A proposed credit rating methodology for co-operative banks in South Africa

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ENGLISH ABSTRACT

A PROPOSED CREDIT RATING METHODOLOGY FOR CO-OPERATIVE BANKS IN SOUTH AFRICA

When large banks have a shortage of liquidity, they solve the problem by either placing papers in the market, going to other banks, borrowing from other financial institutions or making use of its reserves. When entering the market, credit ratings facilitate the loan process by providing an indication of the lending banks' risk. However, when South African co-operative banks enter the market for finances, no rating can be applied as the method for rating these banks does not exist. This, in turn, leads to a slow-down in the loans process and co-operative banks being charged higher interest rates.

The primary objective of this dissertation was the formulation of a credit rating methodology, amended from Fitch Ratings and Moody's Investors Service, for South African co-operative banks.

A literature study was undertaken in order to determine the theoretical aspects of rating banks as well as providing insight into the management structures of co-operatives and their business practices. A proposed credit rating methodology was then developed and tested by means of a questionnaire provided to South African credit unions of different sizes in Gauteng and the North-West.

The history of credit unions and co-operative banks was provided as the point of departure and followed by the Co-operative Banks Act. This was done in order to facilitate the understanding for the need of the rating methodology along with the rating aspects provided for by legislation, especially regarding the operating and regulatory environment.

The developed methodology was found to be adequately suited for co-operative banks in South Africa (CBSA) and could ultimately assist CBSAs in negotiating

interest rates charged when entering the market for liquidity purposes. This in turn could have positive implications in the government's aim to reach the large unbanked population of South Africa.

OPSOMMING

'N VOORGESTELDE KREDIETWAARDERINGS METODOLOGIE VIR KOOPERATIEWE BANKE IN SUID AFRIKA

Wanneer groot banke 'n tekort aan likwiditeit ervaar, oorkom hulle dit deur papiere in die mark te plaas, na ander banke te gaan, om by ander finansiële instansies te leen of deur van hul reserwes gebruik te maak. Indien hul die mark betree, fasiliteer kredietwaarderings die leningsproses deur 'n aanduiding te gee van die lenende bank se risiko. Alhoewel, wanneer Suid Afrikaanse kooperatiewe banke die mark betree vir finasies, kan daar geen waardering toegepas word nie aangesien so 'n metode nie bestaan nie. Dit lei na 'n vertraging in die leningsproses sloer en ook dat hoër rentekoerse van hul vereis word.

Die hoof doel van die verhandeling is die formulering van 'n kredietwaardering metodologie vir Suid Afrikaanse kooperatiewe banke, wat uit die *Fitch Ratings* en *Moody's Investors' Service* aangepas is.

'n Literatuurstudie is onderneem met die doel om die teoretiese aspekte van bankwaardering te bepaal en ook insig te verskaf van die bestuurstrukture van krediet unies en hul besigheid. 'n Voorgestelde waarderingsmetodologie is ontwikkel en getoets deurmiddel van 'n vraelys wat verskaf is aan Suid Afrikaanse kooperatiewe banke in Gauteng en die Noord-Wes.

Die geskiedenis van krediet unies en kooperatiewe banke is beginpunt gebruik en is gevolg deur die Kooperatiewe Bankwet. Dit sò gedoen om metodologie makliker verstaanbaar te maak, en terselfdetyd die kredietwarderings aspekte, wat alreeds deur wetgewing voorsien is, aan te dui. Veral met betrekking tot die werk- en regulerende omgewing.

Dit was bevind dat die ontwikkelde metodologie van pas was vir kooperatiewe banke in Suid Afrika en kan veral met die onderhandeling van rentekoerse help

wanneer die mark betree word vir likwiditeits doeleindes. Dit kan van groot waarde wees vir die regering in sy doel om die groot ongebankte bevolking van Suid Afrika te bereik.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

OVERVIEW

1.1 Introduction

According to the National Co-operative Bank (2001) in Washington DC, a co-operative is a business which is collectively owned and operated by its members. Its purpose is to provide services to its members at the lowest cost possible (U.S Department of Agriculture, 1985). Many of the basic principles by which co-operatives are managed relate to asset building and wealth creation (Nembhard, 2002:326). Co-operative banks are member-owned organisations similar to mutual savings and loan associations, which make loans and pay interest on pooled member deposits (Anon, 2008).

Co-operative banks are common around the world and have been established in many countries for different reasons. In Nigeria, for example, the co-operative banking scheme originated due to the need to close gaps in the rural economy and to increase the sector's productivity (Onugu, 2000:103). In Germany, it was the need for cheaper rates for loans to small farmers and labourers that led to the creation of co-operatives (Guinnane, 2001:368).

Co-operatives are thought to be a solution to many modern-day problems in developing as well as developed countries. These range from unemployment and poverty to increasing the availability of loans to clients who would not be able to obtain financing elsewhere (Sono, 2006). In a study done by Conover, Molina and Morris (1993), Californian co-operatives provided higher wages than the national average for unskilled, non-English-speaking immigrants. Successful co-operatives help accumulate and create wealth for their members (Nembhard, 2002:325).

Co-operatives allow people who would not usually be able to afford houses to become homeowners, or to reduce the cost of becoming a homeowner. The Co-operative Housing Coalition (2000) in the United States of America undertook a study which found that the average income of co-operative homeowners was higher, when compared to renters, since the average monthly cost of such a co-operative home is much lower than market rentals, enabling their residents to have a higher disposable income. The American Federation of Labour and Congress of Industrial Organisations (AFL-CIO) Housing Investment Trust (2000) suggests that leveraged investment creates equity which increases over time. Also, the tax benefits of home ownership contribute to wealth creation and ultimately result in much higher net worth occupants than renters. Thus, as co-operatives provide access to home ownership, they provide equity and wealth for their members. Finally, Lee and Kelly (2001) found that households that make use of both a credit union and a bank are wealthier than households which make use of only one of these.

The functions of community banks — in terms of deposit mobilisation, application through loans and advances in prime economic sectors, as well as certain non-banking applications — show that they can be seen as development agencies (Onugu, 2000:104). However, this has been contested by Henderson (1999), who stated that community banks lead residents and businesses to search for credit in less appealing environments which ultimately suppresses economic development in a community.

A study by Ehrmann and Worms (2001:1-27) found that co-operative banks are not influenced by stricter monetary policy and are able to insulate their lending from monetary policy impulses. They attribute this to co-operative banks having their main lending relationship with their head institutions. It is these institutions that enter the domestic and international interbank credit market. Therefore, the monetary contraction of a co-operative bank depends on the head institution's availability of funds and how they are allocated, rather than monetary policy.

This allows the individual banks to experience less credit and market risk than other banks, as they are insulated from these exogenous shocks. DeBondt (2000), who used panel econometric analysis and Worms (2001) ascribe this phenomenon to the dependency of bank lending to bank size. However, Favero, Giavazzi and Flabbi (1999), using cross-sectional data, and Ehrmann *et al* (2001) could not find the same evidence in the Euro-area.

There have also been arguments suggesting that community banks could help to bridge the gap between the supply and demand of credit in certain areas, and produce the forces necessary to mitigate discriminatory outcomes in credit markets at a profit (Henderson, 2002:316). This is due to the vast presence of credit risk innate in urban centres, causing co-operative banks to function more conservatively and to experience lower profitability by restricting loan supply as well as the higher provisions for loan losses (Munnell *"et al."* 1996).

From the above, it is apparent that co-operatives have a large role to play in the economic growth and development of South Africa. They could offer a solution to the country's poverty and housing shortages, as well as increase credit availability to poorer communities under the stricter monetary policy the country is currently following. However, co-operative banks are still a relatively unknown phenomenon in South Africa with the Co-operative Banks Act (No. 40 of 2007) only having been introduced as recently as 2007.

This chapter defines co-operative banks and credit ratings, as these are key concepts which need to be understood in order to understand the rest of this study. This is followed by the problem statement and a motivation as to why this study is important. The goals and objectives, basic hypothesis, method of investigation and the provisional chapter outline of the study are also discussed.

