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Masters Degree Thesis (MMFI)

Disintermediation within the South African Banking System

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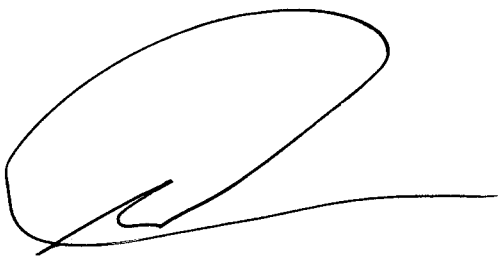
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Declaration

I, Keitshokile Modise declare that the research work reported in this dissertation is my own except where otherwise indicated and referenced. It is submitted as part requirement for completion of a Masters degree in Management (Finance and Investments) with the University of the Witwatersrand (Wits Business School). This thesis has not either in whole or part, been submitted for a degree or diploma to any other universities.



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Abstract

When considering external financing, firms have three choices, they issue equity, issue corporate bonds or they borrow privately from banks or non-bank private lenders. Some research has shown that the lack of competition due to the specialness and specific importance of banks in the economy (as discussed in this thesis) gives banks an information monopoly therefore ensuring that they remain the main financial intermediaries and conduits of economic growth, therefore making them key participants in the economy (Rajan, 1992; Houston and James, 1996).

This thesis seeks to determine if there has been a decline in the overall intermediation level by banks to the private domestic sector as well as to private firms in South Africa between 1997 and 2008 and makes an observation on the evolution of the South African financial services structure, the importance of banks as well as their role on economic growth in particular following financial liberalisation. The thesis investigates this by gathering and analysing data on intermediation activities in the period of study and identifies which sector within the financial services industry has been at the core of economic growth in South Africa (i.e. If Banking activity has been dis-intermediated by or non-banking financial sectors).

Chapter 1

1.1. Introduction

Financial intermediaries such as banks, mutual funds, fund managers, insurance companies and pension funds play a crucial role in modern economies. They issue credit and insurance policies to firms and individual consumers, manage pensions and are the key players in the securities, currency and derivatives markets (Tirole, 1994).

The term financial intermediation is conventionally used to describe the activities of formal financial institutions which simultaneously mobilise capital from one sector of the population (saver) and transform it to meet the needs of another sector (borrowers). Banks are the principal financial intermediaries to perform these activities, by raising capital through deposits and lending to borrowers in the form of loans and investments.

Non-bank financial intermediaries are those agents that operate within the financial services sector but are not banks in nature, but however are also characterised by their act of mobilizing capital from savers and its simultaneous transformation and allocation to meet the needs of borrowers.

At the beginning of the 1990s many countries in the Southern African Development Community (SADC) embarked on programmes of financial liberalization by moving towards market-determined interest rates, they liberalised their trade and foreign exchange regimes, changed their statutes governing the financial sectors, adopted indirect instruments of monetary policy and liberalised their financial systems. Many have argued that financial liberalization have a series of beneficial effects that will ultimately be reflected by faster economic rates of growth. For example, King and Levine (1993) claim to have evidence of a positive relationship between financial liberalization and growth. South Africa is no exception to these countries and has also followed liberalization after the Commission of Inquiry into the Monetary System and Monetary policy in South Africa, employed in 1977. This commission was chaired by Dr. Gerhard de Kock, whose final report was released in 1985. The report stated that the only effective way to restore and maintain reasonable stability of the price level in South Africa was to exert better control over money creation and total spending (Kantor, 1985). The outcome of the report prompted a shift in policies that directed South Africa away from the financial repressive policies of direct control, towards a stance of financial liberalisation.

1.2. Purpose of study

The purpose of study of this thesis is to investigate the changes in the financial industry structure (i.e. the composition of overall intermediation participants) in South Africa as well as to investigate if non-banking financial Intermediaries have disintermediated banking activity in South Africa. We have done a study of the years between 1997 and 2008 and have investigated trends in the extension of credit and deposit takings by banks to the private domestic sector. The purpose of study is to (1) investigate if there are any trends towards a reduction in the level of credit extension to the private sector and deposit taking by banking institutions, (2) to investigate if these trends have been caused by any upsurge in competition due to an increase in activity by non-banking institutions in the period between years 1997 to 2008, and (3) to show the importance of the banking sector by highlighting that growth , especially after financial liberation, is supported largely by the financial services industry and in particular by banks). This is done to support the idea that banks have remained key participants in the economy between lenders and borrowers in the financial services sector in South Africa.

1.3. Problem Statement

The advent of direct market financing for large borrowers, techniques such as securitisation, and the institutionalisation of savings has led to the disintermediation of financial institutions (Shome, 2011). Disintermediation, which is defined as the bypassing of financial institutions, has become increasingly important in the banking sector largely as a result of the increase in the issue of securities to raise capital from capital markets, rather than from banks as well the gradual movement of deposits from traditional bank type deposits to more "sophisticated" capital market instruments such as mutual funds and individual company shares.

The purpose of this research is to study the importance of banks in developing economies as well as to ascertain if South African banks are experiencing a decline in importance due to increase in activity by non-banking financial intermediaries as shown in Chapter 4. In the interest of having a specific focal point, this thesis restricts the definition and focuses of disintermediation from a viewpoint of a trend(s) towards more or increased use of non-banking institutions instead of banks for finance and for bank account deposits, this as a result reducing available business for commercial banks and subsequently increases business for non-banking financial services institutions. This, done via bonds and/or securities issues, collective investment schemes, retirement funds and informal intermediation activities (i.e. such as the use of informal financial institutions and agents as detailed in chapter 3).

1.4. Questions of study

- What developments have taken place in the financial and banking industry in South Africa between the years 1997 to 2008? This particular period follows both political and financial liberalization and the systematic relaxation of restrictions on foreign banks to participate in the South African Economy. (Also note that complete data is only available for this period).
- Is there a convergence towards a capital market-based system and disintermediation of the banking sector in South Africa within the period of study?
- What has influenced this shift (if any) and what are evident trends during the period in question?

1.5. Significance of study

This thesis sought to investigate and provide some empirical evidence to prove if the importance of banking business has been reduced and given way to buoyant activity by non-banking financial services intermediaries during the period in question. Also, we also briefly investigate global trends and whether the increased use of technology has resulted in an increased usage of other non-banking financial intermediaries or if banks have managed to retain this business by introducing these offerings through their centralised on-line banking platforms and other vehicles.

The latent trend such as that of securitization and other sophisticated financial products has enabled non banking channels to create direct channels of funding, therefore giving threat to banking activity as can be seen in the increase in bond issues as well as listings on the Johannesburg Securities Exchange. Although there has not been much material and research focusing on the South African financial environment and in particular, literature on disintermediation and we hope that this thesis sheds some light as to what trends are evident in the South African financial sector as well as to compare the trends with other economies. Also, the understanding of this literature would from a financial system point of view serve to be useful to the understanding the extent to which disintermediation is taking place and therefore point to a shift in the financial and economic structure. This would also be of importance to the South African banking industry to understanding whether or not they are in a declining industry as well as aid them on finding ways to keep themselves relevant.

1.6. Methodology

We answer the key questions raised as well as attempt to prove the conclusions to be made in Chapter Five by using the following:

- Obtaining data from the South African Reserve Bank (SARB), Statistics SA as well as from the South African Financial Services Board. We make use of the data from 1997 to 2008 to compute the Intermediation ratios, Assets Measure, Total Loans and Advances to the private sector Measure, Total Deposits Measure and the Financial Performance Measure as detailed in Chapter Four.
- Carrying out a literature review on this topic on both the international and south African context as contained in the literature review section in Chapter Two.
- Detailing the most significant non banking financial intermediaries in South Africa as well as to provide data on their performance in the period of study. This is detailed in Chapter Three.
- We thereafter provide a summary and conclusion based on the literature and data provided in the preceding chapters.

1.7. Outline of Study

This thesis consist of Chapter One which contains the introduction, purpose of study, problem statement, questions and significance of study as well as the methodology used for this research. Chapter Two consists of the literature review, which is literature on the role of banks and the global trend analysis on evidence of disintermediation. Chapter Three has historical background on the South African environment, a summary of the levels of intermediation as well as a background on intermediation by non-formalised sectors of the economy. Chapter Four, discusses what disintermediation is and factors that contribute to it, followed by empirical results consisting of all data and graphical presentations obtained and its analysis thereof concluded by a summary of the results. Chapter Five concludes this thesis.

Chapter 2

2.1. Literature Review

Financial services firms such as banks , along with government institutions such as the central banks are important early supporters of an organised public debt market, although non-bank private debt providers such as collective investment schemes perform largely similar functions as banks, and are thus capable of expropriating some rent from a firm's investments as well (Ojah and Pillay, 2009). In the absence of a corporate public debt market, firms with profitable investments are most likely to turn to other private lenders for possible less costly financing (Ojah and Manrique, 2009). This thesis explores the prevailing trend within the South African Financial sector context and attempts to ascertain if the banking industry has remained the key intermediates in the economy or if other non-banking financial intermediaries have increased in activity. We emphasize that bank remain key due to their specialness and their role is not easily substituted.

An earlier and intellectual development came from Bagehot (1873), in his classic case Lombard Street, where he emphasised the critical importance of the banking system for economic growth and highlighted the circumstances under which banks could actively spur innovation and future growth by identifying and funding productive investments. In his work, Schumpeter (1911) argued that financial services are paramount in promoting economic growth. I quote, "What the (entrepreneur) first wants is credit. Before he requires any goods or whatever, he requires purchasing power. He is the typical debtor in a capitalist society" (pg. 102). In this process, the banker is the key agent. Schumpeter (1911) is very explicit on this score: "The banker therefore is not so much primarily the middleman in the commodity 'purchasing power' as a producer of this commodity (pg. 74). (Arestis, 2005).

In his "A Treatise on Money" (1931), Keynes also emphasized the importance of the banking sector for economic growth and suggested that bank credit is "the pavement along which production travels and that if the bankers knew their duty, would provide the transport facilities to just the extent that is required in order that the productive powers of the community can be employed at their full capacity" (II, pg. 220). However, Allen and Santomero, (2001), argue that "Progress in finance seems largely to coincide with the lesser role of traditional banking in the intermediation business" whereas Basson (2001), suggests that banks and non-banking financial intermediaries perform different and complementary functions, equally essential to the economy.

On the other role of banks, Basson (2000) argues that because of the banks' specialness to create liquidity through their role as payment intermediaries between buyers and sellers, they can exploit the offsetting nature of multilateral payments and issue overdrafts on their books to depositors who demand to make payments in excess of their deposit claims and therefore remain a superior and cheaper means of payment than alternative instruments which abjure the use of netting credit. This therefore highlights the importance and specialness of the banks. Their specialness is based on their cost efficiency due to their use of outside money together with their own deposit liabilities.

This thesis does not seek to provide evidence on the hypothesis that financial liberalization leads to fast economic growth but only includes it in observation so as to explain the apparent growth and highlight the nuances brought about by this growth and at this thesis's core, it seeks mainly to measure the level (if any) of disintermediation of the banking sector in the South African economy, and to investigate if there has been a shift towards a capital market-based system instead of reliance on core banking to provide the funding/credit extension to the economy.

2.2. The Role of Banks in the economy

The process of intermediation is critical for the efficient allocation of financial resources in the economy and banks are the principal financial intermediaries (i.e. by raising capital through deposits and borrowing, and distributing it in the form of loans and investments). Christensen (1993).

Financial intermediaries, such as banks, mutual funds, securities firms, investment managers, insurance companies and pension funds play a crucial role in modern economies. They issue credit and insurance policies to firms and consumers, manage pensions and they are key players on the securities and derivative markets. They also, in the case of banks, underlie the payment system.

The specialness of banks has traditionally been traced to the monetary and transactional nature of their (demand deposit) liabilities and to their running of the economy's payment system. However in advanced economies, transactional account facilities are supplied by non-depository (and even non-financial) institutions with access to payment clearing systems. Likewise, various other financial and non-financial entities can provide credit to business and also the backup source of liquidity function for banks in times of economic distress. Also, where monetary policy is mainly conducted via open market operations, government securities dealers (even more than banks) may act as transmission belts of monetary policy implements to the economy. Research has therefore looked for other

features that are more specific and that characterize the role of banks in the economy as well as their specialness as financial intermediaries Bossone (2001).

2.2.1. The Credit Function

Essentially, banks produce a net social benefit by exploring economies of scale in processing the information required in monitoring and enforcing contracts with borrowers. Terlizzese (1988) uses the presence of ex-ante asymmetric information as a rationale for depositors' preference to lend indirectly (i.e. depositing funds into a bank account) as opposed to direct financing of individual entrepreneurs or any borrower for that matter.

Through the credit function and the associated access to private information, banks tend to establish long term relationships with funds users (borrowers), based on mutual trust and mutually beneficial incentives. Relationships ensure borrowers with the steady and reliable supply of funding even at times of adverse contingencies, while they generate for banks' sources of rents. Besides in countries with government interventions, the banks' monopoly stems from the fact that the information communicated by the firms (and individuals) to the bank as a result of their banking relationship, cannot be easily communicated to potential lenders in the short term (Ojah and Pillay, 2009).

2.2.2. The Liquidity Function

Banks finance their loans with liquid deposits bearing nominal fixed values and available to their holders on demand. Instead of placing their funds in an illiquid production vehicle, individuals deposit them with banks in exchange for interest-bearing claims entitling them to withdraw the deposits to finance future (un)anticipated consumption needs. Depositors therefore gain consumption flexibility, their requests of withdrawals are however served sequentially on a first come first basis until the bank runs out of assets. The return on these deposits however enables the depositors to achieve higher future consumption. The banks also provide depositors with liquidity insurance service and allow money to be transferred from patient holders to impatient holders.

2.2.3. Integrated functions

By having borrowers hold deposits with them, banks can observe cash flow movements and gain private information about borrowers, which they can then feed into their processing of new loans. This then gives banks a special role as information providers to capital market participants, who incorporate the information embedded in banks' lending decisions into their own investment evaluations (Fama, 1985). Integrating information intensive lending and payment services distinguishes banks from other intermediaries (Goodfriend, 1991)

2.2.4. Banks as primary channel of monetary policy implementation.

The specialness of banks can further be emphasized by the main role they play in the economy to channel monetary policy implementation. It may follow that if the banks are the main and/or biggest financial intermediary in the financial services sector, they will therefore have a lot more exceptional influence on the market in order to fulfil this role.

The theory of the Bank Lending Channel holds that the transmission mechanism of monetary shocks operates through adjustments to the assets side of the banks' balance sheets (Bernanke and Blinder, (1988); see also Kashyap and Stein, (1993); Stein, 1998 and Diaz and Olivero (2010).

