MANAGING BANK RESOLUTION IN SOUTH AFRICA

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Abstract

Asymmetric information, agency problems and the moral hazard, in their various manifestations, can be attributed to the collapse of financial systems over the last century. In order to guard against the negative externalities of these dilemmas, regulators in the banking sector have developed capital adequacy requirements, which measure the solvency of Banks. After the global financial crisis, regulators have realised the importance of having appropriate bank resolution regimes, in order to dismantle failing or failed banks before they become a risk to the financial system and economy. This report s analyses how the South African Reserve Bank resolves systematically significant banks.

Keywords: *Bank Resolution; Banks; Insolvency; Risk Management; Regulation; Banks Act; South African Reserve Bank; Financial System; Systemic Risk; Systematically Significant Banks; Liquidity Assistance; Lender of Last Resort; State Intervention*

Declaration

I declare that this report is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Management at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this, or any other university.

Joseph Rydell Tettey
31 March 2014

Dedication

A central part of Keynesian thinking is that while economic activity is governed by rational economic motivations, not all such activity is. Motivations may be non-economic, or irrational, or governed by what John Maynard Keynes referred to as “animal spirits”. Thus in the same way as Adam Smith’s invisible hand explains the stability of the capitalist system, an understanding of “animal spirits” explains the instability of the system. This work is dedicated to understanding “animal spirits”.

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During the process of this research and the completion of this degree, I lost a dear friend and fellow student. Her name was Karabo Nkosi, and she was an extraordinary individual.

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Contents

Chapter 1: Introduction

In economics the few things we can be certain of, are that there will be bank failure, markets will crash and the confidence in the financial and banking sector will be tested. The only uncertainty we have is whether the regulators and governments will have the requisite statutory and financial muscle to deal effectively with the negative externalities[1].

History shows that banking crises are a dynamic and lethal mixture of economic and financial structural weaknesses, deriving from both internal and external sources (Young, 2006). Thus, the first ingredient for any successful financial system is the regulatory framework and policy provided by regulatory authorities, both domestically and internationally. It is for this reason that South African Banks contend with comprehensive regulations governing their operations, service offering, credit quality and quantity, capital positions and the manner in which they grow and expand their facilities to serve the public.

All of these regulations aim at controlling in part and whole the myriad of risks, whether they are pure or speculative risks, which threaten the bank's profitability and viability (Young, 2006).

Fundamentally, banks perform valuable activities on either side of their balance sheets; they convert short-term liabilities into long-term assets. On the asset side, they make loans to borrowers, thus enhancing the flow of credit in the economy. On the liability side of their balance sheets, they provide depositors with liquidity on demand (Diamond and Rajan, 2001). The loss of liquidity due to unexpectedly high depositor withdrawals could make the process of intermediation difficult and consequently investment finance hard to obtain for the economy, if left unchecked this could lead to the failure of the Bank. Due to the fact that banks have large exposures to each other through the payment and settlement system and through interbank credit lines, the failure of one systematically significant bank could materially affect the ability of other banks to meet their obligations and a domino

[1] An externality occurs when transactions between one set of individuals or companies affects the economic well being of a group of individuals or company that was not a party to those transactions. A negative externality is one such transaction, which reduces the economic well being of others not involved in the transaction, without compensating them.

effect could play out (settlement risk) such successive bank failures can result in the failure of whole financial systems (Kaufman, 1994).

As lender of last resort, the South African Reserve Bank (the "**Reserve Bank**), will be responsible for assisting banks in distress and preventing ultimately the collapse of the financial system (Gorton and Huang, 2006). This function of the Reserve Bank isn't without controversy and criticism, because it implies a direct intervention in the banking markets. Further South Africa does not have a comprehensive system or scheme of depositor insurance, so the financial system is highly reliant on the Reserve Bank and the Finance Ministry's[2] ability to intervene in times of crisis.

Thus due to the systematic risks posed by banks to the financial system, the Reserve Bank is charged with the responsibility of gathering and evaluating the information needed to assess the true financial condition of banks in order to protect the public against loss and ensure the stability of the financial system as a whole (Ratnovski, 2009). Conversely, the Reserve Bank needs to balance its Public Interest Responsibility with its concomitant need to use banks as a conduit for its monetary policy and controlling money supply in the economy, to not only ensure price stability but also encourage economic growth (the "**Competing Interests**"). The Reserve Bank follows a market-orientated approach to the implementation of monetary policy; this approach consists of interventions in the various financial markets through the purchase and sale of financial instruments in order to influence prices and volumes (De Jager, 2009).

The banking crisis of 2007 (the "**Global Financial Crisis**") was a systemic failure which not only undermined the regulatory frameworks and policies of the most advanced economies around the world but exposed the fundamental weaknesses of globalisation and our economic models and assumptions.

The basic idea that had governed economic thinking for decades was that markets are functioning and efficient allocators of resources. Free markets provide the perfect environment for the right price to find a buyer and a seller, and are far better mechanisms than government officials at determining the right price (Fox, 2013). In 2007, the fundamental weaknesses of this basic idea were exposed, when the markets for some

[2]National Treasury is an agency of the Finance Ministry

mortgage securities stopped functioning. Buyers and sellers could not settle on a price, and this fear spread to other debt markets. Counterparty risk became difficult to assess. Financial institutions begun to be wary of the solvency of their counterparties, thus trust evaporated from the markets. Governments were forced to intervene, late in 2008, to guarantee the solvency of major banks and financial institutions. When various governments intervened in the market, fears about counterparty risk began to subside and financial markets began to function again.

Even though government interventions seem to have prevented a second great depression, the results of several successive bank failures generated huge financial losses for stakeholders (shareholders and clients), destabilised the financial system, and led to unprecedented government bailouts (Fox, 2013).

In the aftermath of the Global Financial Crisis, governments around the world have been reviewing and investigating the causes of the crisis and making changes in regulations (and policies) and to the supervisory approach, with the aim of creating a more robust banking system for the future. South Africa is no exception to this trend.

The South African experience of the financial crisis is unique and the aim of this research report is to understand how the Reserve Bank decides when to intervene, and how it proceeds following intervention.

Traditionally in commerce, a business fails where it can no longer pay its creditors. This process is gradual. Initially the company will begin to suffer losses and the market will learn of these losses. The company's creditors begin to estimate its risk of default and adjust the interest rate to compensate themselves for the increased risk or they may even require the company to make repayment of any debt. Progressively the company will be unable to raise additional funds to meet its obligations and will default or opt for business rescue. Invariably the company will be liquidated, if its business is not viable, and the assets allocated to meet its debts. The ultimate result is that the assets will be reallocated for more valuable uses (Walter, 2004).

Whilst it is acknowledged that business failure is disruptive to the company's managers and employees, it is beneficial for society, since it ensures that business resources are not

devoted to ineffectual enterprises. The question then is does this market driven process apply to banks (Walter, 2004).

Opinions are divided among academics and regulators. Some believe that a failing bank should be treated in the same manner as any other failing business for this ensures that business resources are not devoted to ineffectual enterprises, as mentioned earlier. Others, perhaps more sensitive to the potential systemic risk such failure could have not only on the banking system but on the whole economy, claim that bank failure justifies state intervention, the nature of which has differed internationally (Walter, 2004).

The authorities in Japan and even some in Europe have historically held the view that virtually every failing bank should be bailed out, or merged with a financially sound bank (Ratnovski, 2009). In Britain, on the other hand, the authorities have adopted a cautionary approach meaning that only the five largest banks should be bailed out (Heffernan; 2005: 352).

Decades before the Global Financial Crisis authorities in the United States adopted a special resolution regime[3] for banks and part of this policy was the "least cost" approach (from the standpoint of the taxpayer) to resolve bank failures, which should mean most failing banks would be closed, unless a stronger bank is willing to merge with it (Walter, 2004). This is an approach followed by South Africa (South African Reserve Bank, 2002; 14).

During the Global Financial Crisis, the authorities in the United States ostensibly abandoned the "least cost" approach in order to save the financial system. After the Global Financial Crisis, authorities in the United States passed the Dodd-Frank Wall Street Reform and Consumer Protection Act, which requires that bank-holding companies with assets of $50 billion or more to develop a resolution plan for orderly liquidation. The purpose of this is to provide bank regulators with plans that would enable them to liquidate failing banks that pose a significant risk to the financial stability of the United States in a manner that mitigates such risk, minimizes moral hazard and obviates the need for

[3] The US resolution regime for banks is administrated by the Federal Deposit Insurance Corporation, a federal agency created in 1933 and has seen the resolution of close to 500 banks

taxpayer support, which is prohibited in the legislation. (Bank of America Resolution Plan, 2012)

Thus, we can establish easily from the above discussion that regulators have three methods of dealing with failing banks. First, they may put a failing bank under curatorship, or they may merge a failing bank with a stronger more financially able bank, and lastly government may need to intervene, through the provision of emergency lending assistance, the provision of guarantees for claims on bad assets and lastly through the process of a purchase and assumption transaction. The Reserve Bank adopted a policy framework for dealing with banks in distress, which includes two additional methods: securitisation of assets[4] and the subordination of some deposits as secondary capital (South African Reserve Bank, 2002).

Should the Reserve Bank not act timeously, financial resources may well be tied up in inefficient operations for extended periods.

The last time the bank resolution process was really tested in South Africa, it resulted in the collapse of the small-bank sector with 22 banks exiting the banking system between the beginning of 2002 and the end of March 2003 (South African Reserve Bank, 2002). During that period, the regulators were fortunate to get away without any significant damage to the economy. The seventh biggest and sixth biggest banks were amongst the 22 banks that exited the system during this period. Below is a practical illustration of the challenges faced by the regulators. It deals with the failure of Saambou Bank Limited. (South African Reserve Bank, 2002).

As with any crisis, the events leading up to it seem insignificant and unrelated at the time. In the last quarter of 1999, the regulators placed a relatively small bank, FBC Fidelity Bank Limited, under curatorship. The failure of this seemingly insignificant bank was precipitated by a lack of confidence in its largest shareholder Fedsure, a life-insurance company. (South African Reserve Bank, 2002).

[4] The nature consequence of this securitisation process is that the banks are able to increase liquidity and simultaneously decrease the assets of the bank.

Fedsure was also the largest shareholder of Saambou. Sensing the weakness of its largest shareholder, Saambou began various business schemes in order to attract a new partner, which meant that management lost sight of the bank's core business (South African Reserve Bank, 2002).

In a surprise move (to the market), two of the bank's executive directors sold their shares in the bank. This led to speculation within the market and media that the share sales were due to management knowing that the bank had been underperforming, a rumour that gained a measure of credibility, when Saambou issued a profit warning. A downward spiral began for the bank, and it started to experience losses of deposits; as a result, its share price deteriorated which contributed to the bank losing further deposits (South African Reserve Bank, 2002).

The Bank Supervision Department then conducted a solvency due-diligence audit of Saambou and found that it was **solvent**. All these events placed Saambou's share price under strain (South African Reserve Bank, 2002).

Since Saambou was the seventh largest South African bank, the regulator regarded the bank as systemically significant (South African Reserve Bank, 2002).

In other words, the regulator was of the opinion that the entire banking system would be placed in jeopardy if Saambou were unable to settle its transactions – that contagion would set in - and that failure of the bank would greatly damage confidence in the banking system (South African Reserve Bank, 2002).

As the regulator had feared, contagion set in after the imposition of curatorship over Saambou. Not only did most of the banks smaller than Saambou[5] experience large withdrawals of deposits, but the contagion moved up the ladder and larger banks began to experience liquidity problems (South African Reserve Bank, 2002).

As we mentioned earlier one of the Reserve Bank's responsibilities is to use banks as a conduit for its monetary policy and controlling money supply in the economy. One way to achieve this function is through the Reserve Bank's accommodation policy which to

[5] On 9 February 2002 the Minister of Finance placed Saambou under curatorship

establish a certain desired “liquidity shortage”. During this time of the liquidity crisis, the Reserve Bank had just changed[6] its accommodation policy from using a discount window[7] and ensuring full accommodation to open market operations. This accommodation policy normally takes the form of repurchase transactions where banks tender for the amounts of funds they need against collateral of specific securities.

According to this system, banks whose tenders are not accepted or only partially accepted can obtain additional liquidity at the marginal lending facility (at a marginal lending rate), if the necessary collateral can be offered.

Small banks in South Africa are more exposed to the marginal lending rate than large banks, because the small banks get accommodated via the large banks. In times of limited liquidity, the large banks may keep funds obtained at the repo rate for their own purposes, exposing the smaller banks to the marginal lending rate. Thus, the cost of liquidity through ostensibly traditional sources rose dramatically for the smaller banks during the liquidity crisis.[8]

As confidence in the smaller banks dissipated during the liquidity crisis and their deposit base was consequently eroded, the net interest income of these banks declined. A general decline in the business cycle led to a concomitant slowdown in the level of business activity. Therefore, other sources of income for these banks, which could no longer attract new and longer term funding, came under pressure and could not compensate for their loss in net interest income. It became increasingly difficult for these banks to maintain their profitability, also because of the need to maintain higher levels of liquidity. This, in turn, impaired the profitability of these banks even further, until most of them started making losses (South African Reserve Bank, 2002).

The small banks lost up to 40 % of their deposits, resulting in a severe decrease in their share price on the JSE. The Reserve Bank provided liquidity assistance to some of these

[6] On 9 March 1998

[7] The “discount window” was an instrument that allowed bank to borrow money from the Reserve Bank to meet short term liquidity needs. By changing the discount rate, the Reserve Bank could control the supply of money to the banking system. Higher rates meant bank borrowed less and money supply decreased.

[8] We must distinguish the Reserve Banks normal liquidity provision facilities (through the daily repo auction) from the Reserve Bank’s emergence liquidity assistance provided as lender of last resort. The last is made on a case by case basis and will be discussed in more detail later.

small banks, in the belief that the Liquidity Crisis was short-term crisis and would correct itself once normality returned to the market and depositors re-gained confidence. Unfortunately, this did not happen, and the small banks in question had to exit the banking system, albeit without any loss to the fiscus or depositors (South African Reserve Bank, 2002).

The contagion began to impact larger banks. The Board of Executors (BOE), the sixth largest bank, was the most affected. BOE was systemically significant. The continued spread of the contagion was due to a market perception that the authorities lacked clarity and certainty in dealing with distressed banks, an erosion of the authorities' credibility (South African Reserve Bank, 2002).

BOE began to lose deposits and was forced to approach the Reserve Bank for liquidity assistance. The assistance did not stop the deposit withdrawals and National Treasury was forced to intervene. It is common for governments, in the face of persistent signs of stress in the domestic banking system, to issue a blanket guarantee for the liabilities (deposits) of the distressed bank (Wihlborg, 2012). This is actually, what National Treasury did during the liquidity crisis. It issued a guarantee to BOE depositors assuring them that their deposits would be supported by the fiscus. This drastic action by the authorities stopped withdrawals from BOE and provided the necessary signal to the market that the authorities were serious about maintaining the stability of the banking sector. Nedbank then acquired BOE and took over the responsibility of funding the assets, allowing National Treasury to withdraw its guarantee (South African Reserve Bank, 2002).

Fortunately, for Saambou depositors, FirstRand Bank bought out its operations and also acquired its traditional housing book (South African Reserve Bank, 2002).

The regulator, following its least-cost approach, was ostensibly successful in averting the type of successive bank failures seen later during the Global Financial Crisis and it achieved this without any cost to the fiscus. However, 22 banks exited the banking system during the crisis and it can be said that the loss of so many banks was a real cost to the economy. (South African Reserve Bank, 2002).

The crisis also called into question the credibility of the Reserve Bank to deal with these types of crisis (reputational risk). Hence, the Reserve Bank thereafter announced a policy framework for dealing with banks in distress in order to create some certainty in the market. (South African Reserve Bank, 2002).

1.1. Problem statement

After the Global Financial Crisis, the Financial Stability Board issued a document entitled "Key Attributes of Effective Resolution Regimes", which advised member countries on what key attributes their respective bank resolution regimes needed, in order to be effective. South Africa, s a member of the G20, is required to review its policy framework for dealing with banks in distress in line with the recommendations of the Financial Stability Boards. The purpose of a bank resolution regime is to minimise the cost of failure of a bank and the use of public funds in resolving it. The responsibility for developing a resolution regime vests with the resolution authority, which will be the Reserve Bank under a "twin peaks" model [9] of financial regulation in South Africa (Bank Supervision Department, 2012).

South Africa is a developing country with unique socio-political problems that require original policies for their solution. The "Competing Interests" mentioned above, between the Reserve Bank's Public Interest Responsibility to safeguard the financial system through strict regulation of banks and its ability to stimulate economic growth (developmental goals) through the Monetary Policy Mechanism requires the Reserve Bank to maintain a balance that optimises the public benefits of both competing interests.

The inherent danger in our banking system is the correlation between banks' assets that may lead to multiple banks becoming fundamentally insolvent simultaneously, and the potential contagious failures, as losses from fundamentally insolvent banks are transmitted and amplified in the wider system via defaults on inter-bank obligations. This was demonstrated in the 1997/8 Asian crisis, where, also although banks may have been well managed and adequately capitalised, the banking system was still vulnerable due to

[9] A twin peak model is where the prudential regulator and market conduct regulator are separated. The implementation of the twin peak model might for instance make the Reserve Bank responsible for monitoring prudential and systemic risks and the Financial Services Board responsible for conduct of business in the financial sector. The twin peak model is used in Australia, Canada and the Netherlands.

inherent imbalances in the economy and the financial system. Thus, micro-prudential supervision is insufficient to ensure the stability of the financial system. A concomitant emphasis is needed to be placed on macro-prudential supervision as well.

1.2. The Purpose Statement

In the light of the above discussion, the objectives of this study can be identified. Taking into consideration the Competing Interests mentioned above and the concomitant increase in the risk of future bank failures, this research aims to assess whether the Reserve Bank possess adequate regulatory powers to deal with systemically significant banks in distress to ensure the efficient re-allocation of assets when such banks start to fail.