1.1.1 Definition

According to the Co-operative Banks Act of South Africa, (No. 40 of 2007); a **co-operative bank** is: "a co-operative registered as a co-operative bank in terms of the Co-operatives Act (No. 14 of 2005) whose members -

- are of similar occupation or profession or are employed by a common employer or who are employed within the same business district; or
- have common membership in an association or organization, including a religious, social, co-operative, labour, or educational group; or
- reside within the same geographical area or defined community."

In general, co-operative banks concentrate more on retail lending and make use of products that are specifically designed to the needs of its members. Therefore, they differ from commercial banks with their emphasis on corporate and institutional lending. They also differ from savings banks in terms of the loans they offer the public — loan services with savings banks focus on consumer lending and with co-operative banks they focus on agricultural lending (Kolhari & Zardkoohi, 1990).

According to Fitch Ratings (2008a), **credit ratings** provide an opinion on the counterparty's ability to meet its financial obligations. These include interest payments, preferred dividends and repayments of the principal loan amount. Investors use credit ratings as an indicator of the probability of return on their investments, in accordance with the terms and conditions under which they invest. These credit ratings vary and include country ratings and corporate ratings (fitchratings.com, 2008a).

According to Moody's, credit ratings are opinions of the relative credit risk inherent in an investment. They address the possibility that a financial obligation will not be honoured in accordance with the terms that it was invested. Thus,

credit ratings reflect both the likelihood of default and the probability of financial loss suffered in the event of default (Moody's Investors Service, 2007).

Credit ratings indicate risk in relative rank and, as such, are merely an ordinal risk measure. They do not indicate a specific regularity of default. However, the lower the rating, the greater the likelihood of default. Investment grade ratings point towards comparatively low to moderate credit risk (International Long-term, 'AAA' to 'BBB-'; Short-term, 'F1' to 'F3'). Speculative or non-investment grade ratings, on the other hand, indicate either a higher level of credit risk or that default has previously occurred (International Long-term, 'BB+' to 'D'; Short-term, 'B' to 'D'). (fitchratings.com, 2008a). The definition of investment and non-investment grade ratings will be discussed in more detail in chapter 3.1.

1.2 Problem statement

This study aims to propose a method by which co-operative banks can be rated and, more specifically, the rating of these banks in South Africa.

In order to maintain an appropriate amount of liquidity, a bank must satisfy its liquidity requirements by placing papers in the market, by borrowing from other financial institutions or by making use of its own reserves. This dissertation attempts to define – through the use of credit ratings – a rating system for co-operative banks for use in the negotiation of relevant interest rates required for funding requirements at external institutions or institutional investors.

1.3 Motivation

If this proposed method correctly answers the problem statement, it could help to set a guideline as to how co-operative banks could be rated in South Africa, and thereby assist in determining what should be an appropriate interest rate that could be charged when funding is required.

The importance of this study lies in the fact that a co-operative bank, without such a credit rating, may be charged a very high rate of interest when approaching the market for funds. This, in turn, may have an adverse effect on its own loans, as historically co-operatives have always charged lower rates than commercial banks. Also, the loan process can be very lengthy when the bank does not have a rating.

1.4 Research aims and objectives

The purpose of this study is to decide on a proposed method as to how co-operative banks could be rated in South Africa in order to determine the appropriate interest rate to be charged when funding is required.

The dissertation will achieve four goals:

- give the reader a better understanding of the history and management structures of co-operative banks worldwide,
- define how banks are rated and propose a method according to which co-operative banks in South Africa could be rated,
- test the accuracy and suitability of such methodology by means of a questionnaire submitted to random co-operative banks in South Africa,
- indicate which rating sub-factors could be enhanced by co-operatives in order to acquire a higher credit rating.

1.5 Basic hypothesis

The basic hypothesis can be formulated as follows: What is the appropriate method for rating co-operative banks in South Africa in order for them to negotiate interest rates and funding requirements from external institutions?

1.6 Method of investigation

This study will apply data, received from the South African Credit Co-operative League (SACCOL), as well as South African co-operatives, to an amended credit rating methodology derived from the methodology used by Fitch Ratings and Moody's, in order to determine the proposed credit rating methodology for a South African co-operative bank.

The combined methodology, discussed in chapter 3, is amended in chapter 4 and tested in chapter 5 in order to determine its appropriateness and accuracy.

1.7 Chapter outline

This dissertation comprises 6 chapters. Chapter 1 provides a short introduction to the topic and the positive aspects of co-operative banks, followed by a discussion of the methodology and approach to the study. The problem statement, hypothesis, goals and layout of the dissertation follow thereafter.

Chapter 2 addresses the different co-operative management models, a historical overview of co-operative banks and the Co-operative Banks Act, No. 40 of 2007. Chapter 3 investigates Fitch Ratings' and Moody's credit rating methodologies for banks, while chapter 4 proposes a method for rating a co-operative bank. Chapter 5 tests the aptness of the developed methodology, as well as the rating factors that could increase ratings for co-operatives.

Chapter 6 concludes and provides a summary of the study, as well as suggestions for further research.

CHAPTER 2

CO-OPERATIVE BANKS

2.1 Introduction

In the previous chapter, a short introduction into co-operative banks was provided as well as some important definitions which need to be understood by the reader, in order to facilitate and set a framework for this study. In addition, the problem statement, motivation, goals and layout of the dissertation were defined.

Co-operative banks originated from communal agricultural organisations and were based on the principle of co-operation, open membership, democratic decision making and mutual help (Sharma, 2003). Today many of them have transformed into multi-national organisations, delivering a wide range of services which range from taking deposits to supplying insurance.

In this chapter, further insights into the history of co-operative banks and how they originated will be provided as well as a discussion on the history of savings and credit co-operatives in South Africa. This will be followed by a discussion on the different co-operative bank models and concludes with a discussion on the Co-operatives Banks Act of South Africa. These are included in order to supply the reader with further insight into the history of the credit union movement in South Africa, as well as to indicate the legislative environment in which credit unions have to operate.

2.2 Background

2.2.1 History

Credit co-operatives have their origin primarily in the agricultural sector. They have evolved to include other services due to the need for economies of scale (jointly producing multiple services), and also to maintain competitiveness (Baumol, 1977). These include products and services such as consumer financial services, investment banking, corporate financing and market activities such as capital and foreign currency trading. Large co-operative banks, such as the Crédit Agricole Group, have an active presence in a multitude of countries and have also evolved and broadened their activities to service all sectors of the economy, as well as all types of clients (Lafleur, 200).

The aims of co-operative banks have always been to mobilise savings from middle and low income groups and to supply credit to its members (Sharma, 2003). The first credit co-operatives which can be linked to the modern day version of co-operative banks have their origin in the 1870's in Germany under the influence, ideas and practices of Hermann Schulze-Delitzsch and Friedrich Wilhelm Raiffeisen (Anon, 2005).

German land reforms and the emancipation of the Jewish population, both in terms of their rights and religion, created an impoverished peasantry in Germany during the 1880s which led to some farms being over-extended with mortgage debt. Some states allowed cities and provinces to create specialist institutions such as savings banks, land banks and lending institutions, but none of these organisations, nor Germany's universal banks, were able to offer favourable loan terms to small farmers (Guinnane, 2001:368). Interest rates in excess of 30% *per annum* were not uncommon at the time (Bell, 1988 and Besley, 1995).

Responding to these conditions, Schulze-Delitzsch founded a number of co-operative credit associations during the 1840s and 1850s (Herrick & Ingalls,

1915), followed by Raiffeisen who founded his first co-operative in 1864. Raiffeisen's co-operatives were modelled after the Schulze-Delitzsch banks but, instead of focusing mainly on small shopkeepers, urban artisans and "handworkers", were primarily rural based (Guinnane, 2001:369).

In 1889, German co-operative law was amended to allow co-operatives to switch to limited liability (Banerjee, Besely and Guinnane, 1994); however, it did require all co-operatives to have share capital. Most rural co-operatives complied by instituting shares of nominal value, whereas urban co-operatives built up shares and paid non-trivial dividends to its members (Guinnane, 2001:369). Initially, co-operatives were exempt from taxes as long as they dealt with their member's affairs only (Schillings, 1986).