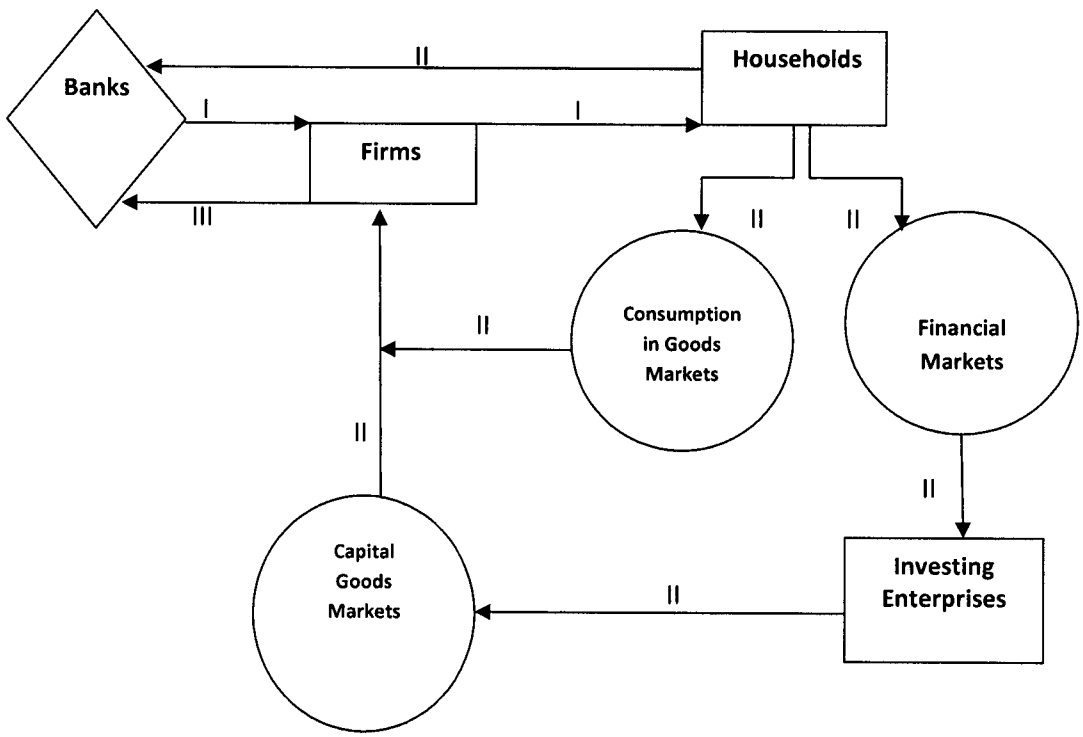
The fall in the bank reserves that follows a monetary policy contraction directly limits banks' access to loanable funds, which makes the supply of bank credit to fall. Two necessary conditions must be met for this channel to be operative.

- First, the banks must find it costly to use alternative non reserveable sources of funds and/or to re-balance their asset portfolio after the change in reserves.
- Secondly, bank borrowers must not be able to perfectly substitute bank loans with alternative financing methods (Diaz and Olivero, 2010).

This makes the banks an imperative conduit for the central government to implement is monetary policy decisions. The effectiveness of this mechanism also varies with different degrees of access to non-deposit funds (Gambacorta, L.; 2004). According to Kashyap and Stein (1995), the lending channel should be more important for small banks, which have a very simple capital structure and financed almost exclusively with deposits and common equity. The impact of the bank lending channel should also be greater for banks with less liquid assets and less capital.

Bossone, (2001) further emphasises the role of banks via a circuit model below. In essence he highlights a theory by Schumpeter, 1934 that the banks are special due to their capability of adding to the existing stock of money by lending promises to pay, so that the total credit in the system can exceed what is possible if credit has to be fully covered (i.e. fully covered by equivalent amount of deposits).

Figure 1: The role of banks via a circuit model



The above sequence is as follows:

1. At circuit start (Phase I), the banks negotiate with firms the conditions for loans. The banks credit the firms' deposit accounts with the negotiated loan amounts. The firms execute production, using capital and labour. Loans are used to pay wages to household workers. Deposits are transferred from the firms' bank accounts.
2. In the interim interval (Phase II), households' income are spent on consumption of goods and/or saved. Savings go into bank deposits and/or into long-term securities issued or traded by financial intermediaries. Firms wishing to add to their capital stock (investing enterprises) bit for funding from the intermediaries. These evaluate potential borrowers and allocate funds to the viable ones in exchange for securities. The financed enterprises buy the capital goods needed. All

money transfers and payment of goods and securities take place through book entries on accounts held with the banks.

3. At the circuit end (Phase III), the firms use their proceeds from output sales to pay off their bank debt. The money originally created is destroyed.

2.3. Disintermediation

The term "financial disintermediation" is used to refer to the flow of funds directly from surplus to deficit sectors of the economy without any intervention of the "middle-man". Further, as has been stated by Goodhart (1992), "disintermediation not only refers to those instances where financial flows are constrained by intervention to pass more directly from saver to borrower (than in unconstrained context), but also where such flows pass through different, and generally less efficient channels than would otherwise be the case"

In terms of the deposit taking role of banks, money market mutual funds and other non-banking financial intermediaries compete directly with banks in attracting funds directly from the public. However, these MMMF's do not lend directly to households and businesses but instead invest in short-term, tradable instruments, predominantly bank CD's, commercial paper and government obligations (Pierce, 1994).

In terms of the credit provision role in the financial sector, the banking sector is the main provider of financial services. Financial services entail a broad range of financial products like credit and savings (Fourie et al, 1999). Access to credit is a vital component of poverty alleviation, employment creation, and enterprise promotion or business development (Rousseau and Venter, 1999). When credit is accessible, the households are able to stabilise household conditions and bridge financial shocks that would have detrimental effects on them. Pricing financial instruments to reflect their full costs and provide a reasonable return is necessary for any financial operation. Information plays a central role in credit/financial markets, particularly in the provision of credit.

Asymmetric information is defined by Mishkin ,(1999) and Teixeira,(2001-03) as a situation in which one party to a financial contract has more or better information than the other. There are limitations on human knowledge or lack of information particularly in the short-run to make informed decisions. The critique associated with Stiglitz and Weiss (1981) emphasises the existence of problems of asymmetric information and costly enforcement. This means that it becomes difficult and costly for the credit market, particularly banks, to acquire information about borrowers. The lack of information and collateral, therefore, lead to high transaction costs of extending credit. This makes it difficult for banks and borrowers to conduct lending and borrowing activities when the

relevant information which is required is not available. High transactional costs then limit the provision of credit. Ironically, the efficiency of financial or credit market is reduced by these costs. Generally, in the financial markets, in allocating resources and acquiring information about investments, it becomes difficult and costly to evaluate borrowers, firms, managers and market conditions (Diamond, 1984). Higher transaction costs in the financial market result in higher interest rates, which will therefore result to the fewer or lower volume of transactions in a given market, and extremely high transaction costs could lead to absence of exchange and thus to non-existence of the market (market failure). The banking services are costly and have a complicated mix of charges, withdrawals and transaction fees. Pricing financial instruments like credit to reflect their full cost and providing reasonable return to the bank is essential for any bank operation (Mashigo, P. 2008).

Raising interest rates serves only to discourage investments in safe projects and cause problems of adverse selection and moral hazard. In response to these problems, banks engage in credit rationing. This involves keeping interest rates low but providing fewer loans or only supplying part of the loan amount requested. Credit rationing, however leads to inefficient allocation of capital as it is possible that a borrower with productive investment opportunities is denied sufficient funds to execute the projects (Fry, 1995).

This is perhaps pertinent to the poor since the cost of credit vetting are high for them and their options are to turn to informal finance providers, or not to participate in the financial sector at all (Ojah and Mokoaledi-Mokoteli, 2010). For firms, disintermediation leads to cost savings regarding working capital, bank accounts, funding and bank relations (Westerman and Eije, 2005).

2.4. The Global Trend

Banks as the first major lenders, along with the rights of private ownership of investment, led to the control of real investment by bank lenders. In many parts of today's world only the government and banks direct much of the real investment. Projects live or die by bank decision as to willingness to finance. In the industrial world, non-bank financial intermediaries have taken away considerable business from commercial banks. Increases have been observed in the market share of institutions holding securities instead of loans. At the same time, banks themselves have heavily shifted their activity from traditional banking to other financial intermediation services such as securities trading and advisory services. Lending to production, in particular, has become less important as more and more firms can directly access the market for short-term funds from capital markets. Also, following financial liberalization, domestic banking sectors have undergone large re-organisation, with banks consolidating into fewer and larger units.

In the US, regulation has traditionally prevented banks from engaging in activities such as portfolio management, mutual fund distribution, insurance or industrial participations both directly and through subsidiaries. However, the Gramm-Leach-Bliley Act of 1999 allows US banks to diversify their portfolio with equity management, mutual fund distribution and other financial activities (Scholtens, 1999 and Barth et al., 2000). The Dodd-Frank Wall Street reform Act, was introduced by Senator Chris Dodd on 15 March 2010 and passed by the Senate on May 20th. The bill sought to regulate the financial markets and make another economic crisis less likely. Part of the bill is to regulate credit cards, loans and mortgages, stop banks from gambling with depositors' money, increase supervision of insurance companies, regulate risky derivatives, bring hedge funds trades into the light, oversee credit rating agencies as well as reform the federal reserve, this has to a certain extend influenced the ability of banks to conduct their business.

The European tradition is different with many banks having enjoyed these "broad banking" advantages much earlier than the US (Barth et al., 2000). Mixing banking with securities activities was generally unrestricted or permitted in the EU-15 and only few restrictions applied to insurance activities and ownership of commercial banks and non-financial firms. In their study of the European Union, (Westerman and Eije, 2005), suggest that in the aftermath of liberalization and deregulation of financial markets, as well as the lessening of currency volatility and the introduction of the Euro, transaction and bankruptcy costs for multinationals have been reduced. This has given rise to the centralisation of the cash management functions and to disintermediation, particularly in the Euro Zone.

In Spain, banks have controlled about 90% of the growing "dis-intermediated" financial flows during the late 1980's and the 1990's with the high growth of capital market investments, loan commitments and mutual funds management, as the main example of the expansion of broad banking. (Valverde and Fernandez, 2005).

The G7 economies, in addition to banking and government have investment that is directed by managers of retirement funds (both public and private), insurance companies investing their reserves, along with many other financial institutions with accumulated funds (Arestis, 2005).

However in sub-Saharan Africa (SSA), banks are the most important elements of financial systems, other financial structures are under-developed or almost non-existent (Kablan, 2009). For many years, competition within the financial sector was limited and financial institutions were subject to

portfolio restrictions. Domestic and international interest rates differentials were wide, exchange controls were extensive and monetary policy was often implemented via the use of direct instruments and moral suasion with the exception of South Africa, Botswana, Lesotho and Swaziland, credit to the public sector was generally high and South Africa was amongst the more developed economies even though also exhibited declines in financial depth in the initial stages of financial reform (Nyawata and Bird 2004).

The Japanese financial system similar to most African economy's systems is often classified as bank centred due to the historical predominance of corporate borrowing from commercial banks and a lack of reliance on public markets. However, in a paper by Anderson and Makhinja (2008), a reduced dependence on banks was documented following deregulation in 1980. The authors further found that the proportion of bond debt is inversely related to growth opportunities, while the proportion of bank debt is positively related to growth opportunities. Intuition would suggest that bank funding aids or supports economic growth. Until the late 1970s, the Japanese economy operated with highly regulated financial markets.

The overall financial system intentionally favoured intermediation through banks. The banking sector was finely segmented, banking and securities firms were strictly separated, virtually all interest rates were controlled by the government, foreign exchange was tightly controlled (along with a fixed exchange rate until 1973 and a heavily managed floating rate for the rest of the 1970s), and the variety of financial instruments of all kinds was very limited and subject to approval by the Ministry of Finance. Monetary policy operated primarily through quantitative measures (varying the supply of central bank credit to the commercial banking system) rather than interest rate manipulation, and with interest rates set below market clearing rates, the government was also in a position to influence commercial banks' allocation of credit to industry (Lincoln, EJ., 1997).

The use of information technologies to create very low cost electronic delivery channels may provide banks with a way to become more efficient and effective but on the other hand these new technologies, such as smart cards, the internet, software cryptography are lowering the entry level barriers to banking businesses, enabling non-banking competitors to take away more and more of profitable banking business. These new technologies such as the personal computer, self-service technology, web market, on-line transacting and strategic call centres have potential to drive disintermediation.

A study of the US market shows that the threats for banking come from two directions, first it's the lowered transaction costs by competitors such as other banks and non-banking institutions who use fully electronic channels and no branches, thus achieving much lower overhead costs and secondly, non- banking competitors who bypass retail banks completely by using electronic channels (Birch and Young, 1997).

Chapter 3

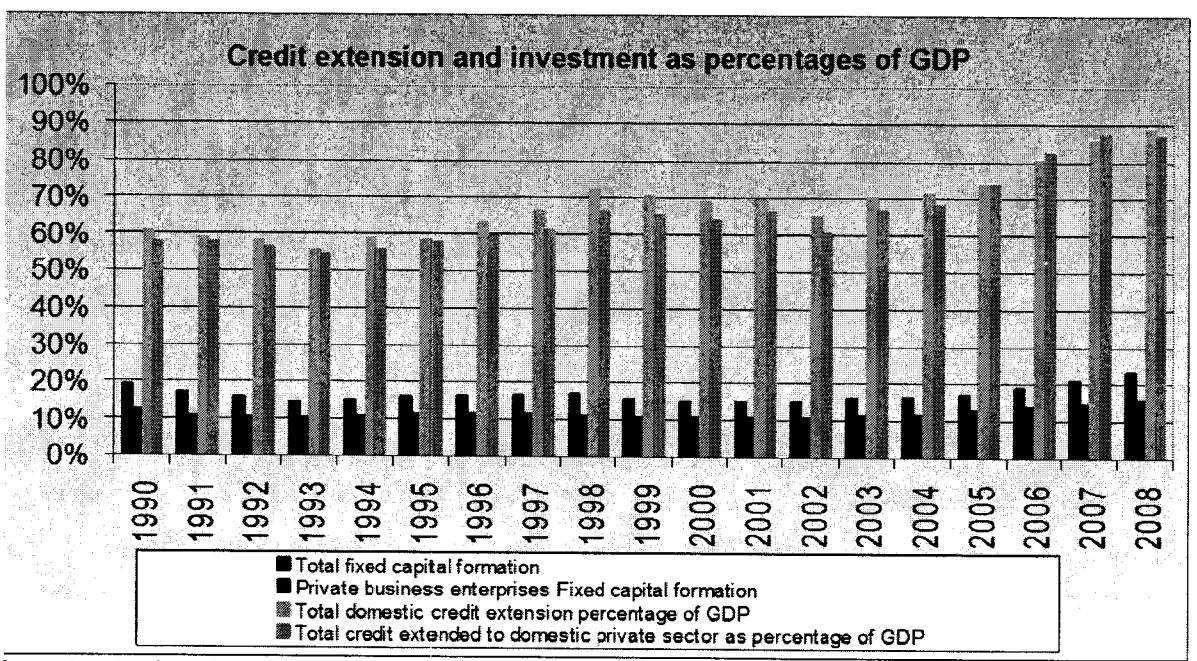
3.1. Background Literature and the South African financial sector structure.