There has been limited research into the methods the Reserve Bank uses to monitor the solvency of banks, or the powers it has to liquidate systemically significant banks or the considerations it take in account to avoid causing volatility in the market or triggering the contagion mechanisms. This research fills that knowledge gap and ignites a debate about how the Reserve Bank can develop a bank resolution regime that not only minimises the cost of bank failure and the use of public funds in resolving such failure but also ensures the efficient re-allocation of assets when such banks start to fail

1.3. Research Problem

The main research problem that this research report seeks to resolve is whether the Reserve Bank has adequate regulatory powers to deal with systemically significant banks in distress in order to ensure the efficient re-allocation of assets when such banks start to fail. To assist in the process of answering this question we have developed the following sub problems:

1. By contrasting the Financial Stability Board's 12 Key Attributes of effective resolution regimes with the Reserve Bank's policy framework for dealing with banks in distress, this research report will assess whether the Reserve Bank has adequate regulatory powers to deal with systemically significant banks in distress;
2. Considering the gradual deterioration of a bank's financial integrity, this research report will assess what key factors the Reserve Bank must consideration before

intervening as lender of last resort, in order to strike the delicate balance between "market failure" and "official intervention failure";

3. This research report will also assess the Reserve Bank's exit policy for distressed banks and determine when the government might consider taking control of the assets of the distressed bank; and
4. Since systemically significant banks enjoy an implicit guarantee as result of their importance to the financial system. This research report will consider how can the government can reduce or mitigate the risks associated with this implicit guarantee and increase the Reserve Bank's ability to re-allocate the assets of such banks when they start to fail, in order to ensure the most efficient use of these assets and maintain the efficiency of the financial system.

1.4. Conclusion

Banks will fail and it is not the responsibility of any regulator or supervisor to prevent bank failures. Given the potential systemic risk such failure, could have on the economy, the government, must take steps to ensure that the regulator has the requisite statutory ability to resolve banks effectively and ensure the efficient re-allocation of its assets. This chapter has highlighted the importance of banks to the economy, the competing interests of the Reserve Bank and the inherent dangers in our banking system, which necessitates an inquiry into the regulatory powers of the Reserve Bank to deal with systemically significant banks in distress. In Chapter 2, the various branches of literature dealing with bank failure will be reviewed.

Chapter 2: Literature Review

Banks are a hive of risks and there are many intersecting branches of literature in this regard. Resolving a bank requires that you understand how the bank fits into the economy and financial system. Thus in this literature review we have had to cover a vast landscape of intersecting literature. This section has been divided into three parts, the first deals with literature describing the various risks associated with banks. The second section deals with the international banking environment and details the intra-national institutions that provide recommendations on how banks should be regulated. The last section looks at the regulatory interventions and undertakings made by the government in the wake of the Global Financial Crisis.

2.1 The Kaleidoscope of Bank Risks

As noted in the introduction, banks each face a kaleidoscope of risks inherent in the operation of their businesses. Naturally, banks in a highly competitive environment continuously seek to lower the cost of capital whilst trying to maximise the return on capital. As a result, it becomes too easy to pursue high return assets, and neglect the concomitant high risk associated with such assets, because during the good times the banks are not penalised. Consequently, in this highly concentrated and competitive environment, a bank in order to be successful in the long term needs to have proper risk awareness and management (Wihlborg, 2012). There are four generally accepted categories of risk; for purposes of this research, they are financial, operational, business and events risks.

Financial risk comprises speculative risk and pure risk. The former are risks that stem from financial arbitrage and may result in a loss if the arbitrage is incorrect. The latter encompasses liquidity, credit and solvency risks, which may result in a loss if not managed correctly (Van Gruning and Bratanovi, 2000).

Business risk deals with the environment in which the banks operate, for instance, macroeconomic policy concerns, legal and regulatory factors, the overall financial sector infrastructure and payment system, and the overall systemic risk of operations (Young, 2006).

Event risks are all types of exogenous risk that threaten or impair the bank's operations or undermine its financial condition and capital adequacy.

These categories of risks are the subject of government regulations in the financial sector and make for a good regulatory framework. Inherent in these regulations are the difficulties of eliminating asymmetric information, agency problems, and the moral hazard.

2.1.1 Three Dilemmas

Asymmetric information, agency problems and moral hazard (the "**Three Dilemmas**") acting in concert, in their various manifestations, can be attributed to the collapse of the global financial system in 2008, which is a massive negative externality.

The problem with regulating banks stems from the presence of asymmetric information, for instance, various stakeholders possessing different grades of information about the financial health of the bank. On one side of the spectrum, regulators have a comprehensive set of information about the bank's financial health, whilst on the other, ordinary depositors hold the least amount of information and it is for this reason that Banks are so heavily regulated (Heffernan, 2005; 353).

Despite regulators holding large volumes of information on the financial health of a bank, bank managers still hold more information than them, shareholders or even auditors. This raises the principal agent problem. For once shareholders of the bank delegate the running of the bank to managers, managers inadvertently possess the ability to act in their own interests rather than that of the shareholders.

To understand how these Three Dilemmas can undermine and ultimately cause a bank to fail, we need to describe the function of a typical bank in South Africa and the various risks working in concert as described in the literature.

Generally, the core function of a bank is intermediation, which is a process whereby banks balance the surpluses of savers or depositors and the deficits of borrowers to ensure the most effective distribution of available savings amongst alternative investment opportunities. These activities appear on either side of a bank's balance sheet. On the

asset side, the bank makes loans and loan commitments to borrowers. On the liability side, they take deposits, which are repayable on demand.

Diamond and Rajan (2001) argue that these two activities seem fundamentally incompatible because the depositors may demand their savings at an inopportune time and force the bank to sell assets in order to meet their demands. Furthermore, because depositors are served in sequence, it creates a collective action problem among depositors, which makes them run on the bank whenever they believe their savings/deposits are in danger. The 2008 banking crisis was different from previous crises in that it was a wholesale panic, not a retail panic (Sepe, 2012; 386). We will discuss this in more detail in chapter 4.

In order to incentivise depositors to make deposits, banks offer to pay interest on the deposits. To make a profit and to cover the risk of non-payment they charge a higher rate of interest, to borrowers (Diamond, 1984). This arrangement entices banks to advance as many loans as possible to be profitable. However, because of the risk of depositors demanding their savings back, banks are required to maintain a fraction of deposits received from the depositors, to be paid out on demand of the depositors (Bagus and Howden, 2010; Wihlborg, 2012). Naturally, holding liquidity to meet demand deposits or commitments is costly (Gatev et al (2009), Kashyap et al (2002)).

Some theoretical and empirical literature show that even though it may seem that the process of intermediation is inherently flawed or incompatible, banks providing both these services (deposit taking and provision of loans) are efficient because commitment takedowns and depositor withdrawals are not perfectly correlated, allowing banks to use the held liquidity to meet either needs (Gatev et al (2009), Kashyap et al (2002)).

There are many risks on the asset side of a bank's balance sheet; one such risk is associated with extending loan commitments to borrowers. Banks expose themselves to the risk that borrowers could completely draw down the line of credit in times of a liquidity crisis (Acharya and Mora, 2012). Naturally, borrowers value loan commitments as insurance against unexpected cash flow shortages. During the Global Financial Crisis, borrowers drew down on their credit lines to hold cash on their balance sheets as a precautionary measure against turbulent credit markets (Ivashina and Scharfstein, 2010).

Consequently, banks became inundated with liquidity demands resulting in an unmanageable level of outflows. Banks struggled to attract deposits because of concerns over market uncertainty and bank solvency (Chava and Purnanandam, 2009).

During a liquidity crisis a typical threat to a bank solvency, on the liability side of a bank's balance sheet comes from asymmetric information. Asymmetric information means that depositors, with insufficient information, could start spreading "rumours" about the bank's liquidity problems causing other depositors to withdraw their deposits and even investors to start selling their stock (Heffernan, 2005; 353). This is ostensibly a "run on the bank". A run on the bank can lead to the insolvency of the bank.

Asymmetric information also adversely impacts a bank's decisions during a liquidity crisis. Bolton (2011) developed a model in which he showed that under asymmetric information, banks face an immediate incentive to sell assets to obtain liquidity. An important insight from the paper is that when banks hold assets, which are complex, "adverse selection" arises. On the one hand, banks would prefer to wait to liquidate assets until they are certain they have a persistent funding need to avoid liquidating at a discount. On the other hand, waiting to liquidate assets causes potential investors in those assets to perceive an adverse selection problem that increases the discount if in fact the bank requires liquidity.

2.1.2 The inter-bank market

In South Africa, one of the ways the Reserve Bank achieves its desired level of liquidity in the market is through intervening in the interbank market. The interbank market effectively distributes liquidity from institutions with surplus funds to without. Through intervening in this market, the Reserve Bank is able to implement monetary policy because interbank market interest rates respond almost immediately to any changes in the Reserve Bank's policy rate or repo rate[10]. This means that price discovery of all instruments in the money impacted from the overnight rate to the 12 month Johannesburg Interbank Agreed Rate. (van Wyk et al, 2012)

The most important part of the interbank market is the reserve funds market. This market allows bank to manage their cash reserve requirements of 2.5% of all deposits. In addition

[10] In accommodation rate is called the Repurchase (Repo) rate

to these reserve accounts, banks also hold a settlement account with the Reserve Bank[11]. This settlement account is used as part of the national payment system[12], where differences in liabilities between various banks are cleared and settled by transfers between the respective accounts[13] on a daily basis (de Jager, 2006b). Thus at the end of any given business day, a bank may well find itself with a positive or negative net cash balance on its settlement account (van Wyk et al, 2012).

Banks with positive settlement balances will try and lend these reserves to deficit banks on an overnight basis otherwise the deficit banks will have to borrow funds from the Reserve Bank, which requires collateral. The interbank overnight loans are unsecured. Each surplus bank will charge a different interest rate[14] for lending its overnight funds to a deficit bank, depending on the associated risks (van Wyk et al, 2012).

De Jager (2006b) notes that in the South African interbank market all interbank settlements must be prefunded and banks have the responsibility of monitoring and managing their intraday accommodation requirements as well as the collateral they place at the Reserve Bank's disposal in order to facilitate the automatic conversion of collateral for funding of settlement accounts. If a bank requires accommodation from the Reserve Bank to prefund the settlement account, such assistance will be subject to preconditions. (We will discuss these pre-conditions in more detail in chapter 4). Financial assistance by the Reserve Bank to any bank is not guaranteed.

Allen and Gale (2000) and Holmstrom and Tirole (1998) argue that short-term debt provided through an interbank market improves economic efficiency: banks can use it to insure each other against unexpected liquidity shocks, thereby to economise on liquid assets holdings and enable them to invest their funds into more profitable, but less liquid (long-term) investment projects. However, Bhattacharya and Gale (1987) and Huang and

[11] Section 10A of the South African Reserve Act requires that all banks hold and maintain a prescribed credit balance in an account with the Reserve Bank. These balances are based on a prescribed percentage of a bank's liability to the public. By manipulating the cash reserve requirements the Reserve Bank is able to control the supply liquidity in the market.

[12] The National Payment Act, which commenced on 28 October 1998 provides the legal framework for this system

[13] The major systems that facilitate these transactions are BankservAfrica and South African Multiple Option Settlement System. The former is managed by the commercial banks whilst the latter is managed by the Reserve Bank. the latter system constitutes an online central bank settlement system which allows banks to electronically effect interbank fund transfers (see De Jager, 2006b)

[14] These interest rates are collectively referred to as the interbank overnight call deposit rates and the rate charged by a surplus bank to a deficit bank is not disclosed to the market.

Ratnovski (2011) point out that there may be incentives for banks to over rely on this type of insurance, so that underinvestment in the liquid asset occurs.

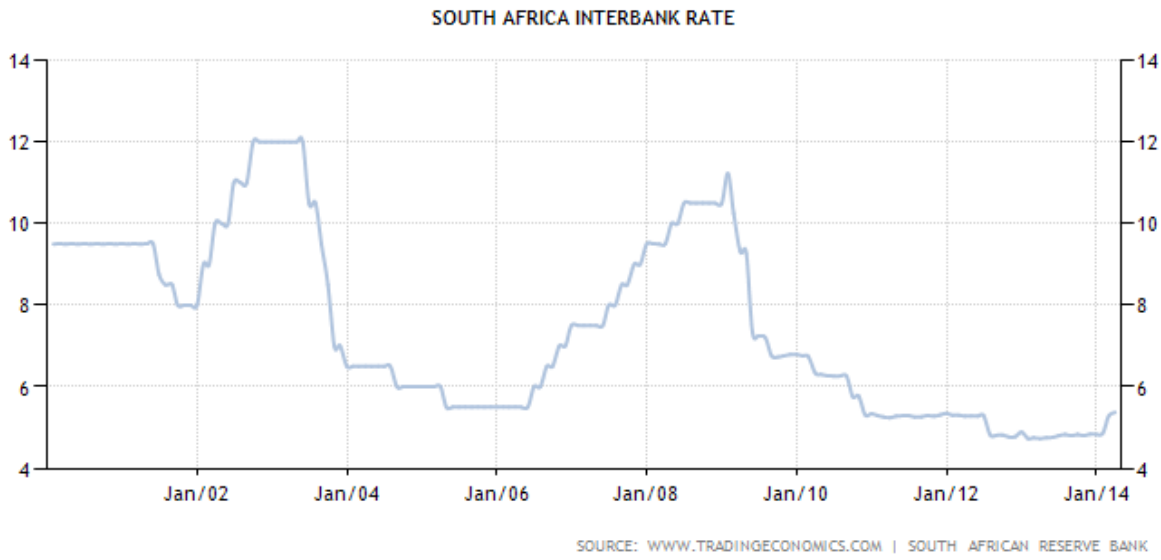
The Global Financial Crisis showed that the positive features of the interbank market also have downsides. Access to this type of market can evaporate extremely quickly, whether because of borrower solvency problems, lender liquidity problems, or market freeze.

On the issue of borrower solvency problems, Allen and Gale (2000), Freixas and Holthausen (2005), and Bruche and Suarez (2010) argue that a high level of counterparty risk would lead to high interbank interest rates for a particular bank. If these rates become too high to be sustainable, the bank would no longer be able to obtain loans, but be cut off from the interbank market. Taking into account the maturity structure of short term funding, Brunnermeiner and Oehmke (2013) argue that if the solvency of a borrower is considered problematic, creditors have incentives to shorten the maturity of their loans (in order to be the first in line if counterparty risk becomes unsustainable).

In times of high market distress, the lenders' characteristics may also play a role in a reduction of short term funding, hence lender liquidity problems Eisenschmidt and Tapking (2009) model a lender's decision to provide interbank loans and show that lenders who face funding problems themselves or who wish to hold precautionary liquidity buffers may refrain from lending to other financial institutions.

The graph[15] below maps the South African interbank interest rates from January 2002 to Jan 2014. The graph illustrates the points made above by Allen and Gale (2000), Freixas and Holthausen (2005), and Bruche and Suarez (2010). It show that the during 2002/3 liquidity crisis, when there was a high level of counterparty risk, the interbank interest rates rose to a high of 12%. The years following the 2002/3 liquidity crisis when there was a low level of counterparty risk, the interbank interest rates dropped below 6% before climbing again during the Global Financial Crisis to 11%.

[15] This graph was generate from data supplied by the South African Reserve Bank on www.tradingeconomics.com



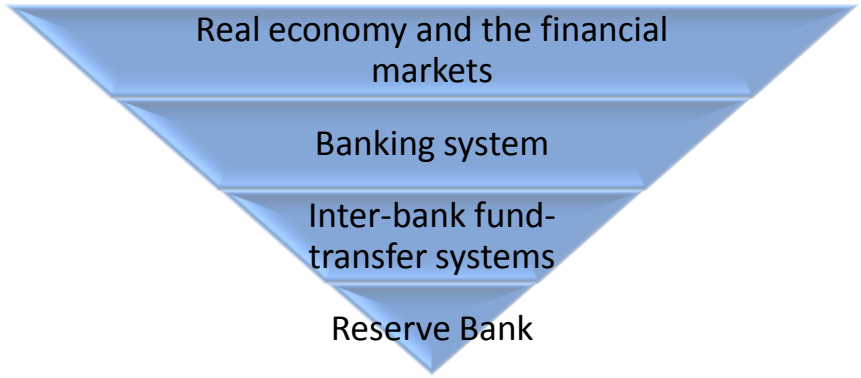
During the Global Financial Crisis, the interbank markets froze and prompted central banks to intervene in order to restore normality to the market. Allen et al (2009) developed theoretical framework for analyzing inter-bank markets and how the central bank should intervene.[16] However, their model of interbank markets ignored the insolvency of financial institutions, and cannot be used here, as this research is focused on the insolvency of financial institution. Heider et al (2009) model adverse selection in the interbank market, where potential lenders are uncertain about the credit quality of the potential borrowers. Here, the adverse selection problem could lead to a collapse of interbank market activity, particularly when either the level of counterparty credit risk is very high, and/or when the degree of asymmetric information is pronounced.

In this case, even high quality borrowers may be unable to obtain wholesale funding. Allen et al (2009) also find that a high degree of volatility of money market interest rates, possibly due to a high uncertainty about aggregate liquidity needs of the banking sector, may lead to a breakdown of the interbank market. Both studies mentioned here find that a central bank has a role in providing liquidity to markets in order to increase efficiency (Holmström and Tirole, 1998).

[16] In the US when the Fed's interest rate reached zero, the utility of interest rates as an effective monetary policy instrument was effective, thus they had little chance but to implement quantitative easing. Quantitative easing allows the centrals to purchase various types of assets from financial institutions with different matures in order to enable the expansion the of money and credit in the market to protect local and small banks

2.1.3 The Complexities of intervention by the Reserve Bank

Given the complexities involved with managing banks and more especially failing banks some academics and economists are against any intervention by the Reserve Bank, because they believe that the market is in a better position to determine the relative solvency of a bank short of liquidity (Bordo, 1990). They believe that direct intervention in pursuit of financial stability may divert the Reserve Bank from achieving its primary goal of price stability. This position fails to recognise the potential dangers of market failure. General Counsel of the South African Reserve, De Jager (2006b) aptly depicts the centrality of the Reserve Bank to the economy, through the interconnected layers between the Reserve Bank and the real economy.



According to De Jager, the real economy, where trade in goods and services takes place, rests on the banking system, which facilitates payments for the real economy and financial markets. A layer of interbank fund transfer systems through which payment transaction are processed in turn supports the banking system. These systems are in turn built on the infrastructure of the Reserve Bank, wherein all final settlement of payment transfers take place across the various settlement accounts of banks. Economist and policy makers often call this the Reserve Bank's role as custodian of the financial system. The argument is based on the idea that a poorly functioning financial system creates a negative externality for the economy.

