human and physical capital which will eventually dampen productivity and loss in welfare.

Figure 3.1 Vicious Cycle of Poverty and Financial Exclusion



Source: Author's conceptualization

Chant and link (2004) cited three categories of consequences of financial exclusions, namely the Personal consequences, Business consequences and Community consequences. The study notes that the most important effect of financial exclusion is the high cost of personal banking and consequent financial strain on low income earners. This is because having no basic banking facilities makes money management more complex and time consuming, thus more costly and less secure. Life is also said to becoming more difficult and relatively more expensive for those without a bank account. For instance, certain routine transactions such as bill-paying are becoming increasingly inconvenient or costly for those without more advanced forms of access such as, direct debit and online banking.

Similarly, a study by Treasury (2004), for example, points out that for the individual and household, some of the important costs and financial hardships associated with financial exclusion are as follows:

- Higher charges for basic financial transactions and credit – lack of access to a bank account means that certain financial transactions such as money transfer and cheque cashing may be more expensive;
- No access to certain products or services – a range of services, such as contract mobile telephones, require a bank account for regular Direct Debits;
- Lack of security in holding and storing money – operating solely on a cash budget leaves people more vulnerable to loss or theft;
- Barriers to employment – a bank account for receipt of wages is a basic requirement for most employers; and
- Entrenching exclusion – having no formal banking or credit history at all can be as much of a disadvantage as an impaired credit history in accessing certain financial services.

At the wider community level, financial exclusion involves lack of physical banking facilities and bank branch closures, the consequences of which are far reaching, ranging from low community investment, unemployment to poverty (Beck *et al.* 2007). For example, Chant and link (2004) report that bank branch closures in some Australia communities have resulted in reduced savings, increased size of cash withdrawals, reduced investment income, increased cost of finance; reduced access to financial planning, increased travel requirements; increased security risks and increased need for credit from local businesses. In some places, as in rural UK, research has shown that there are links between financial exclusion and child poverty at the community level (Treasury 2004). According to the study, paying more for certain financial services and the impact of debt on family life can exacerbate the harm caused by child poverty.

3.4 Conclusion

In conclusion, financial system of a country or broad access to formal finance is crucial to development. However, the controversy over relative advantages and disadvantages of access to formal finance vis a vis other forms of financing as well as socioeconomic factors underlying financial exclusion are yet to be resolved. There are thus far only limited studies or debates about financial exclusion and its impact on poverty, particularly in African context. In the subsequent chapters, this present study looks at a wide range of issues pertaining to financial exclusion from both demand and supply side of finance with a detailed review of literature relevant to the specific questions being addressed.

CHAPTER 4

Financial Exclusion: What Drives Supply and Demand for Basic Financial Services in Ghana?

Abstract

The majority of people in Sub-Saharan Africa does not have a basic bank account and are financially excluded from mainstream financial services. This chapter examines factors that drive geographic exclusion of banking services to rural communities and households' demand for a basic bank account in Ghana. Using rural community based and household survey datasets, the study finds that banks' decision to place a branch in a community are positively influenced by the market size, the level of infrastructure such as energy and communication facilities in the area, market activeness etc. but are negatively influenced by the general level of insecurity associated with crime, conflicts, natural disasters etc. Conversely, households' demand for a bank account appears to be strongly driven by both market and non-market factors such as price, illiteracy, ethno-religion, dependency ratio, employment and wealth status as well as proximity to a bank.

4.1 Introduction

In recent years, Ghana has witnessed a phenomenal increase in foreign banks entry and expansion in bank branch penetration. As of mid-2008, the number of commercial banks has increased from 11 in 1990 to 24 with over 500 branches across the country. At the end of the same year, the total assets of the banking system have also risen by about 88 percent in two years to reach US$6,616.1 million (51.7 percent of GDP). However, available data show that over 80 percent of the country's population does not have a basic bank deposit account and is financially excluded from mainstream financial institutions. A recent World Bank (2008) report corroborates this with the report that only 16 percent of the adult population (which contrasts sharply with the average of 95 percent of the developed world) has a bank deposit account in the formal banking system. Savings mobilisation is therefore very low especially in rural Ghana where there is very little institutional organization and positive return on saving is virtually non-existent (Aryeetey, 2004).

The existing literature, as reviewed in Chapter 3, has many definitions and dimensions of what constitutes financial exclusion, often based on varied socio-economic factors with very complex interactions. Broadly, financial exclusion has been defined as developments that prevent poor and disadvantaged social groups from gaining access to mainstream financial system (Chant and Link, 2004). More specifically, it has been defined to reflect particular circumstances such as: geographic exclusion; exclusion due to prohibitively high charges; exclusion from marketing segmentation; or even exclusion based on self-beliefs (Kempson, 2006). However, because financial exclusion may be driven by different factors in different countries, it is important that its definition be situated within the specific financial development context of a country. In Ghana's context, for example, financial exclusion is seen in a situation where the majority of individuals, households, enterprises as well as communities have no engagement whatsoever

with mainstream formal financial institutions. They are the core exclusion, often referred to as the "unbanked", who do not even have a basic bank deposit account.

Nevertheless, studies have shown that the unbanked want a saving deposit account, which has been referred to as the "forgotten half" of microfinance (Helms, 2006)[19], and desire the benefits of formal bank accounts. However, they are constrained by their low incomes, and often lack a safe and convenient saving institution that allows for smallholder balances and transactions. The importance of savings, however, is that the unbanked are two times disadvantaged; first in terms of asset-building and second in qualifying for loans. While financial institutions are reluctant to lend to the unbanked, depositors and account-holders are better positioned to negotiate investments insofar as savings can serve not only as collateral, but also as a demonstration of income and of financial discipline (Solo, 2005).

In the face of intense competition among the banks in Ghana in recent times, banks have renewed their efforts to broaden access by downscaling to reach out to the new and vast markets of the unbanked. However, a cursory look at the situation shows that there is an over concentration of these efforts in the urban centres, especially in the southern geographical areas of the country to the neglect of the north and the rural communities. Most of the banks are unwilling to penetrate or have closed down branches in the rural communities for one reason or the other. Even the rural banks that have been set up with the mandate of mobilising and advancing finance to farmers and enterprises in the rural areas, have virtually stopped expanding their branch networks to these areas.

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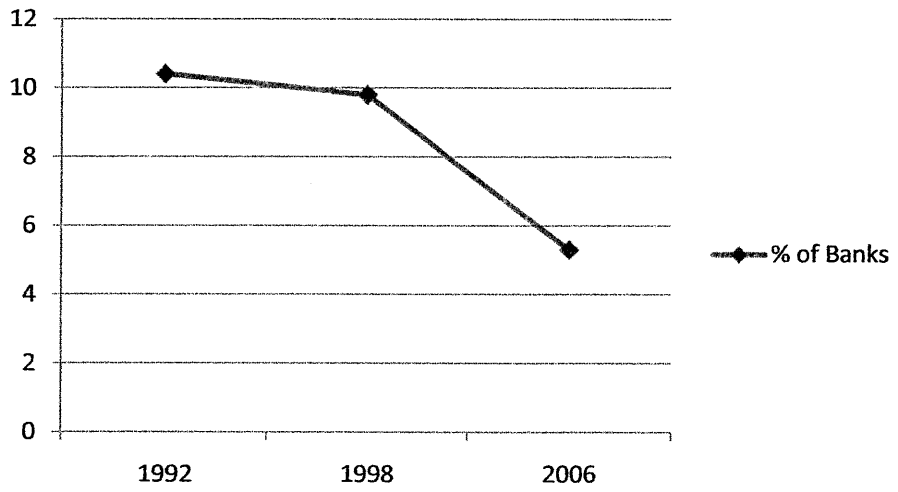
[19] The study by Honohan (2004b) has also shown that MFIs in many countries do not engage in saving mobilization and are also limited in scale reaching less than 2% of the population in most countries.

They are rather seen opening branches in the big cities and district capitals. It is interesting to note that the percentage of banks in the rural communities have decreased from about 10.4 in 1992, 9.8 in 1998 to the recent 5.3 in 2006 according to the respective reports of Ghana Living Standard Surveys (see Figure 1). This no doubt reflects the high level of geographic exclusion as confirmed by recent World Bank (2008) branch penetration indicators. These indicators show among others that in Ghana there are only 1.43 bank branches per 1000 km^2.

Figure 4.1 Percentage of Rural Communities with Banks



Source: Data from GLSS 1992, 1998 and 2006

However, if we are to consider the observation made by (Kempson, 2006) that lack of physical access to a bank greatly increases the psychological barriers from the use of banking services, then commercial banks' placement decision to open or close a branch in a community is crucial for all inclusive financial services. The issue therefore is what factors drive a bank to open a branch in a community or reach out to new clients apart from its own internal mechanisms. Another important question that one may also ask is that in case the banks eventually locate,

would they survive in their new communities? "Banks' survival, besides efficiently managing their cost, also depends to a large extent on the demand for the services they provide.

However, as mentioned in the previous chapter, economic agents can have physical access to a bank, but may not use the services either voluntarily or involuntarily, if they are prevented by some other factors (World Bank, 2008). In Ghana, for example, Aryeetey (2004) observes that most rural households prefer far less liquid productive assets such as land, building, livestock, etc because there are some costs perceived to be associated with financial assets that discourage households from holding them. This, in part, has led to several banks closing their branches in certain communities because of low patronage. This appears to be the case of voluntary self exclusion as noted above, due perhaps to cultural/religious issues, as well as illiteracy or affordability and eligibility issues[20]. However, there is strong evidence that having a bank account greatly increases the probability of savings (Mahendra *et al,* 2005). The fact that over 80 percent of the labor force is within informal sector activities, and those working in low paid jobs are paid in cash instead of having their wage deposited in a bank account, indicates that the majority of these people do not engage in savings because they do not have a bank account.

Thus, much as the factors that drive supply of financial service to a community or branch placement decision are important; factors that determine the demand of these services are equally crucial to ensure a holistic approach to broad access to financial services. Even more

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[20] Beck et al (2007a) report that the minimum amount to open a savings account in Ghana is 22.69% of GDP per capita whereas the number of documents such as identification, payment slip, letter of reference, proof of address or rent agreement etc, to open such account is 3.24 from a scale of 5. The former may discourage households with low income earners whereas the latter may disqualify people of certain age, migrants and the majority in the informal sector from gaining access.

important is the fact that given the current global financial crisis, which has been predicted to hit developing countries much harder through reduced capital inflow, aid and remittances, countries like Ghana can no longer look abroad but rather look within to mobilize savings to close the huge saving gap for development.

This study utilises a national household survey dataset to investigate two important aspects of financial exclusion - geographic exclusion from the supply side and socio-economic exclusion on the demand side. In particular, the purpose of this paper is twofold. First, to examine factors that determine commercial banks' branch placement or geographic penetration to rural communities in Ghana. And second, to examine which socio-economic conditions of the household are important drivers of households' demand and use of basic savings account from commercial banks. The rest of the chapter is organized as follows: section 4.2 explains the analytical frameworks, and model specifications; the section 4.3 focuses on data source and variable descriptions; section 4.4 discusses the results of the estimation of the model for determinants of banks outreach decisions, while section 4.5 discusses the results of the determinants of households' savings demand model. The sixth section summarizes the findings, policy recommendations and implications.

4.2 Analytical Framework: Access Possibility Frontier for Basic Saving and Payments Services

In a very resourceful paper, Beck and Torre (2006) argue that the "problem of access" (what we termed financial exclusion) should rather be analyzed by identifying different demand and supply constraints. They use the concept of an Access Possibilities Frontier (hereinafter referred to as APF) for saving and payment services to distinguish between cases where a financial system settles below the constrained optimum and cases where this constrained optimum is too

low. Their analytical framework is similar in spirit to the present study, and thus we draw on the underlying concept of deriving the APF for our analytical analysis.

The APF for payment and saving services is defined as the maximum share of population that could be served by financial institutions, for a given set of "state variables". This share is determined by the aggregate supply and demand of the services provided. However, according to Beck and Torre (2006), this share or the bankable population in many developing countries are often far below the constrained optimum due to certain limitations. The APF concept reflects three main sub-optimal constraints that constitute access problems or financial exclusion. These are:

- A constrained sub-optimality, due to an inefficient (or high transaction cost) supply system, which leads to an equilibrium where the banked population is lower than the bankable population, given the state variables.
- A constrained sub-optimality due to demand deficiency that leads to a lower than potential possibilities frontier as a result of non-economic factors that lead to self-exclusion of economic agents.
- The third type of access problem would be obtained if the bankable population associated with the frontier were "too low" relative to countries with comparable levels of economic development. This situation could arise, for example, if the country in question lags behind its comparators in certain state variables (say, higher level of general insecurity or weaker informational and contractual environments).

As previously mentioned, these access problems can be grouped in two categories of financial exclusion. The first is geogeographic exclusion, which is mirrored in the absence of bank branches or branch closures in remote or sparsely populated rural areas that are costlier or riskier to service. The second is socio-economic exclusion. That is when specific income, social

or ethnic groups are excluded from mainstream financial services either because of high price, financial illiteracy, or discrimination. The underlying factors for these two exclusions are explained below.

4.2.1Towards Defining the Problem of Geographic Exclusion or Bank Branch Location Decisions

In an approach similar to the one adopted by Calcagnini *et al.*, (1999), we view each bank as having a two-stage decision-making process – one, how many branches to open and two, in which communities to place them. With commercial banks guided by the sole motive of maximising profit, the decision to open a bank in a particular community is underpinned by the standard principle of cost theory and/or an evaluation of the present value of future returns. As Zellar *et al* (2001) observe, it makes sense to open an additional outlet whenever projected marginal revenue from a new branch is at least as high as the total cost of establishing the branch. Practically however, it is also important to think of banks' branch location decisions or supply of saving and payment services to be driven by two main factors which Beck and Torre (2006) refer to as "state variables" and idiosyncratic cost management for a given level of state variables.