During this time there were four alternatives to co-operative banks, the first of these being **large commercial banks**. Today, co-operatives and commercial banks compete for loans at a much larger scale, but during the 19th century commercial banks posed little threat to co-operatives (Guinnane, 2000). Co-operatives lived among their members and, as such, had much better information and enforcement capabilities than these larger banks. This enabled co-operatives to extend credit to clients that the commercial banks did not wish to have on their books (Lamoreaux, 1991).

The second alternative was **municipal savings banks**. These banks were located in cities, and promised a small, yet safe return on investments for the poor and working class. These banks invested predominantly in the local property market and in state papers. They offered competition for credit co-operatives in the deposits market, yet almost none in the lending market (Guinnane, 1997).

The third alternative was the **small, individually owned private banks**. These banks had unlimited liability and were dependent on the owner's own assets, and decision making (Neumann, 1965). Private banks competed for the largest and

best-quality loans that co-operatives would be willing to make. In rural areas, they provided limited competition in the lending market, but none in the deposit market as it did not form part of their business (Wixforth & Ziegler, 1994).

The fourth alternative, and the most important competitors for credit co-operatives, were the **moneylenders**. These were individuals who extended credit as part of other activities such as selling agricultural goods. According to Smith (1999), most moneylenders lived in or near the communities they served. However, they did not have the same quality of information or enforcement capabilities that co-operatives enjoyed.

Co-operatives were managed by three bodies. These were: the management committee (responsible for making the most important decisions such as accepting new members and granting loans, and represented the co-operative judicially), the supervisory committee (whose job it was to oversee the management committee,) and the collective membership (who met annually to elect the above mentioned committees and made decisions on basic policies such as interest rates). Each co-operative employed its own treasurer as well (Guinnane, 2001:369).

Rural co-operatives restricted their service to places that had a small population, or covered a small geographical area (Winkler, 1933). This enabled members to gain extensive knowledge of potential members, as well as being able to monitor those who had already received loans. Also, members could impose extra-economic sanctions on fellow members cheaply and effectively (Fagneux, 1908). This meant that members could be expelled whenever they behaved in a manner that made them undesirable as partners. Due to co-operatives only accepting members locally, once a member had been expelled from a co-operative due to not repaying a loan, such an individual was cut off from all co-operative credit and, in some cases, even found themselves unable to find work (Guinnane, 2001:371).

According to Guinnane (2001:366), the reason so few co-operatives went bankrupt in the early 1900's can be attributed to the effective information capabilities and inexpensive sanctioning that members were able to place on potential (as well as current) fellow members.

Co-operative banks were not only advantageous for people seeking loans, but also became popular among non-lending members as well. Guinnane (2001:371) attributes this to two factors; firstly that co-operatives were located in remote areas and thus joining a co-operative would give the member the ability to participate in setting deposit interest rates and monitoring the use of deposits, and secondly by helping a co-operative prosper, the demand for the member's own enterprise (for instance in the case of shopkeepers) could be increased.

With European immigration, the idea of financial self-reliance disseminated to other countries and soon Austria, Italy, France, England and other European countries all found credit co-operatives operating within their financial sectors. With little government assistance, Germany's co-operatives grew from small, informal institutions to major players in the international banking sector (Guinnane, 1997).

During the 1900s in France, villagers united into credit co-operatives in order to satisfy their financial needs on the basis of mutual help. The Minister of Agriculture then initiated the law on agricultural credit societies which eventually led to the uniting of the credit co-operative structures. This, in turn, provided funds for the development of the French agrarian (agricultural) sector. Eventually, it led to the establishment of the Crédit Agricole group of co-operative banks, which today is one of the largest co-operative banks in the world (Anon, 2005).

Credit co-operatives spread quickly in many countries and, at present, they have gained a significant position in the financial systems of both developed and developing countries, as well as the co-operative sector of the global economy.

Today, Canada, the United States of America, Ireland and Australia have the most established movements. In many of these countries, credit unions have a much larger presence than commercial banks (de Jongh, 2006a).

In Africa, credit unions are less common. In May of 1996, South Africa became the 28th African nation to become a member of the African Confederation of Savings and Credit Co-operatives (ACCOSCA). Globally, there are almost 100 million members in over 60 countries (de Jongh, 2006a).

The South African Credit Co-operative League (SACCOL) was formed in 1993 after it had evolved from the Cape Credit Union League (CCUL). In the late 1970's, various Catholic Church parishes decided to form credit unions. The CCUL was formed in 1981 to assist the parishes in co-ordinating and standardising their operations. However, at this time, credit unions were social organisations and were not operated as businesses, which led to many problems.

Credit unions did not pay market related interest on deposits, but extended loans at cheap rates. This led to members not saving their money with the credit union, but only applying for loans. Thus, the credit unions were unable to grow, due to low savings and shares. Furthermore, the availability of cheap loans caused members to resist any changes in the operations of their credit union. Inevitably, this led to stagnation in the growth prospects of credit unions (de Jongh, 2006a).

Another problem was that due to the state of emergency in South Africa during the 1980's, leadership positions in the credit unions were undesirable, with the result that the ministers of the parishes had to assume the leadership roles. When such a minister was transferred to another parish, the continuation of the credit union was based on the new minister's interest in, and knowledge of, running a credit union (de Jongh, 2006a).

In poorer communities, credit unions grew in popularity as an alternative to other savings schemes due to the cheaper loans. After just six years, the CCUL extended its activities outside the Western Cape and started calling itself the South African Credit Union League (de Jongh, 2006a).

However, credit unions remained unviable. In 1991 the World Council of Credit Unions did an assessment on the viability of the co-operative union movement in South Africa. They found that only three of the 47 co-operative unions had long-term potential. As a result, it was decided to change the orientation and to manage these unions as businesses, since this would serve its members better in the long term. This finally led to the formation of SACCOL in 1993 (de Jongh, 2006a).

Today, there are 28 SACCOs serving nearly 10 000 members in South Africa. Services rendered by these credit unions include loans, savings and insurance. Generally, their deposit rates are better than at commercial banks and all the SACCOs (as well as SACCOL) are entirely self-sustained and receive no form of grants (de Jongh, 2006b).

According to Kuljian (2005), another communal savings mechanism, "stokvels" originated during the same period. Stokvels provide a mechanism for a community member to contribute to a common pool of money with the knowledge that when it is required, or alternatively at a pre-determined interval, funds will be made available. This common pool allows the member to purchase a house, pay school fees, or even host a party. A recent study by Old Mutual found that today roughly 22% of the adult population in South Africa save through stokvels (Visser, 2004). In 2006, stokvel savings were worth R33 billion, a threefold increase from the R11 billion a decade earlier (Vollgraaff, 2007).

A different form of co-operative that originated in South Africa were the mutual building societies. They gained momentum after 1910, and their operations were related to those of co-operative banks since they were managed by the member

directors. Although national organisations by nature, their regional directors had ultimate authority regarding events in their respective regions. This all changed, however, with the implementation of the new Banks Act in 1990. The Act made provision for only one type of institution: a deposit-taking institution. Subsequently, terms such as merchant banks and building societies became extinct. Ultimately, the new Act caused building societies, amongst others, to disappear altogether from the South African market (Vosloo, 2008).

Since democratic independence and the opening of the South African economy to the rest of the world in 1994, the financial services sector has been in a constant state of flux, as these organisations have had to constantly adapt to national and global trends in order to stay competitive (Lafleur, 2002). Furthermore, factors such as new information technology, globalisation and local demographic changes, e.g. urbanisation, are giving rise to new opportunities and raising expectations in the South African financial sector.

Credit unions face a particular challenge by aiming to remain locally rooted institutions. However, they also face competition from larger commercial organisations. In Canada, the establishment of co-operatively owned banks has been seen as a solution (Lafleur, 2002). In order to regulate the savings and credit co-operatives in South Africa, as well as to increase their ability to compete in the face of national and international competition, the Department of Finance initiated the Co-operative Banks Bill in 2005, which in 2007 became an Act of Parliament.