Thus when a bank begins to fail the real conundrum facing the Reserve Bank, is what Goodhart and Huang eloquently state in their article, is the judgement to be made, about the appropriate balance between "market failure" and "official intervention failure" (Goodhart and Huang, 2005: 1078). The difficulty with the Reserve Bank's decision to

intervene or not, is that fear (through the contagion mechanisms) could grip the market, after the Reserve Bank's decision to intervene, and the run could spread to the other banks and threaten the collapse of the banking system (Bernanke, 1983).

Goodhart and Huang developed a model (which I will refer to as the "**Huang Model**" for ease of reference), which deals with and explains the choices the Reserve Bank faces when acting as lender of last resort (Goodhart and Huang, 2005). They develop several scenarios. In the first static setting, the Reserve Bank will only rescue banks above a certain threshold size; this gives rise to concepts such as "too big to fail" and could influence the risk preferences of banks. Thus, central banks and regulators around the world use "constructive ambiguity" to make their decisions on which banks they will rescue (Goodhart and Huang, 2005: 1078). In a dynamic scenario, where both the probability of failure and the likelihood of a bank requiring assistance are high, this scenario focuses on the effect of contagion and the moral hazard, which illustrate that the Reserve Bank's optimal rescuing policy, whether to intervene or not, depends not only on bank size, but also on time-varying variables, like the likelihood of further contagion failures or the bank requiring assistance being insolvent.

In the above scenario, the Reserve Bank would have a significant incentive to rescue banks, irrespective of size, if contagion is the main concern. However if moral hazard is the main concern the Reserve Bank would be less inclined to rescue banks below a certain threshold size.

The Huang model assumes that commercial bank managers' appetite for risk remains constant as size varies. They make this assumption because they believed that the incentive for risk-taking inherent in too-big-to-fail banks was roughly balanced by the greater risk aversion of managers in high status large banks. (Goodhart and Huang, 2005: 1081)

To avoid the above-mentioned vulnerabilities, regulators advocate the imposition of capital and liquidity regulations. These regulations determine the solvency of banks and the optimal liquidity ratios. These two components are not the focus of our research; however understanding these regulations gives context to when the Reserve Bank is likely to be compelled to intervene.

If the regulators set capital adequacy requirements too high, banks may be induced to avoid this type of regulation by shifting from traditional on-balance-sheet banking business to off-balance sheet operations, which are still relatively free from capital requirements[17].

The dynamics of failing banks internally means that the managers of the bank are the first to recognise that the bank is in serious trouble. Thus, the Three Dilemmas begin to inform their actions. Their options are simple; first they can allow the Bank to fail by not acting and ultimately lose their jobs (Heffernan, 2005; 353). Alternatively, since they are the first with this information, they can undertake highly risky investments that are accompanied by higher return, in the hope of rescuing the bank and their jobs.

After the Global Financial Crisis, regulators recognised this gap in the regulations. Studies have focused mainly on the risks as mentioned above. Few have focused on how regulators deal with failed Banks; thus in recent years academics have begun to study bank resolution more thoroughly.

South Africa, in following global trends, has also identified this gap in its regulations. Thus, academics are only now beginning to pay attention to this field. There have been two significant studies on bank failure in South Africa, the first by Stephen Koseff whose focus was on the causes of bank failure in South Africa, during the 1970s. The second was by Sipho Makhubela, whose research, which was based primarily on Koseff's work, was on the causes of failure in the post 1994 period. Most similar studies have focused on bank performance or efficiency in South Africa [see Oberholzer and Van der Westhuizen (2004); O'Donnell and Van der Westhuizen, (2002); Okeahalam (2006); Cronje (2007) and Ncube (2009)]

No study has touched on the method the Reserve Bank uses to monitor the solvency of banks, the powers it has to liquidate a bank without causing great volatility in the market or triggering the contagion mechanisms. This study will fill the latter knowledge gap using the Key Attributes of Effective Resolution Regimes for Financial Institutions identified by

[17]The benefit of this type of shift is that banks struggling to meet the capital adequacy requirement can avoid being liquidated by the Reserve Bank. This shift in foreign markets to off-balance sheet operation is primarily responsible for the Global Financial Crisis.

the Financial Stability Board. The significance of this study is that the findings could assist the regulator to improve current policies relating to how failing banks are dealt with.

A distinction needs to be drawn, between the purpose of this research and the work of the Financial Stability Board. Whereas the Financial Stability Board recognises the importance of ensuring that no financial institution is “Too Big to Fail”, its focus has been mainly on the effective implementation and application of the “Key Attributes on Global Systematically Important Financial Institutions” (G-SIFIs) (Financial Stability Board, 2011). Our research focus is on narrower ground, namely how the Reserve Bank deals with and resolves domestic banks, which are not globally systemically important financial institutions.

From a literature review, perspective there is not much written about bank resolution in South Africa, nor have there been many explicit rules or regulations written detailing how failing systematically significant banks are resolved in South Africa, mainly because the regulators have enjoyed the flexibility of an undocumented process. This literature review begins with a discussion about the impact of the Global Financial Crisis on the regulatory landscape of banking, both internationally and domestically. Once we have an understanding of international standards and domestic priorities, we will discuss the literature around the risks banks contend with, and the risks of the Reserve Bank’s intervention. Lastly, we look at how National Treasury and the various regulators approach bank resolution going forward into the future.

2.2 The International Banking Environment

The financial sector is globally integrated, but regulated nationally; the negative effects of this arrangement became clear during the Global Financial Crisis, and forced governments around the globe to recognise that coordinated action would be needed to prevent the collapse of the world financial system.

At the October 2008 G7 Summit in Washington and the follow up G20 summit in November, it was agreed that the global response to the financial and economic crisis should be coordinated by the G20. This was a particularly significant step in that it recognised the importance of leading emerging economies such as China, Brazil and even South Africa, in resolving global financial instability.

Subsequent G20 summits at Pittsburgh, Toronto, Seoul, Cannes and Los Cabos have seen practical measures agreed to and a clear political commitment to a common economic strategy for dealing with the downturn that followed the crisis.

In April 2009, the Financial Stability Board was established. This body, the successor of the Financial Stability Forum, coordinates the work of the national financial authorities and international standard-setting bodies, and develops and promotes effective regulatory, supervisory and other policies. The Board has taken forward initiatives in a number of areas that presented clear systemic risk. These include the establishment of specific regulatory regimes to deal with global systemically important financial institutions, and as highlighted in the introduction, the drafting of the consultation document detailing "the Key Attributes of Effective Resolution Regimes for Financial Institutions" (Key Attributes), which was endorsed by the G20 as the international standard for resolution regimes (Financial Stability Board, 2011).

A range of domestic reforms has complemented global reforms. In many cases, these have focused on changing the content of regulation. Each G20 country, for example, is carrying out its own work to implement strengthened global standards. Some jurisdictions have also worked to reform institutional arrangements. South Africa has committed to moving to a variant of the twin peaks model (National Treasury, 2011).

2.3 The New Regulatory Environment under Construction

Since the Global Financial Crisis, the government seems cognisant of the fact that bank failure generates significant costs, financial losses for stakeholders, loss of competitiveness, and potential destabilisation of the financial system, through the contagion mechanisms. The precious resources needed to resolve these crises are wasted, in government's efforts to stabilise the system, particularly scarce resources in emerging market economies like our own (Honohan, 1997).

Traditionally, banking regulation has focused on making detailed assessments of risk at the level of individual banks' balance sheets (Castiglionesi, 2007). Nevertheless, in an interconnected system, and a highly concentrated environment, banks that appear sufficiently healthy when viewed individually may collectively present a material threat to

the solvency of the system as a whole (Webber et al, 2011). Thus, there is a need for the regulator to be able to identify those banks, which are failing and pose a systemic risk, to be able to act quickly to reallocate those assets for more valuable uses without posing a material threat to the solvency of the system.

On 1 February 2013, National Treasury issued, on behalf of The Financial Regulatory Steering Committee[18], a summary of the proposals for implementing the Twin Peaks model of financial regulation, for public comment. The benefits of this proposed regulatory system may well be to allow the Reserve Bank to identify vulnerabilities of the system as a whole, vulnerabilities which might not be easily identified by focusing narrowly on the health of individual banks.

Webber (2011) believes that in any system-wide risk management approach, policymakers face the optimisation problem. In terms of this problem, the policymaker is assumed to be interested in ensuing that the probability of banking system insolvency over a given time horizon is less than a chosen target level. This reflects the policymakers' systemic risk tolerance. The target could be achieved in all countries by setting very high systemic capital requirements. However, the policymaker may also want to limit the potential inefficiency cost associated with regulatory capital requirements.

In particular, if equity capital is more expensive than debt, a higher capital requirement could increase the cost of bank lending to non-bank borrowers in the wider economy. According to Webber, the possible trade off between financial stability and financial efficiency motivates a constrained optimisation, where a policy maker seeks to identify capital requirements for individual banks that keep to a minimum, the total level of capital in the banking system overall, subject to their systemic risk target. The solution of the constrained optimisation problem is a unique level of capital in the banking system and its distribution across banks (Webber, 2011; 44).

Barth, Caprio and Levine, (2001, 2004, 2006) were the first to compile and analyse an extensive database on banking sector law and regulations using various surveys of regulators around the world, and to study the relationship between alternative regulatory

[18]This committee was tasked by the Minister of Finance and the Governor of the Reserve Bank to prepare detailed proposals on the implementation of Twin Peaks.

strategies and outcomes. Barth, Caprio and Levine find that regulatory approaches that facilitate private sector monitoring of banks (such as disclosure of reliable, comprehensive and timely information) also strengthen incentives for greater market monitoring to improve bank performance and stability. In contrast, improving official supervisory oversight and disciplinary powers and tightening capital standards does not lead to banking sector development, nor does it improve banking efficiency, reduce corruption in lending, or lower banking systemic fragility. They interpret their findings as a challenge to the Basel Committee's influential approach to bank regulation, which capital, and official supervision.

An important limitation of this type of survey is that it mainly captures rules and regulations that are in books rather than actual implementation. The IMF and World Bank financial sector assessments have often found implementation to be lacking, particularly in low income countries, so that cross-country comparisons of what is on the books may hide substantial variation in the quality of supervision and regulation. The IMF and World Bank financial sector assessments have the advantage of taking into account implementation. Of course, assessing how rules and regulations are implemented and enforced in practice is not an exact science and individual assessments may be influenced by factors such as the assessors' experience and the regulatory culture they are most familiar with. Nevertheless, although it is difficult to eliminate subjectivity, assessments are based on a standardised methodology and are carried out by experienced international assessors with broad country experience.

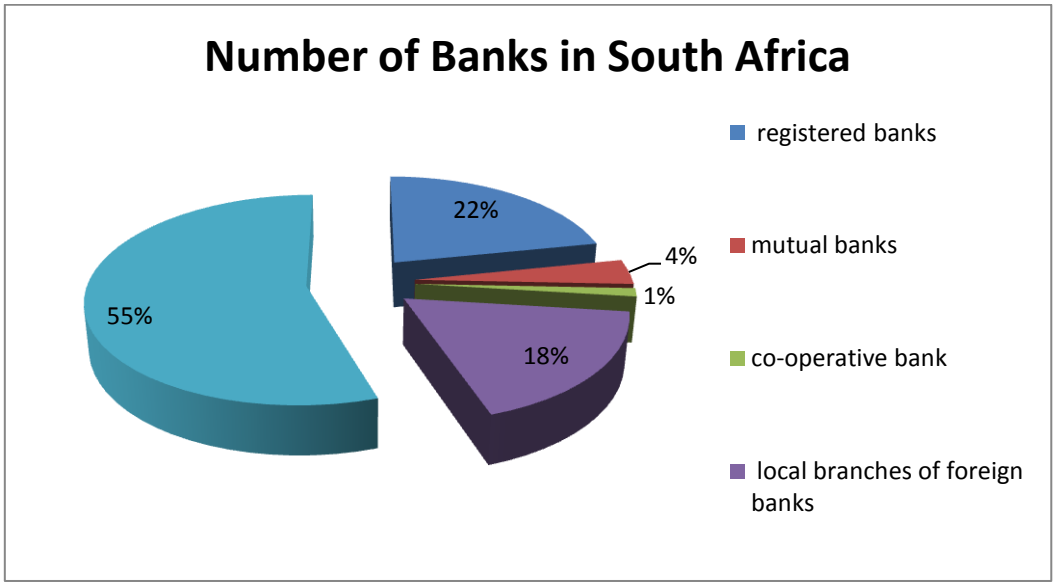
2.4 The Banking Sector

Despite South Africa's turbulent past, which involved economic sanctions and political instability the South African banking sector is comparatively advanced. Emerging from a troubled period which in any other country would have destroyed the banking infrastructure, South African Banks emerged resiliently well developed, better capitalised, utilising more technological advanced banking systems, better risk management techniques and a highly skilled sector (Okeahalam, 1998).

The Banking sector experienced a flight of foreign bank during the 1970s and 1980s because of the prevailing political pressure to divest from South Africa. This provided a small group of large insurance and industrial companies an opportunity to acquire large

stakes in local banks. This led to a highly concentrated sector and in turn led to a concentration of retail and corporate lending.

According to the Bank Supervision Department of the Reserve Bank, at the end of November 2013, there were 17 registered banks, 3 mutual banks, 1 co-operative bank, 14 local branches of foreign banks and 43 foreign banks with approved local representative offices. This information is graphically illustrated below:



Banks are classified as A1, A2 or A3 according to their amount of capital. Banks that fall within A1 are those which have a sufficient capital base to absorb losses and can obtain funds on the markets at lower rates than A2 or A3 banks. Standard Bank of South Africa, Absa Bank Limited, FirstRand Bank Limited, Nedbank Limited and Investec Bank Ltd are all classified as A1 banks (Saayman and Styger, 2000). We have selected these commercial banks because they are ostensibly systemically significant as they hold the largest percent of the total banking assets.

According to Okeahalam, the failure of any of these core banks would create systemic instability in the domestic banking system and the national economy, thus the regulatory authorities' will do all they can to ensure that these core banks do not fail. Having said this, Okeahalam (1998) cautions that the Regulatory Authorities, will stop short of espousing, their unconditional support for these core banks because of the adverse effects of Moral Hazard.

The total assets of the banking sector during 2012 was over R3,5 trillion. The four largest banks (Standard Bank, FirstRand, ABSA, and Nedbank) hold over 84% of the total banking assets making the banking sector highly concentrated (Kumbirai and Webb, 2010). The banking sector held during 2012 over R3, 2 trillion in total liability. Deposits represented over 86 percent of total liabilities at the end of June 2012 (Banking Association South Africa; 2012; 3). This in itself poses great risk to the financial system.

Because of the largest banks' dominant market position, in some ways they can be said to be protected by the "too-big-to fail" and "too-important-to fail" doctrines. According to the former doctrine once a bank reaches a particular size, the regulators must provide assistance to it, in order that it may honour its obligations and not fail. According to Okeahalam (1998) this translates to all obligations to depositors and to a lesser extent creditors being protected by a guarantee issued by government. For Okeahalam (1998) this protection does not extend to equity holders, bondholders and senior management

During the 2002/3 liquidity crisis, failure and resolution of small banks was easy compared to trying to resolve large and systemically significant banks such as the large banks mentioned above. Regardless some authors like Charles Okeahalam, a Namibian Professor of Banking and Finance, at the University of Namibia have cast doubt on the manner in which the Reserve Bank deals with the failure of banks, to the point of claiming that the Reserve Bank might well be politically bias and therefore a potentially corrupting influence in the financial system.

2.5 Conclusion

This literature review demonstrates that there are many intersecting branches of literature when dealing with bank resolution. Before one can begin assessing whether the Reserve Bank has adequate regulatory powers to deal with systemically significant banks in distress; or what are the key factors that the Reserve Bank must consideration before intervening as lender of last resort, one must understand how banks fit into the economy and financial system. This literature review has not only set that context but also described the various bank risks regulated by statute and undermined by the Three Dilemmas (asymmetric information, agency problems and moral hazard).

The fact that financial sector is globally integrated, but regulated nationally; means that developments in the global community have a material impact on the South African financial sector and any domestic reforms to the financial sector must be cognisant of and complement global reforms. This literature review has placed the relevance of this study in its global context and highlighted the regulatory interventions and undertakings made by the South African government in the wake of the Global Financial Crisis.

Chapter 3: Research methodology

3.1 Introduction

The purpose of this section is to outline the approach chosen in order to execute the study. It will describe the selection criteria and the process of analysis to be used, the methods of data collection, data presentation and analysis as well as trustworthiness and authenticity of the study. It is also important to place this research within an ontological position and to discuss the epistemology as both affect the research question and the way it is addressed.

Ontology describes our view (whether claims or assumptions) on the nature of reality, and especially whether this is an objective reality, that really exists or a subjective reality, created in our minds. Thus, Bryman distinguishes between two main ontological positions, objectivism and constructionism (Bryman, 2001: 16) Objectivism in general asserts that social phenomena and their meanings have an existence that is independent of social actors (Bryman, 2001: 17). That is, structures within the social world are objective entities that are not influenced by human beings or other social forces. It is closely linked to positivism and natural science disciplines and seeks to explain situations and link causal variables.

In contrast, constructionism believes that people have an active role in constructing social reality and social structures, and these social phenomena are in a constant state of flux as people and their society change (Bryman, 2001; 18). This interpretative approach seeks to understand the meaning people ascribe to social entities. Whilst it is possible therefore to discern two distinct belief systems, it is also argued that such a clear dichotomy rarely exists in practice and much research combines elements of both approaches (Silverman, 2001).

This research accepts elements of both objectivist and constructionist approaches, believing that there is an external quantifiable social reality that has a direct impact on individuals. The interpretation of the impact of such social reality on an individual is relative.

When considering that different views exist regarding what constitutes reality, another

question must be considered; how is that reality measured, and what constitutes knowledge of that reality. This leads us to questions of epistemology. Epistemology is a theory of knowledge with specific reference to the limits and validity of knowledge. It helps us determine how knowledge can be produced and argued for. Hatch and Cunliffe (2006) summarise epistemology as 'knowing how you can know' and expand this by asking how knowledge is generated, what criteria discriminates good knowledge from bad knowledge, and how should reality be represented or described. They go on to highlight the interdependent relationship between epistemology and ontology, and how both inform, and depend upon, the other.

In considering this link, the need to understand the position of the researcher becomes more obvious. If the researcher holds certain ontological positions or assumptions, these may influence the epistemological choices or conclusions drawn. Hence, as with ontology, both objective and subjective epistemological views exist. Eriksson and Kovalainen (2008) describe an objective epistemology as presuming that a world exists that is external and theory neutral, whereas within a subjective epistemological view no access to the external world beyond our own observations and interpretations is possible.