A renewed awareness of the contribution of financial markets and financial systems to economic growth has emerged in recent years (Nyawata, 2004).Initially this reflected the financial sector's role in the thrust toward market liberalization and structural adjustment.

South Africa has experienced economic growth since political liberation, however attempts to redress socio-economic problems inherited from the apartheid past, have not been achieved due to massive misallocation of capital, support of de-industrialisation that made the economy more dependent on mining and minerals, increased financial fragility and dependence on short-term capital inflow that supported the "wrong type" of growth based on speculation such as in expected capital growth of fixed asset values and debt driven consumption (Mohamed, 2010)..

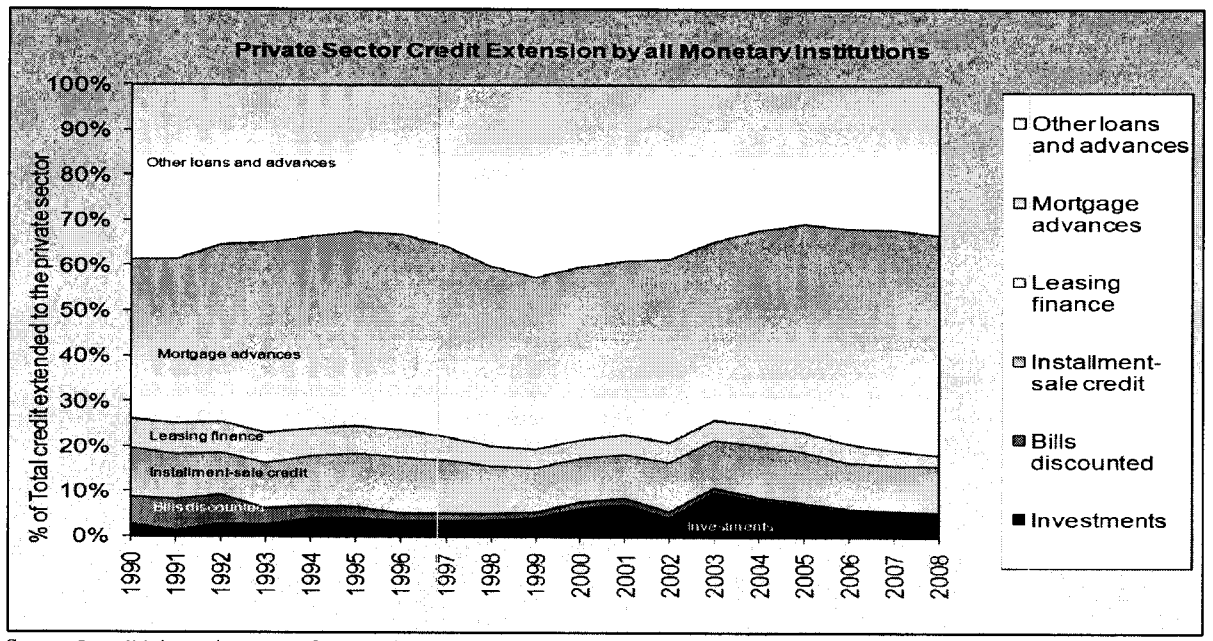
Credit extension to the private sector increased about 22% from years 2000 to 2008 but private business activities (such as trade and new business start-ups) increased only by 5%, and household debt to disposable income of household has increased significantly. Below is a graphical illustration of the trends in the South African economy post political liberalisation.

Figure 2: Credit Extension and Investment as percentages of GDP



Source: Seeraj Mohamed, IDEAS Conference, Chennai, 25 January 2010

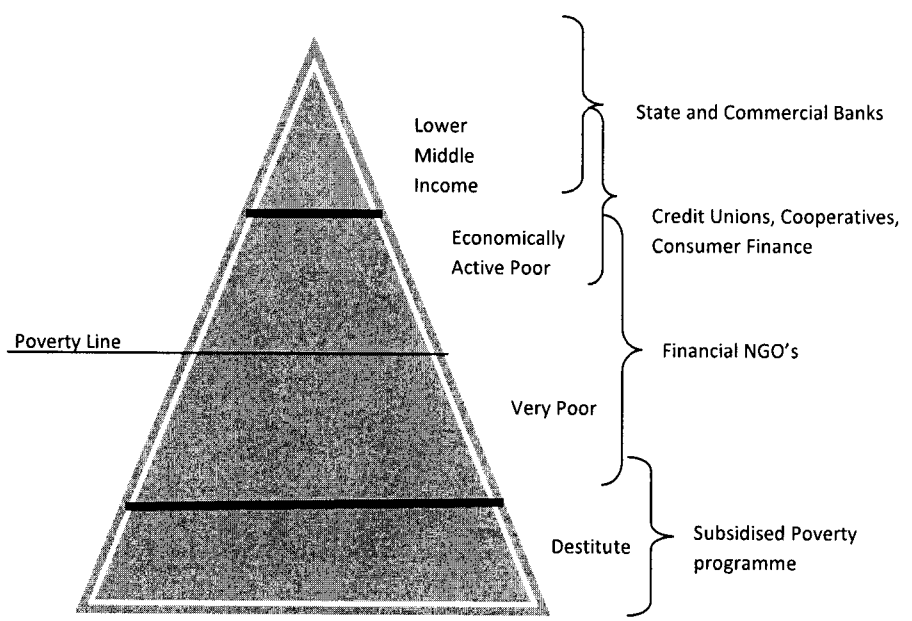
Figure 3: Private Sector Credit Extension by monetary institutions



Source: SeerajMohamed,IDEASConference,Chennai, 25 January 2010)

3.2. A summary of financial intermediation levels

Figure 4: Financial intermediation levels



Source: Littlefield, 2002

On a macro level Lower, middle income and wealthier consumers are typically serviced by the mainstream formal financial sector. Economically active but poor consumers are often not targeted by the formal financial sector or find mainstream financial sector services to be unaffordable and

unresponsive. They therefore depend on the services of credit unions, community-financing initiatives, financial services co-operatives and informal financial intermediaries. The destitute are served by social programmes and subsidised poverty alleviation programmes.

Since this thesis is investigating disintermediation of banking, I have restricted the discussion to intermediation that happens above the poverty line and take cognisance that it is wealthy individuals, corporates and government that are most likely to participate in Capital Market activities.

3.2.1. Banks

There are currently 34 commercial banks in South Africa. Of these, 13 are locally controlled banks, 6 are subsidiaries of foreign banks, 13 are local branches of foreign banks and 2 are mutual banks. There are also 41 representative offices of foreign banks. The banking industry is dominated by four large banks (First National Bank (FNB), Amalgamated Banks of South Africa (ABSA), Nedbank, Standard Bank), their assets represent approximately 85% of total banking assets. These locally incorporated banks have subsidiaries and branches in foreign jurisdictions, mainly in other African countries, Europe and Asia. ABSA which is the largest banking group after a large number of mergers over the years bringing together some medium sized and relatively small banks, some of which had specialised in the Afrikaans speaking market over the years. These mergers were concluded in 1992 and a number of members of the ABSA group have been in existence for quite some time, with Allied Building Society dating back to 1880, United Building Society to 1889 and Volkskas was established in 1934.

First National Bank, which is similar in size to Standard Bank, may be regarded as a comparatively new in the sense that it has only operated under its name since 1987, FNB was created as a result of the disinvestment policies of the British bank Barclays Bank Plc. However Barclays Bank DCO had roots in South Africa dating back to 1838 and as such FNB sees itself as the inheritor of this tradition.

Standard Bank of South Africa, which is one of the oldest banks in the country dating back to the 1860's, has been through a similar process to FNB, having been originally owned by Standard Chartered Bank of the United Kingdom. (Remenyi and Cinnamond (1996))

Nedbank, which is the smallest of the big four, has its roots in the Nederlandshe Bank en Creditvereening which was established in Amsterdam in 1888 by Dutch group of financiers. The bank changed its name to the Nederlandsche Bank Credit Veerning voor Zuid-Afrika in

1903. The bank remained in Dutch hands until 1969 when it became a public company and was listed on the Johannesburg Stock Exchange.

The name of the bank was changed to Nedbank Limited in 1971. As it was South African owned, it did not change hands in the 1980's in the same way as Barclays or Standard Bank. Nedbank Limited merged with the South African Permanent Building Society in 1988.

In 2008, the Industrial and Commercial Bank of China took control of 20% of Standard Bank and in 2005, Barclays Bank Plc purchased 55% controlling shareholding from the ABSA group and Old Mutual effectively currently holds 51.87% of Nedbank Group Limited. All four banks are listed on the Johannesburg Securities Exchange.

The banking sector is regulated by the Registrar of Banks (The Banking Supervision department of the South African Reserve Bank (SARB)).

3.2.2 Non-Bank Financial Services Providers (NBF).

Non-Bank financial intermediaries or non-banks constitute the rest of the financial sector of the economy. Non banks aggregate investment funds and allocate them to fund users. They are specialised in assessing the risk and profitability of alternative investment options and the creditworthiness of the investing enterprises demanding funds. Non banks mainly finance investment with long term funds generated by savings, although are also able to raise funding in the money market as well.

In the industrial world, non-bank financial intermediaries have taken away considerable business from commercial banks. Increases have been observed in the market share of institutions holding securities instead of loans. At the same time, the banks themselves have heavily shifted their activity from traditional banking to other financial intermediation services conducted by non-bank financial intermediaries.

However, by lending to non-bank intermediaries banks indirectly supply the economy with money to absorb production and services. This is typical of bank lending to intermediaries that it provides credit for consumption of secondary asset purchases, and financial services including for speculation and hedging (Bossone, 2001). Therefore non-bank intermediaries also make use of both bank funding as well as the banks' payment clearing systems. This emphasizes the importance of banking as well as has interesting nuances for disintermediation.

According to data by the South African Reserve Bank (SARB), alliances between the banks and retailers have become more evident and are clearly a part of the corporate strategy of the major commercial banks and the retail sectors, particularly in the credit card segment.

Providers have found the credit card stream as particularly competitive. The principal reasons for entering into an alliance are:

- To expand a "footprint" by accessing a market segment that is under-represented or has not traditionally been part of the client base. Retailers, cellular services providers and healthcare funders with large, established customer bases are important potential alliance partners for banks (e.g. Standard Bank and MTN)

-To broaden, and change the brand image of traditionally conservative institutions by partnering with brands which have different appeal and which allow access to different markets without having to dilute or change the values associated with existing brands (e.g. ABSA with Virgin)

- To access branch and distribution networks in order to expand a geographical presence in a cost-effective manner (e.g. FNB and Edcon)

3.2.3. The Bond Exchange of South Africa (BESA).

The bond exchange Of South Africa-largely comprised of the central government and its parastatals issues and was formalised in 1987, following the recommendations of the Jacobs/ Stals Inquiry. The inquiry recommended that the bond market in South Africa be regulated by either the participants themselves or by the Central Bank. The participants chose self-regulation and in 1987 the Bond Market Association (BMA) was formed. The Bond Exchange of South Africa (BESA) became a wholly-owned subsidiary of the Johannesburg Securities Exchange (JSE) on 22 June 2009.

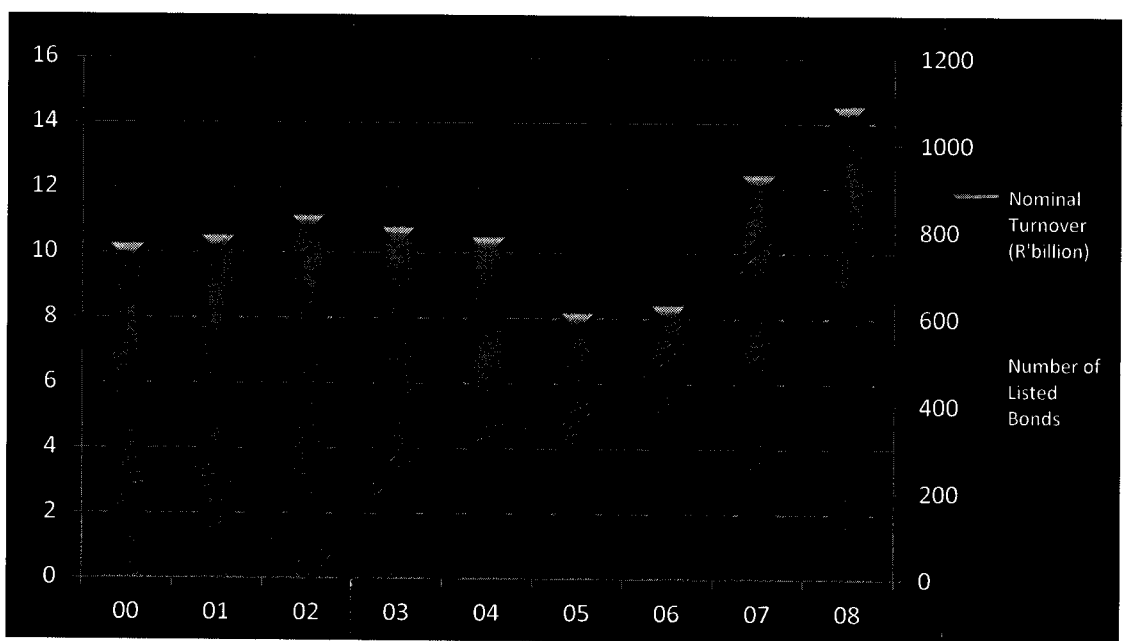
Since Eskom, the state-owned energy generator started issuing and making a market in its bonds in the late 1980's, other state-owned enterprises such as Transnet and Telkom also followed suit. They were followed by a first bond issue by the South African Breweries in 1992 and listed by the BMA. However the next bond issues materialised two years later and only until the turn of the century during years 2000/01 did high volume listings (i.e. in terms of value and number of issues) of the BMA materialise on account of the lower interest rate and inflation environment.

Financial Services firms comprised the vast majority of these issues and this is significant, as it is the job of financial services firms (Banks in particular) to attract funds from surplus savings units but now via markets rather than via deposits and loan these funds to deficit-savings units. Thus, the funds raised from bond issues would be used as part of that function, though it raises a question as to whether these banks have done enough to mobilise none and low-interest deposits (i.e. if there banks were challenged due to non-competitiveness?). (Ojah and Pillay, 2009).

Figure 4 below shows an increasing trend in the number of listed bonds on the bond exchange (Although no data was found for dates before year 2000), the data shows an increase in number of bond issues from 227 to 984, which is a 77% increase. The nominal turnover value increased from 10.28b to 14.56b which is a 29% increase.