The idiosyncratic cost management is considered as an internal matter, peculiar to individual financial institutions. This arises from the actions or strategies of managers to mitigate default risks in credit transactions. This credit risk, which is specific to individual debtors or projects, often arises from non-performance by a debtor either from an inability or unwillingness to repay loan or fulfil pre-committed contract. However, this can be eliminated or avoided within the realm of an individual bank by simple business practices such as underwriting standards, hedges

or asset-liability matches, diversification, reinsurance or syndication, and due diligence investigation (Oldfield and Santomero, 1997).

On the contrary, the APF framework treats as state variables those that are largely outside the control of the managers of the institutions and that also change slowly over a long time. These include the following: market size, macroeconomic fundamentals, available technology, the average level and distribution of per capita income, and system-wide costs of doing business related, for instance, to the quality of transport and communication infrastructure, the effectiveness of the contractual and informational frameworks, and the degree of general insecurity associated with crime, violence, terrorism etc.

The importance of these state variables in determining supply of banking services is because of their close association with fixed transaction costs in providing financial services[21]. Besides the primary cost of setting up a bank branch, a low level of infrastructure and a weak institutional environment can also add up to the fixed transaction costs. Porteous (2005) observes that high fixed costs can entrap a small financial system at a low level equilibrium and thus hamper supply. How then can high fixed cost be surmounted? The APF framework suggests that this can be overcome by exploiting scale economies either through sufficiently high-volume or high-value transactions that will result in decreasing unit costs. However, high volume and high-value transactions exhibit a trade-off in deriving the supply schedule. This implies that if institutions decide to operate in a higher value region, they will have to serve a relatively small

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[21] Narrowing it down to the level of a financial institution, fixed costs are vital and span across a wide range—from the brick-and-mortar branch network, to other physical, technological platforms, to legal and accounting systems, available infrastructure and to security arrangements—and are rather independent of the number of clients served or the number of transactions processed (Beck and Torre, 2006).

clientele but still make the same profit as serving higher volume or number of clients (or unbanked population) with low transaction value[22].

However, in most cases, especially in developing economies, financial institutions are more likely to cluster at the high value transaction region because of high switching costs and often low level of state variables in the low value transactions region. They will rather simply stay in the cities where they can easily make profit by targeting larger companies and wealthier households and would thus have little or no incentive to reach out to small communities, smaller firms and poorer households. The end result therefore is a sub-optimal equilibrium where the banked population is lower than the bankable population.[23]

To get out of this quagmire therefore, Beck and Torre (2006) APF framework suggests that a remarkable improvement in the state variables such as a considerable growth in market size, a technological advancement in information and telecommunications technology, a noticeable improvement in road infrastructure, or a palpable reduction in general insecurity as well as efficient cost management would be required to shift the supply schedule from a low sub-optimal equilibrium to a higher level. This will lead to an extension of financial services to

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[22] This is shown via an iso-profit curve that defines the combinations of transaction value and transaction volume of payments and savings services that yield the same profit for a given financial institution.

[23] This is because the supply curve for broad access is slopping upward; showing positive relationship between fee per transaction and number of client suggesting that the only way to increase supply of financial services to marginal customers is to increase the fee per transaction. For a more detailed analysis on this and on the Access Possibility Frontier refer to Beck and Torre (2006) and Porteous (2005).

remote locations and to marginal customers thereby facilitating supply-induced broadening of access.

The issue stated above is to what extent each of these state variables is important in driving a bank to open a branch in a community, keeping all other things as bank strategic decisions constant. We thus hypothesise that: Geographic exclusion or banks' decision to open or close a bank in a rural community is highly associated with existing state variables such as: macroeconomics fundamentals, market size, physical infrastructure, available technology, contractual and informational framework and general level of security in the area. As shown hereafter, we have mathematically attempted to capture banks' decision to open or not to open a branch.

4.2.1.1 Empirical Analysis of Banks' Location Decision

Following the framework described above, we attempt to empirically explain the decision point of whether a bank will locate in a community or not. The underlying assumption of this specification is that the bank's decision to open a branch is purely based on external factors and has nothing to do with either idiosyncratic cost management or its own internal business strategy. Even though we implicitly recognise internal factors such as idiosyncratic and operational cost as important factors that could affect bank branch placement decisions, these factors are mainly within the control of management and can be kept at the barest minimum assuming banks operate efficiently or the associated risk diversified to mitigate losses.

However, the above assumption is made because as mentioned earlier, these external factors are the state variables that are largely outside the control of managers of financial intermediaries. These factors do not only change slowly over a long period of time, but most importantly also typify the level of systemic risk present. According to Beck and Torre (2006), regardless of its

origin, systemic risk hinders the provision of financial services because it raises the default probability and the loss given default for all credit contracts written in a given jurisdiction. It also exacerbates agency problems that increase idiosyncratic cost within a given financial institution. These external factors as mentioned in the theoretical framework above, include market size, macroeconomic fundamentals, available technology, the average per capita income, and system-wide costs of doing business associated with the quality of transport and communication infrastructure, the effectiveness of the contractual and informational frameworks, and the degree of general insecurity associated with crime, violence, terrorism etc.

We thus assume simply that for an individual financial institution, i, the total revenue (P*) that it is earning prior to expanding its branch to a new location is a function of a given state variables in the present location, holding all other things constant as given below:

$$P^* = \boldsymbol{x_i}\beta + \varepsilon_i \qquad [4.1]$$

Where, the variable $\mathbf{x_i}$ is a vector of explanatory variables that includes such state variables noted above. Assuming further that if the bank opens a branch in a new community, the total revenue or benefit it earns will depend on the available state variables at its new chosen location and the existing state variables in the present location of its branches as stated above. This is shown below as:

$$\pi_i^* = x_i'\gamma + x_i\varphi + \nu_i \qquad [4.2]$$

Where $\mathbf{x}'$ represents a vector of the different levels of state variables in the new location

Again, opening a branch entails setting up, switching and operating costs. Assuming that the system-wide cost of doing business or providing financial services in the new location also depends to a large extent on the available state variables as relate to the quality of transport and

communication infrastructure, the effectiveness of the contractual and informational frameworks, and the degree of general insecurity associated with crime, violence, natural disaster etc. so that the projected differential cost, C*, which includes the extra fixed cost for opening and operating a new branch is given below as:

$$C_i^* = \mathbf{z}_i\lambda + e_i \qquad [4.3]$$

Where, $\mathbf{z}_i$ relates to a vector of the available state variables that drives differential cost in the present location.

As previously mentioned , it makes sense for a bank to open an additional outlet whenever the projected differential benefit from a new branch is at least as high as the differential cost of establishing the branch or the evaluation of the Net Present Value of the future returns is positive in the long-run. We therefore assume that the bank will open a branch in a community and reach out to new customers if and only if the projected differential benefit (given as (π^* - P*) is greater than or equals to the projected differential cost C*, otherwise, the firm will not have any incentive to penetrate to a new area if the differential cost is greater than the differential benefit in the long run. The net benefit of opening this branch in a rural community (Y*) is then specified as follows:

$$Y^* = (\pi^* - P^*) - C^* \qquad [4.4]$$

Substituting equation [4.1], [4.2] and [4.3] into equation [4.4], we simplified as follows:

$$Y^* = x_i'\gamma - x_i(\beta - \varphi) - z_i\lambda + (\nu_i - \varepsilon_i - e_i) \qquad [4.5]$$

Again, given the assumption that both revenue and cost depend on the level of state variables ($\mathbf{w}$) of the respective bank locations, it stands to reason that $\mathbf{x}'$, $\mathbf{x}_i$, and $\mathbf{z}_i$ can be identified to be

at different levels of state variables that can be aggregated into **w**. Thus we have the reduced form of Equation [4.5] as:

$$Y^* = w_i\delta + \mu_i \qquad [4.6]$$

Where, $\delta = \gamma - \beta + \varphi - \lambda$ and $\mu_i = \nu_i - \varepsilon_i - e_i$

From Equation [4.4], inferring from profit maximization condition of the firm will mean that a bank will only open an additional branch in a new location, all things being equal, if the net benefit Y* is such that, $Y^* \geq 0$, Otherwise If $Y^* < 0$, then the bank does not open a branch in a new community.

Since Y* is unobservable and is based on latent regression, we cannot treat this equation as an ordinary regression (Greene, 2003). A bank has either actually opened a branch in a new location or it has not. If there is a bank we can assume to observe the former condition, $Y^* \geq 0$, if there is no bank then the latter $Y^* < 0$ is assumed to prevail. Thus Y* takes a binary choice variable i.e. Y= 1 for the presence of a bank branch and Y= 0 for no bank branch in the whole community. If the error term, (which represents unobserved heterogeneity at the community level), assumes normal distribution or logistic disturbance, then a Probit or Logit model is applied to the Equation [4.6] in order to estimate the probability that a bank will open a branch in a community given the existing state variables. The final equation estimated is Equation [4.7] as specified below.

$$Bank\ (Y*) = \delta_0 + \delta_1 Road\ Status + \delta_2 Economic\ Condition + \delta_3 Major\ Economic\ Activity + \delta_4 Market\ Activeness + \delta_5 Energy + \delta_6 Post\ Office + \delta_7 Maj.Ethnic\ group + \delta_8 School + \delta_9 Health\ Post + \delta_{10} Per\ capita\ income + \delta_{11} Literacy + \delta_{12} Market\ size + \delta_{13} Communication + \mu \qquad [4.7]$$

4.2.2 Towards Defining the Problem of Socio-Economic Exclusion Underlying Demand for Banks Deposit Account.

In microeconomic theory, price and income are very important factors that determine demand for quantity of goods and services. However, demand for financial services goes far beyond such economic factors. Both economic and non-economic factors have been shown by various other studies to be equally important. This section also draws on the Beck and Torre (2006)'s APF for basic financial services to develop a simple analytical framework for both market and non-market factors that attempts to explain why some people are excluded from the mainstream financial services. Simply, we analyze here factors that drive household's demand for basic bank deposit accounts. This framework is also quite similar in spirit to a framework developed by Wai (1972) and adopted by Amimo *et al* (2003).

4.2.2.1 Empirical Analysis of Demand for a Bank Deposit Account

Following the studies mentioned above, we begin by distinguishing between pure demand and actual demand factors to explain self-exclusion as well as demand factors based on ability to hold bank deposit account and having the opportunity to hold it.

Pure Demand

The fundamental theorem of demand states that the quantity demanded of a good falls as the price (**p**) of the good rises. In addition, as the income (**y**) of the individual rises, demand increases, shifting the demand schedule higher at a given price. This is also true for demand for financial services. Similarly, as people's incomes increase, the need to have a secured place for safe custody also increases. However, as the price or the fee increases the quantity of financial services demanded falls. Thus, we express pure demand for financial services as:

$$D^* = f(p, y) \qquad [4.8]$$

Actual Demand

Besides the market or economic forces that drive demand, other demand reducing non-market factors such as socio-cultural, religious and financial illiteracy are also important. These factors often lead to self-exclusion because of such people's inability to recognize the benefits of having a bank account or harboring negative beliefs about the use of financial services. This means that the actual aggregate demand for bank deposit account at any given time for a country will be less than what the market demand factors would have predicted:

$D^* > D$, where D is actual demand driven by factors both market and non-market demand reducing factors as expressed below:

$$D = f(p, y, c, r, l) \qquad [4.9]$$

Where, D is the actual demand for bank deposit account, and **c**, **r** and **l** represent Cultural or Ethnic background, religion and literacy status respectively.

Ability to Use and Opportunity to Hold Deposit Account

We further argue that just acquiring deposit account is not enough to integrate one into mainstream financial system. It is interesting to note that the "banked" are supposed to be fully integrated into the mainstream financial sector by virtue of having a checking or savings account, whereas the unbanked are on the fringes, completely excluded from the traditional or mainstream financial system, and lack an account of any kind. Nevertheless, in between the two terms are what is called the "under-banked" or the 'pseudo-savers' described as people who have a bank deposit account but make very little use of it or do not use at all[24]. The ability of a

[24] Seidman et al (2005) observe that most discussions about the financial services practices of low- and moderate income consumers have proceeded as if these consumers fit neatly into two mutually exclusive

household to demand and utilise or keep the account active does not only depend on actual demand function specified above but principally also, on the liability, the age of the head, dependency ratio, employment status as well as physical assets of the household. The ability of the household to hold bank deposit account is therefore expressed as:

$$W = (l_w, a_w, p_w, g_w, e_w) \qquad [4.10]$$

Where, W represents the ability of the household to demand and hold a bank deposit account, and $\mathbf{l_w, a_w, p_w, g_w}$ **and** $\mathbf{e_w}$ represent liability, age of economic head, physical assets gender and employment status respectively.

Opportunity to Own an Account

Finally, on the issue of having the opportunity to hold an account, we argue that just willing and having the ability to hold an account is not sufficient to guarantee it. There should be availability of financial institution. The longer the distance to a bank, the higher will be the transaction cost for holding an account. Thus, high transaction cost involving travelling to a particular delivery services or lack of opportunity to bank alone has the potential of discouraging one from owning a bank account. Thus transaction cost, T, all things being equal, is a function of the proximity and easiness of accessing banking services, $\mathbf{p_r}$. This can also in turn affect demand for bank deposit account, D. This can therefore be expressed as follows:

$$T = Z(p_r)$$

$$D' = f(T) = f\{Z(p_r)\} \qquad [4.11]$$

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categories, the banked and the unbanked. To them, engagement in the mainstream and alternative sectors by low and moderate-income households should be thought of as a continuum rather than a simple dichotomy of banked and unbanked.