Saunders, Lewis and Thornhill (2007) discuss this further, highlighting that certain researchers argue that data collected from objects that exist separate to the researcher (an external reality) is less open to bias and therefore objective, and that if social phenomena are studied, these must be presented in a statistical, rather than narrative form in order to hold any authority, a position that many researchers would challenge. Blaikie (1993) contends that since social research involves so many choices, the opportunity for researchers' values and preferences to influence the process makes it difficult to ultimately achieve true objectivity.

The traditional epistemological research approaches are positivism, realism and interpretivism. Whilst it is outside the scope of this research to provide an extensive critique of each position, the central tenet of each approach is outlined below.

Positivism advocates the application of traditional methods, used to study the natural world, to the study of the social world. Positivists argue that science can be conducted in a value-free, objective manner and a neutral process can discover a single 'truth'. This

position presumes the social world exists objectively and externally, that knowledge is valid only if it is based on observations of this external reality and that universal or general laws exist or that theoretical models can be developed that are generalisable, can explain cause and effect relationships, and which lend themselves to predicting outcomes. Positivism is based upon values of reason, truth and validity and there is a focus purely on facts, gathered through direct observation and experience and measured empirically using quantitative methods-surveys and experiments- and statistical analysis (Saunders, Lewis and Thornhill, 2007; Eriksson and Kovalainen, 2008; Easterby-Smith, Thorpe and Jackson, 2008; Hatch and Cunliffe, 2006). Hatch and Cunlifee (2006) relate this to the organisational context, stating that positivists assume that what truly happens in organisations can only be discovered through categorisation and scientific measurement of the behaviour of people and systems and that language is truly representative of this reality.

Borne from the frustration that positivism was over-deterministic (in that there is little room for choice due to the causal nature of universal laws) and that constructionism was so totally relativist (and hence highly contextual), realism takes aspects from positivist and interpretivist positions. Realism comes from the position that believes that there is an objective reality that it is possible to know, which is separate from our description or understanding of it. It shares some common ground with positivism in that it also adopts the same approach for studying the natural and social worlds, and is concerned with uncovering truths or rules about the social world.

These two positions relate back to an ontological position that argues that there is an external quantifiable social reality that has a direct impact on individuals, and thus the rules governing such a reality can be discovered. In common with interpretivist positions, realism recognises that natural and social sciences are different, and that social reality is pre-interpreted. However, realists, in line with the positivist position, also hold that science must be empirically based, rational and objective and so it argues that social objects may be studied “scientifically” as social objects, not simply through discourse. Positivists hold that direct causal relationships exist, that these relationships apply universally, and that the underlying mechanisms can be understood through observation.

In contrast, realists take the view that the underlying mechanisms are simply the

tendencies that things have to act in a certain way, and that other factors may moderate these tendencies depending upon circumstances, and hence the focus is more on understanding and explanation than prediction. Lastly, the realists take the view that researching from different angles at multiple levels, will all contribute to their understanding since reality can exist on multiple levels and hence realism may be seen as inductive.

Interpretivism in contrast, requires a different approach for the study of the social world to that of the natural world. Interpretivists seek to understand human behaviour and the social world, whereas a positivist would seek to explain the situation (Bryman, 2001; 13). An appreciation of subjectivity and bias is therefore important to interpretivists. Furthermore, individuals within society are regarded as important actors who can change social structures. Therefore, studying the structures alone, removed from human interpretation or meanings is not applicable. Instead, the interpretations of individuals, what meanings they ascribe to social structures are central to the research process. However, as with ontological assumptions, barriers between each paradigm are not necessarily impermeable, and there may be a blurring between epistemologies (Miles and Huberman, 1994:4)

This research report is conducted from a realist approach; in understanding Bank failure, it must be recognised early that underlying mechanisms can act apparently independently or "out of phase" with the observable events and that events can occur independently of them being experienced. Hatch and Cunlifee (2006) described this phenomenon as a "stratified" form of reality whereby surface events are shaped by underlying structures and mechanisms, but that what we see is only part of the picture. In this research, an enquiry into the mechanisms and structures that underlie the Reserve Bank's form and practices is conducted, as well as how these emerge over time, and how they might empower and constrain social actors, and how such forms may be critiqued and changed.

3.2 Research Approach

The data production approaches used in this research report will be qualitative in their design, influenced by the above stated epistemological positions. The nature of any qualitative research can be gleaned from its rich description, with the richness of the

description being ensured by the breadth of the context captured by the data (Glazier 1992: 6-7). This research report is seeking to understand, through the use of documentary analysis, the Reserve Bank's role in determining banks' solvency, and its ability in the event of bank failure to resolve them without posing a risk to the system.

3.3 Research Design

The research design of a study should also stem from the research question. As De Vaus (2001) argues, the function of research design is to ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible. As stated above this research aims to understand the Reserve Bank's role in determining banks' solvency, and its ability in the event of bank failure to resolve them without posing a risk to the system. Thus, we have elected for an extensive literature review as a particular form of documentary study.

Social surveys, in-depth interviews and participant observation are well-established research designs. However, the documentary research method is often marginalised or when used, it is in combination with the established methods. Nevertheless, the documentary method is more cost effective than the other methods of research (Bailey, 1994).

An extensive literature review is generally produced to analyse a particular issue, topic, or theme in depth, sometimes for the purposes of informing or setting up the theoretical frame for another research study. In this research, the particular issue analysed is the choices the Reserve Bank has, as lender of last resort, in the event of potential Bank failure using the Huang Model.

This adopted design approach relies on documents as or sole source of data. It requires a data collection technique, method or strategy to gather documents as data often supplemented by other sources of data or to triangulate sources.

There are two types of documents that are used in documentary study; primary documents and secondary documents. Primary documents refer to eyewitness accounts produced by people who experienced the particular event or the behaviour we want to

study. Secondary documents are documents produced by people who were not present at the scene but who received eyewitness accounts to compile the documents or have read eyewitness accounts (Bailey 1994: 194).

Documents range from public through private to personal documents. The list of public document sources include government publications such as Acts of Parliament, policy statements, statistical bulletins, reports of commissions of inquiry, ministerial or departmental annual reports. Civil society organisations such as private sector businesses, trade unions and nongovernmental organisations, as well as private individuals produce private documents. They include individual minutes of meetings, board resolutions, advertisements, invoices, personnel records, trainings manuals, inter-departmental memos and other annual reports. Personal documents are household account books, photo albums, address books and medical records.

The sources of documents for this research will be public records, media reports and data bases of academic journals.

This research is conducted via a secondary data approach. The Bank resolution remedies available to the Reserve Bank and Finance Ministry both documented in legislation and established through past practices will be examined. Use will be made of both domestic academic literature and the discussion documents issued by National Treasury. This research will note the advantages and disadvantages of the Bank resolution regime in South Africa using the Huang model.

The research undertakes to highlight the interests of several social participants (the depositors, taxpayers, the regulators, shareholders and bank managers) and how these interests are promoted or prejudiced through the following two processes: first, through the determination of adequate capital requirements, which determine which banks are solvent, and the second the ability, in the event of bank failure, of the regulator to resolve such banks without posing a risk to the system.

3.4 Trustworthiness and Authenticity

The applicability and relevance of the reliability and validity criterion in assessing the quality of research in qualitative studies has been the subject of much debate amongst researchers. Some researchers have suggested that qualitative studies should be evaluated according to different criteria, because the criterion of reliability and validity assume a single absolute account of social reality is infeasible. This assumption is contrary to qualitative studies, which accept that there can be several accounts of social reality. Lincoln and Guba (1994; 1985) propose trustworthiness and authenticity as criteria for the evaluation of qualitative research, which is a suitable criterion for this study.

The concept of trustworthiness comprises of four criteria; credibility, transferability, dependability and confirmability. As mentioned earlier, because there can be several accounts of social reality, it is the credibility of the findings that determine whether it is acceptable. According to Scott (1990), the question of credibility should concern the extent to which an observer is sincere in the choice of a point of view and in the attempt to record an accurate account from that chosen standpoint.

On the question of credibility, that is, whether the documents are free from distortion, it must be accepted that all documents have been produced independently before this research was undertaken. It is also accepted that any document whether from government or civil society has not been deliberately created to mislead. To the extent, that the views reflect those of rank and file this is a matter that is difficult to account for because the public views of officials may not be their personal views. Thus to ensure credibility, this research will be carried out in accordance within the prescripts of good practice.

> Typically, qualitative research is focused on contextual uniqueness and the significance of the aspect of the social world being studied. This question applies more to some documents than to others. Thus, this research requires a rich account of the study in order to equip others with the capabilities for making judgements about the possible transferability of findings to other social settings (Bryman, 2012: 392).

The criterion of dependability requires that complete records of all phases of the research process be maintained, from the problem formulation phases and the selection of research participants to the data analysis decisions. In this way peer researchers can ostensibly conduct an audit to see how far proper procedures have been followed.

Whilst qualitative research cannot be objective, confirmability requires that the research is conducted in good faith and that the researcher will not allow personal values or theoretical inclinations to compromise the conduct of the research and the findings derived from it.

Lincoln and Guba's (1994) promotion of authenticity as a criterion has not been a popular form of social research, though it has had some impact in fields such as organisational studies (Bryman, 2012: 393).

Authenticity requires that certain principles be maintained. The first principle is fairness. This research must ensure that it fairly represents different viewpoints among members of the social setting; for instance, when selecting documentary data such selection must not be biased in order to support the researcher's views. The second principle requires that this research should help the social participants arrive at a better understanding of their social settings. The third principle requires that the research assist members of a social setting appreciate the views of other members. The penultimate principle requires that the study act as a catalyst for members to engage in action to change their circumstances. The last principle requires that the research empower members to take steps necessary for engaging in action.

Scott (1990: 28) states that an additional requirement is necessary for documentary study, that of *meaning*. For Scott, meaning refers to whether the evidence is clear and comprehensible. The ultimate purpose of examining documents is to arrive at an understanding of the meaning and significance of what the document contains. According to Scott (1990), documents have a literal or interpretative meaning. The former gives only its face value meaning, from which its real significance must be re-constructed. The latter requires the researcher to relate the literal meaning to the context in which the documents were produced in order to assess the meaning of the text as a whole. Another important point to be considered in the use of documentary sources is

how to decide which inference to make from the document about matters other than the truth of its factual assertions (Platt, 1980).

These mentioned criteria guide this research, in the hope that, through the analysis of secondary documentary data, a regulatory balance can be achieved that allows for an efficient re-allocation of assets, through the early detection of failing banks and promotion of the regulator's ability to resolve banks efficiently.

3.5 Population and Sampling

Sampling is linked with external validity or generalisability of the research findings. Probability samples allow findings to be generalised from a sample to the population. However, qualitative researchers are more likely to elect non-probabilistic sampling as their interests lie in understanding social processes, not achieving statistical representativeness (Mays and Pope, 1995). For example, purposive sampling or theoretical sampling is often used in order to allow the researcher to focus on the particular area under study.

A purposive sampling method was used for this research report. This type of sampling is essentially to do with the selection of units, for instance, Banks or documents, with direct reference to the research questions being asked. The idea is that the research question should give an indication of what units need to be sampled to allow the research question to be answered.

This study requires an analysis of the Reserve Bank's supervisory oversight and disciplinary powers and its ability to ensure the efficient re-allocation of assets when banks start to fail. The Reserve Bank makes information available through their regular publications such as the Quarterly Bulletin and the Monetary Policy Review. The former publication, deals with domestic and international trends, monetary policy, the financial markets and the public sector, whilst, the latter publication, focuses on the causes of inflation and the inflation outlook. Several other publications appear on the Reserve Bank's website, which are helpful for the purposes of this research. The Annual Reports provide a broader assessment of the underlying macro-economic trends. The Financial Stability Review, which is published bi-annually, deals with the developments in all sectors

of the financial system to identify any signs of potential imbalances in the economy that could have adverse effects on the financial system.

This method of sampling informed the gathering of documents. The initial exercise required a determination of the relevant legislation and regulations that apply to bank resolution as well any applicable literature published by the relevant regulators. Any such exercise necessarily begins with the Constitution. The Constitution is the supreme law[19] in the South Africa and all laws and actions of government[20], whether through the Judiciary, the Reserve Bank or the Ministry of Finance, must promote the spirit, purport and objects of the Bill of Rights[21].

The sampling requirements are an evolving process, in which we begin with an initial sample of legislation and regulation and gradually or sequentially remove those that do not assist us in answering the research question. We adopted a sequential purposive sampling strategy (Teddlie and Yu, 2007). This strategy allowed us to develop an intimate understanding of the regulatory landscape in which ordinarily commercial banks, the Reserve Bank and Ministry of Finance operate within.

The determination of the relevant legislation was simple because of their interconnected nature; however, sourcing applicable South African literature proved to be difficult. The writing of Johannes De Jager, Charles Okeahalm and Jannie Rossouw have proved invaluable in understand the issues surround the Reserve Bank's operations. Most of the South African literature, on banking, has focused on the causes of bank failure, bank performance or bank efficiency in South Africa. Thus, we have been forced to rely heavily on foreign literature.

3.6 Significance of the Study

There have been many studies throughout the world that study bank resolution or liquidation. However, this is a field in South Africa, to which the academics and even the regulators have not paid much attention. As previously mentioned, there have been two significant studies on bank failure. Koseff (1984), who investigated the causes of bank

[19] Section 2 of the Constitution
[20] Section 8 of the Constitution
[21] Section 39 of the Constitution

failure in South Africa, during the 1970s, conducted the first study. The second was by Makhubela (2006), whose research was on the causes of failure in post 1994 period.

Neither study has touched on the method the Reserve Bank uses to monitor the solvency of bank, the powers it has to liquidate a bank without causing great volatility in the market or triggering the contagion mechanisms. Resolving small banks as was the case during the 2002/3 liquidity crisis is easy and is done in most countries without great fanfare. However, resolving large and/or internationally active banks seems so difficult that these banks are usually bailed out.

This study fills that knowledge gap. The significance of this study is that the findings can assist the regulator to improve current policies relating to how failing banks are dealt with.

3.7 Limitations of the Study

The difficulty for this design was the selection of the documents as the chosen method can result in a biased understanding of the subject matter. Alternatively, the authors may present a document that comes from a particular perspective or paradigm. Thus using documents without careful consideration of the process and social context of their construction could leave the research open to the charge of being uncritical.

Further, it must be remembered that in many instances, this type of research is open to attack on the question of authenticity and accuracy of issues because the material was not generated with the research in mind.

The ambitious nature of this research suffered from the burden of a lack of time, finance and resources to undertake a full inquiry, the limited availability of relevant data, and interpretation issues.

3.8 Ethical considerations

In the conduct of any social research, ethical considerations are an important part of the exercise, in order to safeguard against any harm that such research may have on human subjects participating in the research. This research did not require human participants. It is an extensive review of the literature, which will not cause any harm to anyone.

Chapter 4: Research Presentation

4.1 Introduction

Opinions are divided among academics and regulators. Some believe that a failing bank should be treated in the same manner as any other failing business for this ensures that business resources are not devoted to ineffectual enterprises, as mentioned earlier. Others, perhaps more sensitive to the potential systemic risk such failure could have not only on the banking system but on the whole economy claim that bank failure justifies state intervention, the nature of which has differed internationally.

The latter academics and regulators are influenced by Keynesian economics. Inherent in their argument is the belief that private sector decisions sometimes lead to inefficient macro-economic outcomes, which require active policy responses by regulators and national governments, in particular monetary policy action by the central bank and fiscal policy actions. This argument had lost much influence during the stagflation of the 1970s, allowing the former academics and regulators, influenced by “neo liberalism” theories, to promote policies of limited government intervention in the belief that attempts at fiscal stimulus or state intervention would be ineffective even in a recession, and such policies were only occasionally employed by the governments of advanced nations.

The South African liquidity crisis in 2001-2002, occurred when neo-liberal policies were much in favour. As a result, the Reserve Bank’s policy framework for dealing with failing banks is influenced by economic thinking of that time. Such thinking, globally, has since shifted back towards the Keynesian philosophy with the advent of the Global financial crisis. This resulted in large fiscal stimuli and expansionary monetary policies employed to avert the collapse of the global financial system.

The most apt description of bank resolution acknowledges that resolution is a specific legal regime for the orderly restructuring and/or liquidation of a bank (Monetary Dialogue February, 2013:10). For banks, the ordinary insolvency processes may be ill suited given their importance to the economy, the existence of systemic risk, and the possibility of contagion. The complex web of risks described in the literature review demonstrates the need for a well-designed special resolution regime for banks.

The difference between ordinary insolvency proceedings and bank insolvency is the distribution of control. Control is the power to decide what to do with the firm's assets.

The distribution of control in ordinary insolvency proceedings begins with the initiation of the process. For a bank, only the Minister, with the consent of the Chairperson of the Board of Directors of the Bank can place it in curatorship. However, for a firm, other than a bank, it can voluntarily file for liquidation or a coalition of creditors, or even a trade union, can force it into liquidation or business rescue. These parties have no or limited control over the initiation of bank liquidation or the bank resolution process.

Before we begin to the twelve key attributes that inform any resolution regime, we must identify the basic purposes of a good bank insolvency process from the literature. Hart (2002) has identified three goals that all good insolvency procedures should meet.

The first goal is for the procedure is that it should deliver an ex post efficient outcome that maximizes the value of the insolvent business that can be distributed to stakeholders. Second, the procedure should promote *ex ante* efficient outcomes by penalizing managers and shareholders adequately so that the bonding role of debt is preserved. Third, the procedure should maintain the absolute priority of claims. The last goal for a good bank resolution procedure is that it limits the costs of systemic risk.[22]

Kaufman (2002) has recently proposed a four-part procedure for resolving large, insolvent banks that is largely consistent with Hart's goals.

The first part of the procedure is the prompt recognition of economic insolvency and legal "closure". The second part of the procedure is the prompt estimation of recovery values and the corresponding losses to be allocated across depositors and other creditors according to *ex ante* priority of repayment. (This maintains repayment priorities and helps limit systemic costs by giving creditors prompt access to their funds.) The penultimate part is the prompt re-opening of the bank under curatorship with full guarantee of existing deposits net of imposed losses, if any. (This also helps limit systemic costs in two ways: (1) by permitting the bank's viable customers, including counterparties in risk transfer

[22] Thus a good procedure for a bank is one that maximizes the ex-post value of the firm's operations subject to the constraints that management and shareholders are adequately penalized, ex ante repayment priorities are retained and systemic costs are appropriately limited.

instruments, who must actively manage their positions, to continue doing business without interruption and (2) by protecting depositors from additional losses and thereby, removing their incentive to run). The last part of the procedure is prompt privatization through recapitalization or liquidation. (This facilitates realisation of the maximum total value for the bank through either a merger or piecemeal liquidation.)