2.3 Co-operative bank models

The history and development of savings and credit co-operatives have been discussed with a special focus on Germany and South Africa. This section introduces different co-operative bank models with special attention paid to Canadian models.

Internationally, there are a number of co-operative banking models, with many countries using different adaptations of these models. These adaptations are a result of the different financial climate in each country, as some have less credit unions and others greater poverty. For instance, in Finland, findings show that it would be better if the smaller banks merged as this would lead to lower costs for each individual bank in terms of advertisements, pooled resources, etc. (Kolari & Zardkoohi, 1990:450), yet in other countries the opposite may be true.

2.3.1 Canadian co-operative bank models

One of the countries with the strongest co-operative movements is Canada. In 2000, Canada had 703 different credit unions, operating in 3 648 locations with roughly C$120 billion in assets and serving 10 million members – one third of the Canadian population (Lafleur, 2002).

The Canadian Department of Finance aimed to increase competition in the domestic financial sector while ensuring access to services at a community level. In order to achieve this, the government introduced a new legislative framework in which federal associations would be allowed to become retail associations at a national level, enabling them to offer financial services directly to individuals outside of the credit union system. This provided credit unions additional choices along which to structure their operations and also allowed them to create new channels through which to serve current and prospective members. This enhanced structural flexibility and expanded their business investment powers, allowing them to migrate from a three-tier system to a two-tier system and to streamline their operations while taking advantage of a more national structure (Lafleur, 2002).

2.3.1.1 Proposed Canadian models

There are many different models used around the world, but all of them are variations of the three models discussed below. According to Lafleur (2002), the proposed models for Canada are the national, the federated and the individual co-operative bank models (Lafleur, 2002, 25 p.).

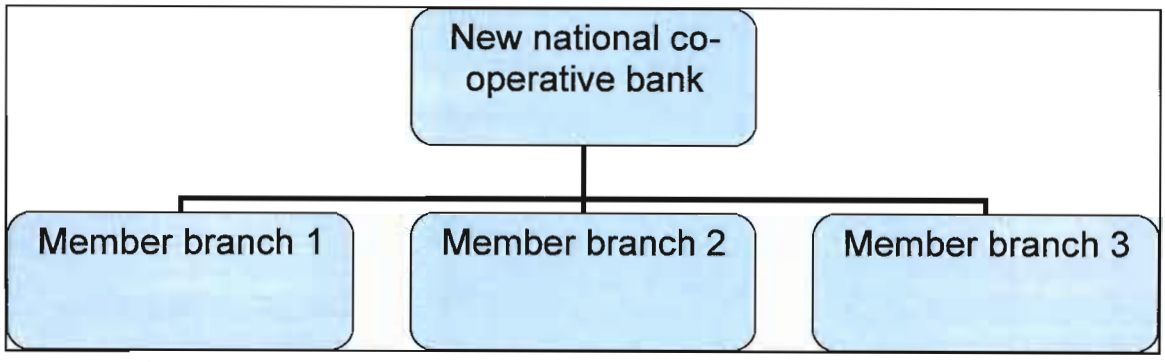
- The national co-operative bank model

In this model, a number of credit unions roll over their assets into a federated co-operative bank, thereby becoming one integrated organisation with a single identity or brand (see figure 2.1). The former credit union offices thereafter become member branches of the new co-operative bank and are allotted shares according to their contribution to the new bank's assets. Each member credit union is allowed one vote and is only allowed to name one director on the board.

The types of products and services provided by the branches are then controlled by the bank. The local credit unions would continue to exist and their boards could continue to design products in response to particular community needs, but consistent with the parameters set by the bank. Profits and losses are allocated to the credit union members by the bank proportional to each member's shares. The bank is regulated as a single institution and, as such, would produce consolidated financial statements.

The single identity or name of the bank is used across Canada. The credit unions are allowed to retain their name initially while indicating their affiliation to the bank, but the common brand is prevalent. The identity of the individual credit unions should ultimately disappear, allowing the bank to be operated at a truly national scale.

Figure 2.1: The national co-operative bank model.



Source: Lafleur, 2002.

- The federated co-operative bank model

This model is similar to the one used by Rabobank of the Netherlands and utilises a two-tier structure (see figure 2.2). Each credit union in the group would become a co-operative bank locally and these banks would jointly own a central co-operative bank. By making use of this model, co-operative banks will no longer be restricted to serving only their members, but non-members as well. However, banks would still be operated as a co-operative and thus members would be rewarded with better deposit rates or lower charges than those applied to non-members. Multiple memberships to local co-operative banks are, however, not permitted.

Members of the local co-operative banks would still have a say in the policies of their local banks and would still elect their boards. The general managers of the local banks would also attain a seat on the board. The directors of the central co-operative bank would be elected from amongst the local bank's directors.

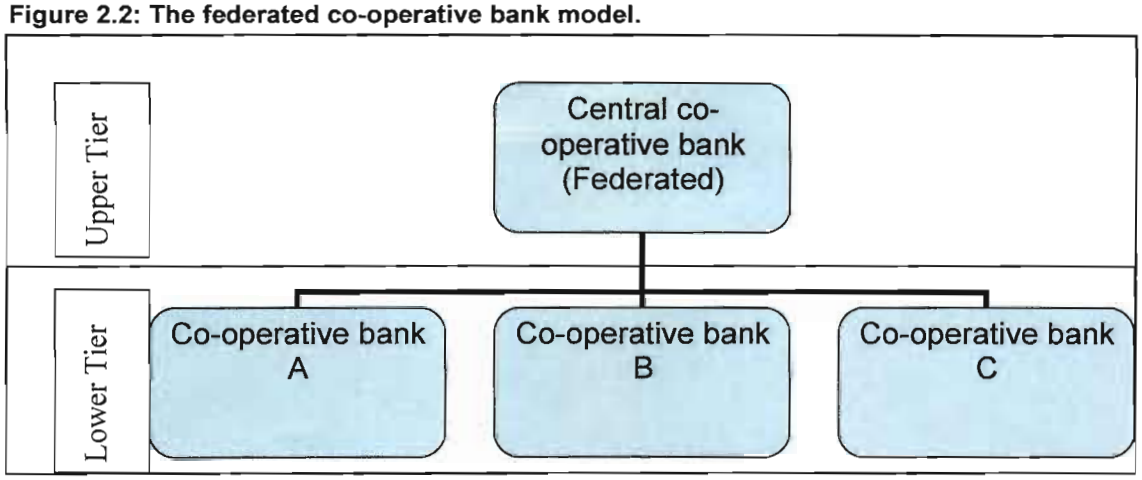
The individual members of the local co-operative banks would also be members of the central co-operative bank, exercising their voting rights according to the principle of one member, one vote. The central co-operative bank would provide group co-ordination and universal branding, as well as supporting and advising the local banks on strategy, policy, product development and marketing. It would also be responsible for the supervision of the management and administration of

the local banks. Furthermore, the central co-operative bank would own subsidiaries that benefit the group by providing a wider range of financial services to the customers, such as mutual funds, investment banking and asset management.

The group would essentially be managed as a single entity with the local co-operative banks linked through a system of cross-guarantees. As such they are jointly liable for each other's commitments. The central co-operative bank would serve as the local bank's central banker and balance the differences in liquidity between them, as well as raising capital on the capital market where necessary.

Each credit union would have to apply individually to convert to a co-operative bank. Ultimately, the local co-operative bank would remain independent and retain its own identity, but would have to respect the central bank's policies.

Figure 2.2: The federated co-operative bank model.



Source: Lafleur, 2002.

- The individual co-operative bank model

In this model, similar to the one proposed for South Africa, each credit union applies to become a co-operative bank and would retain its individual identity, brands and products. The shares of the members of the credit union would be transferred to the co-operative bank. The member would also be entitled to investment returns proportionate to shares owned in the bank. Members would

be able to influence policies of the co-operative bank and elect the directors according to the principle of one member, one vote. The co-operative bank would also be allowed to service non-members at a rate deemed acceptable.