Putting together Equations (4.9) and (4.10) into the actual demand equation (4.8), we specify the model as:

$$D = f(p, y, c, r, l, l_w, a_w, p_w, g_w, e_w, p_r) \quad [4.12]$$

Empirically however, we cannot observe households' demand for financial services, but we can observe whether household has a bank deposit account or not. The Equation (4.12) therefore becomes a binary choice function where the dependent variable D representing demand, takes on the value one (D=1), if any member of the household has a bank account, and zero (D=0) otherwise. The final equation to be, equation [4.13] is, therefore, shown below. The detailed descriptions of the explanatory variables discussed hereafter in section 3.2.

$$Bank\ Account\ Dummy = f\begin{pmatrix} Price, income, Age, Age\ square, Education\ Endowment, \\ Dependency, Employment\ status, Liability, Total \\ physical\ assets, Gender, Remittance \end{pmatrix} \quad [4.13]$$

4.3 Data Source and Variable Descriptions

The data for this study is derived from the Ghana Statistical Service's latest round of Ghana Living Standards Survey (GLSS 5) between September 2005 and September 2006 and launched in 2008. The GLSS 5 is a multi-purpose survey of households in Ghana, which collects information on the many different dimensions of their living conditions. This data, which are collected on a countrywide basis, surveyed 396 communities in the rural areas and a nationally representative sample of 8687 households. The survey covered a plethora of variables that include rural community characteristics, households' demographics, transfers, basic physical and financial assets, employments, health, education etc.

4.3.1 Variables Description: The Supply of Basic Banking Services

Following the econometric framework of banks' location decision in section 4.2.1, the dependent variable Y* in equation (6), is a binary response variable taking the value one, if the community has a bank and zero otherwise. The Variable, W is a vector of explanatory variables representing the level of state variables in the community as discussed in the framework above. At this stage we grouped these variables into four main thematic factors believed to influence banks branch placement decision as: the expected demand, the level of urbanization and modernization, the market activeness and the perceived risk and insecurity in the community. These are discussed below as:

1. **Expected demand for financial Services:**
    - **Poverty and income levels**: In view of the fact that commercial banks are profit oriented and are mainly in business to mobilize savings and advance credit they are more likely to avoid areas where poverty levels are high and per capita incomes relatively very low. Banks often consider the poor as highly risky clients and transactions involving smallholders are also costlier. We represent the level of poverty in the community by two main variables: the first is the average household per capita income in the community and the second is the percentage of literate population in the community basing both proxies on the household survey data. We expect the signs on the variables to be positive.
    - **Market size:** As mentioned earlier, the fixed transaction cost is one of the main constraints to supplying financial services and one way to surmount it is either through sufficiently high value or high volume transactions. However, because of low incomes, the former is almost non-existent in a rural community. The best option therefore is large volume transactions that will reduce per unit cost through scale economies. Thus we hypothesized that banks are more likely to locate in areas where the potential

market size is big enough to ensure economies of scale. We use the size of the community population to proxy for the market size and expect the sign to be positive.

2. **The level of Modernization and Urbanization:** Earlier studies have shown that commercial banks are generally located in areas that are more urbanized or benefit from improved infrastructure[25]. Thus, based on the available data, we hypothesized that banks are more likely to place a branch in areas where the following physical infrastructures are present:
   - **Energy:** Since most areas in rural communities are not connected to the national electricity grid, presence and reliable energy source will be an important factor in placing a bank. We assigned the value 1, if the community is connected to the national electricity grid and zero otherwise.
   - **Transportation:** The status of the road network and the quality of the transportation system are important in the system wide cost of doing business, which also increases transaction cost of financial service provision. Taking the value of 1, if the community has good motorable roads throughout the year and 0 otherwise, we expect banks to go into areas where the road network is good.

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[25] Beck et al (2007b) providing evidence on cross country study, explore the association between banks' outreach indicators and infrastructure development, and in particular, find that greater outreach is correlated with standard measures of financial development, and better communication and transport infrastructure and better governance . In similar studies cited in Sharma and Zellar (1999) find that commercial banks in Bangladesh and India favor well-endowed areas, and more likely to be located in places where the road infrastructure and marketing system are relatively developed.

- **Communication:** modern banking requires easy access to and efficient communication and information technological platform. Thus banks are more likely to go to such areas where communication services exist such as telephones or internet services or to the barest minimum a post office. Proximity to the nearest phone center is used to proxy for communication thus expecting a negative relationship. The post office is a dummy variable taking the value 1 if the community has a post and zero otherwise.
- **Education and Health Infrastructure**: since the staff of banks will normally be staying in these communities the availability or proximity to such social infrastructure will enable banks to attract skilled personnel for efficient service delivery. We use distance from the community to any health post whether a hospital, clinic, pharmaceutical etc. in the community. We represent the education variable by the value 1, if there is a Junior High School in the community and 0 otherwise.

3. **The level of Economic Activities:** An active and more commercialized community is more likely to attract banking services because of the high demand that businesses and players alike will place on them. We use the following as proxies for commercialization:

- **Market Activeness:** this takes the value of 1 if the community has a permanent or periodic market day and 0, otherwise.
- **Major Economic Activity**: this is assigned the value of 1 if the main economic activity of the area is agriculture and/or other primary/extractive activities and 0 if it is generally trading. We expect the sign to be negative. This is because farming in these communities mainly depends on the vagaries of the rainfall. As a result, most farming communities are "dead" or inactive during the dry or non harvest seasons. The situation often results in low and fluctuated incomes for most farmers or rural dwellers. This does not only reduce the economic activities, but also increases the risk of doing business by banks in these areas.

4. **Insecurity/Risk:** the degree of general insecurity associated with crime, violence, natural disasters such as flooding, ethnic conflicts, chieftaincy disputes etc. will be of great concern to any commercial bank and thus factor it in deciding whether to site a bank or not in a particular place. They are therefore more unlikely to go to areas that are perceived to be highly vulnerable to such security risk factors and their covariates. The variable takes the value 1, when people in the community perceive that any of the above risk factors is present or a possibility and 0, otherwise. In order to control for ethnicity, we also included in the model a binary variable taking on the value 1, if the community belongs to the main ethnic group and zero if it is in the minority. Table 4.1 below shows a summary description of all the variables in the determinants of bank branch location model.

4.3.2 Variable Description: Demand for a Bank Deposit Account

Dependent variable

From the bank deposit account framework in section 4.2.2, demand for a bank deposit account is unobservable but having a bank account is observable. As such the dependent variable (D) is a binary choice variable taking the value 1 if any member of the household has a bank deposit account, and zero otherwise.

4.3.2.1 Explanatory Variables

Following the theoretical framework discussed above we classify the explanatory variables into four thematic groups as market factors, non-market factors, ability to hold and maintain an account and the opportunity to have a bank deposit account. The following is the description of the explanatory variables.

1. **Market Factors:** these constitute the pure demand factors where demand for bank deposit account is a function of economic factors such as income and price. We use household total income including incomes from agricultural and non-farm activities, employee compensation, transfer etc. We expect that the more income the household has, the more likely the household will demand a secure place to save the money. We use inflationary rate (measured by the price index of the district where the household resides) to proxy for price. Since high inflation erodes the future value of saving all things being equal (i.e., if deposit or saving interest rates remain flat over the inflationary period), we expect household to save in real other than financial assets thereby having little or no incentive to demand a bank account in inflationary periods.

2. **Non-market Factors:** these are demand-reducing non economic factors often driven by self-exclusion problems such as households' cultural /ethnic and religious orientation as well as financial illiteracy. We believe that certain cultural, ethnic or religious practices or beliefs especially from the minority barred some group of people from holding financial assets thus having less desire to hold a bank deposit account. The ethnicity variable takes the value one if the household belongs to the major ethnic group (Akans) and zero otherwise. The religious variable takes the value 1 if the dominant religion within the household is the majority, Christianity and zero if it is in the minority. We use household educational endowments to proxy for the level of financial illiteracy. We hypothesized that households with no or little education are likely to be financially illiterate and may not know the benefits or understand the workings of the financial system and thus would demand less or nothing of it. This is done by adding the number of years each household member spent to complete the highest grade attained in school. We believe that one year increase in the number of years any household member spent in school will increase the likelihood of demanding a bank deposit account thus having a positive outcome.

Table 4.1 Summary Statistics (Determinants of Bank Branch Location Decision)

Variable	Description	Mean (Percentage)	Expected Sign
Bank (Y*)	=1, if the community has a bank =0, otherwise	(5.3)	
Proximity to a Bank (Y)	Kilometre distance to the nearest bank	11.1	
Perceived Insecurity/Risk	=1, if the community is perceived to have risk factors as in crime, natural disasters etc; =0, otherwise	(52.5)	-
Transport/Road Status	=1, if the road network is good all year round; =0, otherwise	(52.5)	+
Economic Condition	=1, if the community perceived their standard of living has improved in the last 10 years. = 0, otherwise	(39.2)	+
Major Economic Activity	=1, if the main occupation of the community is agricultural or primary related. =0, if it is trading	(33.8)	-
Market Activeness	=1, if there is a permanent or periodic market; =0, otherwise	(27.0)	+
Energy	=1, if the community has electricity; =0, otherwise	(33.8)	+
Post Office	=1, if there is post office, =0, otherwise	(3.0)	+
Maj. Ethnic group	=1, if the community belongs to the major ethnic group =0, otherwise, 0	(40.7)	+
Health	=1, if there is hospital/clinic/health post; =0, otherwise	(42.9)	+
Education	=1, if there is Junior High School in the community, = 0 otherwise	(46.7)	
Per capita income	Average households' per capita income of the community	2583204.6	+
Market size	The population of the community	823.1	+
Communication	The kilometre distance to the nearest communication centre	22.1	-
Literacy	Percentage of literate based on household data	0.6	+

Note: *Figures in parentheses indicate percentage.* household income is denominated in the local currency, cedi ($1=C9200 at the time of the survey)

3. **Ability to hold bank deposit account:** Apart from the income of the household, we think certain factors such as the debt, physical assets, household size and some household demographic factors such as age, gender and the employment status of the economic head of the household may also determine whether the household will have the ability to demand and hold a deposit account. The variable debt is a proxy for the liability of the household which

takes on the value 1 if the household owned money from any source, and zero otherwise. The expected sign on this debt is ambiguous because high debt burden may mean that household will think very little about saving and thus will be less inclined to demand a bank account. On the other hand, if the household demands a loan from the formal banking sector, then opening a deposit account is a prerequisite to qualify for a loan.

Other factors believed to affect household ability to hold a deposit account are the physical assets of the household. Physical assets range from durable consumer assets such as cars, house, land, household appliances, etc, to agricultural assets such as livestock and equipments. Many studies have predicted a positive relationship between the physical wealth of the household and the demand for financial savings[26]. However, we believe the sign could be indeterminate in that physical assets could be either a substitute or a complement to demand for financial savings. It serves as substitute if households prefer to save in real stocks such as livestock or buying lands instead of financial assets and thus are less likely to demand bank deposit accounts. On the other hand, physical assets become a complement if the household saving behavior depends on assets that can easily be converted into cash thus showing a positive relationship.

The ability to hold a deposit account is also believed to be influenced by the household size as a proxy for dependency. Our data shows a high positive correlation (0.89) between the household size and the number of dependents (i.e., non-active members of the household). High dependency means high household consumption and fewer saving thus less likelihood to demand a saving account. The age of the economic head of the household is also expected to influence the probability of demanding a bank deposit account for saving. We expect young household heads to have a higher probability of demanding a bank deposit account than their

[26] Amimo, et al (2003)

older counterparts. This is consistence with the life-cycle hypothesis, which postulates simply that individuals save while they work in order to finance consumption after they retire.

Another household characteristic that may explain the demand for a deposit account is whether the household economic head is a female or male as a proxy for gender. A female household head is expected to be less inclined to hold a deposit account as against her male counterpart. Again, in line with other studies (Amimo *et al* 2003; and Zellar and Sharma 2001) we included an employment dummy variable to capture the socio-economic status of the household, which is believed to also influence household engagement with banking institutions. We categorized household into either formal or informal (which includes, self-employed, farmers etc) based on the head's main occupation. We also included a remittance variable to test whether households who receive remittances from either locally or abroad are more likely to demand a bank deposit account.

4. **Opportunity to hold a bank deposit account:** this variable captures the proximity (in kilometers) to any bank and represents the transaction cost of holding a bank deposit account. The farther a household is away from a bank the less likely they will demand a financial service from a bank because of the travel time, the risk and cost involved in operating the account. We note here that because of the limitation in data, this variable is only included in the rural model to test the hypothesis. It is also somewhat justifiable because in most of the urban areas the opportunity to bank is not a problem since most of the banks are present in all the urban areas. However, we included an urban-rural location dummy variable in the overall model to capture whether there is a significant difference between rural and urban responses in respect to banking. The Table 4.2 above shows a summary description of all the variables in the determinants of demand for the bank deposit account model.