Thus, the benefits of resolution regimes are that they reduce moral hazard by making it clear that a bank can be resolved in such a way that losses are borne by or placed on the stakeholders of the bank while avoiding a systemic impact. A good resolution procedure should lead to predictable results. Negative surprises cause uncertainty in financial markets, especially when induced by unexpected behaviour of regulators because they cast doubt over the rules of the game. (Monetary Dialogue February, 2013:37)

The recommendations of the Financial Stability Board are examined below.

4.2 Key attributes of effective resolution regimes

The Financial Stability Board sets out the twelve key attributes that inform any resolution regime. The aim of the key attributes is to make the resolution of banks feasible without severe systemic disruption and without exposing taxpayers to loss, while protecting vital economic functions through mechanisms which make it possible for shareholders and unsecured and uninsured creditors to absorb losses in a manner that respects the hierarchy of claims in liquidation (Financial Stability Board, 2011; 3). This research report is limited to domestic bank (excluding registered local branches of foreign banks) thus all twelve key attributes but the seventh, eighth and ninth dealing with cross border resolutions regimes fall within the scope of this research and will be discussed below.

The first key attributes deals with the scope of the resolution regime. For the Financial Stability Board (FSB) any financial institution that could be systemically significant or critical if it fails should be subject to a resolution regime that is clear and transparent. For the FSB this resolution regime comprises of recovery and resolution plans, where the Recovery plans are developed by the respective banks. The purpose of the recovery plan is to guide the respective bank's management on actions to be taken during a situation of stress to enable the bank to recover. The recovery plan needs to set of event that would

initiate is activation, detail clear escalation procedures as well as interventions required in stressed scenarios (see key attribute eleven). These recovery plans must address distress scenarios of liquidity stress, capital inadequacy and operational disruptions of critical functions. (Bank Supervision Department Annual Report, 2012: 6)

Complementary to the recovery plan is the resolution plan. Whereas the recovery plan is a bank's plan for dealing with distress scenario, the resolution plan is the regulator's plan for resolving systemically important distressed banks. The goal with the resolution is to make the bank's resolution feasible without severe systemic disruption and minimising the cost of bank failure and the use of public funds in resolving it, while protecting essential economic functions through mechanisms which make it possible for shareholders and unsecured and uninsured creditors to absorb losses in a manner that respects the hierarchy of claims in liquidation (see key attribute eleven). The responsibility for developing resolution plans rest with the Resolution Authority.

The second key attributes deal with the Resolution Authority. According to the FSB each jurisdiction should have a designated administrative authority or authorities responsible for exercising the resolution powers over Banks within the scope of the resolution regime ("resolution authority"). Where there are multiple resolution authorities within a jurisdiction their respective mandates, roles and responsibilities should be clearly defined and coordinated.

In South Africa, the Reserve Bank has been identified as the Resolution Authority thus it is tasked to intervene when a bank is in distress. At the time of conducting this research, the Reserve Bank was in the initial stages of participating in processes to develop legislation to enable it and the Financial Services Board to execute their additional responsibilities as noted in the Key attributes under discussion (South African Reserve Bank Annual Report, 2012/2013: 9), The development of the legislation must achieve the goal of creating a regulatory environment where the resolution authority was the capacity to exercise the resolution powers with the necessary speed and flexibility, subject to constitutionally protected legal remedies and due process.

According to the FSB, the resolution authority should have as part of its statutory objectives and functions, the pursuit of financial stability, the protection of, depositors,

insurance policy holders and investors and where able avoidance of unnecessary destruction of value, whilst seeking to minimise the overall costs of bank resolution and losses to creditors, where that is consistent with the other statutory objectives.

An important feature of the resolution authority is that it should have operational independence consistent with its statutory responsibilities, transparent processes, sound governance and adequate resources and be subject to rigorous evaluation and accountability mechanisms to assess the effectiveness of any resolution measures. It should have the expertise; resources and the operational capacity to implement resolution measures with respect to large and complex banks (see Key Attribute two).

In the process of developing legislation for the FSB recommends that the legislature grant the resolution authority and its staff protected against liability for actions taken and omissions made while discharging their duties in the exercise of resolution powers in good faith, including actions in support of foreign resolution proceedings.

The legislature is also required to grant the Resolution Authority unimpeded access to banks when it is material for the purposes of resolution planning and the preparation and implementation of resolution measures (see key attribute two).

The third key attribute speak to the 12 powers that Resolution Authorities should have in order to intervene where banks are in distress. Following the collapse of Lehman Brothers in September 2008, regulators were forced to provide significant liquidity support and capital support to banks, because the size and interconnectedness and complexity of banks meant that in some cases bank failure would likely have severe systemic consequences(Haldane and Alessandri; 2009). This meant that the markets had factored in these risks together with an implicit guarantee that the regulators had little choice but to bail out the banks to avoid the potential systemic consequences (Financial Stability Paper 27 - November 2013; 7). This bred a perverse incentive for banks to increase their leverage and complexity, which further compounded the problem. These twelve powers, discussed below, go a long way to addressing the perverse incentives that an implicit guarantee provides and sending a signal to the markets that all banks despite size and complexity can be resolved orderly.

In most bank failures, fault is normally attributable the management of the bank, and thus the first statutory requirement any Resolution Authorities needs is the ability to remove and replace the senior management and directors of the failed or failing bank and recover money from responsible persons, including claw-back of variable remuneration.

The second power is the ability to appoint an administrator to take control of and manage the affected Bank with the objective of restoring the Bank, or parts of its business, to ongoing and sustainable viability.

The third power is the ability of the Resolution Authority to operate and resolve the bank, including powers to terminate contracts, continue or assign contracts, purchase or sell assets, write down debt and take any other action necessary to restructure or wind down the bank's operations.

The fourth power is the ability of the Resolution Authority to ensure continuity of essential services and functions by requiring other companies in the same group to continue to provide essential services to the entity in resolution, any successor or an acquiring entity; ensuring that the residual entity in resolution can temporarily provide such services to a successor or an acquiring entity; or procuring necessary services from unaffiliated third parties.

The fifth power is the ability of the Resolution Authority to override rights of shareholders of the Bank in resolution, including requirements for approval by shareholders of particular transactions, in order to permit a merger, acquisition, sale of substantial business operations, recapitalisation or other measures to restructure and dispose of the bank's business or its liabilities and assets.

The sixth power is the ability to transfer or sell assets and liabilities, legal rights and obligations, including deposit liabilities and ownership in shares, to a solvent third party, notwithstanding any requirements for consent or novation that would otherwise apply

The seventh power is the ability to establish a temporary bridge institution to take over and continue operating certain critical functions and viable operations of a failed bank.

The eighth power is the ability to establish a separate asset management vehicle (for ex-

ample, as a subsidiary of the distressed bank, or as a trust or asset management company) and transfer to the vehicle for management and rundown non-performing loans or difficult-to-value assets.

The ninth power is the ability to Carry out bail-in within resolution as a means to achieve or help achieve continuity of essential functions either (i) by recapitalising the entity hitherto providing these functions that is no longer viable, or, alternatively, (ii) by capitalising a newly established entity or bridge institution to which these functions have been transferred following closure of the non-viable firm (the residual business of which would then be wound up and the firm liquidated)

The tenth power is the ability of the Resolution authority to temporarily stay the exercise of early termination rights that may otherwise be triggered upon entry of a firm into resolution or in connection with the use of resolution powers.

The eleventh power is the ability to impose a moratorium with a suspension of payments to unsecured creditors and customers (except for payments and property transfers to central counterparties (CCPs) and those entered into the payment, clearing and settlements systems) and a stay on creditor actions to attach assets or otherwise collect money or property from the firm, while protecting the enforcement of eligible netting and collateral agreements.

The twelfth power is the ability to effect the closure and orderly wind-down (liquidation) of the whole or part of a failing Bank with timely payout or transfer of deposits and prompt access to transaction accounts and to segregated client funds).
Resolution authorities should have the power to transfer selected assets and liabilities of the failed firm to a third party institution or to a newly established bridge institution. Any transfer of assets or liabilities should not require the consent of any interested party or creditor to be valid; and constitute a default or termination event in relation to any obligation relating to such assets or liabilities or under any contract to which the failed bank is a party

The Reserve Bank or a duly appointed curator does possess most of these 12 powers. The powers one, two, three, four, five, six, ten, eleven and twelve are powers, which exist

in some form in the banking regulatory framework. The remaining powers, not explicitly provide for, in the South African regulatory framework are far-reaching and in a constitutional democracy like South Africa where section 25 of the bill of rights protects property rights, it will be difficult to conceive that the bill of rights would allow any government agency, in the pursuit of financial stability, to be able to exercise powers that allow it to wipe out shareholders and to allocate losses and protection from losses across and within creditor classes. However with respect to the protection of shareholders, in principle they invest their funds in an enterprise with the knowledge that they are first to bear loss, in the event of insolvency.

The fact that certain powers are not expressly provided for in the banking regulatory landscape, does not prevent the Finance Ministry from exercising them. For instance, nothing prevents the Finance Ministry from creating temporary bridge institutions to take over and continue operating certain critical functions and viable operations of a failed bank or establishing a separate asset management vehicle and transferring to the vehicle, for management, non-performing loans or difficult-to-value assets. These powers are inherent powers of the Finance Ministry.

It is easy to appreciate that some might to want to avoid the poverties of financial ruin by surrendering awesome powers to government agencies, and endow them with the flexibility of shaping many aspects of the resolution process, including the choice of reorganisation and liquidation. A balance will need to be struck using section 36 of the bill of rights, between the rights of individuals and the exercise of power by government agencies like the Resolution Authority. Thus, it is clear, that safeguards against the abuse of power, by the resolution authority will need to be put in place.

Considering the size and complexity of the four dominant banks in South Africa, the power to restructure their businesses to maintain critical systemically important services is important, so too is the ability to select the management of any new entities created to fulfil these functions. Thus, a key attribute of a good resolution regime is the ability of the Resolution Authority to establish one or more bridge institutions to take over and continue operating certain critical functions and viable operations of a failed Bank (see key attribute two).

This attribute demands that the power that both Resolution Authority and Bridge institution be able to enter into legally enforceable agreements whereby the selected assets and liabilities of the failed bank can be transferred from the resolution authority and the received by bridge institution. These bridge institutions need to have the legal capacity to operate as a going concern. Which means that they ought to be able to obtains capital or operational financing and other liquidity support and they Resolution Authority will be required to temporarily prescribe the prudential and other regulatory requirements that apply to the operations of the bridge institution; the selection of management and the manner by which the corporate governance of the bridge institution may be conducted; and the performance by the bridge institution of such other temporary functions.

The bridge institution must be seen as a conduit for the Resolution Authority to achieve its goal of financial stability and thus the Resolution Authority must hold too the power to reverse, if necessary, asset and liability transfers to a bridge institution subject to appropriate safeguards, such as time restrictions as well as the power to arrange the sale or winddown of the bridge institution, or the sale of some or all of its assets and liabilities to a purchasing institution, so as best to effect the objectives of the resolution authority.

A key attribute is the power to carry out bail-in. A bail in capital is debt that converts to equity upon the triggering of certain events and during bank resolution this should enable resolution authorities to, not only, write down, equity or other instruments of ownership of the bank, unsecured and uninsured creditor claims to the extent necessary to absorb the losses, but to also convert into equity or other instruments of ownership of the bank, all or parts of unsecured and uninsured creditor claims in a manner that respects the hierarchy of claims in liquidation (see key attribute two).

The assumption of this provision is that when solvency problems materialise, the bailed-in of private creditors (consistent with the agreed creditor hierarchy of secured and unsecured claims) reduces the risk of future taxpayer bailouts. This provision goes a long way to restructuring capital and debt holdings of a bank and will ensure the viability of the Bank or newly established entity following the implementation of bail-in. An early and perhaps relatively small restructuring of a bank's debt may well be in the best interest of the greater economy and even the banks' creditors.

The FSB is in favour of an insolvency process with a legal framework governing set-off rights, contractual netting and collateralisation agreements and the segregation of client assets should be clear, transparent and enforceable during a crisis or resolution of firms, and should not hamper the effective implementation of resolution measures (see key attribute four).

Entry into resolution and the exercise of any resolution powers should not trigger statutory or contractual set-off rights, or constitute an event that entitles any counterparty of the bank in resolution to exercise contractual acceleration or early termination rights provided the substantive obligations under the contract continue to be performed.

Should contractual acceleration or early termination rights nevertheless be exercisable, the Resolution Authority should have the power to stay temporarily such rights where they arise by reason only of entry into resolution or in connection with the exercise of any resolution powers.

The 2008 banking crisis was different from other previous crisis in that it was a wholesale panic, not a retail panic. In the earlier crises, depositors ran to their banks and demanded cash. Unable to meet those demands, the banking system became insolvent. However in today's highly leverage environment, the 2008 banking crisis and future crises, involved sophisticated debtor holders like interbank creditors and financial firms "running" on other financial firms, like banks, by not renewing sale and repurchase agreements (repo) or increasing the repo margin ("**haircut**"), forcing massive deleveraging, and resulting in the banking system being insolvent (Sepe, 2012; 386).

Resolution powers should be exercised in a way that respects the hierarchy of claims while providing flexibility to depart from the general principle of equal (*pari passu*) treatment of creditors of the same class, with transparency about the reasons for such departures, if necessary to contain the potential systemic impact of a Bank's failure or to maximise the value for the benefit of all creditors as a whole (key Attribute five). In particular, equity should absorb losses first, and no loss should be imposed on senior debt holders until subordinated debt (including all regulatory capital instruments) has been written-off entirely (whether or not that loss-absorption through write-down is accompanied by conversion to equity).

Creditors should have a right to compensation where they do not receive at a minimum what they would have received in a liquidation of the Bank under the applicable insolvency regime (“no creditor worse off than in liquidation” safeguard).

Directors and officers of the Bank under resolution should be protected in law (for example, from lawsuits by shareholders or creditors) for actions taken when complying with decisions of the resolution authority (see key attribute five).

It is trite that banks fund themselves through a wide range of financial instruments, from both retail and wholesale sources. Traditionally “runs” have come from the former, which consist of deposits, predominantly from households. The latter sources consists of funding from private markets like interbank loans, are used to supplement retail deposit. In addition to these sources of funding, banks also have access to central bank liquidity, and if necessary can raise capital. (BIS; 2013). However as a crisis unfolds these sources of funding evaporate and access to central bank liquidity becomes central to keeping the operations of the bank going, leaving resolution authorities constrained to rely on public ownership or bail-out funds as a means of resolving banks. The FSB advocates that jurisdictions should have statutory or other policies such as privately - financed deposit insurance or resolution funds, or a funding mechanism for ex post recovery from the industry of the costs of providing temporary financing to facilitate the resolution of the bank(see key attribute six). Currently South Africa does not have a comprehensive deposit insurance scheme however the regulators have indicated that this is something they are considering initiating in the future.

These options allow the resolution authorities public ownership or bailout as a last resort whilst seeking to arrange a permanent solution such as a sale or merger with a commercial private sector purchase. The FSB advocates that where countries equip themselves with such powers, they should make provision to recover any losses incurred by the government from unsecured creditors or, if necessary, the financial system more widely.

Bank failure is commonly, triggered by illiquidity, when it fails to meet some contractual payment obligation, but before that happens, the bank will have the option of either raising

more funding, however, if such course is unsuccessful, such bank will have considerable scope to gamble for resurrection (Goodhart, 2008). To reduce the risk of Banks doing this resolution authorities should regularly undertake resolvability assessments that evaluate the feasibility of resolution strategies and their credibility in light of the likely impact of the Bank's failure on the financial system and the overall economy.

To improve a Bank's resolvability, resolution authorities should have powers to require the implementation of appropriate measures, such as changes to a bank's business practices, structure or organisation, to reduce the complexity and costliness of resolution. These powers will also enable Resolution Authority to ensure the continued operations of systemically important functions during a crisis by allow the Resolution Authority to require, as the case may be that certain functions be segregated into legally and operationally independent entities that are shielded from group problems (see key attribute ten).

Crucial factors of effectiveness include the speed of the process, which requires carefully designed decision-making processes and very professional management, and its ability to intervene early (Goodhart, 2012). To achieve these crucial factors access to information and information sharing is important, without access good information regulatory authorities will respond inappropriately to the pending crisis. Thus, quality of this information is important and bank regulators need to ensure that there are no legal, regulatory or policy impediments that thwart the appropriate exchange of information, between supervisory authorities, central banks, resolution authorities, finance ministry and the public authorities responsible for guarantee schemes. To achieve this goal the FSB recommends that each jurisdiction require banks to maintain management information systems that are able to produce information on a timely basis, both in normal times for recovery and resolution planning and in resolution (see key attribute twelve).

These observations of our desired state, brings us to the issue of whether the current state of regulatory powers enable our regulators to resolve systematically significant banks.

4.3 Regulatory powers

This section is devoted to understanding the regulatory powers of the authorities responsible for bank supervision and the policy environment within which modern banks

must operate. Schedule 1 lists the fifteen pieces of legislation, which comprise the regulatory landscape dealing with banks.

For purposes of this research, the Banks Act, 1990 and the regulations promulgated are most relevant. The main objective of the Banks Act is to create the legal framework for the regulation and supervision of the business of public companies accepting deposits from the South African public[23]. Pursuant to this object, it governs the establishment of banks, the security of the investments of depositors and the protection of the integrity of banks in the interest of the financial system.

The Banks Act defines a "bank" as a public company registered as a bank in terms of the Act. The "business of a bank" is defined to include, inter alia, the acceptance of deposits from general public as a regular feature of the business in question and, the soliciting of and advertising for deposits. A "deposit" is defined as the payment of any money by one party to another on the basis requiring the repayment of the whole or part thereof, with or without interest. The Banks Act establishes the supervisory authority of the Registrar by making registration a prerequisite for conducting the "business of a bank" in South Africa.

The South African Reserve Bank, the central bank of the country, plays an important role in banking regulation and supervision[24]. These functions are performed in terms of the Banks Act or the Mutual Banks Act, 1993[25]. The Reserve Bank's aim is to protect the value of the Rand in the interests of balanced and sustainable economic growth. In order to achieve this, the Reserve Bank can take all necessary steps to establish, conduct, monitor, regulate and supervise payment, clearing or settlement systems.