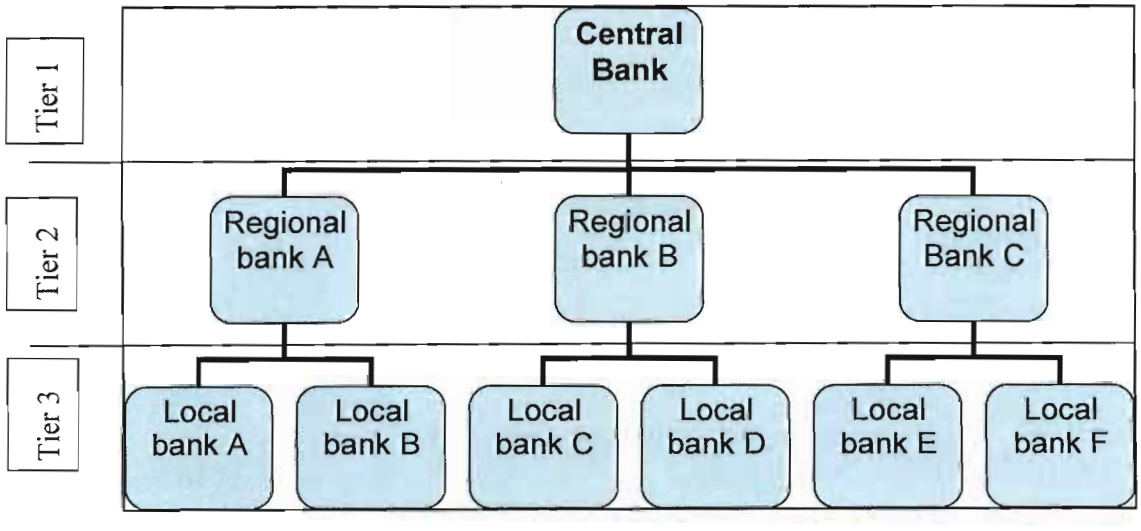
2.3.2 Other co-operative bank models

In the previous sections, possible models for the Canadian co-operative movements were discussed. This section presents models of some of the more successful co-operative banks.

2.3.2.1 Groupe Crédit Agricole

This organisation is structured according to three tiers (see figure 2.3). In this model, the 2 500 local banks are grouped into 48 regional banks, which in turn make up 90% of the capital of the central bank, Crédit Agricole S.A. or CNCA. The federation Nationale du Crédit Agricole is the representative body of the group, offering support and services to the regional banks, such as training and human resource management.

Figure 2.3: A three tier approach



Source: Author, 2008.

The local banks elect directors, with the regional banks being fully independent companies. The regional banks are allowed to obtain financing in capital markets by issuing non-voting shares. All products and services are standardised at group level, ensuring that uniformity of image and policy is maintained from one region to another.

The CNCA supervises the regional bank's compliance with laws and regulations, thus supporting the organisation's cohesion. It also manages the treasury of Crédit Agricole which lends and raises funds in the international market, and provides many of the international services offered by the group. The CNCA is responsible for international growth, its subsidiaries and for designing products for the regional banks.

Through this system the Crédit Agricole group has an active presence in 60 countries, either through its branch offices, subsidiaries or partnership agreements with other major banks.

This model is sound, as is evident from the successes achieved in local and international markets. However, it would not be fitting for South Africa since credit unions are not as prominent here as in countries such as Canada and France.

2.3.2.2 Banque Coop (Switzerland)

Banque Coop does not have a traditional co-operative structure and is a public company listed on the stock exchange. Groupe Coope Suisse (a group of co-operatives) owns 54% of the shares, Swiss trade unions own another 11% and the rest are owned by the general public, institutional investors and small to medium enterprises (SMEs).

Until its acquisition in 1999, the bank's shares were distributed in such a way as to ensure that the majority of directors represented the co-operative

shareholders. The bank offered products and services to both members and the general public, but offered better rates to members of the co-operative.

This model represents a different perspective on the governance and ownership of co-operative institutions as it does not abide by the one member, one vote principle, but still ensure a controlling mandate from the co-operatives.

This model can easily be applied to co-operative banks in South Africa (which are just starting off) as it enables the bank to attain capital while still maintaining the principles and mandate of the co-operative bank. The JSE has also made it easier for start-up co-operatives to list their companies on the stock exchange through AltX, which is a market for small to medium organisations that only require R2 million in initial share capital.

2.3.2.3 OKO Osuuspankkien Keskuspankki (Finland)

OKO Bank follows a hybrid model by issuing two types of shares. One type allows it to raise capital on the stock exchange, while the other ensures co-operative control. In this model the central bank is a commercial bank.

OKO is a commercial bank which also acts as the central bank for the OKO Bank Group. OKO Group Central Co-operative and its members do not own the *majority of* the shares, but have the majority of the votes. This is done by issuing two types of shares: series A and series K.

Series A shares are traded on the Helsinki Exchange and can be bought and sold by the general public, granting holders one vote per share at the general meeting. Series K shares, however, can only be owned by a Finnish co-operative bank or the central institution. A series K share allows its holder five votes per share.

The majority of the Supervisory Board members are elected from among the Supervisory Board of OKO Bank Group Central Co-operative. This enables them to appoint both the Chairman of the Executive Board and the President.

Similar to the model described in section 2.3.2.2, this model could be suitable for co-operative banks in South Africa who are just starting off, or require funds.

2.3.2.4 The Co-operative Bank Group (UK)

In this model, the co-operative bank in entirely owned by the co-operative group (in this case Co-operative Wholesale Society (CWS)), and its board of directors is entirely made up of CWS employees. The bank has approximately 1 700 preference shares which are fixed interest, non-cumulative and non-redeemable. Also 100% of the dividends are returned to CWS. This model applies a different method for expressing co-operative nature through its co-operative structure at the parent level, as well as applying co-operative principles in the way it conducts business.

The bank has a number of subsidiaries and sister organisations which provide a broad array of services in the United Kingdom, including insurance, investment, leasing and financial advisors.

The co-operative makes use of a "partnership approach" whereby it seeks to deliver value to all partners, customers, staff, shareholders, suppliers, local communities and future generations. The bank seeks to serve the broader community by meeting its three principle objectives which are: ecological sustainability, social responsibility and value delivery.

This model is likely to be the most probable choice for South African co-operatives that seek to better their local communities and ensure a sound future for coming generations. This model is most likely to be used by credit unions that are environmentally conscious and want this philosophy to be part of the company image.

This section discussed the different co-operative global banking models used to indicate the possible banking structures available to the South African credit unions. Co-operative banks can either function individually (as is the current practice in South Africa), or operate at a truly national scale by pooling their resources and establishing a single managerial body.

2.4 Co-operative Banks Act of South Africa

In the previous section, different types of co-operative banks were discussed by looking at various models used at several large co-operative banks. The proposed Canadian co-operative bank models were also discussed. This section presents the Co-operative Banks Act of South Africa (Act no, 40 of 2007).

The Act makes a distinction between the four types of co-operative banks in South Africa. It distinguishes between a primary savings co-operative bank, a primary savings and loans co-operative bank, a secondary co-operative bank, and a tertiary co-operative bank. Each one of these must register as such in terms of the Act. The differences in the services provided by each type are discussed in section 2.4.2.3.

2.4.1 Purpose and application

The purpose of the Act is to increase access to banking products for all South Africans in order to promote and increase the country's social and economic welfare. Furthermore, it aims to address the problem of the sustainability of co-operative banks and to develop appropriate regulatory frameworks and institutions to protect both the bank and its members.

In particular, the Act aims to achieve the above through:

- requiring deposit-taking financial service co-operatives to register as co-operative banks,

- promoting the safety of both the bank and the members of the bank by establishing supervisory positions to ensure appropriate and effective regulation of the co-operative banks,
- launching a development agency for co-operative banks to cultivate and enhance the sustainability of co-operative banks.

The Act applies to all co-operative banks registered in terms of the Co-operative Banks Act (No. 40 of 2007), as well as to any credit co-operative registered in terms of the Co-operatives Act (No. 14 of 2005) which either has more than 200 members or holds deposits from members in excess of R1 million. A co-operative must apply for registration (as a co-operative bank) within two months of meeting one of the above two criteria or else it may be wound-up by the Supervisor.