Table 4.2 Descriptive statistics: Demand for Bank Deposit Account Model

Variable	Description	Mean (Percentage)	Expected Sign
Bank Deposit Account	=1,if any household member has a bank account =0, otherwise	(27.5)	
Age - Head	The age of the economic head of the household	45.3	+
Age square	The age square of the economic head	2067.3	-
Education Endowment	Addition of number of years each household member spent in school	15.6	+
Dependency	This represents the household size	4.2	-
Price	The price index of the community of household	3.4	-
income	Total household income	11753099.2	+
Employment status	=1, if main occupation is formal; =0, if informal	(14.5)	+
Ethnicity	=1, if household belongs to the majority ethnic group =0, if in the minority	(38.9)	+
Gender	=1, if household head is female; = 0, male	(37.9)	-
Liability	=1, if any household member owned money from any source=0, otherwise	(26.3)	+/-
Religion	=1, if household belongs to the majority religion; =0, otherwise	(71.1)	+
Remittance	=1, if household received remittances from overseas	(52.7)	+
Total physical assets	Total physical wealth of the household *including farm assets*	35238602.4	+/-

Note: *Figures in parentheses indicate percentage.* household income and physical assets are denominated in the local currency, cedi ($1=C9200 at the time of the survey)

4.4 Regression Results: Banks' Location Decision

Table 4.3 reports the results for probit estimation of equation (6) where the dependent variable takes the value of one, if the bank branch is located in a community and zero otherwise. All the model fitting information shows that the models were well specified. For robust check, we applied the linear regression model (Ordinary Least Square method) to the explanatory variables where the dependent variable is the community's proximity to a bank which was measured as the inverse of the kilometer distance to a nearest bank[27]. Both results are presented in the Table 4.3. The results present interesting findings.

The coefficient on *market size* variable is robustly significant and with expected positive signs in both estimations. This indicates that banks are more likely to place a branch in communities where the size of the population is large irrespective of the levels of income or poverty as long as it can take advantage of economies of scale. This result is not surprising in that the communities in question here are rural and the fact that poverty in Ghana is a rural phenomenon; banks will be unwilling to go to such places because of low value transaction resulting in high fixed transaction cost. As the theory suggests, unless banks can take advantage of scale economies and network externality to reduce per unit cost of production, they will not locate a bank in a rural area. This result also reveals that banks in Ghana are very particular about fixed transaction cost in locating a bank unless the expected demand or population size is large enough to ensure economies of scale. The result again implies that with the sparsely

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[27] We took the communities that have a bank branch located in their area to have the minimum distance less than 0.5 kilometres. This then obviously gave us the highest figure when the inverse was taken with longest distance becoming the smallest. What this implies is that the dependent variable will have the same expected increasing or decreasing function with the explanatory variables as expected in the Probit model to make comparing easier.

populated nature of the rural dwellings the issue of geographic exclusion of financial services could persist for a long time unless a more cost effective means of delivering financial services to the rural population is adopted.

Concerning the variables representing the levels of urbanization and modernization, it appears that placement decisions are more responsive to availability of energy and communication facilities than transportation and post office. *Energy* is robustly significant suggesting that banks are highly likely to place branches in areas where there is electricity. Even though *communication* is not significant in the Probit model it shows up strongly significant in the proximity equation.

Table 4.3 Results of the Determinants of Bank Branch Placement Decision

	1. Presence of a Bank (Probit Model)		2. Proximity to a Bank (OLS estimation)	
Variable	coefficient	T. Value	Coefficient	T. Value
Communication	-0.009	-0.472	-0.013***	-5.352
Market Activeness	1.022**	2.753	0.138*	2.002
Economic Condition	-1.020*	-2.055	-0.270**	-2.466
Educational Facilities	-0.131	-0.396	-0.042	-0.731
Energy	1.179**	2.415	0.252***	3.536
Ethnicity	-0.349	-0.899	0.119	1.657
Health Facilities	-0.006	-0.677	-0.001	-1.084
Literacy	-1.198	-1.037	-0.066	-0.382
Major Economic Activity	-0.315	-0.819	-0.079	-1.288
market size	1.529***	3.151	0.302***	3.795
Per Capita Income	-0.182	-0.455	0.094	1.614
Post Office	0.801	1.519	-0.014	-0.082
Security/Risk	-1.260**	-2.466	-0.179	-1.681
Transportation	0.319	0.935	0.073	1.249
Constant	-4.274	-1.554	-0.686	-1.575
observation	393		393	
R- square				
-2 Log likelihood	34.886		0 .242	

***= significant at 1%; **=significant at 5%; *=significant at 10%

The result suggests that each kilometer a community is away from a communication centre reduces the possibility of a bank placing a branch in the locality by 1.3 percent. Social Amenities such as hospitals and schools however, do not appear to play any role in bank branch placement decisions since both proxies are insignificant.

On the issue of the level of economic activity in the area, it appears that banks are more interested in areas where the economy is active in terms of marketing rather than the kind of occupation the communities are engaged in. The coefficient on *market activeness* is positively significant and robust suggesting that banks are more likely to place a branch in areas where they have permanent or periodic market days. However, whether a community is mainly engaged in agricultural related activities or trading does not appear to influence banks' decision to place a branch in a locality even though the negative sign attached, which was expected, may suggest they are more tilted towards trading. Perception about whether the *economic condition* has improved in the last 10 years surprisingly shows significantly negative sign in both regressions. This result is perhaps more striking because one would have expected the banks to be more responsive to areas where the economic condition has improved over the years. However, it could mean that banks location decisions have nothing to do with perception or communities' economic condition and as the results show, they are rather more interested in other factors such as market size, market activeness etc.

The coefficient on *insecurity/risk* variable is significant with the expected negative sign. This suggests that banks are less likely to go into distress communities that are perceived to be highly risk- prone in terms of crimes, conflicts, natural disasters etc. This result is also suggestive of the fact that banks in the country are not ready to take risk and deal with it or do not have the capacity to do so. Another variable, *ethnicity*, does not appear to significantly explain banks' placement decision even though it has the expected positive sign.

In a nutshell, commercial banks' branch placement decisions in rural communities of Ghana indicate to be strongly influenced positively by the market size, urbanization and modernization in the area of infrastructure development such as energy and communication facilities, market activeness etc. but negatively by the general level of insecurity associated with crime, conflict, natural disasters etc. Being consistent with the Access Possibility Frontier (APF) analytical framework, the results explain that the high level of geographic exclusion of financial services in many communities is mainly due to the low level of such state variables. This reflects supply constrained sub-optimality due to high fixed transaction costs because of the system inability to take advantage of scale economies.

4.5 Regression Results and Discussion: Demand for Bank Deposit Account

The results of probit model estimation for the demand for bank deposit account are presented in the Table 4 below. Table 4.4 contains the results of the overall data estimation and a split data of urban and rural. This was done in order to capture location specific differences in responses because the urban/rural dummy in the overall data estimation shows there is significant difference at the 5 percent level. Beginning with the market or economic factors (i.e., income and price) that affect household demand for basic bank account, these results are very consistent with the model expectation. *Income* is positively significant but only in the urban area. This means that in the urban area households with higher income have a high probability of demanding bank account, but not so in the rural area. A plausible reason for this outcome may be that for rural areas, because of the general levels of very low income, there is not much variation in income levels among households, thus there are no significant differences in income driven demand. Nevertheless, the positive relation between income and demand for bank account in urban areas is consistent with the classical Keynesian theory stating that the relationship between income and saving is linearly positive.

Price, represented by the price index of household's location, has an expected negative sign and is robustly significant in all the estimations. This indicates that households are less likely to demand bank deposit accounts in areas where inflationary rates are high. This result is not only consistent with the basic law of demand, but also indicative of the fact that households are very sensitive to the low deposit rates offered by banks and the erosion of the value of their savings during inflationary periods. Often the real deposit rate shows up in the negative because of the very low or even zero in some cases and almost pegged nominal rate by the banks in the country.

Table 4.4 Estimation Result for Demand of Bank Deposit Account

	All		Urban Model		Rural Model	
Variable	Coefficient	T- value	coefficient	T-value	coefficient	T-value
Age –head	-.297***	-3.537	-.312*	-2.410	-.278**	-2.470
Age square	.086	.973	.076	.542	.068	.585
Household size	-.020**	-2.822	-.045***	-3.255	-.009	-1.018
Proximity					-.004**	-2.446
Education	.262***	10.277	.325***	6.930	.264***	8.087
Employment status	.558***	12.449	.464***	8.411	.769***	9.497
Ethnicity	.123***	3.555	.063	1.593	.143***	2.845
Gender	.050	1.402	.094	1.752	.009	.183
Income	.030**	2.525	.050**	2.929	.009	.507
Loan	.172***	4.802	.136**	2.478	.228***	4.723
Urban/Rural	.208***	5.824				
Physical Assets	.182***	11.915	.266***	11.217	.155***	7.260
Price	-.186***	-4.508	-.252***	-5.589	-.089	-.614
Religion	.172***	4.012	.245***	3.672	.116*	1.998
Remittance	-.036	-1.074	-.113**	-2.342	.004	.092
Constant	-1.469***	-5.720	-1.683***	-4.787	-1.542**	-2.683
Number of observation	7411		3379		4032	
-2Log likelihood	7933.703		3944.138		3951.379	

***= significant at 1%; **=significant at 5%; *=significant at 10%

The results on the non-market demand reducing factors or self-exclusion factors (ethnicity, religion and illiteracy) are all robustly significant with the expected signs in all the three estimations. The *education* variable, which proxy the level of financial illiteracy and represented by the household educational endowment, indicates strongly that financial exclusion in the country can be explained by the level of illiteracy or financially illiterate. Households with low level of educational endowments are less likely to demand a bank deposit account irrespective of its location. The results also show that the minor ethnic and religious groups are the unbanked and the excluded. The positive sign on both variables indicate that households belonging to the majority ethnic and religious groupings are more likely to demand bank accounts as against those in the minority. This is in line with self-exclusion beliefs of certain minority religious groupings in the country.

On the issues of household's ability to demand and hold deposit account which focus on physical wealth, liability and household's demographic characteristics present interesting findings but generally as expected. The *Physical Assets* that proxy for the accumulated wealth of the household is significant and positive. This indicates that households with greater accumulation of physical assets such as consumer durables, land, livestock etc. are more likely to demand bank deposit accounts. This implies generally that physical assets are complementary to financial savings and not substitutes as it has been the belief of many economists. This implies that the amount of household holdings depends on assets that can easily be converted into cash (Amimo, 2003). The finding is also consistent with Aryeetey (2004), who concludes that even though households generally have a preference for productive assets over financial assets, the composition of these is strongly correlated with their wealth positions.

The *Loan* variable (i.e., whether household owned money or not) proxy for household liabilities shows up positive and robustly significant in all three estimations. This is interpreted to mean

that households with bank or owned money are more likely to demand bank accounts than those without. This is not surprising in that most banks, prior to granting a loan request, would require the applicant to open a saving account with it in order to establish a client relationship.

The results on household demographic characteristics are rather more interesting. *Age* of the economic head of the household has somewhat conflicting results. Surprisingly, the *age* variable is negative and significant in all the three estimations, while the *age squared* variable is positive but insignificant in all the estimations. This is in contrast with our expectation as we assumed age to follow a quadratic function with diminishing marginal effect consistent with the life-cycle hypothesis. However, negative sign on the age variable could also somewhat be interpreted in a similar fashion. This means that as the head of the household advance in age, the less likely is he or she to demand a bank deposit account. They are likely to consume more in retirement than to save.

Household size proxy for dependency ratio has the expected negative sign and robustly significant in all three estimations. The higher the dependency ratio, the less likely the household is to demand a bank deposit account. This is not surprising because high dependency means that the per capita income of the household is very small relative to consumption thus very little or nothing at all is left for savings. The *gender* of the household head is surprisingly not significant with varying signs. This means that gender does not explain a demand for bank deposit accounts or a financial exclusion in Ghana.

On the issue of whether household who receive remittances are likely to demand bank account, the result appears to be the contrary. The *Remittance* variable is significant with negative sign but only in the urban estimation. This means that households without remittances are rather more likely to demand a bank account. This is somewhat surprising. However, it could also

mean that in urban areas the majority that receive remittances are the relatively poor segments of the households who by virtue of their low income, low education, sometimes joblessness, are less likely to be banked. Again, most of these remittances are sent through relatives and friends or private agents such as Western Union who do not normally require recipients to open a bank account.

The *employment status variable* proxy for whether the household's main occupation is in the formal or the informal sector is also robustly significant and with the expected sign in all the estimations. This is not surprising since those who work in the formal sector are often paid through the banks and thus are very more likely to demand a bank account. This result is also a confirmation that the large segment of the population who is unbanked lies in the informal sector which constitutes more than 80 percent of the working force.

The sign on the *proximity* variable which proxy for opportunity to bank and which, as mentioned earlier, is only included in the rural estimation is significant with the expected negative sign. It suggests that the farther a household is away from the nearest bank the less likely it will demand banking services. This variable, which also represents transaction cost, implies that a high transaction cost is a disincentive to operate a bank account. When an urban/rural dummy was included in the overall dummy it appeared to confirm this finding. The sign is positive indicating households that are situated in the urban areas are more likely to bank as against those in the rural areas. One is tempted to think that because there is a high concentration of banks in the urban areas access to banks is easy and less costly.

In conclusion, financial exclusion in Ghana or demand for basic banking service such as deposit account can said to be explained by both market and non-market factors. However factors such as price, illiteracy, ethnicity/religion dependency ratio, employment status, physical wealth and

liability of the households as well as proximity to a bank appear to be very important in driving financial exclusion.

4.6 Conclusion

This Chapter has attempted to investigate the drivers of financial exclusion in Ghana by focusing on two main types of exclusions: geographic exclusion and exclusion based on household socio-economic conditions. In particular, the study examines the determinants of bank branch location decision in rural communities and household's demand for basic financial service as a bank deposit account. Using a unique community based characteristic survey and nationally represented households survey data set from Ghana, this study is theoretically underpinned by an access possibility frontier conceptual framework that identifies different demands and supply sub-optimal constraints to broad access to formal financial services.