Reference is often made to the Reserve Bank in terms of "regulation" and "supervision". It is important to understand the distinction between the two. With respect to "regulation", this speaks to the Reserve Bank's role in the creation and maintenance of a legal framework within which institutions are licensed to conduct the business of a bank, subject

[23] See the preamble of the Banks Act

[24] Sections 223 to 225 of the Constitution of the Republic of South Africa, 1996, the South African Reserve Bank Act, 1989, and the regulations in the South African Reserve Bank Act not provided the Reserve Bank will a considerable degree of autonomy in the carrying out of its functions and duties, but also create an enabling framework for its operations

[25] The Reserve Bank also possesses certain supervisory functions in respect of co-operative banks in terms of the Co-operative Banks Act, 2007 (Act No.40 of 2007). These functions fall outside of the scope of this research.

to the certain prudential requirements. Whilst "supervision" refers to the Reserve Bank's role in implementing monitoring systems, activities and the financial health of banks as per the prudential requirements (Roussouw, 2010; 34).

The Governor delegates the responsibility for the registration of banks, the regulation of payments, clearing or settlement systems as well as the keeping of determined minimum reserve balance by banks to the Office of Banks. The Registrar is charged with the administration of the Banks Act.

The Banks Act adopts a functional approach (Malan and Faul, 1991) in that it addresses the functions of accepting and employing deposits and not the function of individual institutions accepting such deposits (Itzikowitz and Malan, 1996). It sets out a number of prudential requirements[26] for instance a bank must maintain an account with the Reserve Bank on which the credit balance must comply with specified minimum requirements[27] as determined by the Governor of the Reserve Bank from time to time[28]. These and other prudential requirements[29] are aimed at the efficient management of banking related risks and, in this regard, the Registrar of Banks (the "**Registrar**")[30] possesses extensive regulatory and supervisory powers. Part of those powers deal with the resolution of a bank.

The measure of the Registrar's regulatory and supervisory powers must also include a credible bank resolution regime that imposes losses in a manner that minimises disruptions to the rest of the financial system and the real economy, and provides important incentives against taking too aggressive risks in normal times by banks. The Banks Act also regulates the conducting of "business of a bank" by foreign banking institutions, but this does not fall within the scope of this research.

[26] Sections 70-75 of the Banks Act
[27] S10A(1) of the SA reserve Bank Act
[28] S10A(2) of the SA Reserve Bank Act
[29] Sections 70-75 of the Banks Act
[30] The Registrar of Bank is head of the Office for Banks in terms of section 3 of the Banks Act. The Office for banks functions as part of the Reserve bank and is responsible for the supervision of Banks. The Office for Banks aim is the promotion of sound banks through the application of effective international regulatory and supervisory standards. Office of Banks' approach to supervision relies on an understanding of a bank and banking group, risk assessments, execution and ongoing refinement of a supervisory plan and targeted reviews, tailored to the risk profile of the bank or banking group (see SARB Bank Supervision Department Annual Report 2003(2004) at 2 and 5)

In 2003, the Financial Sector Contingency Forum was created to coordinate preparedness for managing financial crises. Members of the Forum include the Reserve Bank, Financial Services Board, National Treasury, the Banking Association of South Africa, the Life Offices Association, the South African Insurance Association, the Johannesburg Stock Exchange, BESA, the Payment Association of South Africa, the automated clearing house (Bankserv), and the central securities depository (Strate). The forum has led crisis exercises, created a smaller incident-management team, and prepared a manual for a broad spectrum of crisis with particular emphasis on liquidity issues (IMF; 2008).

As mentioned in the introduction to this chapter, the distribution of control is important when creating a credible bank resolution regime. For this purpose, the Bank's Act ensures that only the Registrar has the right to apply to court for the winding up of a bank in terms of the Companies Act and he may oppose such an application by another person[31]. The Registrar also has the power to recommend a person be appointed by the Master of the High Court as the provisional liquidator, or liquidator of such a bank[32]. The Master of the High Court must appoint a person designated by the Registrar because of his or her experience and knowledge of the banking industry to assist the provisional liquidator or liquidator[33].

During the voluntary winding-up of a bank the liquidator must furnish the Registrar with such returns or statements that the bank would have been obliged to furnish were it not being wound up[34].

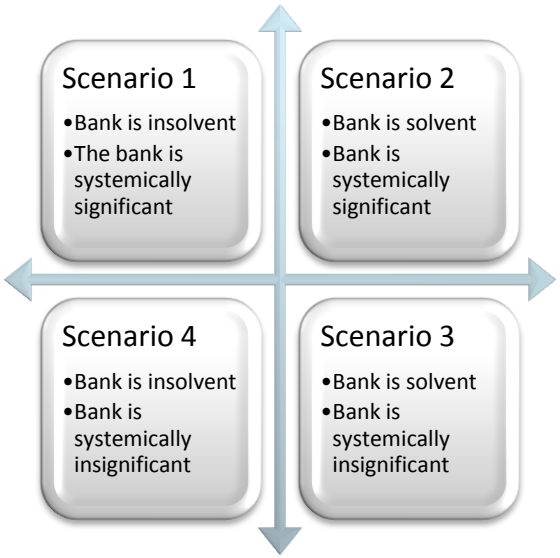
The suspension, termination or cancellation of the registration of a bank while it is being wound-up as a result of the Registrar's application, will not affect any order or appointment made, direction issued or thing done in terms of section 68 of the Banks Act or the Companies Act, any power exercised, duty to be executed or right to be enforced. The Registrar, Master of the High Court, provisional liquidator, or liquidator, will continue to exercise their powers and perform their duties as if the suspension, termination or cancellation had not taken place until the winding-up is stayed or set aside by a competent

[31] Section 68 (1) (a) Banks Act 94 of 1990
[32] Section 68 (1) (b) Banks Act 94 of 1990
[33] Section 68 (1) (c) Banks Act 94 of 1990
[34] Section 68 (2) Banks Act 94 of 1990

court[35].

4.4 Policy Framework for Dealing with Banks in Distress

The Reserve Bank's policy framework for dealing with banks in distress considers four scenarios for government intervention. This is graphically represented below:



In the normal course of its supervisory duties, the Registrar through the Bank Supervision Department of the Reserve Bank assesses the risk-management processes and controls instituted by banks. A periodic risk review is prepared in respect of each bank to enable the registrar to determine whether a bank is firstly complying with the prudential requirements and secondly so that the registrar can determine the nature and amount of a bank's assets, liabilities and contingent liabilities[36]. Part of this review includes internal ratings for each of the nine major risk categories. The nine major risk categories are Balance Sheet Structure, Capital adequacy, Profitability, liquidity risk, interest rate risk, Market risk, credit risk, currency risk, and operations risk. A lower rating in any of these major risk categories would be a matter of concern, as it would signal for instance, that the bank's capital base could breach the required minimum level, or its liquidity position is deteriorating (Bank supervision training manual; 112).

If a bank fails, or is unable to comply with the prudential requirements, it must report its

[35] Section 68 (5) Banks Act 94 of 1990
[36] Section 75 Banks Act 94 of 1990 and section 10A (11)(12) South African Reserve Bank Act 90 of 1989

failure or inability to the Bank Supervision Department[37], stating the reasons for such failure or inability. Once the Bank Supervision Department, it may summarily take action[38] against the bank, of may condone its failure or inability and afford it an opportunity to comply. Regardless, it is at this point, once a bank has been identified as being in distress, which any of the scenarios discussed below, may apply, depending on the circumstances.

4.4.1 First signs of bank distress

Once the Bank Supervision Department has identified a bank as being in distress, prompt corrective action is needed. Unfortunately, there is no prescribed type of action required in terms of the Banks Act, as the causes of bank distress are varied and differ from case-to-case. Further no guidance has been provided by the Reserve Bank, save for comments from Rossouw (2010) that the policy followed in South Africa is not aimed at zero failure of banks, the exact type of action to be taken in these situations differ from case to case. Thus for this research we will only consider the case where the liquidity position of the bank is deteriorating. Liquidity and poor management have been the prevalent reasons for bank failure in South Africa (Okeahalam, 1998). Ultimately, we have selected this distress setting because it comfortably illustrates how the Three Dilemmas influence the decisions taken by the management of the Bank.

The agency problem is demonstrated; here where a bank is not liquid enough to meet depositors' demands, this is a signal of distress to the bank managers prompting them to investigate the causes and seriousness of such distress. Obviously, the bank managers as agents will obtain better and more detailed information well before their principals, the shareholders; this gives rise to information asymmetry. As soon as the bank managers realise the seriousness of the situation, they may take greater risks hoping to reap greater returns, and reverse the fortunes of the bank, thus gambling for resurrection. This situation is akin to the gambler's risk of ruin model because by taking greater risks, the probability of failure increases, and this erodes capital levels (Tefula, 2001). As more risks are all realised the bank starts losing credibility in the market, which, in turn, results in the loss of depositor confidence and subsequent withdrawals of deposits.

[37] Section 74 Banks Act 94 of 1990 and section 10A (6) – (10) South African Reserve Bank Act 90 of 1989
[38] The registrar may by written notice impose a fine on the bank in terms of section 74(2) Banks Act 94 of 1990

Because a bank run can exacerbate aggregate liquidity shortages in the financial markets, making more banks insolvent, causing further runs and squeezing the pool of resources even further, until the entire financial system collapses, the Registrar has to assess, upon the moment any given bank starts to experience liquidity problem, the risk of settlement failure (Diamond and Rajan; 2005). The Reserve Bank lender of last resort policy has three primary objectives. These are the protection of the National payment system, the avoidance of contagion in the bank system developing into a systemic crisis and lastly to prevent the illiquidity in a distressed bank leading to the unnecessary insolvency of that bank (Financial Stability Review, March 2004: 32).

Thus it is at this crucial moment of initial indication of distress when it is clear that there will be a settlement failure that consideration has to be given, by the Registrar, on a case-by-case basis, to granting such a bank a concession to use its prudential assets (statutory liquid assets and minimum cash reserves) to allow settlement to proceed or the Reserve bank can provide liquidity assistance against collateral to distressed banks.

The reality is that before the Reserve Bank provides discretionary liquidity assistance against collateral to distressed banks; it has several preconditions, which the distressed bank must comply with (Financial Stability Review, March 2004: 32). The first is that the distressed bank must have a certain margin of solvency. The distressed bank must provide adequate collateral in exchange for the liquidity assistance. The distressed bank must have explored other liquidity enhancing alternatives before seeking assistance from the Reserve Bank. In particular, the shareholders of the bank must have made an effort to intervene and maintain the liquidity and solvency of the distressed bank, as a demonstration of their commitment to the bank. The Reserve Bank will need assurance that the management of the distressed remain capable, fit and proper persons and that the liquidity crisis has not been brought about by fraud and mismanagement. Lastly, the distressed bank must have developed a viable remedial plan to restore and maintain adequate liquidity (Roussouw, 2010).

If these preconditions are not met, the liquidity assistance will only be provided on prior approval of the Minister of Finance. The provision of liquidity assistance will be based on the probable impact on the stability of the financial system, and not just the bank in question. The Registrar will at this juncture consider appointing a curator in terms of

section 69 of the Banks Act, in order to protect the interests of depositors and creditors.

If the preconditions are met, the Reserve Bank has four basic methods it can use to provide liquidity assistance to the distressed bank. The first method is to purchase Negotiable Certificate of Deposits of other banks that the distressed bank holds. This allows the distressed bank to turn existing liquefiable assets into readily available cash. This is the Reserve Bank's preferred method of assistance. Failing which, another method that the Reserve Bank can utilise is, to allow the distressed bank to use its statutory liquid assets and cash reserves for special repo transactions. Alternatively, the Reserve Bank can, on a case by case basis, allow the distressed bank to enter into repurchase transactions of acceptable South African securities other than those eligible for normal daily accommodation. The last method available to the Reserve Bank is the granting of a credit facility to the distressed bank against its asset portfolio (Roussouw, 2010).

These are only temporary measures to assist the distressed bank and will ordinarily not exceed 30 days, which can be rolled over. In order to mitigate the associated risks stemming from the liquidity assistance, the Reserve Bank will require that the distressed Bank during the temporary period of assistance, in the form of repos or credit facilities, to provide it with collateral that exceed the principal amount of the funding by at least 30 percent (Roussouw, 2010). Where the distressed bank cannot meet there collateral demands and the distressed bank is found to be crucial to systemic stability, the government may intervene and assist the distressed bank meet the collateral requirements by providing a guarantee in lieu of a pledge of acceptable assets by the bank concerned. (Financial Stability Review, March 2004: 32). If the liquidity problem proves to be short term and the aforementioned methods allows the distressed bank to overcome its liquidity problem, and the prudential assets are restored, the Registrar can condone the shortfall in prudential assets for the period of non-compliance with the statutory requirements.

If the liquidity problem persists and the distressed bank, at maturity, fails to honour its obligations in terms the liquidity assistance or Reserve Bank is not prepared to roll over the assistance, the Registrar will consider appointing a curator for the distressed bank (Roussouw, 2010).The continued run on the distress bank can compel its management to convert assets into cash as quickly as possible even in the face of insolvency of the bank (Diamond and Rajan; 2005).

Irrespective of the management's interventions, the Registrar shall be compelled to summon, the bank's directors to the Reserve Bank and request them to devise a private-sector resolution. Options in such a private-sector resolution may include one or more of the following steps, depending on the particular circumstances, an injection of new share capital, securitisation of assets, merger with another bank, a new shareholder of reference taking up a large stake in the bank, alternatively subordination of some deposits as secondary capital. Invariably, the Registrar will require that managers that are more competent at this stage replace the management of the bank.

4.4.2 Solvency due-diligence audit

In order for the Reserve bank to decide on the appropriate intervention, it takes into account the potential for systemic threat (contagion) and the solvency of the concerned bank, based on a solvency audit. The Reserve Bank will appoint an independent auditing firm to perform a solvency due-diligence audit in order to establish the solvency of the bank. This allows the Reserve Bank to determine if the illiquidity of the distressed bank is due to a temporary loss of confidence by depositors or solvency problem. Thereafter the Regulator will have to determine whether the bank is of systemic significance. The following sections will describe the four scenarios the Regulator could encounter and the type of remedial measures it can implement (IMF; 2008)

4.4.3 Scenario 1: Bank insolvent, but systemically significant

If after a solvency due-diligence audit a bank in distress is found not to be solvent, but is regarded as systemically significant, the fiscal authorities (undefined) might enter into a Purchase-and-Assumption transaction. A detailed framework of this transaction is not formalised to retain flexibility, however we were able to find through the FDIC handbook that one of the basic resolution methods used by the Federal Deposit Insurance Corporation (the "FDIC") is the Purchase and assumption transaction.

According to the Reserve Bank a Purchase and Assumption transaction is where the distressed bank is purchased by the public authorities until it can be nursed back to health, at which stage the bank can again be privatised (this type of Purchase and Assumption transaction is called a whole-bank transaction). No guidance is given as to how or who will

determine the value of assets being purchased.

However, for the FDIC, a Purchase and Assumption transaction is a resolution transaction in which a healthy institution purchases some or all of the assets of a failed bank and assume some or all of the liabilities. There are many variations of Purchase and Assumption transactions. Two of the more specialised Purchase and Assumption transactions are loss sharing transactions and bridge banks.

We will take this opportunity to briefly unpack the various types of Purchase and Assumption transactions and apply it simultaneously to the fiscal authorities.

In all variations, the fiscal authorities will naturally assume all or some of the deposit liabilities. However, the acquisition of the assets varies according to the type of Purchase and Assumption transaction. The fiscal authorities purchase some of the assets, typically loans, outright, whilst other assets like premises, categories of loans, rights to an assignment of leases for leased property etc might be subject to an exclusives purchase option by the fiscal authorities for a defined period. Some categories of assets may never pass to the fiscal authorities.

Rose and Hudgins (2005, 46) in their book describe how the FDIC usually resolves a distressed bank. According to them, where the FDIC is faced with a failing bank, they usually use two methods to resolve the bank. The first is known as the deposit payoff and the second is known as Purchase and Assumption. The first is not relevant for our study, but simply means that the FDIC will close the bank and all insured depositors will receive a cheque from FDIC, whilst uninsured depositors and creditors receive a pro rata share of any funds generated from the liquidation of the bank's assets. The relevant method for this discussion is the purchase and assumption transaction. This remedied is implemented if a healthy bank can be found to take over selected assets and the deposits of the failed bank.

According to Rose and Hudgins during the implementation of the Purchase and Assumption transaction and before closure of the distressed bank, the FDIC will contact healthy banks in an effort to attract bids for the distressed bank. Those interested healthy banks will negotiate with the FDIC, not only on the price of the failed bank's good and bad

assets but on which assets the FDIC will retain and which the buyer will become responsible for. If the negotiations are successful the transactions will be executed and the failed bank will be closed, and the FDIC will seize the offices of the failed bank, take inventory of the assets, and determine what funds the depositors and other creditors are owed. The operations of the failed bank will be moved to new premises so that the new owners can open for business.

During a liquidity crisis, asymmetric information will adversely impact the fiscal authorities' decisions. Under asymmetric information, the fiscal authorities face an immediate incentive to sell assets. When the fiscal authorities hold assets, which is complex, adverse selection arises quickly. Adverse selection means that bidders perceiving a crisis and an expectation fire sale will push for a greater discount. Irrespectively such supported transactions often result in the government paying the difference between the value of the assets and liabilities, the transaction could also include some form of put option, entitling the acquiring bank to return certain assets within a window period, or the transaction could include a profit and loss-sharing agreement in respect of some of the assets (Casu, Girardone and Molyneux, 2006).

Further, this bidding process implies the luxury of time and rests on the goodwill and ability of other banks to be able to assume responsibility for the viable assets of the distressed bank. The assumption will not always hold true. Thus in a highly concentrated environment, like the South African banking sector, the Regulator would be remiss if when employing this resolution method, it does not include foreign bidders.

4.4.4 Scenario 2: Bank solvent and systemically significant

If after a solvency due-diligence audit a bank in distress is found to be solvent and is regulator considers it to be systemically significant, the Reserve Bank, will provide liquidity assistance, in combination with one or more of the private-sector resolution measures. The Reserve Bank will be acting in its capacity as a lender of last resort.