2.4.2 Registration, services and functions

2.4.2.1 Registration

A co-operative must apply to the Supervisor for registration as one of the types of co-operative banks. A number of documents are to be submitted along with such an application. These documents must also be signed by the chairperson of the applicant bank. If needed, the Supervisor may require the bank to submit additional information and report to an auditor appointed by the Supervisor.

The following initial information must be submitted by the co-operative:

- two certified copies of the constitution of the proposed co-operative bank;
- a certified copy of the registration certificate of the applicant co-operative bank under the Co-operatives Act (Act no. 14 of 2005);
- the full and abbreviated name of the applicant co-operative, as well as the literal translation thereof;
- a lending and savings policy;

- a business plan;
- certified copies of the registers;
- the physical and postal address of the applicant co-operative bank, along with a statement supporting the suitability of the premises; and also
- payment of the prescribed application fee.

Once the application is finalised and approved, the co-operative must demonstrate to the Supervisor that the business to be conducted is that of the type that the co-operative bank has applied for. It must also demonstrate that it has sufficient human, financial and operational capacity to function proficiently. Furthermore, it must exhibit that the board of directors are sufficiently qualified for and capable of managing the bank. The composition of the board must be suitable to the scale and nature of the business in which it wishes to engage.

Once the above requirements have been met, the co-operative may be registered. Upon registration, the Supervisor must issue a certificate of registration to the bank and also publish a registration notice in the Government Gazette.

A Supervisor may de-register or suspend a co-operative bank if the Supervisor is confident that the co-operative has terminated operations, obtained registration through fraudulent means, no longer meets the requirements for registration or has failed to comply with the conditions imposed or directives issued in terms of the Act. The bank itself may also apply for de-registration, but may not have any debt other than deposits at such a time.

2.4.2.2 Fit and proper person

A director, managing director or any executive officer of a co-operative bank must adhere to the "fit and proper person" requirements of the Act in order to be able to be appointed to their position.

A "fit and proper person", according to the Act, is defined as someone who has the competence, diligence and soundness of judgement to fulfil their responsibilities effectively, as well as having previous experience in financial matters.

A "fit and proper person", furthermore, may not have been convicted of any offence involving dishonesty in the previous decade. These offences include fraud, theft, corruption, forgery or perjury, and such persons may also not have been sentenced to imprisonment without the option of a fine since the new constitution took effect in 1993. Finally, such a person may not have been a director of a bank where his/her actions have resulted in that bank being unable to pay its debts, nor have been involved in an action that has led to a financial loss to members of the public.

If a Supervisor is of the opinion that a director, managing director or executive officer is not able to perform assigned duties effectively, the Supervisor may object to the appointment and direct the bank to remove that person from the position within a specified time frame.

2.4.2.3 Services provided by a co-operative bank

- Primary savings co-operative bank - may only solicit and accept deposits from members, as well as open savings accounts for its members from which the members may withdraw and transfer money. It may also open a savings or cheque account with any banking institution in the name of the co-operative bank. Furthermore, it may invest, provide custody services and conduct any additional services for its members as prescribed by the Minister of Finance.
- Primary savings and loans co-operative bank - may provide all the services of a primary savings co-operative and, in addition, grant secured

and unsecured loans to its members up to a maximum average value prescribed by the Minister.

- Secondary co-operative banks - may provide all the services of a primary savings and loans co-operative bank, and also trade financial instruments for its members or open a foreign currency account in the name of a member, when instructed to do so by such member.
- Tertiary co-operative bank - may provide all the services of a secondary co-operative bank, together with any additional services prescribed by the Minister of Finance.

It is important to note that the Minister or Supervisor may prescribe the manner in which any of the banking services provided by the co-operative should be conducted. These include fees, fines and charges imposed on the members. The Supervisor must, however, be careful not to impose fees that will deter new members from joining co-operative banks and cause existing members to withdraw. Therefore, it is also important for the Minister to appoint competent and diligent supervisors who possess the knowledge to help manage these banks effectively.

2.4.3 Prudential requirements and large exposures

2.4.3.1 Prudential requirements of a co-operative bank

Co-operative banks must meet and maintain such minimum capital requirements, asset qualities and surplus reserves as prescribed by the Minister. These regulations may apply to co-operative banks in general, or may differentiate between different kinds of co-operative banks.

If a bank is unable to comply with, or maintain, the above mentioned requirements for capital, assets and reserves, it must immediately report its inability and the reasons for such to the Supervisor. The Supervisor may then

take action by either suspending or de-registering the co-operative bank. In some cases, the Supervisor may condone the inability and set certain further conditions for the bank to meet.

2.4.3.2 Large exposures of a co-operative bank

Without the approval of the Supervisor, a co-operative bank may not make investments or award loans to any members when such action will cause the investments or loans to exceed 10% of the amount of its total assets as prescribed by the Minister. It may also not make investments or award loans to any one person which, when doing so together with previous investments or loans, will exceed such percentage of its total investments or loans as may be prescribed by the Minister. These include loans and investment to separate persons who are indirectly controlled by the same person, or members who are so interconnected that, should one experience financial difficulties, it would negatively affect the rest of the group.

2.4.4 Deposit insurance and fund schemes

A secondary co-operative bank may, but a tertiary co-operative bank must, establish a voluntary insurance scheme in order to insure deposits held by the members at the bank.

A primary co-operative bank may either pay the insurance contributions to the fund, or have them paid to an approved insurance scheme of a secondary co-operative bank. The same applies to a secondary and tertiary co-operative bank, with the exception that the secondary co-operative bank may either pay the fund or an approved scheme of a tertiary co-operative bank, while a tertiary co-operative bank must make the contributions to its insurance fund.

The insurance agency must establish a fund known as the co-operative bank deposit insurance fund. The fund will consist of the contributions made by the prospective co-operative bank, interest earned by the fund, funds appropriated by parliament and any other source of money accrued into the fund. The agency must manage the fund and report to the Minister on an annual basis.

Money in the fund is to be used to compensate members of the co-operative bank, who chose the insurance option, for deposits lost due to the inability of the bank to repay them up to a certain percentage. It must also be used to cover expenses incurred for the control and management of the fund:

2.4.5 Representative bodies

An agency must submit an application together with additional information if it wants to become a representative body of a co-operative bank. The information to be submitted consists of a list of those co-operative banks it represents together with documented proof thereof, a certified copy of its registration as a co-operative under the Co-operatives Act, a certified copy of its constitution, a list of its members and directors or any additional information as required by the Supervisor. The application must be accompanied by the application fee.

In order to qualify for registration, a representative body must demonstrate to the agency that it represents more than one co-operative bank dealing with the state, stakeholders and the private sector. It must also demonstrate that it possesses sufficient experience, knowledge, qualifications, human capital and financial capacity to function effectively.

When a representative body no longer complies with the registration requirements, the agency may suspend or cancel registration. Prior to cancellation, a written notice must be given to the body stating the intention to cancel registration and the reasons for this decision. The body then has between

21 and 30 days to submit grounds for not continuing with the cancellation. If the cancellation is considered to not be in the best interest of the public, the body may be suspended and alternative arrangements must be made for the members of the body during such suspension.

The body may, by written notice to the agency, relinquish its registration. The body's registration also lapses if the body ceases to exist. In either case, the agency must publish a notice of the cancellation or lapsing of registration in the Government Gazette..

2.4.6 Support organisations

Application of a support organisation is broadly the same as that of a representative body. It must apply to the agency and submit similar documents. The only difference is the requirement to supply a copy and proof of its support agreements instead of a list of the banks that an agency represents. In addition, the organisation must submit a business plan.

In order to qualify for accreditation, an organisation must demonstrate that it has more than one support agreement with a co-operative bank. Furthermore, these agreements should provide for development and support; ongoing education and training of members and personnel; assistance in managing and maintaining risk systems and improvement of governance. It must also demonstrate that it possesses the requirements to function efficiently and effectively. If the organisation has been approved, the certificate of accreditation must be published in the Government Gazette.