It is worthy to note that the number/volume of listed bonds have shown a decline on a year to year basis as fewer listings were made but contrasted by an increase in the value of issues as larger transactions were made on the exchange. Also, please note that the data for the number of listed bonds in 2002 was not available from the Financial Services Board report for the year 2002 at the time of this research.

Figure 5: Nominal Value of listed bonds



(Source: The Financial Services Board reports: http://www.fsb.co.za/communication/reports.htm)

3.2.4. The Johannesburg Securities Exchange (JSE).

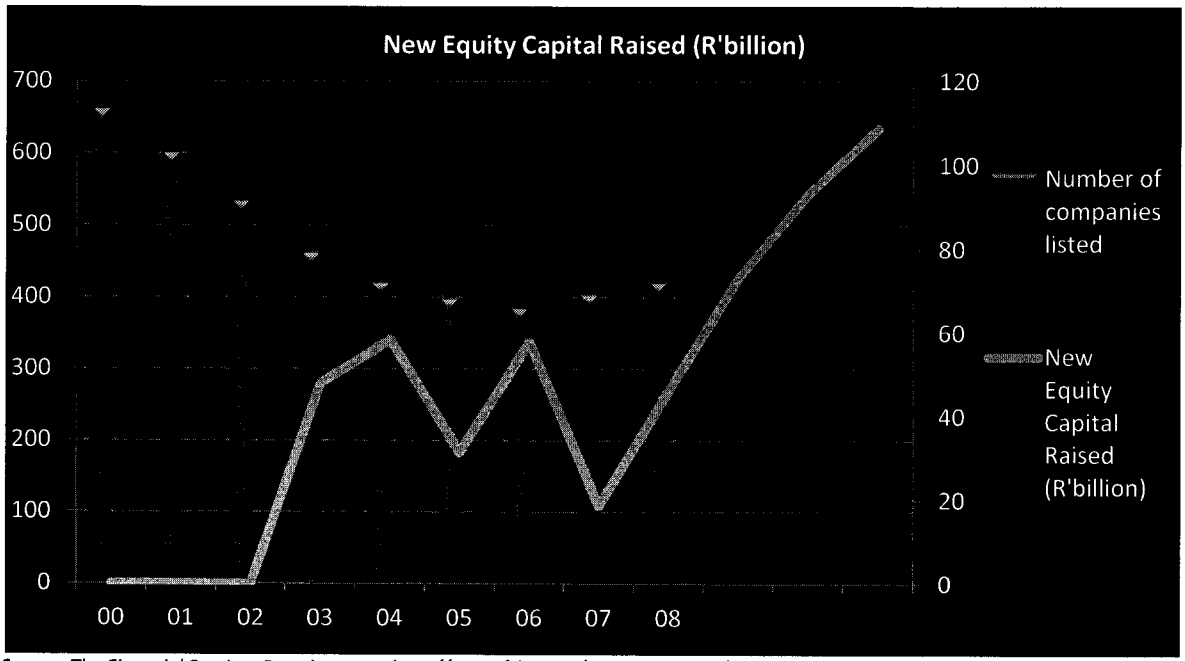
Established in 1887, the Johannesburg Securities Exchange is by far the largest in Africa's 22 stock exchanges. The market capitalisation at the end of December 2008 stood at R5 793 billion, up from R4 282 billion eight years earlier. The JSE describes its self as the "engine room" of the South African economy, providing an orderly market for dealing in securities. Its main function is to facilitate the raising of primary capital by re-channelling cash resources into productive economic activity and building the economy while enhancing job opportunities and wealth creation. The JSE also provides an effective price determination facility and price risk management mechanism.

The JSE is privately owned, funded and governed by the board of directors and its activities are licensed and regulated by two acts of parliament, namely the Stock Exchanges Control Act,1 of 1985 ("SECA"), which governs the equities markets and the financial Markets Control Act, 55 of 1989 ("FMCA"), which governs the derivative markets.(JSE website)

Figure 5 below shows that there has been a gradual and significant increase in new equity issues in the Johannesburg Stock Exchange during the period between 2000 and 2008. This shows a significant increase in equity raised from years 2000 to 2008, showing an increase from new issues of R48 billion in year 2000 to R108.8 billion in 2008. This may suggest the increased use of capital markets instead of banks to raise funds.

The data below as presented in Figure 5, shows a trend in the number of listed companies from the period year 2000 to 2008. From year 2000, there were 663 companies listed on the exchange but followed by a year on year incremental decline. There were only 422 companies listed on the JSE, but the amount of new equity capital raised on the exchange increased year on year and moved from R48b in year 2000 to R108.8b in 2008, which is a 56% increase. Also, the market capitalisation increased from R1511.4b to R5793.6b, which is a 74% increase in the period.

Figure 6: New Equity Issues



Source: The Financial Services Board reports: http://www.fsb.co.za/communication/reports.htm)

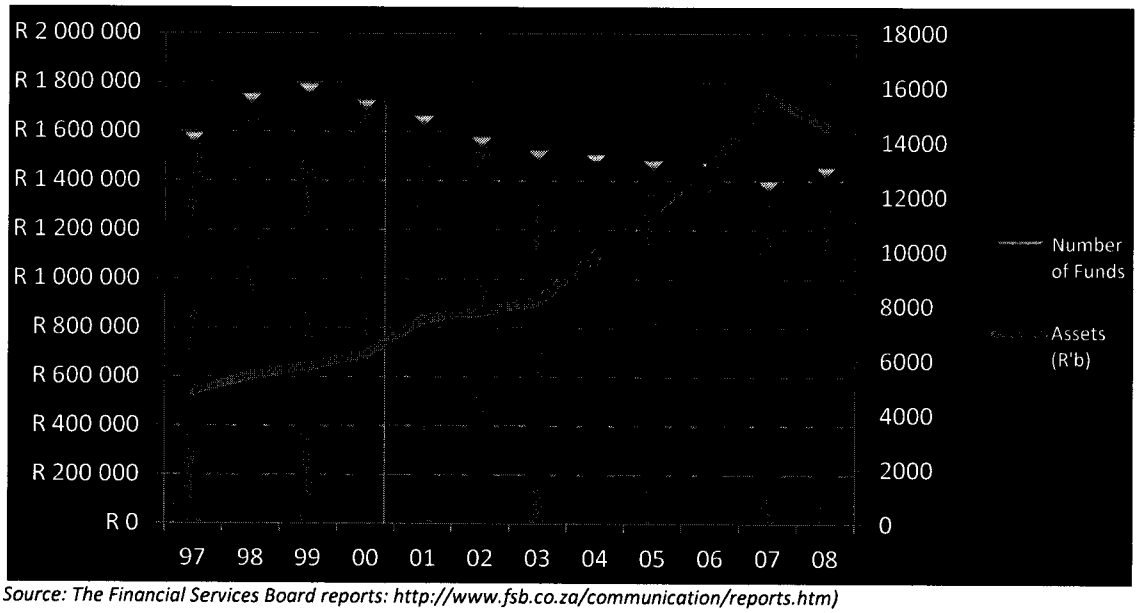
3.2.5. Other Financial Services Firms

3.2.5.1. Retirement Funds

Retirement funds are institutions that collect, invest and perform administration duties pertaining to the payment allocations to individuals and companies. They provide retirement benefits to participating members on retirement or in the event of death to the members' nominated beneficiaries.

The graph on figure 6 shows a year on year growth in assets from year 1997 to 2008, then a decline in the following year 2008. The retirement fund industry had R542.5b in assets in 1997 and increased to 1.620b in 2008 which is a 198% increase. The number of funds was 14 378 in 1997 and decreased to 13 143 in 2008.This is primarily due to the global financial crisis that transpired in the later part of 2008.

Figure 7: Retirement Fund Total Assets



Source: The Financial Services Board reports: http://www.fsb.co.za/communication/reports.htm)

3.2.5.2. Unit Trusts

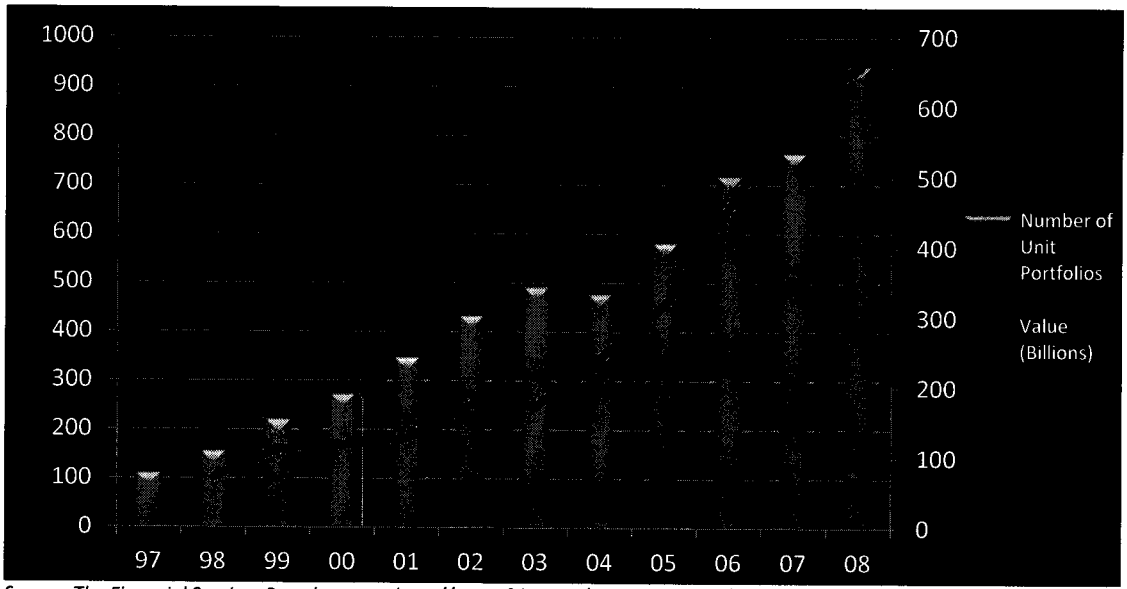
The presence of certain liabilities of non bank financial intermediaries (NBFI's) had its impact on the composition of commercial bank liquid deposits from 1972 to 1984 by providing new deposit classes that are close substitutes for these accounts. An excellent example of this is the introduction of money market mutual funds (MMMF's) in 1971. The introduction and growth of this asset class was brought on by periods of rising market interest rates and the absence of suitable competing deposits offered by commercial banks. The MMMF's presented a new class of assets that were available in lots denominations and could be redeemed by writing a cheque or making a telephone or wire transfer. The trends escalated during the latter years due to the improvements in technology and peaking of interest rates (Maggs, 1991).

Money market mutual funds pool savings from many individuals and invest them in high grade, short term securities offering market returns on share accounts that permit check writing and wire fund transfer privileges (Bossone, 2001).

An assessment of the data on mutual fund activity between the period under study has shown a gradual and steady increase in both the number of mutual fund/portfolio offerings as well as increase in mutual fund total assets from 271 unit portfolios in year 2000 to a total of 942 in 2008 and from total assets of R117.9 billion in 2000 to a unprecedented increase to R658 billion in an 8 year period.

Table 5 below is a graphical presentation of the increase in number of unit portfolios and assets during the period. The number of unit trust portfolios increased from 111 in 1997 to 942. The value increased from 71.7b in 1998 (data for 1997 not available), to 658 in 2008.

Figure 8: Total Assets and Unit Portfolio numbers



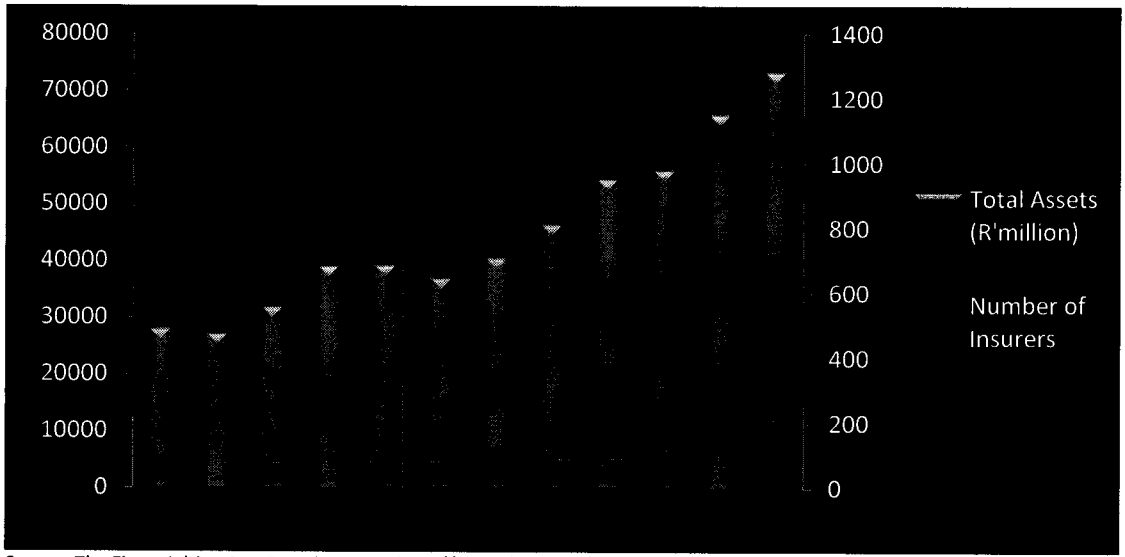
Source: The Financial Services Board reports: http://www.fsb.co.za/communication/reports.htm

3.2.5.3 Short-Term Insurers

Short term insurance encompasses all types of insurance policies other than life insurance. Amongst others this includes vehicle, property, household, medical, personal liability, travel and business insurance. The reason why these policies are classified "short term insurance" is because your insurance needs in this regard will change over time. Unlike life insurance, short term insurance is taken out only for the period that you have the need of it. This insurance option has provided many South Africans with the opportunity to cover the financial risks to their material possessions and those of their loved one without paying hefty premiums.

The graph on figure 6 shows a year to year increase in assets from year 1997 to 2001, then a slight reduction in the following year 2002, then shows a year on year increase from 2003 to 2008. Overall, total assets increased from R28 110m in 1997 to R73 408m in 2008, which is a 62% increase in the period of study.