If the assistance does in fact achieve its aim and confidence is restored, the amount of liquidity assistance provided must be repaid to the Reserve Bank, and the bank will continue to be supervised in terms of the normal supervisory process. However, there is a

real possibility that the intervention of the Reserve Bank and the implementation of a private-sector resolution may not restore confidence in the distressed bank. The Regulator needs to be alive to the possibility that a merger with another bank may well be the only way of restoring confidence.

In order to achieve this confidence building exercise, the Regulator will have to select a credible and well-managed bank to effect the merger with. History shows that the Regulator will contact healthy well-managed banks in an effort to attract bids for the distressed bank. This was the case with the failure of BOE and Saambou, both banks were merged with larger and ostensibly better managed banks; Nedbank and FirstRand respectively. These mergers were done in the interest of a stable banking system.

Having noted this, we must remember that the Competition Act regulates mergers. Chapter 3 of the Competition Act is concerned with merger control. This means that mergers of certain sizes (intermediate and large Mergers) must be approved by the competition authorities (see section 13 A (3) of the Competition Act). This issue was contested in the case between Standard Bank Corporation v Competition Commission and others 2000 (2) SA 797 (SCA). The highest court in the land found that the bank regulator and not the competition Commission, had jurisdiction in respect of bank mergers.

This matter was then address by the Competition Second Amendment Act No. 39 of 2000 which ostensibly gave the Competition Commission and regulatory authorities concurrent jurisdiction on competition issues. Unfortunately, because of space considerations, we cannot investigate this topic in detail but it has been accepted that the Competition Commission will follow the procedure adopted by the Supreme Court of Appeal in the case of SA Raisins (Pty) Ltd and Another SAD Holdings and Another decision no. 176/2000, and accept and share concurrent jurisdiction with bank regulators. The significance of this is that the bank regulators will be able to initiate merger transactions where the stakes are high in the banking sector without having to deal with a second public regulator.

4.4.5 Scenario 3: Bank solvent, but not systemically significant

Where after a solvency due-diligence audit a distressed bank is found to be solvent, but the Reserve Bank does not regard it as systemically significant. In this case, the Reserve

bank will still intervene, as lender of last resort and provide it with special short-term liquidity assistance, at a penal rate. Again, this would be in combination with one or more of the above-mentioned private-sector resolution measures.

The difference, However, in this scenario is that the Reserve Bank will not initiate a merger transaction, it will have a sunset clause detailing when the assistance must be repaid. If assistance does not restore confidence in the bank, the Registrar will move to have a curator appointed to freeze the bank's deposits and to start an asset-liquidation process in order to repay depositors.

4.4.6 Scenario 4: Bank neither solvent nor systemically significant

If after a solvency due-diligence audit a distressed bank is found to be insolvent and the Registrar does not consider it to be systemically significant, the legislation (the Banks Act, and insolvency Act) and policy framework is very clear about the powers of the Registrar and processes available. In initiating the process, the Registrar can either approach the Minister of Finance to appoint a curator, or apply for liquidation of the bank, depending on the circumstances. We will not investigate the powers the Registrar has to solving distressed bank which are not systemically significant.

4.4.7 Exit Policy

If a Distressed bank moves from being illiquid to insolvent, the LOLR operations of the central bank are no longer applicable, and the exit policy comes into effect. The aim of an exit policy is to apportion the costs of the failure in terms of the risk profiles of the various stakeholders concerned. The Reserve Bank has adopted the "least cost" approach in respect of the exit policy. In managing the exit of a distressed bank, public funds should not be used to shield shareholders, managers and unsecured creditors from the risks they have assumed in the entity concerned. Only in circumstances where consequence of such failure opposes a risk to the banking and financial system and the social cost of the failure may exceed the private cost of the insolvency, may the government's emergency funds be used. The government in such circumstances decide to take control of the assets of the distressed bank and to resell these in better times (Financial Stability Review, March 2004: 32).

4.4.8 The Banks Act

From the above scenarios we can deduce that a bank suffering from liquidity difficulties (whether solvent or not) can be placed under curatorship where generally that bank is not systemically significant. Therefore, different rules apply to banks according to whether they are systemically significant or not.

For non-systemically significant banks, section 69 (1) (a) of the Banks Act sets out the grounds for a bank to be placed under curatorship. In terms of this section if, in the opinion of the Registrar, any bank will be unable to repay, when legally obliged to do so, deposits made with it or will probably be unable to meet any other of its obligations, the Minister of Finance may, if he deems it desirable in the public interest, with the written consent of the Chief Executive Officer or the Chairperson of the board of directors of that bank, appoint a curator to the bank.

Initially when we begun our discussion of the difference between ordinary insolvency proceedings and bank insolvency, we noted the importance of the distribution of control. control is the power to decide what to do with the bank's assets. In section 69 (1) (a) of the Banks Act, the power to place a bank under curator rests with the Minister of Finance, but before he can do that two conditions must be met, the first is that the Registrar must think that the Bank cannot meet its obligations when due and secondly the Minister of Finance must have written consent from the Chief Executive Officer or the chairperson of the board of directors. Control thus rest ultimately with the Bank. It decides through its decision-making organ when insolvency proceedings commences. Regardless these rules are not to be followed where the bank in distress is systemically significant.

4.4.9 Current Bank resolution regime

It is not the responsibility of any regulator or supervisor to prevent bank failures. Thus the policy framework set out above together with the provisions in the Banks Act, describes the way in which a bank in distress, which is not systemically significant, ought to be handled. The policy framework is only a framework to guide the approach taken by the Registrar.

Resolving small banks is easy and is being done in all countries without great fanfare, which is why our legislative framework is ostensibly designed for smaller banks. However, resolving large and/or internationally active banks seems so difficult that these banks are usually bailed out. This would be the case in South Africa. Nevertheless, very little is said about how this would be done in the above framework and legislation, save for in the worst-case scenario, where the fiscal authorities might enter into a Purchase-And-Assumption Transaction.

4.5 Conclusion

As a precursor to the discussions to in Chapter 5, it is important to summarise some of the important findings from this chapter 4. As well, as highlight, how some of the discussions that address the sub problem enunciated in chapter 1.

The starting point for analysis in this chapter is the realisation that given the importance of banks to the economy, the existence of systemic risk, the possibility of contagion, and the inherent web of risks associated with the business of banks', banks cannot be subjected to the ordinary insolvency processes.

A special resolution regime needs to be implemented that delivers an ex post efficient outcome that maximizes the value of the failed bank, promotes *ex ante* efficient outcomes, maintains the absolute priority of claims and limits the costs of systemic risk. The benefits of a special resolution regime are that it reduces moral hazard by creating predictable results.

The FSB's twelve key attributes achieve the above objectives and detail the twelve powers the Resolution Authority needs to achieve these objectives. The twelve key attributes set out by the FSB allows for an understanding of the type of regulatory powers the Reserve Bank should have, given its unique regulatory landscape. These attributes, also allows for a meaningful assessment of the Reserve Bank's current regulatory powers to deal with systemically significant banks in distress.

This chapter demonstrates how the Banks Act creates the legal framework for the regulation and supervision of banks and confirms that the powers to deal with the resolution of banks are encompassed within the extensive regulatory and supervisory

powers of the Registrar of Banks

The Registrar, in exercising his powers, periodically assesses the risk-management processes and controls instituted by banks to determine compliance with prudential requirements and the nature and amount of a bank's assets, liabilities and contingent liabilities. Failure to comply with the prudential requirements is an indication to the Registrar that the bank is in distress and Reserve Bank may need to intervene depending on the results of a due-diligence audit.

Given the gradual deterioration of a distressed bank, the Reserve Bank's policy framework for dealing with banks in distress lists key factors for consideration; these key factors are segregated into four scenarios and help determine when the Reserve Bank is likely to intervene as lender of last resort. The systemic significance of the bank and its state of solvency will determine the type of intervention offered by the Reserve Bank.

The key finding of this chapter is that, banks, which are not systematically significant, are be placed under curatorship and duly exited from the banking system, whilst systematically significant banks are treated differently. Solvent systematically significant banks are often merged with a second healthy well-managed bank in an effort to dissipate negative perceptions about them and maintain confidence in the market, whilst in the case of insolvent systemically significant banks; the fiscal authorities might enter into a Purchase-and-Assumption Transaction.

This chapter has dealt with the first three sub problems listed in Chapter 1 and has set the scene for Chapter 5, wherein the Reserve Bank's policy framework will be analysed and discussed. This analysis will include an assessment of the Reserve Bank's powers to deal with systemically significant banks in distress, the key factors for consideration before intervening as lender of last resort and the dangers of an implicit guarantee. The finding of Chapter 5 will determine whether the Reserve Bank has adequate regulatory powers to deal with systemically significant banks in distress in order to ensure the efficient re-allocation of assets when such banks start to fail.

Chapter 5: Analysis and Conclusion

5.1 Introduction

Before one can begin to analyse and discuss any policy of government or action of government, the starting point is the Constitution. On 4 February 1997, the Constitution of the Republic of South Africa came into operation. It infused into our legal system new values and transformed the relationship between the government and the governed. One fundamental change in the new constitutional era is that the exercise of power by government needs to be justified, and any action or policy inconsistent with the Constitution is invalid and liable to be struck down by the Constitutional Court[39]. Thus, this chapter will begin with a discussion around the autonomy of the Reserve Bank, and its mandate to intervene in the market. We will then discussion the applicable scenarios, which are the focus of this research, followed by a discussion of the balance between "market failure" and "official intervention failure"

5.2 Autonomy of the Reserve Bank

Speaking to the theoretical premise that give rise to central bank independence and autonomy, De Jager (2006b) point out that it is the prerogative of the State to devise and apply monetary policy as well as to promote a financial system that distributes resources efficiently. A traditional way to realize this is through the delegation of authority to an autonomous central bank. Key to this delegation of authority is the government providing defined and prioritised goals together with the delegation of adequate powers to accomplish these objectives. Having said this, checks and balances must be put into place in order that the central bank can be held accountable for its actions.

Accordingly the development of legislation, which enhances the effective resolution functions of the Reserve Bank, will depend on the degree of autonomy delegated to it, in order for it to function independently within, and not from, government. In times of crisis, collaboration in and between various facets of government, become necessary.

[39] See section 2 (the supremacy clause); section 7 (the obligation clause); section 8 (the application clause); section 36 (the limitation clause) and section 39 (the interpretation clause) of the Constitution.

The independence of the Reserve Bank is entrenched in the Constitution, which provides that the Reserve Bank, in pursuit of its primary objective[40] of protecting the value of the currency[41] in the interest of balance and sustainable economic growth, must perform its functions independently and without fear, favour or prejudice[42]. This Constitution is mindful of the collaborative nature of the Reserve Bank's functions and requires that there be regular consultation between itself and the Minister of Finance[43]. It also provides that the powers and functions customarily exercised and performed by the Reserve Bank must be determined by an Act of Parliament and must be exercised or performed subject to the conditions prescribed therein.[44] The benefit of this constitutional provision is that the Reserve Bank is not bound by ordinary legislation which is in the conflict with the constitution.

De Jager (2006b) makes an insightful observation about the Reserve Bank's level of autonomy when he states that the Reserve Bank is only vested with instrument autonomy and not goal autonomy because its objectives, powers, and functions are pre-determined in terms of statute. The comfort of this limited autonomy is that the monetary policy is perceived as being safe from government manipulation. It also dilutes that argument that the Reserve Bank lack democratic accountability. Ostensibly, the Reserve Bank makes decisions, which have repercussions throughout the economy, yet its officials are not elected officials.

To remedy its apparent lack of democratic accountability the Reserve Bank provides justifications for any intervention or policy changes it affects. The South African Reserve Bank Act governs the operation of the Reserve Bank and has several checks and balances aimed at ensuring the Reserve Bank's accountability to Parliament. Irrespective of the veracity of this explanation, most drastic interventions into the financial system will require assistance and at the very least consultation with the Minister of Finance. The Minister of Finance also has extensive powers over the Reserve Bank[45].

[40] This primary objective is also repeated in Section 3 of the South Africa Reserve Bank
[41] South Africa has a floating exchange-rate policy which makes it difficult for the protect the value of the currency because the value of the currency is determined by the market
[42] Section 224 (1) of the Constitution
[43] Section 224 (2) of the Constitution
[44] Section 225 of the Constitution
[45] These powers include the power to make regulations in respect of the Reserve bank, inter lia, as well as direct the Reserve Bank to comply with any provision of the South African Reserve Bank Act.

5.3 Scenario 1 and 2 of the policy framework

This research is concerned with scenario 1 and 2 of the policy framework. As there is sufficient literature and legislation dealing with the liquidation of non-systemically significant banks in South Africa (scenario 3 and 4) and the powers of regulator in that respect. Generally, the regulators have enjoyed the flexibility of an undocumented process with how distressed systematically significant banks are resolved in South Africa. The advantages of this undocumented process is that it creates "constructive ambiguity", because the bank managers are uncertain about and cannot predict the Reserve Bank's decisions on which banks they will rescue, this inadvertently influences the risk preferences of banks (Goodhart and Huang, 2005).

The disadvantage of this flexibility is that it is only creates "constructive ambiguity" amongst the smaller and medium sized banks. Because of the concentration of the South African banking sector there is an implicit guarantee that the Reserve Bank cannot let any one of the four large banks fail, this gives rise to concepts such as "too big to fail". This introduces certainty and stability to the banking sector but it also produces adverse incentives for banks to increase their leverage and complexity (the "**perverse incentives**").

Given that none of the large banks have ever failed in South Africa, and the public does not have access to know whether the too big to fail or too important to fail doctrines have been tested. The role and decisions of the Reserve Bank are scrutinised by bank shareholders and management in order that they may understand the extent to which they can implement strategies that take advantage of the "upside" of moral hazard. As South Africa's largest corporations expand into new markets in Africa, Asia and South America, South Africa's four largest banks are increasingly forced to develop strategies to expand into these markets to service their corporate clients. This presents new and developing challenges to the Reserve Bank. The FSB twelve key attributes also presents a unique opportunity not only to formalising the bank resolution regime but also to addressing the perverse incentives that an implicit guarantee provides and sends a signal to the markets that all banks despite size and complexity can be resolved orderly.

Charles Okeahalm (1998) notes that the Reserve Bank's decisions and actions during the

management of bank failure have been criticised as being politically selective and sometimes even negligent as Lender of Last Resort. These claims have led to calls for the establishment of a deposit insurance scheme and a clear legal framework for the regulation of failing banks.

Until a clear legal framework for the regulation of failing banks is developed, these negative perceptions will continue to linger and the Reserve Bank will continue possess inadequate powers to deal with systemically significant banks in distress and ensure not only the efficient re-allocation of resources to more productive and efficient enterprises but enable them to liquidate failing banks that pose a significant risk to the financial stability of the country in a manner that mitigates such risk and minimizes moral hazard and obviates the need for taxpayer support.

Key to addressing the perverse incentives that implicit guarantees provide is the development of a statutory resolution regime which comprises of recovery and resolution plans, and gives the Reserve Bank the power to, *inter alia*, control the size and complexity of systemically significant banks. This will allow bank resolution to be feasible. Without control over the size of banks, the fiscal authorities might find, in a highly leveraged environment that the available public resources are inadequate to allow it to intervene in scenario 1[46] without considering foreign bidders. Furthermore, if the complexity of the bank is not controlled, the bank regulators might it only to effectively intervene in scenario 1 but also in scenario 2, where a merger might be desirable and necessary earnestly.

5.4 "Market failure" vs. "official intervention failure"

It is essential that the bank regulators have the appropriate information and regulatory powers needed to strike a delicate balance between "market failure" and "official intervention failure". Without the necessary powers, the regulators decision to intervene and the form that intervention takes become difficult and liable to negative market perceptions. Early detection of bank failure allows for an efficient re-allocation of assets and liabilities and the promotion of the regulator's ability to resolve banks efficiently.

Any decision of the regulators to intervene runs the real risk of causing fear and panic to

[46] a bank in distress is found not to be solvent, and systemically significant

grip the market, and the run could spread to the other banks and threaten the collapse of the banking system (Bernanke 1983). Nevertheless, contagion can be limited and confidence maintained through the certainty that a bank resolution regime offers where such regime maximizes the ex-post value of the bank's operations subject to the constraints that management and shareholders are adequately penalised, ex ante repayment, priorities are retained and systemic costs are appropriately limited.

Although the Reserve Bank's interventions, as lender of last resort, have been a regular feature in the South African banking environment, it remains contentious, not just domestically but for other central banks around the world. Few models have been made that try and analyse how and why central banks have to intervene as lender of last resorts (Goodhart and Huang, 2005). Without an appreciation of this last point, bank regulators with the best of intentions and armed with the most far reaching powers will reap the worst outcomes.

Goodhart and Huang (2005) provide a model of lender of last resort. This was the first attempt to address both the effects of contagious risk and moral hazard at a macro level. Goodhart and Huang argue that in the event of failures, potential exists for contagious risks, as depositor and creditors (even bank managers) start to panic, their behaviour becomes increasingly unpredictable, and financial markets begin to resonate these dramatic waves of uncertainty. As a result, these market volatilities policy mistakes become more likely. It is in this perilous moment, when mistakes are particularly easy to make, that the Reserve Bank, as lender of last resort, is perceived and welcomed as the saviour and protector of the economy.

Goodhart and Huang's model offers interesting results in two settings. The model in a static setting finds that the Reserve Bank will only rescue banks above a certain size because such a failure causes uncertainty about the subsequent changes in liquidity (deposits) in the banking system due to financial contagion (Goodhart and Huang, 2005: 1078).

The landscape of the statics model is a banking system with many banks of diverse sizes. The model assumes that all these banks choose a similar risk profile. Inherent to this risk

profile, there is a probability of a bank, which holds a percent of the banking systems deposits, coming to the Reserve Bank for liquidity assistance in any given period.

Thus if no bank needs liquidity assistance, the Reserve Bank takes no action, and the percent of deposits remains constant in the banking system and the Reserve consequently suffers no loss.

If, however, a bank approaches the Reserve Bank for assistance, the Reserve Bank has to elect whether to “yes” and intervene or “no” and not intervene. There also is the consideration that the distressed bank or banks, as the case maybe, may in fact be insolvent and this fact is not reveal to the Reserve Bank at the initial stage of approach. In this instance, if the Reserve Bank, fails to intervene, the distressed bank will close and consequence cause the public to move out of deposits into cash.