If a support organisation wants to remain accredited, performance reports must be submitted to each co-operative bank it represents at least twice a year. Annually, within three months after the financial year end, the support

organisation must satisfy the agency that it continues to comply with the requirements for accreditation and also submit a performance report to them.

The grounds for the suspension or cancellation of the accreditation of a support organisation are the same as for a representative body.

2.4.7 Administration of the Act

2.4.7.1 Supervisors of co-operative banks

Administration of the Act and the handling of the co-operative bank are done by a Supervisor. The Supervisor is appointed by the South African Reserve Bank (SARB) and must be approved by the Minister of Finance. This appointee is an employee of the SARB and has the power to perform functions in respect of primary co-operative banks with deposits in excess of R20 million, as well as secondary and tertiary co-operative banks.

In the case of primary co-operatives with deposits of R20 million or less, a separate Supervisor must be appointed by the agency. If the bank's deposits exceed R20 million, the SARB must be notified within one month and be supplied with the necessary information. Authority over the bank will then be transferred from the agency to the SARB. Both these supervisors are not allowed to have more than four employees (approved by the Minister) to help them perform their duties.

According to the Act, supervisors appointed by the SARB and agency should collaborate and co-ordinate their actions with one another. Supervisors should work together in educating, training and developing staff. Furthermore, they should engage in staff exchanges, publications, research and providing technical assistance to each other. All of the above should be done in order to ensure the effective application of the Act. Plans of co-operation and co-ordination must be

prepared by the supervisors and submitted to the Minister for approval at least once every twelve months.

2.4.7.2 Powers and functions of the Supervisor

The function of the Supervisor is to take any steps deemed necessary to protect the public in their dealings with co-operative banks, as well as to ensure the effective implementation of the Act. This includes ensuring timely access to information or documents, as requested by the Supervisor in terms of the Act, to any person charged with the performance of a function under any law. These include auditors, support organisations and representative bodies. They may also issue guidelines to any of the above mentioned organisations on the application and interpretation of the Act, and may provide them with information on local and international market and industry developments.

Supervisors may issue directives to co-operative banks to implement specific procedures and practices, take specific measures or to discontinue specific measures, practices or procedures if these are deemed to be in the interest of the public or members of the co-operative bank. The directive may take immediate effect or only come into effect on the date determined by the SARB. These directives may be revoked or cancelled by the Supervisor, and in both cases should be published in the Government Gazette and any other media the Supervisor deems suitable.

The supervisors also have the power to stipulate rules that may assist in the effective application of the Act. These rules may apply to any single co-operative bank, type of co-operative bank or co-operative banks in general. The Supervisor must have written consent from the Minister of Finance which, together with the new rule, should be published in the Government Gazette. However, in an emergency situation the Supervisor may impose a rule without the approval from the Minister.

Supervisors may inspect the business of a co-operative bank at any time if they believe that business is not being conducted according to the Act. According to the Inspection of Financial Institutions Act, 1998 (No. 80 of 1998), the Supervisor may search for and halt any activities without the need for a warrant, so as to establish regulatory compliance.

In addition to taking any other steps in terms of the Act, the Supervisor may impose an administrative penalty on a co-operative bank if it does not comply with a provision of the Act. This penalty must be paid to the Supervisor before the specified date, or the Supervisor may recover the amount from the bank by way of civil action or in a court. The penalty will take into account every day the bank is deemed to have failed to comply with the Act.

2.4.8 Co-operative banks development agency

2.4.8.1 Function of the agency

It is the function of the agency to appoint a Supervisor for co-operative banks with deposits of R20 million or less and to assist with managing the deposit insurance fund. The agency should also formulate and execute initiatives that support, promote and develop co-operative banking. Furthermore, it should assist in liquidity management and in providing financial support through grants and loans to co-operative banks.

The agency's responsibilities also extend further than purely assisting co-operative banks. They are instrumental in establishing, registering, promoting and regulating the representative bodies, together with the accreditation and regulation of the support organisations.

2.4.8.2 Governance of the agency

The agency will be under the executive authority of the Minister of Finance, The Minister must ensure that the agency: complies with the Act, is managed properly and responsibly, and meets its contractual obligations. The Minister must also monitor and review the agency's performance annually.

The Minister must appoint between six and ten members to the board of the agency. These appointments are made by taking into consideration factors such as the demographics of the South African population and the need for representation, possible nominations received from members of the public and the availability of such persons. Furthermore, for every member of the board the Minister may appoint an alternate member who will take part in proceedings at any agency board meetings that the original member is absent from.

Members of the agency may not serve more than two consecutive terms of office and no term may exceed three years, except for the chairperson and deputy chairperson where the terms span two years each. In the case of the dismissal or termination of office of a member, the Minister must appoint a new member within three months of this action taking place.

A person may not be appointed as a member if he/she is not a South African citizen, no longer resides in South Africa, is an un-rehabilitated insolvent or has been convicted of fraud, theft, forgery or perjury in the previous ten years. A member may also be disqualified if he/she becomes guilty of any of the above-mentioned factors, resigns by written notice, is declared to be of unsound mind by the High Court or is absent from more than two consecutive agency board meetings without consent.

2.4.8.3 Duties of the board members

The board is the accounting authority of the agency, in terms of the Public Finance Management Act (No. 1 of 1999) and, in addition to its responsibilities under the Act, must provide coherent, accountable and effective corporate governance, comply with applicable legislation and agreements and communicate openly with the Minister or Ministerial representatives.

The managing director is responsible for the day-to-day management of the agency and is accountable to its board. However, delegation is permitted as it may enhance administrative and operational efficiency, as well as provide for adequate checks and balances. The managing director should however delegate carefully as, upon acceptance of his/her position, he/she will be obligated to enter into a performance agreement with the agency to ensure utmost commitment.

Funds for the operation of the agency will be obtained from the collection of fees, legal procurements and those funds appropriated by Parliament for that purpose. Reports on the use of such funds must be submitted to the Minister annually.

2.4.9 Appeals

A co-operative bank, support organisation and representative body may appeal to the appeal board against any decision made by the Supervisor or agency regarding registration and accreditation, or the cancellation thereof. These appeals must be lodged within thirty days of the concerned party becoming aware thereof.

The appeal board will be appointed by the Minister and is made up of three members. The board must consist of an experienced advocate or attorney who will serve as chairperson, a registered auditor and a person of experience and

knowledge in the field of co-operative banks. This board will be supported and paid by the National Treasury, which will also carry their other expenditures.

The board has the power to confirm, change or suspend decisions made by the Supervisor and the outcome of all appeals will be decided by majority decision. The decisions made by the Supervisor cannot not be suspended until the outcome of the appeal. If the board does overturn a decision of the Supervisor, the board will repay the appeal fees paid by the co-operative bank, in full or partially.

2.4.10 Offences and penalties

In terms of the Co-operative Banks Act (No. 40 of 2007) it is an offence for any company or organisation to in any way refer to itself as a co-operative bank, or conduct any services that co-operative banks provide if it is not registered as such. Furthermore, no co-operative bank may participate in any action other than that of the type of co-operative bank for which it is registered.

Any employee, director or manager who fails to comply with the directives in terms of the Act, or submits information that, to the knowledge of that person, is misleading or untrue will be liable to penalties. These penalties range from a fine to imprisonment for a period not exceeding ten years.

2.4.11 Comments on the Act

Though most of the regulations and intentions of the Act are to be commended, it is the opinion of the writer that the state will play too large a role in co-operative banking in South Africa. The enforcement of the Act should caution not to replace the historical, community owned and managed banks with state appointed boards and personnel who have too great an influence. This could cause private owners and members of the banks to withdraw since they will be

able to get the same service from commercial banks, and this may ultimately lead to the stagnation of the co-operative movement in South Africa. Thus, overregulation can be a hindrance to co-operative banks serving the community and also in achieving the goals as stated in the Act.

Supervisors wield a great amount of power over the co-operative banks. Thorough research needs to be conducted regarding the character and competence of a candidate Supervisor before they are appointed. If the Supervisor is not well qualified, or has insufficient knowledge of co-operative banks and financial markets, rules and directives may be adopted which may have an adverse impact on the affected banks. Furthermore, penalties for co-operative banks should, in themselves, be comprehensively audited to ensure that fraud does not take place.