Figure 9: Short term insurance



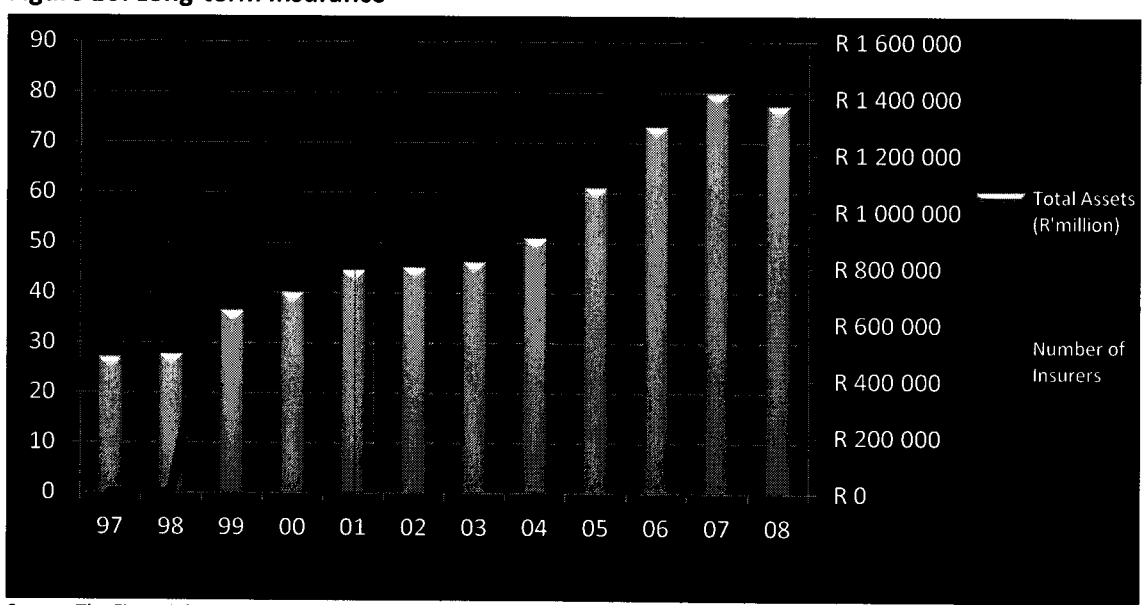
Source: The Financial Services Board reports: http://www.fsb.co.za/communication/reports.htm)

3.2.5.4. Long -term Insurers

The term long term insurance covers a fairly diverse range of insurance products, including life, disability, dread disease, income protection policies, endowments, retirement annuity funds, living annuities and compulsory annuities.

Figure 8 below analyses the number of insurers and total assets from 1997 to 2008. It shows that the number of insurers increased from 60 in 1997 to 82 in 2008. Total assets increased from R482.5m in 1997 to R1375.4m in 2008. Data on the number of insurers was not available from the financial services board reports for years 1997 and 1998.

Figure 10: Long-term insurance



Source: The Financial Services Board reports: (http://www.fsb.co.za/communication/reports.htm)

3.3. Informal Financial Intermediation

While informal financial intermediation is frequently referred to in literature, it has yet to be established whether the informal financial sector does in fact engage in intermediation, there is however growing interest in its potential contribution to economic development.

The term informal financial intermediation is currently used more loosely to describe the activities of informal financial agents, defined as those individuals and institutions which operate in financial markets outside of government regulation and control. Christensen (1993) gives a more precise definition as the mobilization of capital from savers and its simultaneous transformation and allocation to meet the needs of borrowers, as performed by informal agents. He characterises the agents as

i) *Individual informal financial agents*

This group consists of individuals such as neighbours, friends and relatives, landowners, pawnbrokers, professional money lenders, merchants and shopkeepers and money keepers. Lending from these agents is characterised by use of own equity (Although there have been reports of landlords in India sourcing credit from banks for the purposes of re-lending), few conditions, small loans, short-repayment terms and interest rates.

ii) *Informal financial institutions*

This group on the other hand consist of group activities oriented toward capital appreciation and display two main common characteristics. First, a core purpose of saving collectively as a group but not the provision of credit (There is no financial intermediation in a conventional sense as members ultimately get their own savings), Community based and serve a social purpose, with a small element of loans/lending to members (Although, here intermediation happens as funds are taken from other members and lent to the others). The primary objective is not lending but for re-enforcement of community or business relations and the accumulation of capital.

Christensen (1993) finds that some intermediation does occur but relies on borrowing or contractual savings rather than deposit mobilization, size restrictions associated with information asymmetry costs plus the lack of suitable collateral severely limits the ability of informal financial agents and institutions to expand their operations, particularly within the informal sector.

The informal micro-finance sector comprises an interesting variety of financial instruments and operators. The Financial Diaries Study (2006) lists stokvels, burial societies, one-on-one lending, credit at an informal store (or spaza), "money-guarding" and domestic savings as some of the financial instruments used by the poor. Informal money lenders are often associated with exorbitant rates and extortion. Despite such negative perceptions, they fill gaps in the microfinance sector by providing loans to individuals who are unable to access credit by any other means. Siyongwana (2004) finds that for a significant number of informal money lenders, lending is a strategy of survival, with 55.4% of respondents claiming that money-lending as not their only source of income (Ojah and Mokoaleli-Mokoteli, 2010).

Chapter 4

4.1. Empirical Results

4.1.1. Intermediation Ratios

We use a financial intermediation ratio, which measures the share of intermediate financings in the total of the external financings granted to the domestic nonfinancial sector (DNF). The denominator of the ratio (total of the external financings) is obtained by adding loans and claims issued by the DNF.

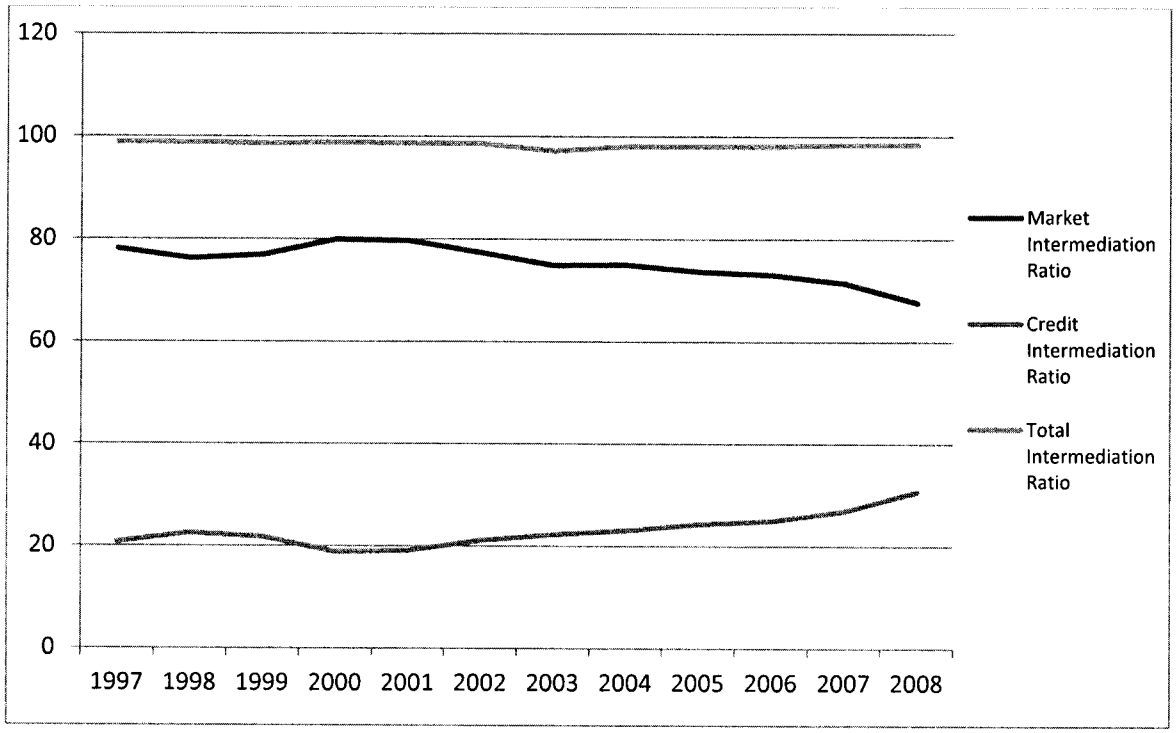
The numerator of the ratio (intermediate financings) has two components:

- The first one we call credit intermediation, it is the total of loans and advances granted by domestic private and public monetary institutions (Banking Institutions);
- The second one we call market intermediation, it is the sum of claims issued by DNBFI (Domestic Non-Banking Financial Institutions) - Because only aggregate assets are available, for DNBFI we use an aggregate sum of all assets by DNBFI's and make an assumption that these are funds collected and used or made available into the financial system via different financial instruments (e.g. fixed interest investment (bonds), acquisition of shares and extension of loans etc.).

The sum of credit intermediation and market intermediation forms what we call total intermediation. Following Capelle-Blancard et al. (2008), three intermediation ratios are computed: the credit intermediation ratio (or strict ratio), the market intermediation ratio, and the ratio of total intermediation (or large ratio as the sum of the two preceding ones). Each ratio can be expressed for each of the domestic sector (i.e. Intermediation to private or corporate sectors).

The data used for this measure has been obtained from the South African Reserve Bank (Bank Supervision Department). The graph on figure 9 shows that credit intermediation was on an upward trend between years 2000 and 2008 with the opposite being the case for market intermediation (i.e. claims by Non-Banking Financial Intermediaries). The data shows that the total intermediation levels have remained stable and mostly flat between 1997 and 2008.

Figure 11: Intermediation Ratios



Data sourced from SARB, Bank Supervision Board and FSB Annual Reports. (Credit Intermediation = Total Loans and Advances/NBFI Assets + Total Credit Extended to the Private Sector); (Market Intermediation = NBFI Assets/NBFI Assets + Total Credit Extended to the Private Sector) and (Total intermediation = Total Loans and Advances + NBFI Assets/NBFI Assets + Total Credit Extended to the Private Sector).

4.1.2. Total Assets Measure

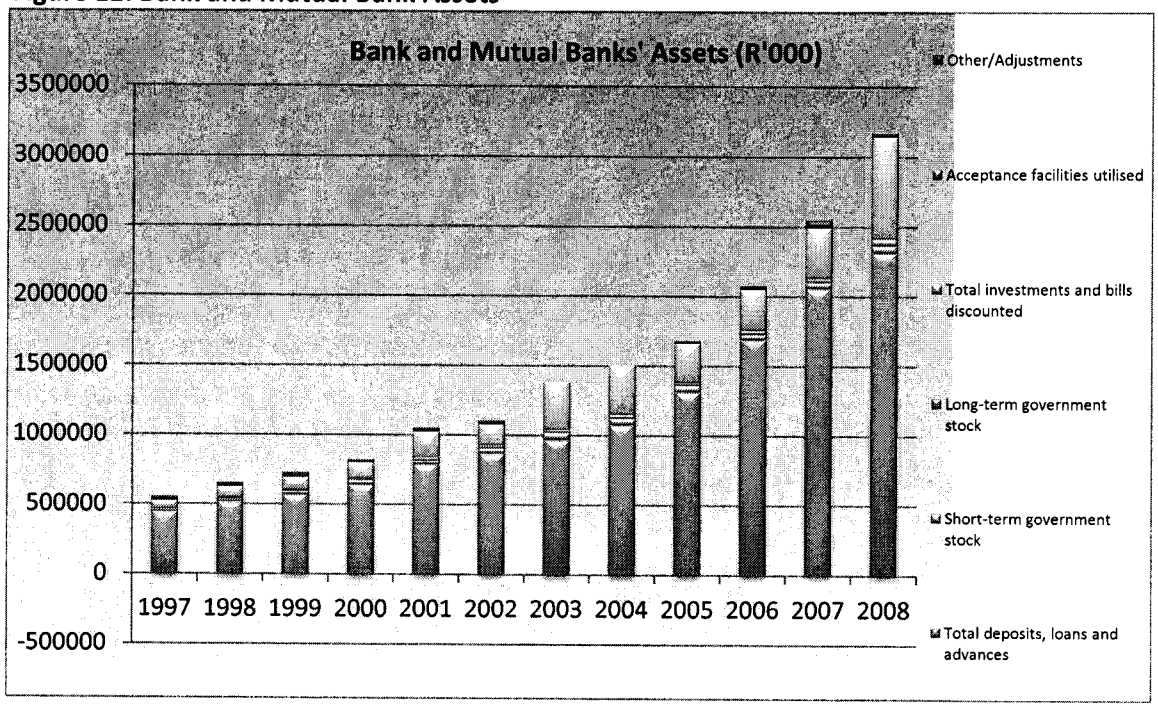
We measure the growth in total asset values of banks for the period between 1997 and 2008, which shows that the banking sector has shown a year on year growth in total nominal value. These Assets consists of Loans and Advances, Interbank Loans, Investments, Fixed Assets, Other Assets, Acknowledgements of debt discounted, Trading Portfolio and Resale agreements.

This has been highlighted as most commonly used measure of bank intermediation (Kaufman and Mote, 1994) and (Anderson and Makhija, 1999).The below graph on Figure 12, consists of total deposits, loans and advances, short term government stock, long term government stock, total investments and bills discounted and acceptable facilities utilised.

The graph on figure 12 shows an incremental year on year increase in assets in nominal terms, increasing from total assets of R550b to R3 167b in year 2008 and the largest of these assets being in the form of total deposits, loans and advances (Which is the primary intermediation

function of banks). As a percentage of total assets, total deposits, loans and advances decreased slightly from 81% to 73% (which is only an 8% drop).