In this setting whatever amount of deposits the public converts to cash, the Reserve Bank can substitute through liquidity assistance, so that it can achieve its desired value of deposits in the banking system. Cumulatively, this means that the Reserve Bank in determining the size or threshold level of bank size that level can be increased when the probability of insolvency of the distressed bank increases, when the risk of deposit moving out of the banking system decrease or when the cost of rescuing the bank (that turns out to be insolvent) increases. This proposition is the rationale for the “too-big to fail doctrine” and if the determined threshold size should become known to the banks, this knowledge would influence their risk preferences. This is the reason why the Reserve Bank would need to use “constructive ambiguity” to make their decisions on which bank to rescue. Only problem with “constructive ambiguity” is that any inconsistent in the manner the Reserve Bank performs its regulatory duties leaves it open to the charge that it is partial to certain interest groups and prejudicial to others.

According to Goodhart and Huang, the above proposition, reveals that when a failure of a bank generates a crisis of confidence or trust and creates systemic uncertainty, it is difficult for the Reserve Bank to determine the effective loss of liquidity in the banking system. In particular, when volatility in the financial markets increases, banking contagion increases, and the behaviour of depositors becomes less predictable. Each of these elements

coalesces and increases the risk of making mistakes on account of not intervening and providing the liquidity needed.

The golden feature of this model is that the costs of allowing a bank to fail rise at a faster rate with respect to the size of the bank, than the costs of rescuing an insolvent bank. So long as the costs of failure increase more rapidly than the cost of rescue with to size, the same qualitative results according to Goodhart and Huang will hold.

With respect to the issue of policy error, there are costs, financial and reputational costs[47], when the rescued bank is insolvent. The financial cost rests on some combination of surviving banks, the Reserve Bank and taxpayers. The assumption that Goodhart and Huang in this model is that once the Reserve Bank discovers that the distressed bank receiving assistance is in fact insolvent, it will together with the Ministry of finance (Government) restructure the distressed so that there is a once-and –for all cost on the taxpayer or the fiscus. Failure to restructure the distressed bank properly means that there is an increase of the present cost of future unbooked losses.

The model in a dynamic setting, the prospect of failure and the probability of a potentially insolvent bank requiring assistance are a function of the Reserve Bank's prior action. This setting focuses on the time-varying variables contagion and the moral hazard, which should inform the Reserve Bank's optimal rescuing policy. (Goodhart and Huang, 2005: 1078).

In the above setting, the Reserve Bank would have an incentive to rescue banks, irrespective of size, if contagion is the main concern. If, however, moral hazard is the main concern the Reserve Bank would be less inclined to rescue banks below a certain threshold size

This setting can be distinguished from the static setting; because in this setting the Reserve Bank's optimal rescuing policy need not be bank size dependant but rather time-varying. A situation where contagion and moral hazard are the main concerns, results in the Reserve Bank's incentive to intervene, as lender of last resort, being stronger than in

[47] We saw the reputation cost, when the market during the 2001/2 liquidity started to believe that the Reserve Bank didn't have the ability to deal with the crisis, it was only when the National Treasury issued a guarantee was the market convinced that the regulators were serious.

the static setting, but weaker than in the dynamic setting where contagion is the sole concern.

From the Haung Model, we can accept that the key factor affecting the Reserve Bank's incentive to intervene, as lender of last resort, is the likelihood of contagion, and not moral hazard.

5.5 Conclusion

A bank resolution regime should not be seen as a magic bullet that would as of itself put an end to moral hazard and systemic risk. There are cases of fairly effective resolution of a systemic banking crisis without a prior resolution regime in place for crisis, such as in Sweden and Finland in the early 1990s.

In the Swedish example, the regulators issued a blanket guarantee for all liabilities of domestic banks, during the early 1990s-banking crisis. The purposes of this authoritative display of regulatory and government intervention was not only to stall any run on their domestic banks but to also secure domestic banks' continued access to international markets for finance. The Swedish government and regulator withdrew the guarantee in 1995; market expectation continues to be that in the event of future crises the Swedish government and bank regulator will act in the same manner. This expectation was confirmed in the Global Financial Crisis (Wihlborg, 2012).

The disadvantage of the Swedish stance is that, by not allowing banks to fail, markets factor in this implicit guarantee and creditors are concerned about the counterparty risk, thus allowing the banks gain a competitive advantage through lower costs of funding. Clas Wihlborg notes that this implicit subsidisation fosters further concentration in the banking sector and incentivises banks to take excessive risks since the taxpayer (moral hazard) carries the downside.

In the example of the Finland's banking crisis, there was no specific legal or institutional framework to deal with failing or distressed banks. The regulators however had sufficient legal competence and financial resources to take the lead in crisis management. They were able to assume control of local saving banks and implement special crisis support

programmes for the banking sector. This type of drastic intervention cannot be easily replicated in a developing country because of the nature of the debt held by developing countries. First, the debt is dominated in a foreign currency and second the debt is generally of a short nature. These factors will negatively affect inflation and will cause the substantial depreciation of the local currency (Chauhan, 2012).

On the other hand, a country may have introduced a special resolution regime in its legislation but fail to use it when appropriate, or use it in a manner that does not avoid systemic contagion, and consequently suffer great financial and reputational costs. This is the danger that the South African government and regulators face as they now develop legislation that introduces a special resolution regime.

From our discussion above, we have noted that the main concern of bank failure is the contagion risk, which increases the Reserve Bank's incentive to intervene. The manner of intervention, introduces negative incentives for stakeholders. On the one hand, if the Reserve Bank is to bail out a bank, this incentivises the bank's shareholders to leverage excessively. On the development of a special resolution regime which protects creditors in the case of insolvency, may guard against contagion, but if the protection is expected, the supply of credit to the bank becomes excessive and creditors stop monitoring the bank's risk-taking effectively. In these instances, the bank will be incentivised to accept a relatively high probability of insolvency (Wihlborg, 2012). A well-designed special resolution regime must limit these incentives.

The findings of this research report indicate that there currently are different insolvency and resolution rules that apply to banks in South Africa, according to whether they are systemically significant or not. For non-systemically significant banks there is certainty and adequate legal remedies dealing with the liquidation of these types of banks. The regulator's policy stance, in relation to non-systemically significant banks, creates a disincentive for them to increase scale by aggressive deposit/lending margin strategies, yet the policy stance inadvertently makes it difficult for non-systemically significant banks to become large banks.

Whilst for systemically significant banks the regulators claim to enjoy the flexibility of an undocumented process on how to deal with such distressed banks does have a cost

associated with such flexibility. As a result of their undocumented process, no real consideration has been given to the fact that possible regulatory intervention, given the size and concentration of the banking sector, encourages bank stakeholders to factor in an implicit guarantee that the regulator cannot allow one of the largest banks to fail, because of the real and obvious risk of contagion. Thus, the regulator has inadvertently provided an implicit subsidisation to the four largest banks and this further fosters concentration in the banking sector, by giving these four banks a competitive advantage, which incentivises them in the long run to take excessive risks, and breeds moral hazard into the system.

Another failing of the policy is that no consideration is given to the merits and demerits of merging systemically significant banks. Ordinarily in an early intervention regime, the regulator should allow a merger to preserve the going concern value of an institution. This process is clearly favoured over liquidation. The consequence of a merger, however, in such a highly concentrated environment, has to be negative for the sector. Consideration needs to be given to alternative arrangements that encourage regulatory intervention that promote a less concentrated banking sector.

Charles C Okealhalam (1998) recognises an additional purpose of bank regulation, which was not mentioned in the earlier sections. According to Okealhalam, banks are subject to economic and prudential regulations. The objects of the latter have been dealt with comprehensively in this research. The objective of the former regulations is to ensure social welfare rights. That is, they aim to encourage higher competition, less collusion and lower industry concentration.

Accordingly, the current policy is contrary to encouraging competition in the sector. According to the 2004 Task Group Report on Competition in South African Banking[48], competition is important because it encourages innovation, efficiency, pricing, availability of choice, consumer welfare and the allocation of resources in the economy. Thus, the current policy defeats the Reserve Bank's ability of ensuring price stability as well as encouraging economic growth.

In the introduction we stated that the Reserve Bank had to balance to its responsibility to gather and evaluate information needed to assess the true financial condition of banks, in

[48] Task Group Report for the National Treasury and the Reserve Bank, April 2004,

order, to protect the public against loss and ensure the stability of the financial system, with its concomitant responsibility to use banks as a conduit for monetary policy and controlling money supply in the economy, to not only ensure price stability but encourage economic growth (the "**Competing Interests**"). The Reserve Bank's policy stance has been found to favour the former responsibility over the latter.

As South Africa, begins to review its policy framework for dealing with banks in distress in line with the recommendations of the FSB. The government needs to take this opportunity not only to formalise the bank resolution policy framework but to also address the Perverse Incentives that an implicit guarantee provides and send a clear signal to the markets that all banks despite size and complexity can be resolved orderly and swiftly, thus allowing for those distressed assets to be reallocated for more valuable uses without posing a material threat to the solvency of the banking system.

Nevertheless, the government must be aware that even with well-designed processes to impose losses on creditors, a resolution regime cannot guarantee that no use of public money will ever be necessary, especially in very severe crisis scenarios.

Defining Major Concepts

Accommodation	The provision of borrowing facilities by the central bank to depository institutions;
Arbitrage	The exploitation of pricing anomalies in financial markets to generate risk free or low-risk profits through the buying and selling of securities or commodities in different markets to take advantage of price differentials;
Asset	Property, both tangible and intangible and other claims that have financial value;
Bank	In South Africa a bank is a legal persona, duly incorporated as a public company under the provisions of the Companies Act and which is registered as a bank in terms of section 11 of the Banks Act 94 of 1990. Owing to such status, it may lawfully conduct "the business of a bank" in terms of the Banks Act. Ultimately acts as a financial intermediary between savers and borrowers;
Bank Failure	A situation where a bank can no longer meet its obligation and the Registrar is required to intervene;
Bank Holding Company	A company that holds a controlling interest in a bank;
Bank Run	Refers to a situation where a large amount of deposits are withdrawn from a bank, because there is a perception in the market that a bank's ability to honour its obligation is deteriorating;
Bank Supervision	A function of the Reserve Bank to manage the level of the risks associated with banking activity in the financial market;
Banking crisis	a situation where market participants (individuals and corporates) through an event or a series of events lose confidence in the banking system and as a result thereof results in a run on the banking system which threatens the solvency of the banking system;
Capital	Is the monetary contribution and ownership interest of shareholders in the company and is presented on the balance sheet of the company as the difference between the assets and liabilities of the company;
Capital adequacy	This is the statutory level of capital required to be held by a bank and is influenced by the risk appetite of the bank both on-balance and off balance. The greater risk appetite of the bank the level of capital the bank needs to hold;
Capital risk	The potential loss that a bank's capital reserves might suffer in order to cover its losses. If the losses are greater than the capital reserve, the bank is insolvent;
Central bank	The principal monetary authority of a country which performs several key functions, including issuing currency and regulating the supply of credit in the economy;
Collateral	This is an asset used to secure indebtedness;
Counterparty risk	The probability that a party will not meet its obligations in accordance with its contractual arrangements. Counterparty risk is often used to indicate the credit risk on off-balance sheet products;
Credit risk	The probability that a borrower will not meet its obligations in accordance with its contractual arrangements. That is the borrower will not be able to repay the principal or pay the interest;

Creditworthiness	A lenders assessment of a borrower's ability to meet its debt obligations;
Demand deposit	A bank deposit that may be withdrawn at any time without prior notice;
Equity	A financial interest, which represents a claim in a company's assets after prior claims have been made. It also represents a claim to share in the company's profits, when dividends are declared;
Exchange Control Regulations	means the Exchange Control Regulations, 1961, as promulgated by Government Notice R1111 of 1 December 1961, as amended, made in terms of Section 9 of the Currency and Exchanges Act, 1933 (Act No 9 of 1933);
Financial Services Board	An independent agency, created by the Financial Services Board Act No97 of 1990, to oversee the South African Financial services Industry in the public interest;
Fiscal Policy	It is the economic policy conducted by national government and relates to the manner in which government structures it's spending and taxation system in order to influence the economy;
Interbank market	The market in which the banks provide short term wholesale loans to each other;
Intermediary	An organisation that interposes itself as a principal in financial transactions;
Investment banks	Firms that are involved in arranging for the sale of corporate or municipal securities and providing secondary trading markets for such securities. Investments banks undertake specialised tasks such as facilitating mergers and acquisitions;
JIBAR	Johannesburg Interbank Agreed rate. A number of daily calculated benchmark interest rates composed of an average of the negotiable certificate of deposit (NCD) mid-rates of a number of leading South African Banks;
Lender of last resort	The role of a country's central bank in extending credit to banks experiencing a crisis, especially where the banks individually of collective cannot obtain liquidity from the market sources and where failure to obtain such liquidity would have a severe adverse impact on the economy;
Leverage	Gaining an economic exposure that is larger than available capital resources;
LIBOR	London Interbank Offered Rate, the rate of interest charged by major London banks to lend money to each other and to top rated clients in an number of currencies;
liquefiable assets	These are securities or assets that can be easily traded for the prevailing market price;
Liquid asset	A public sector financial security (Reserve Bank debentures, treasury bills, government bonds and Land Bank bills) in which, according to the Banks Act, a bank must invest a percentage of its deposits in, for prudential purposes;
Liquidity	The extent to which an instrument can be readily acquired or disposed of at prevailing market prices;
Liquidity risk	The risk that a bank or a depositary institution will not have sufficient cash or liquidity assets to meet borrower and depositor demand;
Liquidity shortage	The total amount of cash reserves that the banking system as a whole has to borrow from the central bank on a daily basis in order to prevent a cash reserve deficit position in its books;
Macroeconomic policy	Economic decisions that are concerned with the performance of

	the economy as a whole;
Marginal Lending Facility	A facility available to banks to bridge temporary liquidity shortfalls not catered for under the repo tenders. It is available on an overnight basis or for a few days at a higher penalty rate (marginal lending rate);
Monetary policy	A central bank's actions to influence the availability and cost of money and credit by controlling some measure of the money supply and/or the level of interest rates. Tools of monetary policy include open market operations, accommodation policy, reserve requirements and the monetary policy interest rate;
Monetary Policy Committee	A committee of the Reserve Bank that makes policy decisions on the monetary policy stance by determining the repo interest rate. It meets at regular intervals and a statement on the monetary policy stance of the Reserve Bank is published after each meeting;
Monetary policy transmission mechanism	The process through which the central bank's monetary policy action affect the macro-economy;
Money market	The market for the issue and trading of short term debt securities;
Money supply	The total quantity of money available for transactions and investment. Measure of the stock includes M1, M2 and M3;
National Payment system	A national infrastructure that provides for the management, administration, operation, regulation and supervision of payment, clearing and settlement systems in South Africa;
National Treasury	A agency created by the Public Finance Management Act to manage the South African national government's finances;
Negotiable Certificate of deposits	A trade-able fixed deposit issued by a bank in order to raise funding;
Off-balance sheet	Refer to that part of the bank's business that generally involves neither booking assets nor taking deposits But rather instruments or contracts that do not appear as conventional assets or liabilities on the bank's balance sheet. Examples are options and derivatives;
Open market operations	Purchases and sales of securities (government securities, Reserve Bank debentures and currency) by the central bank to increase or decrease the quantity of money in circulation and cash reserves of commercial banks;
Operational risk	The risk of losses or reputational risk arising from the possible failure of a bank's systems, controls or management failures such as human error;
Prudential limits or requirements	Regulations applying to certain classes of financial intermediary designed to ensure that their businesses are compliant with legislation;
Registrar of Banks	means the Registrar of Banks designated under section 4 of the Banks Act, 1990;
Repo rate	The administratively determined rate of the central bank at which the private sector banks acquire accommodation (borrowed reserves) this is undertaken in the form of a repurchase agreement;
Repurchase Agreement (repos)	The sale of an existing security at an agreed price, with the commitment by the seller to repurchase the same security at an agreed price on a specified date;
Reserve Bank Debenture	A short term money market security issued by the south African Reserve Bank specifically for banks as an outlet for investing their surplus short term funds;

Risk Management	Framework of procedures and rules for understanding, monitoring and controlling financial and other risks within an organisation;
Securitisation	A process where banks assets, such as mortgages, loans and other income streams are converted into debt securities and the banks sells these to an insolvency remote SPV. The purchase price paid by the SPV is either equal to or slightly less than the value of the assets. The SPV will fund its purchase through the issue of debt instruments such as commercial paper. The bank will often continue to collect the income from the Assets as an agent of the SPV at a fee. The various permissible types of securitisation schemes (synthetic securitisation scheme or a traditional securitisation scheme) in South Africa are defined and described in Government Notice R. 681 published in Government Gazette No. 26415 on 4 June 2004;
Settlement risk	A risk typical of the interbank market, it is the probability that a counterpart will not meet its financial obligation at the time of settlement;
Shadow banking system	This system comprises activities and entities that fall outside the formal banking system;
SPV	Special purpose vehicle is a legal entity that purchases assets to be securitised from the original lender (as referred to as the originator);
Systemic risk	This is the risk that a failure of one or more financial institutions could result in the instability of the financial system;
Too big to fail	This is a situation where the cost of the failure of one large financial institution or bank to the financial system would be so large and poses a significant risk to the viability of other financial institutions that that the regulators would rather intervene to protect the institution from failure;
Put option	This is an option that gives a purchaser the right to sell an asset at a fixed on or before a specific date;
interest rate risk	The risk that interest rate fluctuations will erode the purchasing power of a bank's earnings and returns to shareholders;
Market risk	The risk that market price fluctuations could give rise to losses in on- and off balance sheet positions;

Schedule 1 legislation

1. The Constitution of the Republic of South Africa (Act No. 108 of 1996)
2. The Banks Act, 1990 (Act No. 94 of 1990);
3. The National Payment System Act, 1998 (Act No 78 of 1998);
4. The Financial intelligence Centre Act, 2001 (Act No 38 of 2001);
5. The Financial Intermediary and Advisory Act, 2002 (Act No 37 of 2002);
6. The National Credit, 2005 (Act no 34 of 2005);
7. The Consumer Protection Act, 2008 (Act No 68 of 2008);
8. The Home Loan and Mortgage Disclosure Act, 2000 (Act No 63 of 2000);
9. The Competition Act, 1998 (Act no 89 of 1998);
10. The Policy Board for Financial services and Regulation Act, 1993 (Act No. 141 of 1993);
11. Inspection of Financial Institutions Act, 1998 (Act No. 80 of 1998)
12. South African Reserve Bank Act, 1989 (Act 90 of 1989)
13. The Companies Act, 1973
14. The Companies Act, 2011 and
15. Insolvency Act, 1936 (Act No. 24 of 1936)

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