The study's major findings are consistent with the existing theoretical and empirical literature. On the determinants of bank branch location decision, the study findings indicate that bank outreach to a rural community is strongly influenced positively by the expected demand represented by the market size, urbanization and modernization in the area of infrastructure development such as energy and communication facilities, market activeness within the community. However, it is negatively influenced by the perceived general level of insecurity associated with crime, conflict, violence, natural disasters etc. In the Access Possibility Frontier (APF) framework these findings reflect supply constrained sub-optimality due to a high fixed transaction cost because of the banking system inability to take advantage of scale economies. Considering the fact that most rural communities in the country are sparsely populated with low level basic infrastructures, then the issue of financial inclusiveness or broad access to financial services remains a big challenge.

On the demand side, the study finds that household demand for financial services can be explained by both market and non- market factors. We find a significant positive relationship between income and demand for bank deposit account but only in the urban area. This means that in the urban area households with a higher income have a high probability of demanding a bank account but not so in the rural area. Price, represented by the price index of household's location, has an expected negative sign and is robustly significant in all the estimations. This indicates that households are less likely to demand bank deposit accounts in areas where inflationary rates are high. This result is not only consistent with the basic law of demand, but is also indicative of the fact that households are very sensitive to the low deposit rates offered by the banks and the erosion of the value of their savings during inflationary periods.

The education variable, which proxy the level of financial illiteracy and represented by the household educational endowment is positive and robustly significant. Household with low level of educational endowments are less likely to demand bank deposit account irrespective of its location. We find that household's physical wealth is robustly positively significant indicating that households with greater accumulation of physical assets such as consumer durables, land, livestock etc. are more likely to demand bank deposit account. This implies generally that physical asset is complementary to financial savings and not substitutes. A plausible reason for this is that the amount of household holdings depends on assets that can easily be converted into cash.

Household's demographic characteristics that are found to be important in explaining demand for bank deposit account are household size representing dependency ratio and the age of the economic head. Gender did not appear to be important. Household size has a strong negative influence on demand for bank deposit account. This is not surprising because large size means greater dependency on the active working members of the household resulting in lower per

capita income relative to consumption demands thus very little or nothing at all is often left for savings.

Age of the economic head however presents interesting findings. Whereas we find decreasing marginal effect of age in urban areas the reverse is the case in rural areas. In the urban estimation, age and age square have significant positive and negative signs respectively. This implies that in urban area age of the household head is positively related to one's ability to demand bank deposit account during the working years, and negatively related after retirement, which is consistent with the life-cycle hypothesis. In contrast, in rural area the younger heads of the household is less likely to demand deposit account during their working age but more likely in their retirement.

Household's employment status, household belonging to the majority ethnic and religious groups are all found to be strongly significant with the expected positive sign. The sign on employment status suggests that households whose main occupations are in the formal sector are more likely to demand bank deposit account as against those in the informal sector. This is expected because those who work in the formal sector are often paid through the banks and thus are very more likely to demand a bank account. It is also a confirmation that the large segment of the population who is unbanked is within the informal sector which constitute more than 80 percent of the working force. Another interesting finding is the remittance variable which only shows up weakly significant in the urban estimation has a negative sign. This means that households without remittances are much more likely to demand a bank account. This is somewhat surprising because other studies have shown otherwise. However, it could also mean that in urban areas the majority that receive remittances are the relatively poor segments of the households who by virtue of their low income, low education, sometimes joblessness, are less

likely to be banked. Most of these remittances are sent through relatives and friends or private agents who do not require recipients to open a bank account.

Finally, the study finds that proximity to a bank increases the probability of demanding a bank account. The negative coefficient suggests that the farther a household is away from the nearest bank the less likely it will demand banking services. This variable which also represents transaction cost implies that a high transaction cost is a disincentive to operate a bank account.

From these findings, the study therefore concludes that financial exclusion or the large number of unbanked population in Ghana is both a problem of sub-optimal constraints in demand and in supply. On the demand side, the study concludes that a large number of unbanked is due to lack of opportunity to bank due to limited geographic coverage of the commercial banks and household's socio-economic conditions such as low income, financial illiteracy, religious and ethnic reasons, as well as high inflation rates. On the supply side, the key constraint is the high fixed transaction cost due to the sheer cost of building a bank, operating and maintaining branch networks to reach dispersed, low income communities with low level of basic infrastructure such as energy and communication facilities.

The study therefore recommends the following to promote financial inclusion:

- Monetary authorities should encourage branchless banking across the country. The rationale of branchless banking as a low-cost transactional channel is to use existing infrastructure through retail agents, shop or franchise chains to minimise fixed costs and accelerate scale. Even though branchless banking is a new phenomenon and presents a new challenge, the study believes that with little innovation, creativity and an appropriate regulatory framework its potential remains strong.

- Encourage banks to forge closer links between themselves and the informal financial services that are close to the people. For example, using the *SUSU* schemes on a large scale to open bank deposit accounts for members and mobilise savings on behalf of the banks.
- Extensive promotion of financial educational programs and attractive deposit account incentives among the unbanked to mitigate self-exclusion.
- In the long term however the policy recommendation is for the government or the monetary authorities to promote market development policies that will promote competition within the banking sector and broaden outreach through structural reforms, institution building and improvement of state variables.

CHAPTER 5

Choosing not Borrow: A Case of Voluntary Self-Exclusion of Microentrepreneurs (Demand-side Evidence)

Abstract

The purpose of this chapter is to investigate the underlying socio-cultural factors that drive the majority of microentrepreneurs to voluntarily exclude themselves from seeking external finance, despite complaints of severe financial constraints. Using structured questionnaire, we collected data on some 176 microentrepreneurs in Ashanti region of Ghana. A simple conceptual framework was utilised to classify various forms of financially constrained and unconstrained microenterprises. A logistic regression technique was then applied to a utility function model of credit demand. The findings suggest that voluntary self-exclusion is not only driven by microenterprises' socio-economic characteristics, but most significantly, by owners' perception of access to external finance difficulties and negative cultural-religious biases towards credit use or borrowing as well as financial illiteracy. The study further finds that most microentrepreneurs are interest inelastic or insensitive, suggesting that they are more interested in easier and faster access to finance rather than the cost of borrowing.

5.1 Introduction

There has been newfound interest in microenterprise financing to ensure their sustainability and growth, particularly because of the role the sector plays in poverty reduction through its income and employment generation effects. In Ghana, for example, according to the latest round of Ghana Living Standard Survey report (2008), three million two hundred thousand households representing 46 percent of all households in Ghana operate non-farm enterprises, most of which are micro in nature. This shows the important role household based microenterprise play in the economy.

However, despite wide-ranging efforts by governments and development agencies at building all inclusive financial system, access to finance in most developing countries, especially in Sub-Saharan Africa remains limited (World Bank, 2008). Several previous studies (Aryeetey *et al* 1997; Bigsten *et al.* 2003; Ofei, 2004; Kimuyu and Omiti, 2004; Abor, 2008) on the subject from Africa have shown that mainstream formal financial institutions are reluctant to lend to micro and small enterprises largely because of high risk associated with the sector. Consequently, the majority of the microenterprises (hereinafter referred to as MEs) are denied access because of their inability to present viable business plan and worthy collateral as well as high transaction and monitoring costs due to small borrowing and their widely dispersed nature.

However, efforts at addressing MEs' access constraints have so far focussed more on the supply side with very little attention being paid to the demand side constraints. Inasmuch as financial constraints emanating from the supply side require critical attention, it should also be acknowledged that the problem of financial inclusion is a crucial issue of both demand and supply of finance and does not only rest with the supply side or financial institutions (Beck and Torre, 2006). There are demand deficiency problems, particularly when poor households or microentrepreneurs, despite reporting of severe financial constraints, and sometimes when even

they have physical access to a bank, voluntarily exclude themselves or feel disinclined to borrow. Many microentrepreneurs often cite finance as the most binding constraint. Yet, the majority make no effort to apply for loan (Bigsten *et al.*, 2003).

In Ghana, for example, although in recent times banks are frequently rolling out varied products to attract the new and vast market of the unbanked, demand for external finance is still just about 10 percent, according to the latest round of Ghana Living Standard Survey (GLSS5, 2008). Out of this, less than 20 percent actually borrow from banks. The rest (over 70 percent) borrow either from friends and relatives or other forms of informal financing sources. The fundamental question therefore is what are the socio-cultural factors that underlie voluntary self-exclusion by MEs from seeking external finance? In particular, does perception of access difficulties and attitude towards credit inherent in some cultural and religious beliefs drive self exclusion?

There is a wealth of literature in economic sociology, social psychology and cultural anthropology that emphasize the role of perception and socio-cultural attitudes toward entrepreneurial behaviour[28]. Perception - defines simply by Hema (2009) as an approximation of reality - of difficulties in accessing external finance has the potential of discouraging many MEs from demanding formal finance in particular. Although such perceived difficulties could be far from reality, the actions often taken by lenders to reduce information problems may

[28] The influence of culture on entrepreneurial behaviour was first highlighted by Weber (1904). He argued that Protestantism encouraged a culture that emphasised individualism, justification of entrepreneurial vocations, and self-reliance among others.

exacerbate this perception of access difficulties. This may induce such potential micro-borrowers to voluntarily pull out from the credit market, despite having projects that are viable when considered against the interest rate, or price of available loans (Guirkinger and Boucher, 2007).

Furthermore, Wyer *et al.,* (2007), providing insights into the Personal Construct Theory (PCT)[29] and perception of entrepreneur access to finance difficulties, also argue that an entrepreneur may misrepresent a real phenomenon, such as barrier to accessing finance, and yet, his/her representation will itself be entirely real – "what they perceive may not exist, but their perception of it does". This notwithstanding, such perceived difficulties could exacerbate the risk aversion attitudes of most potential borrowers, especially if there is information gap where microentrepreneurs are not adequately informed or are misinformed (Ekumah and Essel, 2003).

From a socio-cultural perspective, Gracia Clark, a famous African social anthropologist, who had done an extensive study on the indigenous people of Ashanti in Ghana, emphasizes the importance of culture and the behaviour of local traders. Clark (1994) suggests that traders in Kumasi Central Market in Ashanti contract loans outside the marketplace or 'secretly' because of the need to conceal this from other traders at the market in order to avoid shame and stigmatization. According to her, this is because loans are perceived to reflect a shaky financial condition and loss of control over one's business. Though in a different setting, a recent study

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[29] Personal Construct Theory is a theory of personality developed by the American psychologist George Kelly (1955). Kelly believed that anticipation and prediction are the main drivers of our mind. People develop constructs as internal ideas of reality in order to understand the world around them. They can be based on observations or experiences.

by Ambreen (2009) also finds that social, religious and cultural norms are major barriers impeding women from borrowing in Pakistan.

Beck and Torre (2006), however, contend that it would be wrong to argue that voluntary self-exclusion constitutes a problem of access to finance, especially where their lack of demand or need drives their non-use of financial services. According to them, it is however a problem, if there are no suitable alternatives on hand or cases where self-exclusion mirrors unduly low levels of financial literacy or past systematic discrimination that begets a psychological response. Nevertheless, for most MEs their lack of demand may mean severe financing constraints that tend to stifle their businesses, even though they may exhibit high potential for growth and profit viability. Yet, very little is known empirically of the underlying socio-cultural factors that drive self-exclusion, especially in Sub-Saharan Africa - although researchers often interpret their findings in relation to the views and attitudes held by entrepreneurs and the lenders.

The present study attempts to fill the void in the development finance literature by investigating the underlying factors that primarily drive voluntary constraint or self-exclusion. The study sheds light on the proposition that the decision to borrow or not is deeply rooted in the socio-psychological circumstances of the microentrepreneur and information structures available that have the tendency of predicting his/her behaviour regarding financing decisions. Our unique dataset also allows us to classify the various forms of financially constrained and unconstrained MEs for comparison purposes. The rest of this chapter is set out as follows: The section 5.2 presents a conceptual framework for classification of constrained and unconstrained MEs and the development of the study hypotheses. Section 5.3 highlights data sources and Preliminary survey results, section 5.4 presents econometrics specification and discussion of the results and finally the section 5.5 presents concluding remarks, policy implications and future research.

5.2 Conceptual Framework: Towards Classifying Voluntarily Constrained MEs

The classification of which firm is credit constrained or unconstrained has, within the corporate finance literature, received numerous but diverse approaches. Kaplan and Zingales (2000), for example, classify firms without access to more funds than needed to finance their investment as likely constrained, whereas firms with access to more funds than needed to finance their investments as unconstrained. However, on their pioneering study on financial constraint, Fazzari *et al.,* (1988) have characterized constrained and unconstrained firms based on firm's specific level characteristics such as size or asset value. They simply reached an important conclusion that financial constrained firms have greater investment-cash flow sensitivity. However, it is difficult to use some of these classifications or benchmark definitions in the bottom end of firms as in MEs. Several of such studies mentioned above invariably adopt complex financial modelling methodologies that can only be applied to stock listed or big corporate firms that have the ability to raise both equity and debt finance publicly.