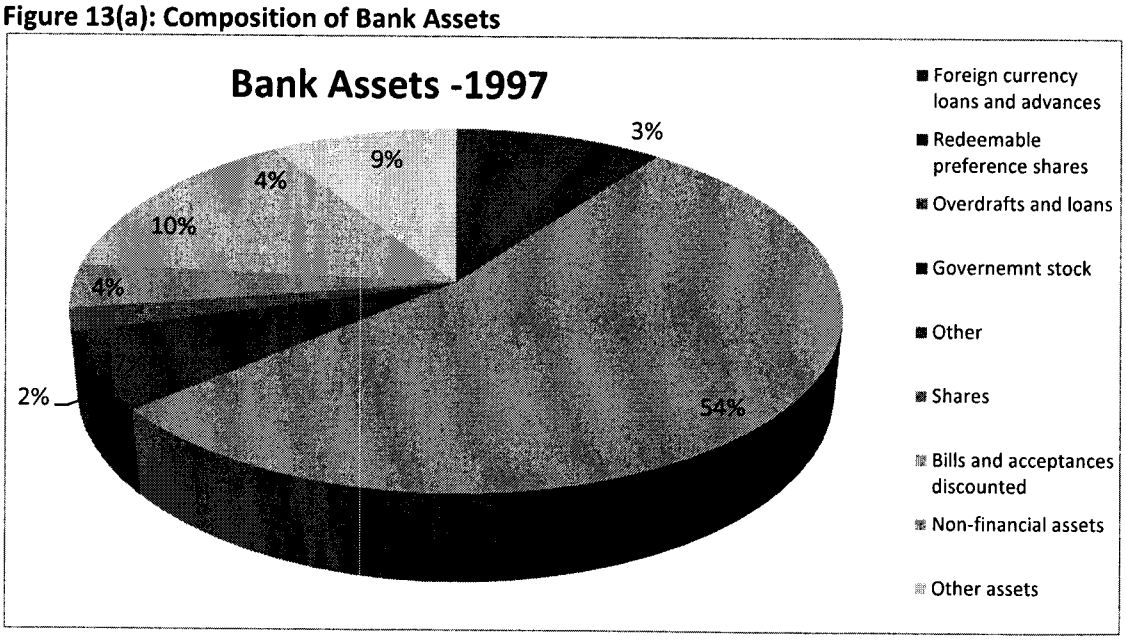
Figure 12: Bank and Mutual Bank Assets



Source: SARB reports, Bank Supervision department

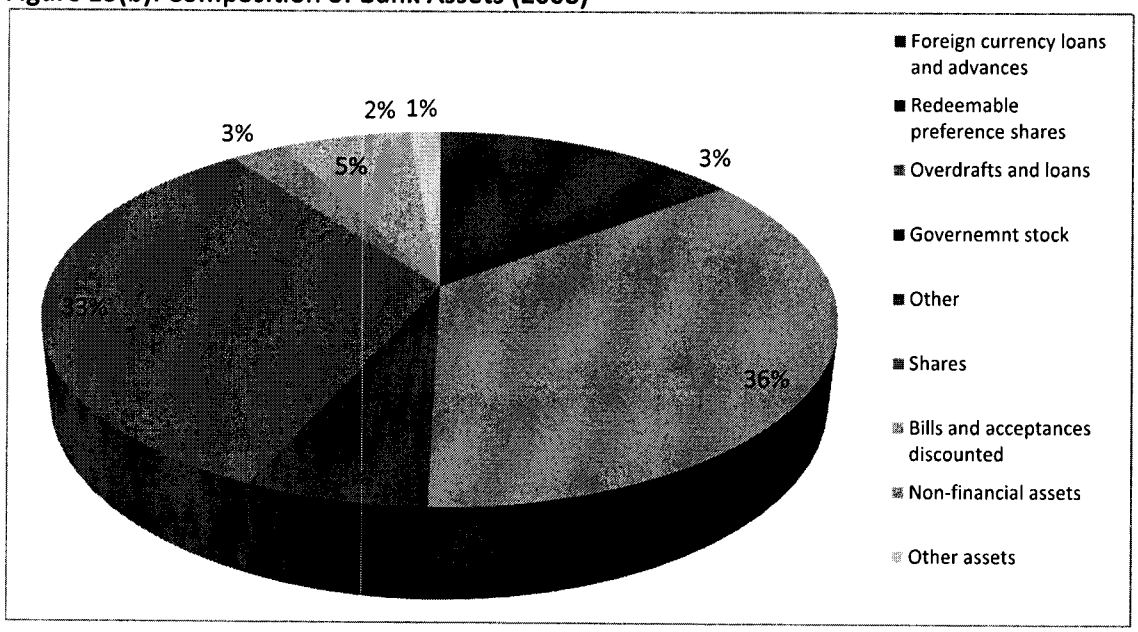
In 1997, the vast majority of bank assets were in the form of overdrafts and loans, these where at close to around R1,3b and increased to R5,6b. However as a percentage of total assets these reduced from 54% to 36% respectively. Classified as "other" assets increased from 2% to 33% in the same period.

Figure 13(a): Composition of Bank Assets



Source: SARB reports, Bank Supervision department

Figure 13(b): Composition of Bank Assets (2008)

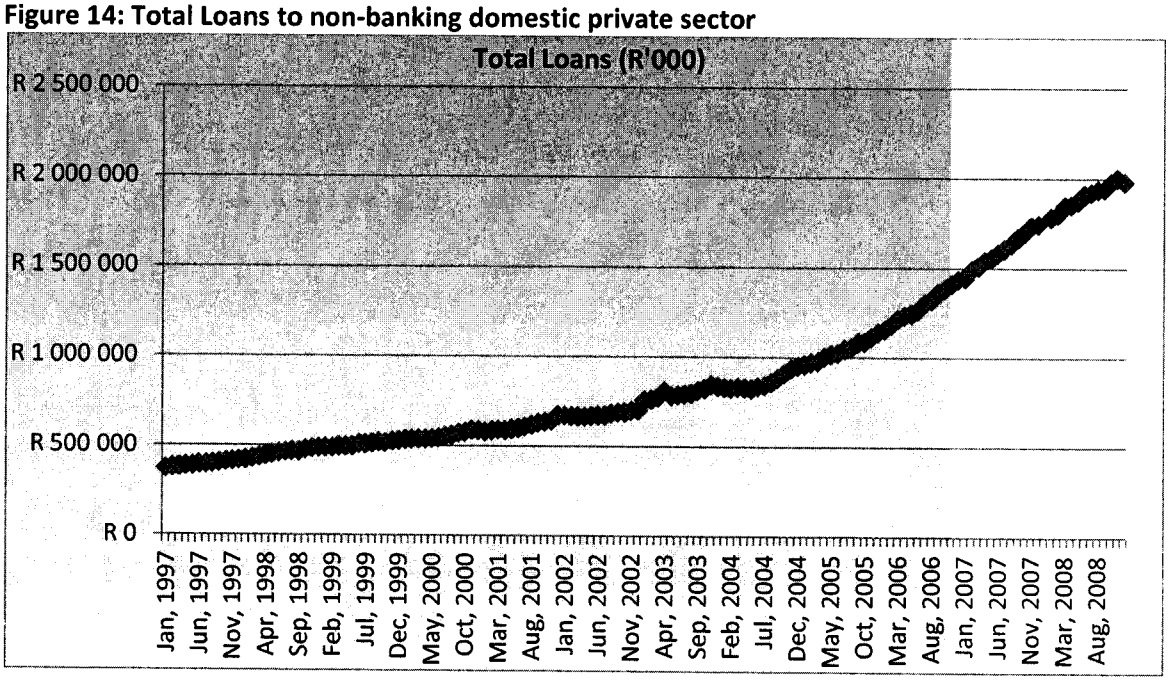


Source: SARB reports, Bank Supervision department

4.1.3. Total Loans and Advances to the Private Sector Measure

This measures the aggregate changes in the amount of total loans made by the banks to non-banking domestic private sector. The data shows an increase from R373.1b in 1997 to R1.981b in 2008, which is a 431% increase. This shows a clear increase in value of loans granted by the banks.

Figure 14: Total Loans to non-banking domestic private sector

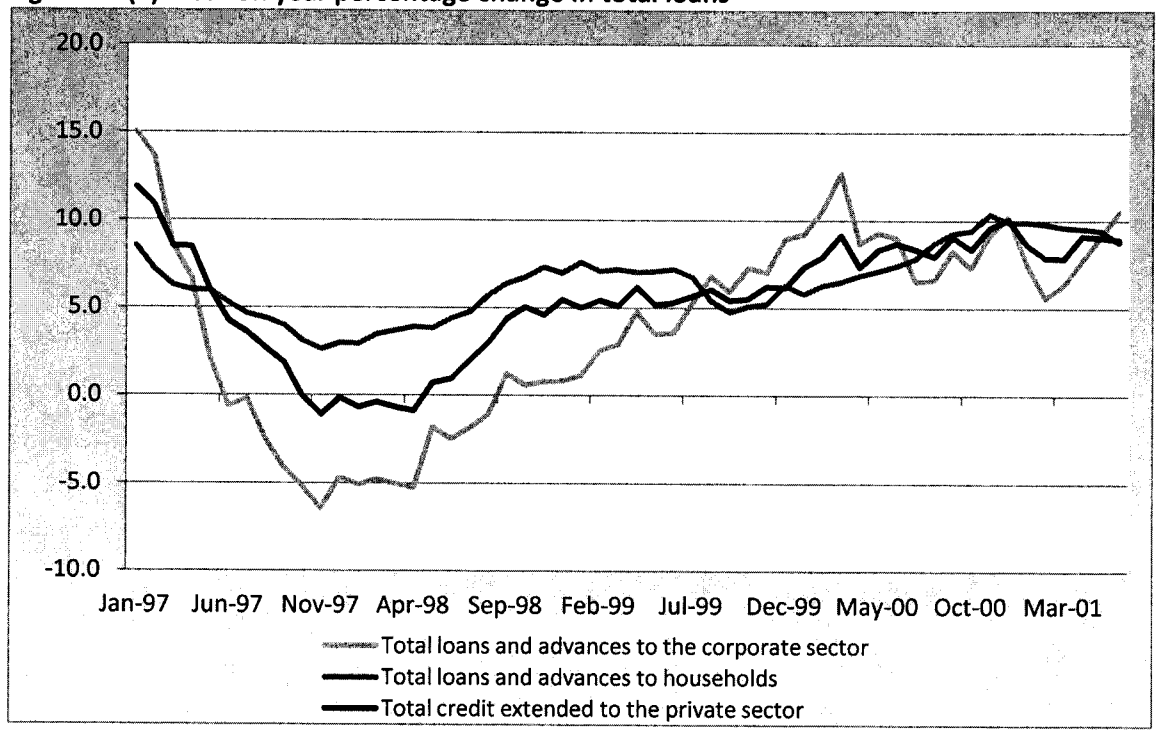


Source: SARB reports, Bank Supervision department

Year on year movement in credit extension to private households moved from 17.1% in January 1997 to 13.6% in December 2008, of which was 15.9% to households and 15.6%

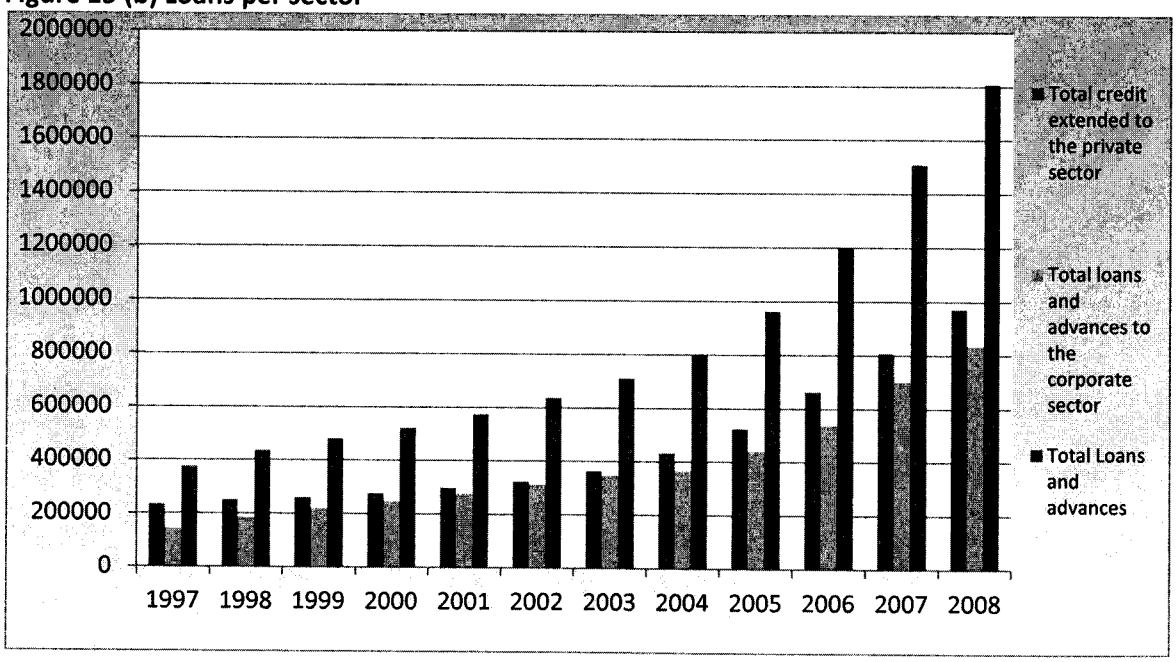
respectively. During the same periods, credit extension to government declined significantly from 309.3% levels to -237.7 in January 1997 and December 2008 respectively. Credit extension to corporations declined as well from 23% in January 1997 to 12.1% levels in December 2008.

Figure 15 (a): Year on year percentage change in total loans



Source: SARB reports, Bank Supervision department

Figure 15 (b) Loans per sector

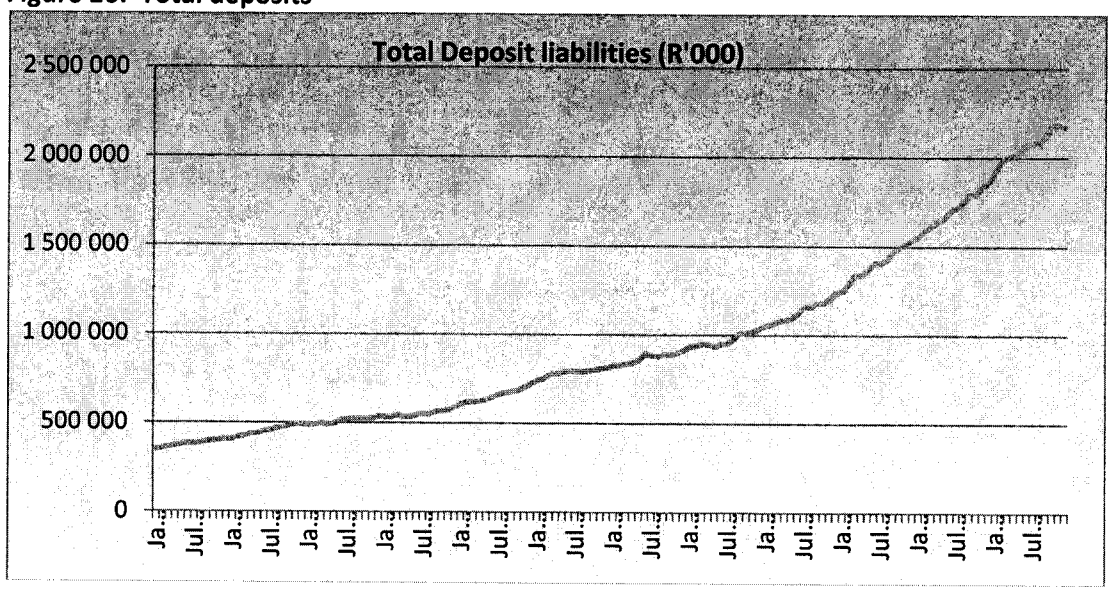


Source: SARB reports, Bank Supervision department

4.1.4. Total Deposits Measure

This measures the total aggregate deposits (liabilities) to the public. This is in essence the value of all deposits made with the banking sector within the years 1997 and 2008. The data reflects an increase in these nominal values from R350.5m in Jan 1997 to R2 173m in 2008, which is an increase of 520%.