Within the emerging micro and small enterprise finance literature however, although very little is known in this field, few available studies (Bigsten *et al.* 2003; Guirkinger and Boucher, 2007; Ofei, 2004) situate their classifications of constrained and unconstrained MEs within the basic theory of information asymmetry and credit rationing. For example, Guirkinger and Boucher (2007) define as credit constrained "those individuals that would participate in the credit market in a first-best world but withdraw from the credit market as a result of asymmetric information". According to this study, credit constrained is either quantity rationed individuals who withdraw involuntarily because their demand for credit exceeds what lenders can offer or transaction cost and risk rationed individuals who, although have the opportunity to borrow, voluntarily withdraw because taking into account the interest rate to be paid and the non-interest costs, they must raise their expected returns or utility more than they can possibly achieve. Bigsten *et al.* (2003) on the other hand, simply classify enterprise as constrained, if its loan application was

denied or because of fear of being refused, did not apply at all. However, they define enterprise as unconstrained within the credit market, if they were able to access loan or did not apply because they have no need for it.

These classifications, no doubt, lend credence to our earlier assertion in Chapter 3 that there is an important distinction between having access to and use of financial services. In essence, access refers to the supply of financial services, while use is driven by demand as well as supply (World Bank, 2008). Beck and Torre (2006) point out, on the demand side, that entrepreneurs among others alike, might have no impediment to access financial services, but may simply do not want to use them. Further, distinguishing between use and nonusers, the study contends that nonusers or exclusion could either be involuntary, if emanates from the supply side or voluntary, if emanates from the demand side.

In the case of involuntary exclusion, it often occurs when financial institutions, in their bid to mitigate against default risk probabilities, deny or ration credits. These actions often occur because of discrimination for perceived high risk, unsuitable loan size, high interest charges and collateral requirements as well as certain contractual and information framework that increase the transaction cost of delivery (World Bank, 2008). According to the seminal work of Stiglitz and Weiss (1981), such rejections or rationings are necessary in a world of imperfect and costly information in order to overcome inherent agency problems such as adverse selection and moral hazards.

The greater concern, however, is on the demand-side i.e., voluntary exclusion. These are nonusers who voluntarily exclude themselves from the credit market not because they have sufficient liquidity to run their businesses, but due to varied socio-economic and religious reasons. Arguing from economic viewpoint, Bigsten *et al.* (2003) point out that entrepreneur

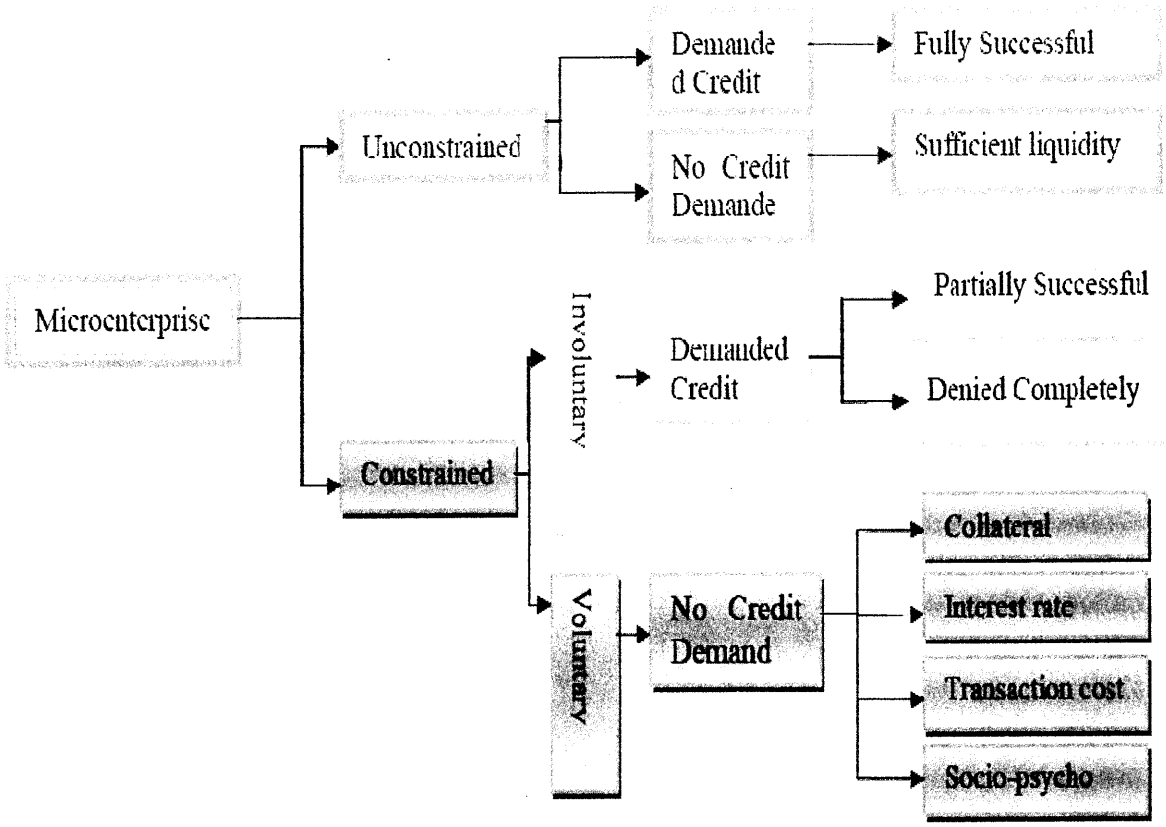
may prefer external funds to internal funds but would not apply for loans for the reason that collateral requirements are not met or the success rate of applications is less than one, and/or the costs associated with loan applications (transactions costs) are too high.

However, Glackin (2002), exploring a framework for 'what does it take to borrow' by micro-borrowers in the US, argues that the cost to the micro-borrower is not simply the interest rate plus fees or collateral, although that is the most explicit portion of the costs, but also the psychosocial costs. He particularly argues that while the other factors are inherent challenges in determining credit constraints, certain psycho-sociological burdens and cost such as stigma, loss of privacy, risk aversion and frustration are critical and should be recognized for their potential to prevent borrowing. On the other hand, World Bank (2008) observes that these nonusers or voluntary self-exclusionists may not borrow due to cultural or religious reasons or because they do not need it. From the foregoing review, it is clear that there are various forms of financial constraints that need clear distinctions.

Building on the earlier studies and using "self-elicitation" responses from microentrepreneurs, we explain and summarise these distinctions or classifications in a simple conceptual framework below (see Figure 5.1). The framework begins by first classifying the unconstrained MEs. We define as being credit unconstrained within this framework as ME who has the ability to obtain external finance or is able to generate funds internally to meet its cash flow problems or invest in physical capital. These are those MEs who apply for loan and are successful or those who do not apply because they do not need it or have enough liquidity. On the contrary, access constrained MEs are first classified into two – voluntary and involuntary. Beginning with involuntarily constrained MEs, these are those, who even though apply for credit, their credit demands are either denied completely or are granted, but partially - i.e., receiving only a portion of the loan amount requested.

On the other hand, voluntarily constrained MEs are those, even though report of severe credit constraints, do not even attempt to apply for external funds or feel disinclined to do so for various reasons. Hereafter, we outline some of the reasons often cited for self-exclusion.

Figure 5.1 Characterising Constrained and Unconstrained Microenterprises



Source: Author's

The following are several different constraints or barriers that voluntarily excluded MEs could be classified based on the reasons they are more likely to cite for not applying for credit:

- **Collateral Constrained MEs:** This is when MEs stay away from applying or borrowing due to a poor collateral quality or believe their collateral positions do not much up to what is required by the lenders. Even if they can pledge collateral, some do

not want to tie up resources since that imposes an opportunity cost for not been able to use for another purpose (Glackin, 2002). Others stay out because of the difficulty in getting a third party or co-signor to guarantee the loan facility.

- **Interest rate constrained MEs:** This is when MEs feel a need for external credit, but will not borrow because their perceptions on the costs of borrowing far outweigh the expected receipts. In other words, if investment profitability is projected to be too low to match interest rates on loans, it may reduce MEs propensity to demand for external borrowing (Bigsten *et al*, 2003).
- **Transaction cost constrained MEs:** In addition to the often high application costs, there is also one group, who would not apply merely because of an absence of a delivering point or the cost involved in travelling to a nearby bank and/or the time to spend in filling complex application forms, and preparing such documents as business plan or balance sheet.
- **Psycho-socially constrained MEs:** These are demand reducing social institutional reasons ranging from illiteracy, culture and misinformation to religion. For example, excuses such as 'not knowing where exactly to go'; 'do not understand financial sophistication'; do not want third party intrusion (Abru, 2008); fear of risk or specifically, do not want to forfeit collateral in an event of default; 'I am already heavily indebted'; fear of rejection or do not expect to be successful because some colleagues tried in the past and were rejected and some, simply 'abhor the attitude of bank officials' (Ofei, 2004), are more likely to be cited.

Beyond the preceding excuses, issues of how perception of access difficulties, the extent of one's belief in culture or religious values as relate to use of credit, and sensitivity to interest payments as well as information gap drive voluntary self-exclusion have not been explicitly

addressed in the literature and thus need an empirical validation. The following subsection focuses on these key factors in explaining voluntary constrained MEs.

5.2.1 Hypotheses Development

Perception of Access Difficulty and Voluntarily Constrained MEs

Guided by the key premise of the Personal Construct Theory (PCT) to explain the nature of entrepreneurs' perceptions toward access to finance difficulties, Wyer *et al* (2007) argue that it is appropriate when attempting to assess the impact of entrepreneurs' perceived difficulties in accessing finance to proceed on the basis that an individual may be adjusting their personal construct and thus their perceptions, beliefs and expectations may reflect on the way he or she reacts in the face of new experiences. This simply suggests that those individuals tend to act in a similar fashion as their preconceived mind, and may feel disinclined to borrow based probably on perception of difficulty, mistrusts or past experience or suspicion of financial institutions. Maurice and Colin (2002) contend that this problem stems from the fact that humans are unable to understand new information, without the inherent bias of their previous knowledge. According them, "a person's knowledge creates his or her reality as much as the truth, because the human mind can only contemplate that to which it has been exposed". In light of the above, we hypothesize that:

H_1: A microentrepreneur with negative past experience with finance or with strong perceptions of access to finance difficulties is more likely to be voluntarily constrained (self-excluded)

Negative Perception about Credit use and Voluntarily Constrained MEs

As previously mentioned, within some socio-cultural norms and certain religious beliefs among many ethnic societies or religious groups in Ghana, borrowing or indebtedness is said to be

generally not acceptable. The knock on effect from these beliefs is voluntary self-exclusion in order to avoid either guilt, shame or the cost of default, which is perceived to be excessively high, both in social and economic terms. The idea of loosing valuable family assets as well as social sanctions that one is likely to face in an event of default puts pressure on such indigenous traders to be self-reliant by avoiding credit or debt (Aryeetey, 2004). Buttressing this point, Ofei (2004) observes that over the years certain traditional or religious beliefs and imagined problems about obtaining finance from formal banking system still prevail among most ethnic society across all the regions of Ghana. This, according to him, has served as a major constraint in accessing external finance. On the basis of this, we hypothesize that:

H_2: A microentrepreneur with negative perception about indebtedness or credit use based on certain cultural or religious beliefs is more likely to be voluntarily constrained (self-excluded)

Perception of Risk; Interest Rate Sensitivity and Voluntarily Constrained MEs

It is often said that people who are self-confident with high self-image are risk-takers and, although have positive attitude, yet they have realistic views of themselves and their surroundings. On the contrary, the low-self confident persons are not risk-takers as they fear failure. In the Prospect Theory in behavioural finance pioneered by Kahneman and Tversky (1979), such situation is referred to as loss aversion where "people have the tendency to strongly prefer avoiding losses to acquiring gains". In the same vein, Wyer *et al.* (2007) observe that a microentrepreneur with low self-confident or with "a discouraged borrower's attitude" would not want to take a risk and may feel it is futile, given his/her background, approaching a bank for finance. Whilst concerns about risk are expected in most entrepreneurial transactions, the risks of failure, default or losing collateral assets among microentrepreneurs are much more profound and greater than those in mainstream formal sector (Glackin, 2002). Such risk-

aversion is even likely to be compounded, if an entrepreneur is highly sensitive to interest rates charges on loans.

For example, in Ghana, where the financial institutions charge a wide range of high interest rates, the effect of interest sensitivity on self-exclusion could be as well profound. Considering that mainstream banks' lending rates currently average 30% (sometimes higher for some microloans because of the risk often associated with micro-borrowers), while the informal financial institutions are believed to charge even higher rates that range from 100% to 1200% p.a. (Afrane and Banibensu, 2002). Understanding how MEs respond to interest rates is vital for the conclusion to be reached on this study. For this reason and for the fact that the majority of MEs often has low incomes or earns relatively low returns on their capital compared to the prevailing high lending rates within the country's credit market, we hypothesise that:

H_3: A risk averse or high interest sensitive microentrepreneur is more likely to be voluntarily constrained (self-excluded)

Information gap and voluntarily constrained

It is well acknowledged within the information economics literature that information gap exists between supply and demand sides of credit, especially within the rural financial market. The reason for this is because of high cost of information acquisition, particularly when it involves small borrowers. Ekumah and Essel (2003) providing evidence on the power of information in the credit market in rural Ghana, observe that the poor have little access to credit not only because of socio-cultural barriers, but also because of the inadequacy of information about the services and facilities offered by the bank. In many instances, according to them, information relating to various credit schemes, and their associated formalities and obligations do not reach small producers, particularly when they are illiterates. This raises concern because, if

entrepreneurs do not know or make efforts to enquire about microloan programs, they cannot borrow from them or make mistakes with their choice of appropriate financing. Thus, lack of information can be problematic as can inaccurate or incomplete information (Glackin, 2002). Thus we hypothesize that

H_4: In localities where information flow is slow or inadequate or where a microentrepreneur lacks the urge or the ability to obtain basic information about the financial system or the availability of alternative micro-credit schemes, such ME is more likely to be voluntarily constrained.