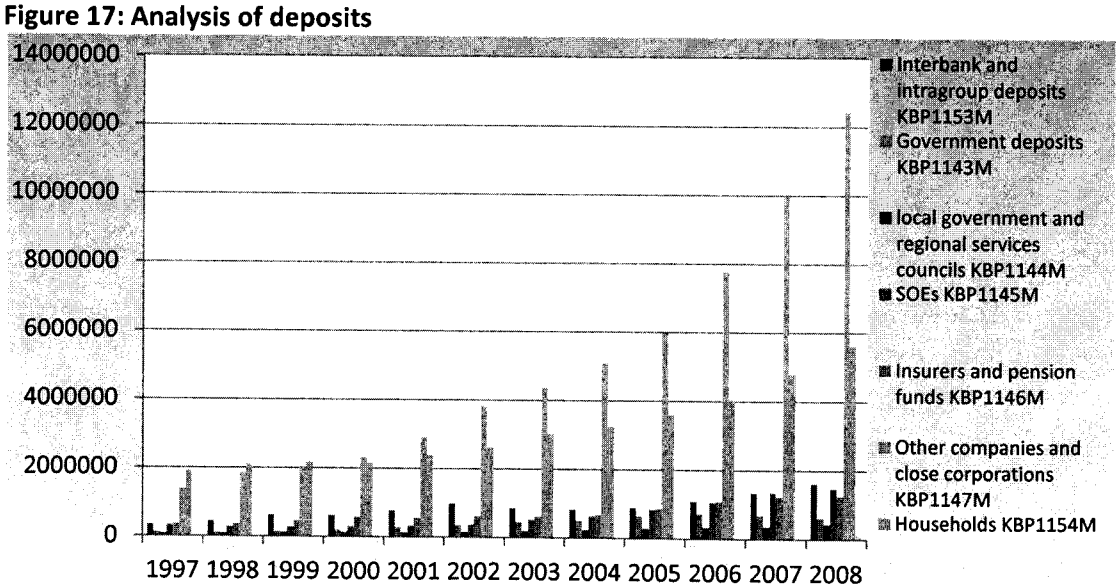
Figure 16: Total deposits



Source: SARB reports, Bank Supervision department

Deposits from corporates remained significantly higher than the rest of the other deposits into the banking system with household deposits following second from 2000 to 2008. What may be of interest is that corporate deposits remained subdued and less than deposits from households during 1997 and 1999. However, the trend beyond 2000 was that of much higher values for corporates.

Figure 17: Analysis of deposits



Source: SARB reports, Bank Supervision department

4.1.5. Financial Performance measure

Financial performance can also be used as a good measure of year on year revenue growth of banks. This can be used to investigate if the banking sector has grown, out-performed or under-performed its industry peers within the financial services sector. The data has been obtained from the South African Reserve Bank's performance measure data for the period from 1997 to 2008.

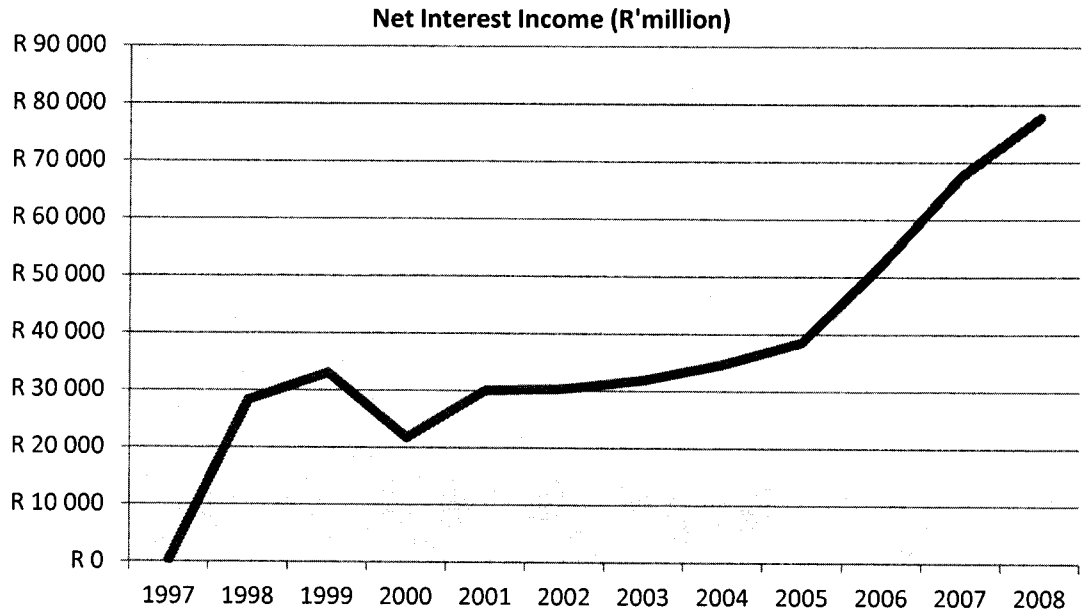
The below Table 1, shows the banking sector's interest, non-interest income as well as percentage contribution to GDP in the respective years. The data shows a year on year increase in interest income (i.e. interest earned from the credit intermediation function). The graph shows that the interest income increased from R292b in 1997 to R77.7b in 2008. In the same period, non-interest income (such as fees) increased from R9m to R71.4m in 2008. The banks' revenue increased from R301m in 1997 to R149 205m in 2008.

Table 1: Bank revenue to GDP (R'millions)

Year	Net Interest Income	Non-Interest Income	Total Bank Revenue	GDP at Current Prices	Total Bank Income/GDP
1997	R 292	R 9	R 301	R 685 732	0.04%
1998	R 28 300	R 10 463	R 38 763	R 742 424	5.22%
1999	R 33 000	R 13 030	R 46 030	R 813 684	5.66%
2000	R 21 747	R 57 900	R 79 647	R 922 147	8.64%
2001	R 30 019	R 66 132	R 96 151	R 1 020 008	9.43%
2002	R 30 361	R 38 240	R 68 601	R 1 171 085	5.86%
2003	R 31 890	R 49 300	R 81 190	R 1 272 537	6.38%
2004	R 34 693	R 67 422	R 102 115	R 1 415 273	7.22%
2005	R 38 616	R 51 836	R 90 452	R 1 571 082	5.76%
2006	R 52 252	R 84 451	R 136 703	R 1 767 422	7.73%
2007	R 67 645	R 93 275	R 160 920	R 2 016 183	7.98%
2008	R 77 757	R 71 448	R 149 205	R 2 256 485	6.61%

Data from the South African Reserve Bank Annual Reports

Figure 18: Net Interest Income



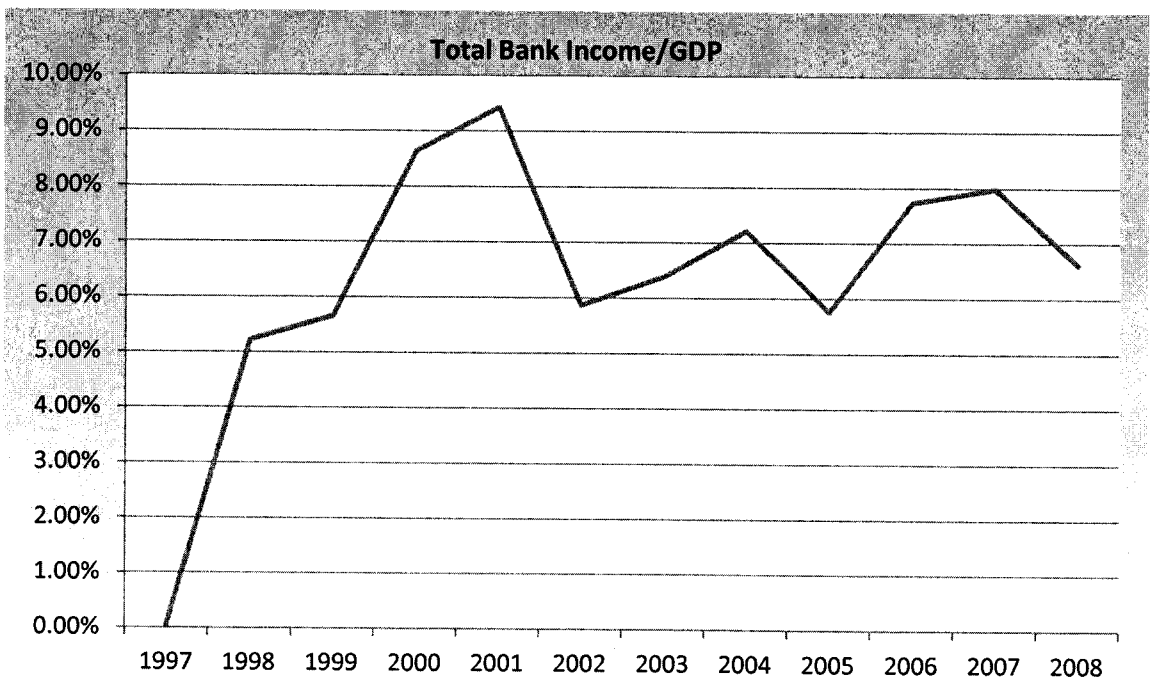
Source: SARB reports, Bank Supervision department

4.2. Other measures

4.2.1. Bank income contribution to GDP (Finance, Real Estate and Business Services)

The graph below shows the contribution of bank income to total GDP in the years from 1997 to 2000. The data shows that the contribution increased from as little as 0.04% in 1997 to 6.61% in 2008.

Figure 19: Total Bank income to GDP



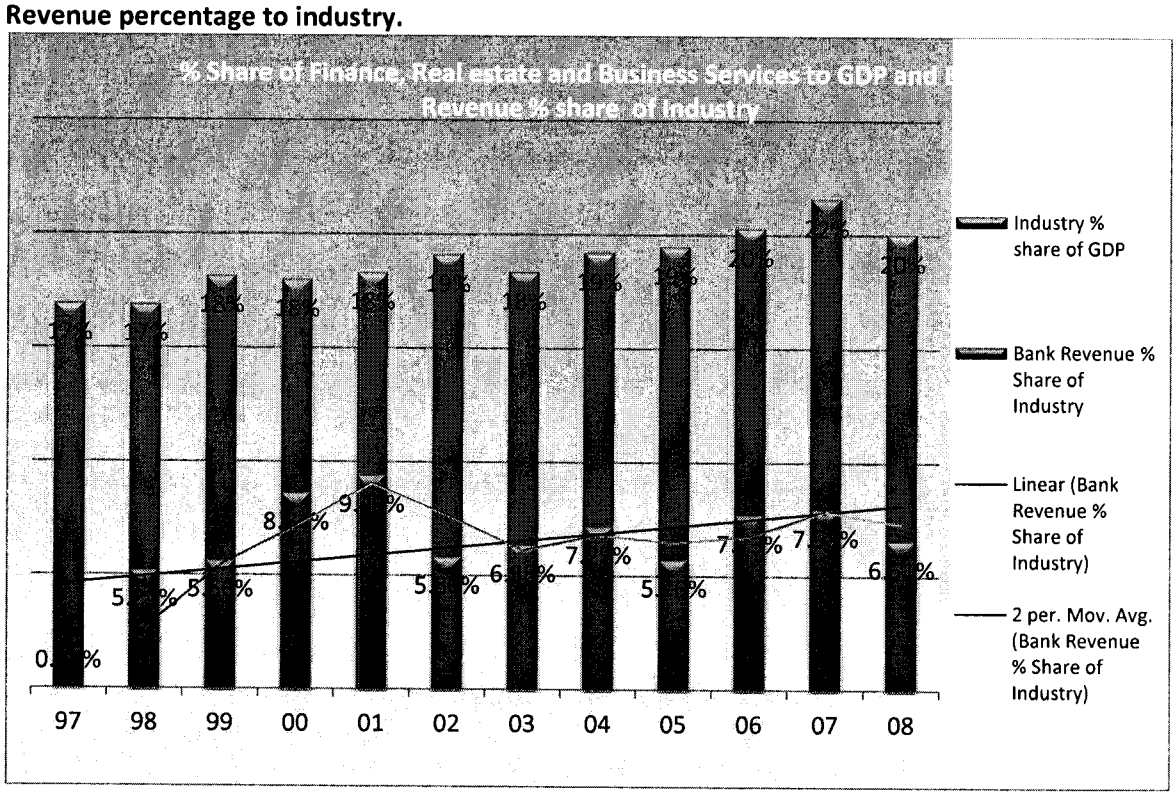
Source: SARB reports, Bank Supervision department

4.2.1.2(a). Share of finance, real estate and business services to GDP and Bank revenue percentage share of Industry.

The graph below shows the contribution of finance, real estate and business sector as a contribution to GDP. The graph shows a year on year increase from 1997 to 2008. Banking activities are included in the calculation of this data.

The data basically shows an increased contribution by this sector to GDP, with banking remaining a significant contributor to this sector. The sector's contribution increased from 17% with banking contributing 0.04 to 20% in 2008, with banking contributing 6.61%.

Figure 20: Percentage of Finance Real Estate and Business Services to GDP and Bank Revenue percentage to industry.

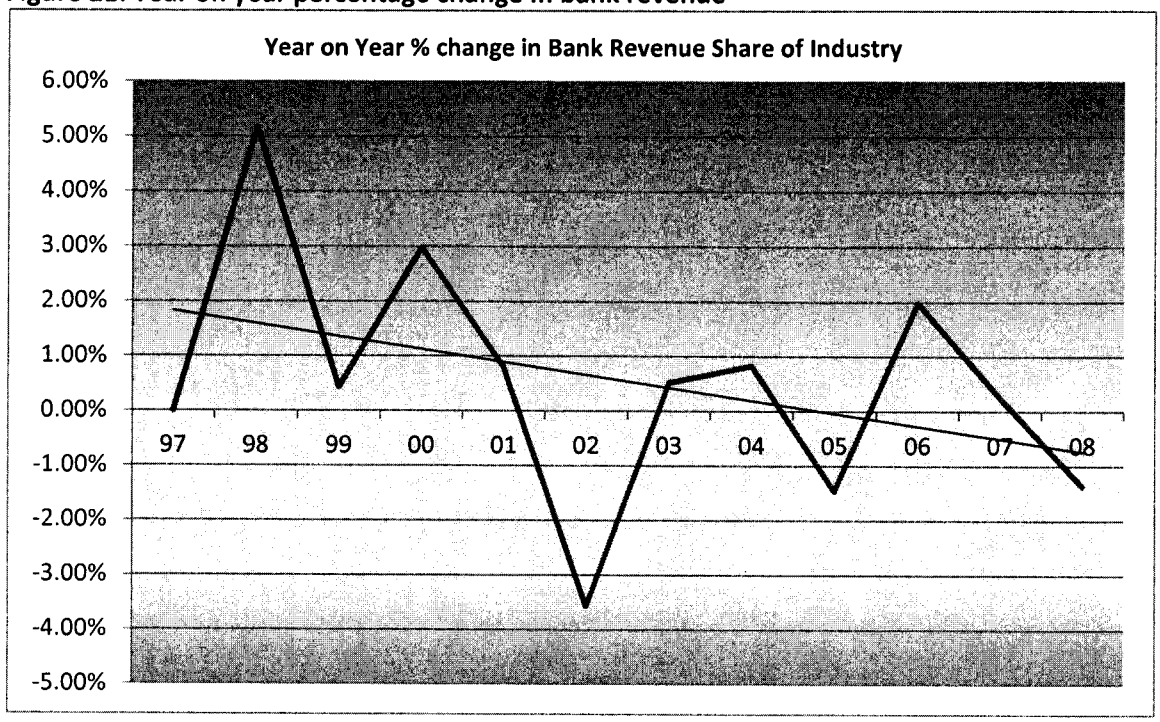


Data obtained from the South African Reserve Bank (Banking Supervision)

4.2.1.2. (b) Year on year percentage change in Bank revenue to industry

Figure 21, shows the year on year movement in revenue contribution by banking revenue to industry. The graph shows a downward sloping trend from years 1997 to 2008.

Figure 21: Year on year percentage change in bank revenue

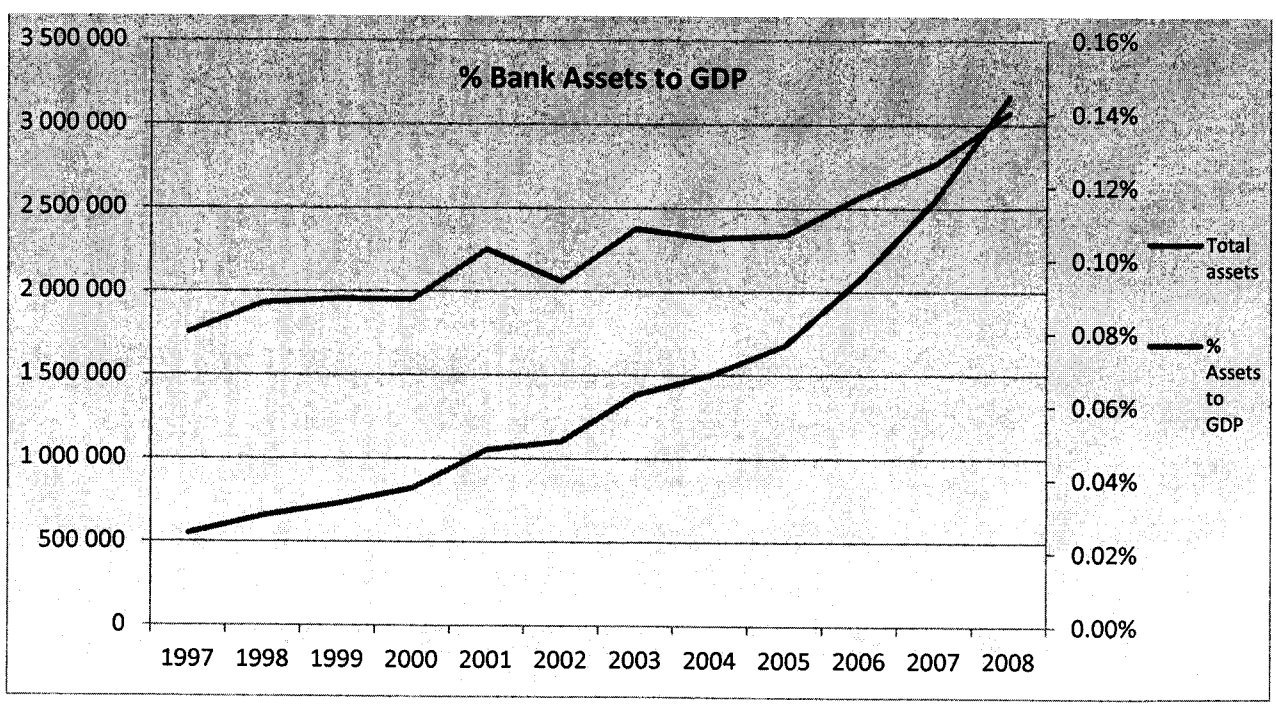


SARB reports, Bank Supervision department

4.2.2. Bank Assets to GDP

The below graph on Figure 22, is an analysis of the percentage of bank assets to GDP as well as total assets. This shows an increase in bank assets from 0.08% in 1997 to 0.14% in 2008. The total assets increased from R550.2m to R3 167m in 2008.

Figure 22: Percentage Bank Assets to GDP

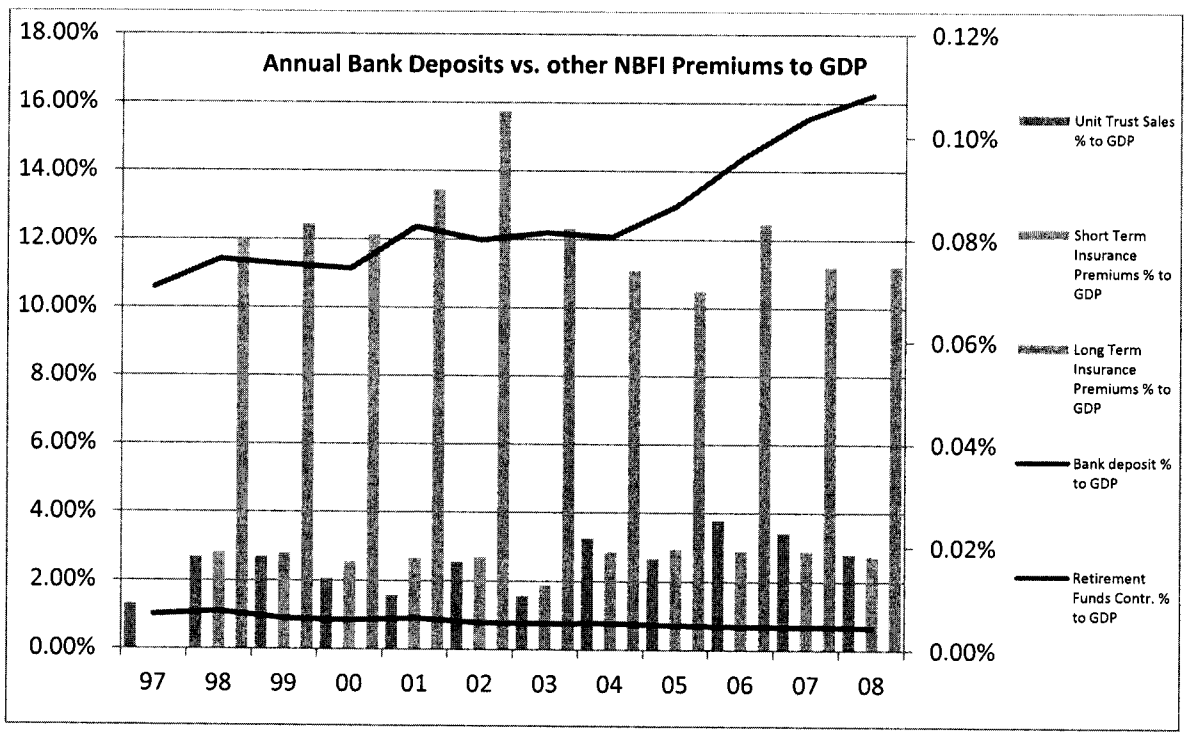


SARB reports, Bank Supervision department

4.2.3. Bank Deposits vs. NBFI Premiums to GDP

The below graph on Figure 23 shows trends in annual bank deposits vs. other non-bank financial intermediaries' annual premiums contributions to GDP. The graph shows an increase in the bank deposits % to GDP from 0.07% in 1997 to 0.11% in 2008, a decrease from 0.007% in 1997 to 0.004% for Retirement Funds contributions, Unit Trust sales % to GDP moved from 1.31% in 1997 to 2.79% in 2008, Short and Long term insurance premiums % to GPD moved from 2.84% and 12% respectively from years 1998 to 2.74% to 11.24% between the respective years.

Figure 23: Annual Bank Deposits vs. Other NBFI Premiums/contributions to GDP



SARB reports, Bank Supervision department

4.3. Summary of Results

The intermediation ratio, which calculates the percentage share of banking credit, market and total intermediation shows a downward slope between the years 1998 and 2000. The trend then moved on upward for credit intermediation between the years 2000 to 2008 while the opposite is observed for market intermediation. This suggests no evidence of banking dis-intermediation in the South African economy for the period in question. Also the Banking sector's total assets have grown on a year on year basis and show an overall significant growth between years 1997 and 2008. Bank loans have also increased to more than double in the same period of study.

During the same period, we also observe that bank deposits have increased year on year from years 1997 to 2008. Bank deposits as a percentage of GDP have increased as opposed to the contributions to pension fund as a percentage of GDP and to both short and long term insurance sectors. Banks' interest revenue and in particular net interest income, which is earned from the banking intermediation activities have increased significantly in the period in question, however it is noted that the banks' percentage contribution to industry's (i.e. Finance, real estate and business services) share of GDP has been reduced in the same period of study.

Chapter 5

5.1. Conclusion

This thesis has outlined the structure of the South African banking industry and highlighted some important facts about its history. We have also provided some insight into the importance of the banking sector in the South African economy as well as traced some evident trends globally to give a synopsis of what can be expected to also be taking shape within the South African context. The research has attempted to qualitatively show the importance of banks and investigate if this or any specialness therefore of banks has faded or showing signs thereof, as well as gathered data to show what trends have been forming shape within the years between 1997 and 2008.

The thesis points out the overall specialness and importance of banking sector within the context of its contribution to the economy. There has not been much data and/or research specifically to investigate disintermediation in this country so the methodology and style followed to write this thesis have been adopted from other research done on other economies. The data evidence provided in this paper suggests that there is some evidence of disintermediation of banking on a macro level, due to the increase in activity of Non-Banking Financial Intermediaries in South Africa. However, it is equally critical to point out that the recurring picture is of a strong banking sector that is at the core of economic development and has shown overall growth as well as sustained influence on economic growth as well as monetary policy implementation.

The data provided has also shown growth in assets, deposits, and loans by the banking sector as well as a positive growth in performance (i.e. revenue growth) in the period of study. The computation of the intermediation ratio also suggests that banking through credit intermediation has increased. This evidence, may well suggest that the banking sector has remained the main conduit for economic growth, by remaining the main supplier of funds into the economy as well as by remaining the main conduit of monetary policy implementation as suggested in the literature review.

The Non-Banking Financial sector on the other hand has equally shown a significant growth in the same period of study as evidenced by growth in the total assets of retirement funds, increase in capital raised from the Bond Exchange, increase in equity raised from the JSE, increase in the number of unit trust portfolio and overall total assets, as well as increase in total assets for short and long term insurers.

The simultaneous growth in both banking and non-banking financial intermediaries in the period of study can be attributed to a generic transformation of the structure of the economy following suppressed activity before financial and economic liberation and not necessarily evidence of "absolute" disintermediation if looked at in isolation. A number of factors have contributed towards the integration and normalization of the credit market away from its previous segmented nature. These include the gradual effects of democracy and the associated change in wealth distribution, the emergence of a Financial Sector Charter and a number of studies and legislation (including that of the National Credit Act) which have highlighted the earlier disparities in terms of the distribution of credit (FEASibility, 2006).

One further reaches this conclusion with caution as there is more work that still needs to be done to measure the total activity within the economy including the "informal" intermediation as explained in this thesis. The is currently no research or single source that provides data for all "Total intermediation", inclusive of all other sectors that do not fall within the oversight of the South African Reserve Bank, The National Credit Regulator and/or The Financial Services Board. We have however mitigated this for the purposes of this research by computing the intermediation ratios by aggregating the total assets of pension funds, collective investment schemes (Unit Trusts), Long and Short term investments, JSE Equity raised and Bond Exchange of South Africa bond issued and used these as representative of total intermediation within the financial services sector.

5.2. References

Allen, F.,Santomero,A.M., 2001. What do financial intermediaries do? Journal of Banking and Finance 25, pp. 271-294

Anderson, CW and Makhija, AK, (1999) Deregulation, disintermediation, and agency costs of debt: Evidence from Japan, Journal of Financial Economics 51, pp. 309 - 339

Arestis, P.,2005. Financial Liberalisation and the Relationship Between Finance and Growth. CEPP Working Paper No. 05/05

Capelle-Blancard, G. et al (2008),The measurement of financial intermediation in Japan, "Japan and the World Economy". ScienceDirect, pp. 40 – 60

Christensen, G.,(1993), The Limits to Informal Financial Intermediation, World Development, Vol.21, No.5, pp. 721-731

Bossone, B., (2001), Do banks have a future? A Study on Banking and Finance as we move into the third Millennium., Journal of Banking and Finance 25, pp. 2239-2276

Birch,D. and Young,M.A.,(1997), " Financial services and the internet-what does cyberspace mean for the financial services industry?",Internet Research, Vol.7 Issue:2 pp. 120 – 128

Diaz, RA. And Olivero, MP. (2003), On the firm-level implications of the Bank Lending Channel of Monetary policy, Journal of Economic Dynamics and Control, Volume 35, Issue 5, Page 813

Fama, E. (1985), What is Different About Banks? Journal of Monetary Economics 15., pp. 29 -39

Gambacorta, L., (2004), Inside the Bank Lending Channel, Banca d'Italia, Economic Reserach department, Via Nazionale 91, 0084

Goodfriend, M., (1991), Money, Credit, Banking and Payments System, Policy Vol. 77/1 Federal Reserve Bank of Richemond, Richemond, VA, January /February

Henry, P. (2000), "Stock market liberalization, economic reform, and emerging market equity prices". Journal of Finance, LV, pp.529 – 564

Kablan, S. (2009), Banking Efficiency and Financial Development in Sub-Saharan Africa (SSA). The African Finance Journal, Volume 11, Part 2, pp.20 – 44

Maggs, EG.,(1991), Deposit Disintermediation and the Equilibrium Quantity of Money Market Funds, J Eco Busn, 43: pp.253 - 264

Mohammed, S. (2012), Impact of financial liberalisation in South Africa, In IDEAS Conference Chennai, 28 March, (2013), www.networkideas.org/ideasct/dec09/.../ppt/Seeraj Mohamed.ppt

Insurance 123, www.insurance123.co.za, accessed on 2013/08/32

Nyawata, O, Bird, G. (2004) Financial Liberalization in Southern Africa: An Assessment

Ojah, K. and Pillay, K. (2009), Debt markets and corporate debt structure in an emerging market: The South African Example". Economic Modelling, 26, pp. 1215 – 1227.

Pietersz,G.,(2005), Disintermediation,28 March, 2013,http://moneyterms.co.uk/disintermediation/

Remenyi, D. and Cinnamond, B. (1996), Banking 2000? Re-engineering the First National Bank of South Africa to create a branch of the future. Journal of Strategic Information Systems 5, pp. 293 – 316

Shome,D.(2009), Disintermediation in financial system: An Empirical study of Indian Commercial Banks

Tirole, J. (1994), "On banking and intermediation", European Economic Review 38, pp. 469 – 487

Valverde, SC. and Fernandez, FR., (2005), New Evidence of scope economies among lending, deposit taking, loan commitments and mutual fund activities