5.3 Data Source and Preliminary Survey Results

5.3.1 Sampling Procedure and Data Collection Technique

The data for this study is based on a field survey conducted in the Ashanti region of Ghana, between August and September, 2009. The choice of Ashanti region was appropriate in that aside being the most populous region in Ghana, its capital, Kumasi, has one of the highest informal economic activities - second only to the capital, Accra (Aryeetey and Udry, 1997). Geographically, being on the middle belt of the country, the region's unique centrality makes it a traversing point for migrants and traders from all parts of the country. The region also displays additional character of modernity and traditional values, the extreme poor and the wealthy, the highly educated and the illiterates as well as a large representation of both informal and formal financial institutions.

Applying a simple random sampling technique, the survey design was based on the following three strata: sector of activity, geographical location and enterprise size. Regarding stratification by sector of activity, we first divide the enterprise population into three strata – services,

manufacturing (including construction), and primary related activities. This was further divided into 10 sub-strata, which comprise the following classification: Food Processing; Clothes/Shoes; Metal Fabrication and Repairs; Wood Processing; Handicraft; Construction; Garages; other Services like hairdressing etc; Trade and Restaurants and Transport. All put together, there were 60 different kinds of activities found in the microenterprise sector. We randomly selected at least two activities from each sub strata with the number rising with the subsector that has the greater number of activities under it.

On geographical distribution, three socio-economically important locations were stratified, namely the central business district (hereafter referred to as CBD), suburb (or sub-urban) and rural location. This stratification was done to reflect the level of economic activities, the concentration of enterprises and credit providers, as well as income variations. Whereas there are high concentrations of various kinds of microenterprises and financial institutions within the CBD (i.e. the entire downtown area of the city of Kumasi), within the suburbs (i.e., areas in and around the city other than the CBD) and the rural locations the reverse is the case. The sparsely nature of enterprises in the latter two areas does not only imply low business activities, but also makes it very unattractive for financial institutions to reach-out with their services. This therefore highlights the issue of increase transaction costs as a result of long distant travels to a nearby bank. Furthermore, we randomly selected ten rural areas that are a bit farther from the city across the length and breadth of the region. Interviewers were assigned to each of these villages.

With regard to the size of enterprises, we did not have any specific definition since the literature on what constitutes a microenterprise is not straightforward. Definitions by size vary greatly and sometimes 'arbitrarily' gauged, whether defined in terms of capital, turnover, fixed assets or the number of employees. It may also depend in which country or the level of socio-economic and

industrial development of the country. For example, whereas in U.S.A the capital threshold for enterprise described as micro is US$10,000, in Ghana it is about US$1,000 or less (GSS, 2008). However, for simplicity and for purposes of access to finance, we restricted the definition to the band of all non-farm household enterprises employing 10 or less persons (Selvavinayagam, (1995). Even though we allowed for a few enterprises that engage persons more than 10, but share similar characteristics with those in our definition, we deleted as outliers any enterprise that employs more than 14.

Aside from these varying definitions, the literature also highlights a myriad of problems or constraints that characterize/define a microenterprise activity. In Ghana, problems relating to the sector as catalogued by Mensah (2004) are as follows: "domination by one person, with the owner/manager taking all major decisions; limited formal education, access to and use of new technologies; market information, and access to credit from the banking sector is severely limited; Management skills are weak, thus inhibiting the development of a strategic plan for sustainable growth; they often experience extreme working capital volatility; lack technical know-how and inability to acquire skills and modern technology impede growth opportunities". Moreover, although microenterprises in Ghana are legally not required to register under government Company Registration Acts, they are supposed to register with the local or district assemblies. Yet, the majority do not comply, but rather operate in unregulated, disorganised but competitive markets characterized by free entry and exit. They often operate from small shops, wooden kiosks that are line-up along major streets, hawk with their wards, and occupy lands or properties which either belongs to government or do not have property rights.

To achieve the study objectives, we used structured questionnaires and obtained usable data on some 176 microenterprises ranging from owner's socio-economic characteristics, enterprise specific level characteristics, financial performance, sources of start-up capital and constraints

to perception of access to external finance difficulties and attitudes towards the use of credit. The other aspects of the questionnaire also surveyed information on cash flow problems, sources of working capital and desire type of future financing. The last category of questions dealt with reasons relating to why the need for external finance; why entrepreneurs did not apply for loans despite complaints of financial constraints; why loans were refused or successful as well as issues of interest rates sensitivity and financial literacy or awareness. The structure and the kind of questions were streamlined by series of seminar presentations and pretesting with some selected microenterprises. Most of the questions were either closed ended binary or multiple choices with a few calibrated on a 5-point Likert scale.

5.3.1.1 Challenges and Limitation

Information about the microenterprises was our major constraint at the start of the sampling process. Apart from Ghana Statistical Service that has a limited data on non-farm household enterprises; there is virtually no baseline data or records on enterprise registration status, addresses, sector of activities, ownership structure etc. in any of the government agencies. Therefore we were compelled to adopt an accidental selection of enterprises without any prior information about them.

Another constraint encountered was the microentrepreneurs' penchant to underreport or tell half truths about their employees' status, financial details, and registration status. This was because many of them perceived the interviewers as either being tax collectors or some agents who would use the information so obtained for purposes other than research, which may not be in favour of them or their businesses. Many were also of the opinion that time and again people had come to undertake research, but very little was there to show by way of benefits or improvements in their conditions. These protestations were more pronounced among those in

the CBD who, for some of these reasons, were often very reluctant or hostile to our interviewers.

On the other hand, we also encountered a serve serving bias, where microentrepreneurs were over-reporting their financial performance or exaggerating their financial difficulties. This kind of biasness supports Wyer *et al.*, (2007) argument that owners/managers of enterprises often have an incentive not to recognize the problematic financial situation of the enterprise or exaggerate the problem of constraints in order to overcome their own act of failures. Lastly, due to time and logistical resource constraints our sample size was relatively small.

In light of these limitations, one has to be cautious when interpreting or generalising the results. Instead, the results should be seen as an indicator of emerging patterns and association between relevant variables. This notwithstanding, most of our preliminary results are consistent with several other studies on this field. It is also noteworthy that the survey was based on the assumption that the sample of microenterprises was a fair representation of the remaining microentrepreneurs in the country because of their homogeneous characteristics in cultural and socio-economic status across the country.

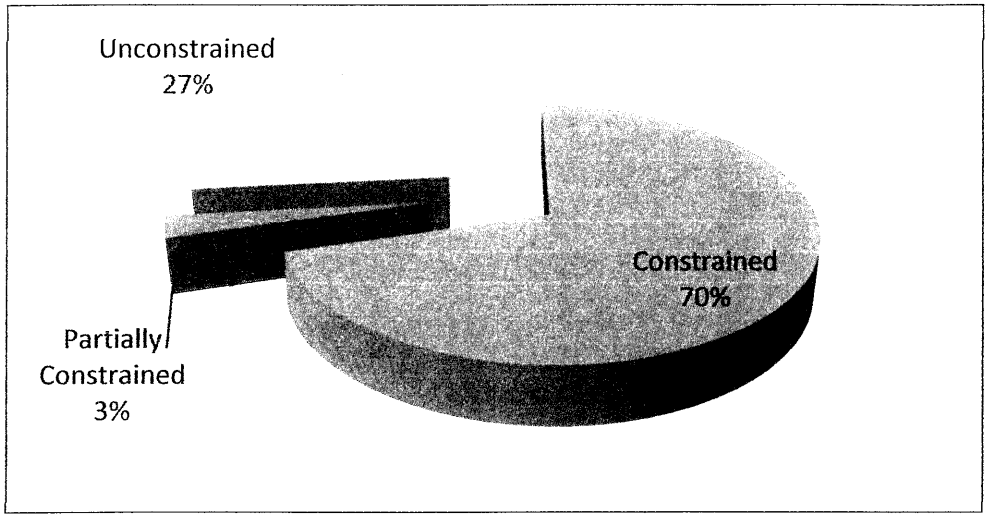
5.3.2 Preliminary Results: Which MEs are voluntarily constrained?

From the conceptual framework discussed above, we classified MEs into four constrained categories, namely voluntarily, involuntarily, partial constraints, and unconstraint. The survey first asked microentrepreneurs to indicate whether their enterprises were critically in need of finance. The preliminary results show that the greater majority (79 percent) actually responded in the affirmative. We further asked whether they had tried applying for credit in the last 12 months. Surprisingly, however, only 3 in 10 (31.8 percent) had actually applied for credit despite the overwhelming majority reporting of severe financial difficulties.

Among the respondents who applied for credit, half (50 percent) were successful whereas the remaining half (representing 15.9 percent of the total respondents) were rejected. However, among the successful ones, approximately 18 percent did not receive the whole amount of the loan applied for (this are the partially constrained MEs). On why the majority (68.2 percent) of MEs did not apply, the commonest reason was no need for credit (20 percent or 13.6% of all respondents) because they had sufficient liquidity to run the business. On the contrary, the rest (54.6%) did not apply because they thought among other things that interest rates being charged were too high, or they neither did not have the required collateral nor expected to get the loan because of certain social reasons.

Following these results, we aggregated and classified the MEs into all the categories of constrained and unconstrained MEs. The Figure 5.2 below shows the broader constrained and unconstrained categories, whereas the Table 5.1 presents detailed classifications. The Figure 5.2 shows that slightly more than a quarter of all MEs (27 percent) were unconstrained. Out of this, 13.1 percent was successful with their loan applications and 13.6 percent had sufficient liquidity and therefore did not apply (Table 5.1). In a rather sharp contrast, 7 in 10 MEs (70 percent) were fully constrained with 54.6 percent being voluntarily (i.e., self-excluded) and 15.9 percent involuntarily (i.e., quantity rationed or rejected). Close to 3 percent were partially constrained (or loan rationed).

Figure 5.2 Classification of Microenterprises



Source: Field Survey, August 2009

Table 5.1: Types of Constrained and Unconstrained MEs

Microenterprise	Classification			%
Constrained				
a) Involuntary:	Quantity Rationed		15.9	
b) Voluntary (Self-exclusion):	High Interest Rate	11.9		
	Collateral	9.7		
	Transaction Cost	10.8		
	Socio-cultural	22.2		
Sub-total (b)			54.6	
Sub-total (a + b)				70.5
c) Partially Constrained	Partially Successful (Loan size rationed)			2.8
d) Unconstrained:	Fully Successful		13.1	
e)	Sufficient Liquidity (No need)		13.6	
Sub-total (d + e)				26.7
Total				100

Source: Author's calculation from field survey, 2009

To further examine the underlying factors for self-exclusion and to test the study hypotheses, we asked all respondents at various points to indicate 1) their perception about easiness or otherwise of access to finance due to the financial reforms that have resulted in increased number of banks and keen competition within the sector 2) their views about credit or borrowing and whether these views are based on their religious or cultural beliefs or otherwise 3) If the current high interest rates should be cut by half or reduced to the barest minimum, whether that will propel them to apply for loans again or for the first time and 4) whether he/she is aware of the lending rates being charged by any of the institutions, or aware of any alternative government or donor agencies' credit scheme in their localities. The outcomes of the responses are presented in the Table 5.2 below.

5.4. Empirical Analysis

5.4.1 Model Specification

We begin the empirical analysis by arguing that a microentrepreneur who even though has a need for credit, but choose not to borrow because of certain perceived constraints is simply a matter of choice. In economic terms, the decision to borrow is either based on maximizing or satisfying one's utility so that we can expect a microentrepreneur to borrow if that does not only satisfy his/her financing needs, but also maximises her total utility (Glackin, 2002). It has been shown that the cost of borrowing is a constraint in the utility maximization model for credit demand (Vandell, 1984). Simplifying Vandell (1984) model of credit demand for 'honest' borrowers, we present the following utility function for decision to borrow:

$$Maximise\ U\ [C_i]$$

$$Subject\ to\ C_i = y - l(1 + r) \qquad [5.1]$$

Where C_i is consumption (in this case utility from credit), **y** represents income or revenue to be gained, if loan is contracted and **l** is the loan size with R = 1 + r (where r is cost of borrowing). However, Herrnstein (1997) suggests that behaviour is not only based on expected utility, but also on one's previous reinforcement experiences. In this regard, expanding the model above to accommodate other constraints, we argue that the expected utility that would be derived or maximised as credit is demanded, (U [C_i]), is constrained not only by the cost of borrowing (r) (or interest sensitivity/risk averse in our case), but also other social and psychological costs such as information cost (or gap), perception of access to finance difficulties (or suspicion of the financial institutions) and cultural or religious bias (or negative perception about indebtedness/credit). Thus, we reformulate the above function as:

$$\text{Maximise } U\,[C_i^*]$$

$$Subject\ to\ C_i^* = E[y] - E\{l(1+r)\} \qquad [5.2]$$

Where C* represents the expected utility from the credit demand, E[**y**] is the expected gains (including income and non-income gains), and $\mathbf{E\{l(1+r)\}}$ is the expected costs (whether real or perceived). As mentioned previously, this cost is likely to be incurred, if credit is demanded. Since the borrower is assumed to be rational, he/she will only borrow, only if, the expected utility is positive or at least unchanged (i.e., where the expected gains or revenue exceeds or equal to the perceived costs to be incurred) given as:

$$C^* \geq 0 \text{ or } E[y] \geq E\{l(1+r)\} \qquad [5.3]$$

Otherwise, all things being equal, the entrepreneur will exclude him/herself voluntarily, if he/she perceives the expected costs to be greater than the expected gains i.e.,

$$E[y] < E\{l(1+r)\}$$

However, since C* is unobserved, Greene (2008) contends that Equation [5.2] is based on a latent regression and it cannot be treated as an ordinary equation. But we can observe whether a microentrepreneur who reports of being critically in need of finance is voluntarily constrained or not. This gives us a binary choice model where logistic regression can be applied. Logistic regression is expressed in terms of the odds ratio, which relates the probability of the event occurring to the probability of the event not occurring. Thus, we specify a simple binary response Logistic model as:

$$C_i^* = \boldsymbol{x}_i\beta + \varepsilon \qquad [5.4]$$

Where, C takes the value one (C=1), if the ME is identified as voluntarily constrained and zero (C=0). This is shown below as:

$$C = \begin{cases} 1, if\ C^* < 0 \quad \text{(Voluntarily Constrained)} \\ \\ 0, \text{Otherwise} \end{cases}$$

The variable $\mathbf{x_i}$ is a vector of explanatory variables comprises the key variables of interest described above to test the study hypotheses. It is also noteworthy that since there are no a priori hypotheses on how these variables affect the probability of being voluntarily constrained, we also explore the impact of specific enterprise level and owner's (or manager's) demographic characteristics such as age, educational attainment and gender of the owner, enterprise's assets, profitability, registration status, location, records keeping etc. on probability of voluntary self-exclusion. The final equation, [5.5], estimated is shown below. All these variables are described in the Table 5.2 below with their hypothesized signs. The variable ε represents the error term.

$$C_i = \beta_0 + \beta_1 ME\ size + \beta_2 Age + \beta_3 Educational\ Attainment + \beta_4 Married + \beta_5 Gender + \beta_6 Bank\ Account + \beta_7 Financial\ Knowledge + \beta_8 Interest\ sensitivity + \beta_9 Perceptions + \beta_{10} Rural\ Security + \beta_{11} Registered + \beta_{12} Location + \varepsilon$$

Table 5.2 Descriptive Statistics of the Explanatory Variables and Hypothesized Signs

Variables	Descriptions Voluntarily Constrained		All	Hypothesized Sign
		%	(mean)	
Number of Employee (size)	The number of paid employees	(2.5)	(2.8)	-
Age of Enterprise	Age in years of enterprise	(7.9)		-
Educational Attainment	The number of years spent in school	(9.4)	(9.6)	-
Married	= 1; 0 otherwise	40.0	55.1	-
Gender	= 1, if female; 0 male	31.6	31.3	-/+
Holds Bank Deposit Account	=1; 0 otherwise	31.2	33.3	
Awareness	= 1; 0 otherwise	47.9	45.5	-
Keeps Records	=1; 0 otherwise	28.7	42.0	-
Financial Knowledge	=1; 0 otherwise	10.5	32.4	-
Negative Perception about debt	=1; 0 otherwise	58.9	40.9	+
Return on Assets	Ratio of Net Profit to Average Total Assets	(0.3)	(0.5)	-
Perception of Access Difficulties	= 1, 0 otherwise,	68.4	54.0	+
Interest sensitivity	= 1; 0 otherwise	60.4	63.3	+
Registered	=1; 0 otherwise	29.8	41.5	
Rural Location	=1, if located in the CBD	20.0	25	-
	=2, located in Suburb	33.7	38.6	
	=3, if located in Rural area	46.3	36.4	
Security	=1, if ME household owns land or building;	58.1	61.4	-

Note: The figures in parenthesis are mean values. Source: Field Survey, August 2009

5.4.2 Regression Results

The estimates presented in Table 5.3 below show the results of logistic regression estimation of the determinants of voluntarily constrained microentrepreneurs. The model fitting information such as goodness of fit, the overall percentage correct and others show that the specification seems appropriate. The findings are generally consistent with the study hypotheses and the existing literature.

We begin with the relation between microentrepreneurs with *perception of access difficulties* and voluntary constraint or self-exclusion. The coefficient on this variable is statistically significant with the expected positive sign. This suggests that microentrepreneurs who still perceive access to external finance to be difficult despite the current rapid expansion within the financial sector are more likely to voluntarily exclude themselves. Consistent with PCT, it implies that microentrepreneurs tend to act in a similar fashion as their preconceived mind, or past experience and may feel mistrust or suspicion of financial institutions and doubt whether indeed access has been made any easier. The tendency therefore is for such MEs to cite such excuses as lacking collateral, high transaction cost or high interest rate, etc., even though those might not necessarily represent the reality. This finding also complements Bendig *et al.*, (2009) conclusion that households' demand for financial services in Ghana is influenced largely by households' risk assessment, past exposure to shocks and trust in the providing institution and its products.

As expected, the variable, *Negative perception* on the use of debt is statistically significant and positive in relation to voluntary constraint. What this means is that a microentrepreneur with strong cultural or religious belief regarding the negative social effects of credit use or indebtedness is more likely to be excluded voluntarily even when they need finance. As noted by Clark's (1994), among many indigenous people like Ashantis in Ghana or certain religious

beliefs as in *haram* (finance forbidden) in Islam, borrowing or indebtedness is socially not acceptable. The desire to stay out of guilt, shame, stigmatization and loss of reputation appear to override any gains they might get for taken credit. Thus, they are compelled to be self-reliant or to be dependent on the benevolence of friend and relatives as the case may be.

Table 5.3 Logistic Regression of Determinants Voluntarily Constrained

Variables	Estimate	Std. Error
Age of Enterprise	-0.084	0.230
Awareness	0.357	0.467
Bank Deposit Account	-0.105	0.516
Educational Attainment	0.327	0.206
Financial Knowledge	-1.905***	0.533
Gender	-0.556	0.512
Interest Sensitivity	-1.088**	0.527
Keeps Records	-0.974**	0.485
Married	-1.315**	0.507
ME size	0.503	0.322
Negative Perception of debt	1.489**	0.500
Perception of Access Difficulties	0.979**	0.496
Registered	-1.075**	0.514
Return on Assets	-0.506	0.344
Rural Location	1.530**	0.542
Security	0.163	0.510
Intercept	0.688	0.967
# of Observation		176.000
Overall Percentage Correct		81.437
-2 log likelihood		132.576
Cos &Snell R-Squared		0.445

*** 1% Significant; ** 5% Significant and * 10% Significant Levels

Even though the *Education Attainment* and the *Awareness* variables are not significant, the other variable that proxied information gap i.e., *financial knowledge* is robustly significant with the expected negative sign. This suggests that the higher microentrepreneur is in the know of workings of the financial system or at least aware of the interest rates in the market, the higher

the probability that he/she will apply for external finance or is less likely to be voluntarily constrained. This finding also supports the argument that a financially illiterate microentrepreneur does not only lack confidence, but also he/she is not in a position to appreciate the financial sophistication often involved in formal banking loan contracts and the positive connection between finance and firm value (Gebru, 2009).

Surprisingly, however, the coefficient on the *interest sensitivity* variable is statistically significant but has a negative relation with voluntary exclusion. This is inconsistent with the study hypothesis, in that, it suggests rather that those microentrepreneurs who are sensitive to high interest rates are less likely to be voluntarily excluded. However, there are two plausible explanations we can offer. Firstly, we realised from the survey results that many of those who indicated that they were highly sensitive to interest rates were those who did not borrow because they did not need it or they had sufficient liquidity. Secondly, it may also suggest that for such voluntarily constrained microentrepreneurs, high interest rate did not matter so long as they could get easy and flexible access to finance to run their business. These potential borrowers are probably more concerned about the barriers or constraints such as transaction cost, high collateral demands, or their own beliefs other than borrowing costs.

The results also suggest that MEs located within *rural localities* are more likely to be voluntarily excluded compared to their counterparts in the suburb and CBD. The statistically significant and positive coefficient of this variable reflects the fact that microentrepreneurs living in deprived areas perceive themselves to be disadvantaged in obtaining bank finance. They are perhaps discouraged to borrow because of physical unavailability or considerable travel distances to nearby banks, which go to increase transaction cost of borrowing etc. This finding also confirms Aryeetey (2004) description of financial market in rural Ghana as "despite the fact that the various financing possibilities exist, there is relatively little credit activity that

takes place in rural Ghana. Little borrowing is done in view of the fact that default can be a very costly thing for the borrower".

Another variable that appears to explain self-exclusion is the *marital status* of owner/manager. The negative and significant coefficient suggests that married owners are less likely to be voluntarily excluded. This is not surprising as the survey results show that most micro-loan applications require a third party guarantor or co-signor in order for providers to minimise the risk of default or ensure the integrity of the borrower. Studies have also shown the importance of social networks/social capital or strong family support or participation in business in attracting loans (Ambreen, 2000; Glackin, 2002).

In the case of *gender* however, the result is not significant. This suggests that there is no major difference now between females and their male counterparts as far as demand for external finance is concerned. This may signify a far cry from the previous situation where because of widespread disproportionate education and discrimination within certain cultural values against women, they were either marginalised or lacked the confidence to borrow as compared to men. It is not only the case that many women are beginning to assert themselves, but also there is increasing evidence that financial institutions, base on the success story of the Gramean model which mostly involves women microentrepreneurs, are now lending more to women.

Finally, two other variables that are both significant with expected negative signs are *record keeping* and the *registration status* variables. These suggest that where an enterprise lacks proper financial management or is not registered, it is more likely to be voluntarily excluded. Unregistered MEs are considered as informal or disorganized form of enterprises that often do not have a legal status. Thus may lack the reputation and confidence to approach a bank for a loan. Besides, according to a report, (BDS, 2008), the crucial aspects of loan appraisals or

eligibility requirements by banks, namely financial records, demonstration of repayment capacity and securities, are considered to be more problematic with small enterprises than with larger ones, thus constraining the majority from accessing credits.

In addition to the above regression, and for purpose of comparison, we run another separate regression where the dependent variable is the entire microentrepreneurs - whether constrained or unconstrained. The dependent variable takes the value 1, if ME is unconstrained and zero if constrained. The result is presented in the Table 5.4 below. It generally shows factors such appropriate financial management or book keeping, age of the enterprise signifying reputation and net profit margin have a positive influenced on having access to finance or being unconstrained. However, major factors that have negative relationship with unconstrained MEs are negative perception about credit use, as confirmed above, and large family size.

5.5 Conclusion

This chapter presented an empirical investigation into the underlying socio-cultural factors that drive the majority of microentrepreneurs away from seeking external finance, even though their businesses are in need of financial support. Using a survey data from Ashanti region of Ghana, the study specifically examined the impacts of such fundamental issues as perception of access to finance difficulties, cultural and religious beliefs on credit, and interest rate sensitivity as well as information gap on the probability of voluntary self-exclusion, while controlling for owner's demographic and enterprise specific level characteristics. The study finds that strong perception of access to finance difficulties, negative cultural or religious bias on credit use and financial illiteracy are very important factors underlying voluntary self-exclusion. Whether these perceived difficulties are real or mere perception, they nonetheless impede the majority of MEs from stepping out of their shells to access external finance to sustain or grow their businesses.

Table 5.4 Logistic Regression for Determinants of Financially Unconstrained MEs

Variables	Unconstrained Model	
	Coefficient	Std. Errors.
Assets Value	-0.008	0.114
Book keeping	1.275**	0.474
Educational Attainment	-0.283	0.21
Enterprise Age	0.449**	0.241
Entrepreneurial Training	-0.553	0.444
Family size	-0.359***	0.106
Financial Literacy	0.627	0.482
Gender (Female =1)	0.706	0.471
Interest Sensitivity	0.119	0.443
ME Size	0.306	0.271
Negative Perception about Credit	-1.950***	0.57
Net Profit Margin	1.296**	0.529
Perception of Access	1.655***	0.496
Perception of Self (Low Self Esteem)	0.104	0.536
Registered	0.422	0.485
Rural Dummy	-0.682	0.471
Saves Account	0.157	0.461
Security	0.411	0.455
Constant	0.036	1.159
Percentage Correct		79.5
-2 Log likelihood		152.615
R-Squared		0.285
Observation		171

*** 1% Significant; ** 5% Significant and * 10% Significant Levels

However, contrary to our expectation, the study finds a voluntarily excluded microentrepreneur to be interest inelastic or insensitive to interest rate changes. This finding suggests that microentrepreneurs are probably more concerned about stringent collateral requirements, high transaction costs and other constraints that discourage them from borrowing other than the current high interest rates charges by the financial institutions in the country. The study further

finds that significant proportion of the microentrepreneurs do not apply for loans because of lack of financial records or their informality and disorganised status, which tend to dampen their reputations and confident levels.

In conclusion, the evidence as provided implies that policies directed at building inclusive finance by focusing on supply side alone are unlikely to be successful. Complementary policies aimed not only at removing access constraints, but also target policies that tackle the fundamental demand deficiency issues such as negative perceptions and mistrusts of the financial institutions, are more likely to be effective. By creating awareness through extensive financial literacy programs and social mobilisation at the grassroots level will be a more holistic approach to solving the problem. Besides, innovations in religious-compliant financial institutions should be promoted to meet the financing needs of those who would otherwise exclude themselves because of certain religious beliefs.

In spite of these conclusions, future research is needed to focus on whether there is a perception gap or 'critical mismatch' regarding access barriers to external finance from the perspectives of lenders and potential borrowers as perception can be far from reality or vice versa. Again, any future research should also seek to overcome the limitations of the field survey, especially by increasing the sample size that will support a more rigorous quantitative analysis to validate the results of this study. In the next chapter however, we examine the type of finance a microenterprise will prefer, if it decides to borrow. In other words, if the access constraints are removed, would formal finance be preferred to informal or semi-formal finance.