In order to assist co-operative banks to achieve growth in the initial stages, banks need to be exempt from tax, either until their surpluses reach a certain percentage or for a set period of time. This initial boost in income may assist banks to attract skilled personnel with better salaries or to invest in opportunities or infrastructure that could reap greater benefits in future. This, in turn, could also allow for the establishment of more co-operative banks and will increase the availability of credit to the lower and middle-income classes. This could ultimately lead to lower unemployment and more wealth in this sector.

The Basel II accord of 2003 is only significant to banks that wish to operate in the international arena (Vosloo, 2008). As most South African co-operative banks are not in such a position, guidelines need to be determined in terms of the ratio of total loans and advances to total deposits for co-operatives not managed according to Basel II. This is in line with practices in Germany and the USA where non-internationally active banks are not required to be Basel II compliant (Vosloo & Styger, 2008). According to the Bank and other Financial Institutions Decree (BOFID, 1996) of Nigeria, this ratio should be between 30% and 70%.

When a co-operative disperses less than 30% of its total deposits it is under-trading and not supporting the economy. On the other hand, when a bank is dispersing in excess of 70% of its deposits, it is over-trading and may not be able to meet its obligations. However, these are factors that would be taken into consideration in the rating of these banks.

It is important to realise that the different co-operative interbank structures (such as a two-tier or three-tier structure) will have an effect on the fragility of the local co-operative market. According to Upper and Worms (2003:828), and Frank, González-Hermosillo and Hesse (2008:3), a liquidity shock in one bank could cause other banks (not directly linked to the original shock) to fail. An example of this is the current liquidity crisis the world economy is facing at present (2008). Shostak (2007:1) and Akhtar (2008:1) both attribute this phenomenon to irresponsible lending by mortgage brokers.

According to Davidson (2008:1), the U.S.. sub-prime mortgage problem created an insolvency problem for major underwriters as the financial instruments they had created as mortgage backed assets lost liquidity and declined in market value. This problem proved to be infectious as it started to spill over to other markets, such as the auction-rate securities market and the credit default swap markets causing failure. The auction rate markets, which had historically rarely defaulted, experienced over 1000 failures in the early months of 2008.

According to Akhtar (2008:1), the cause is attributed to the inability of the counterparty to settle combined with their ultimate default which adversely affected credit markets. The situation deteriorated when the crises eventually hurt global financial institutions which collapsed due to the severe stresses and a lack of confidence. This was marked by the falling share prices of financial institutions, the rising cost of funding and credit default protection and lower asset prices.

While a supervisory committee is able to reduce risk *ex ante*, it cannot stop the process once it is under way (Upper & Worms, 2003:833). Therefore, two further risk measures can be considered to address this problem without hindering co-operative goals as set out in the Act. The first is to create a type of liquidity bank, which — like the South African Reserve Bank does for larger commercial financial institutions — provides temporary liquidity to illiquid, but solvent, banks (Upper & Worms, 2003:833).

The second measure is the deposit insurance fund mentioned previously. In the case of a large shock, this measure may decrease the probability of a run on the bank since depositors are assured of retaining a certain percentage of their funds.

This section discussed the Co-operative Banks Act of South Africa (No.40 of 2007). The different co-operative banks for which the Act made provision, along with the specific services they may provide, were presented. The bodies in charge of managing these co-operatives were also introduced, along with some comments on the Act and its implication.

2.5 Conclusion

This chapter discussed the history of co-operative banks, followed by an outline of various co-operative models and finally a short discussion of the Co-operative Banks Act (No.40 of 2007). These were introduced to facilitate the understanding of the legislative framework co-operative banks will have to operate in, as well as to provide an understanding of the development and business of South African co-operative banks. The next chapter details the credit rating methodologies of both Fitch Ratings and Moody's.

CHAPTER 3

CREDIT RATINGS

3.1 Introduction

The previous chapter discussed the history of the co-operative movement, both locally and abroad. A discussion of co-operative bank models followed and concluded with a discussion on the South African Co-operatives Banks Act (No. 40 of 2007).

This chapter discusses credit ratings and their mechanisms. This will be done by examining the ratings methodology of both Fitch Ratings (1 500 employees in 90 countries) and Moody's (2 400 institutions and more than 1 000 are analysts, worldwide). The methodology discussed draws on Fitch Ratings' Bank Rating Methodology (2004) and Moody's Bank Financial Strength Ratings: Global Methodology (2007), unless otherwise indicated.

While both companies are world leaders in the international credit ratings market, they use very different techniques. Moody's uses fixed percentages and ratios to derive their ratings, while Fitch Ratings (2007:1) believes that a strictly followed standardised method of rating should not be used, as each company and country is different and so also are the challenges it faces or strengths it holds. Fitch Ratings is of the opinion that ratings should be flexible, yet not to such an extent as to lack coherency in terms of methodology. A rating method should understand the business of the bank in question, its operational environment, managements' objectives and the most likely developments in its business, in order to understand the risks inherent in the business of the bank along with its particular circumstances.

According to Elkhoury (2008:2), regulatory changes under Basel II have resulted in a new role for credit ratings as they can be used to determine minimum capital requirements for different categories of borrower.

3.1.1 Credit rating comparison

As can be seen in Table 3.1, Standard & Poor's and Fitch Ratings use the same rating scales, but Moody's uses an alternative scale. The ratings can vary from an AAA to a D with regard to the first two institutions. The AAA rating is an indication that the company is of excellent quality, reliable and stable, whereas the D rating is an indication that the institution has defaulted on previous obligations and will most likely do so again. Moody's rating notations vary from an Aaa rating to a C, and indicate the same as the aforementioned rating notations.

Table 3.1: Rating notations

Consolidated Rating Number	Moodys	S&P	FitchIBCA
1 (Highest Credit Rating)	Aaa	AAA	AAA
2	Aa1	AA+	AA+
3	Aa2	AA	AA
4	Aa3	AA-	AA-
5	A1	A+	A+
6	A2	A	A
7	A3	A-	A-
8	Baa1	BBB+	BBB+
9	Baa2	BBB	BBB
10	Baa3	BBB-	BBB-
11	Ba1	BB+	BB+
12	Ba2	BB	BB
13	Ba3	BB-	BB-
14	B1	B+	B+
15	B2	B	B
16	B3	B-	B-
17	Caa1	CCC+	CCC
18	Caa2	CCC	CC
19	Caa3	CCC-	C
20	Ca	CC	DDD
20	C	SD	DD
20 (Lowest Credit Rating)		D	D

Source: van Vuuren, 2007b.

3.1.2 Fitch Ratings' international long-term ratings

Table 3.2: Long-term ratings

Investment grade	
AAA/Aaa	Denotes the lowest expectation of credit risk, and is assigned in case of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.
AA/Aa2	Very high credit quality and very low expectations of credit risk. Very strong capacity for payment of financial commitments which is not significantly vulnerable to foreseeable events.
A/A2	High credit quality and low expectations of credit risk. Strong capacity of payment of financial commitments, but may be more vulnerable to changes in economic conditions than higher ratings.
BBB/Baa2	Good credit quality and current expectations of credit risk are low. Adequate capacity for payment of financial commitments, but adverse changes in economic conditions are more likely to impair this capacity.
Speculative grade	
BB/Ba2	Rating indicates the possibility of credit risk developing, especially as a result of adverse economic change. However, financial or business alternatives may be available to allow financial commitments to be met.
B/B2	Indicates presence of significant credit risk, but with a limited margin of safety. Financial commitments are currently being met, but is dependant on a sustained, favourable business and economic environment.
CCC/Caa1	Default is a real possibility. The capacity for meeting financial commitments is solely reliant upon sustained, favourable business or economic conditions.

CC/Caa2	Some kind of default appears to be probable.
C/Caa3	Default is imminent.
D	Indicates that entity of sovereign has defaulted on all its financial obligations.

Source: Fitch Ratings, 2008a.

3.1.3 Fitch Ratings' international short-term ratings

Table 3.3: Short-term ratings

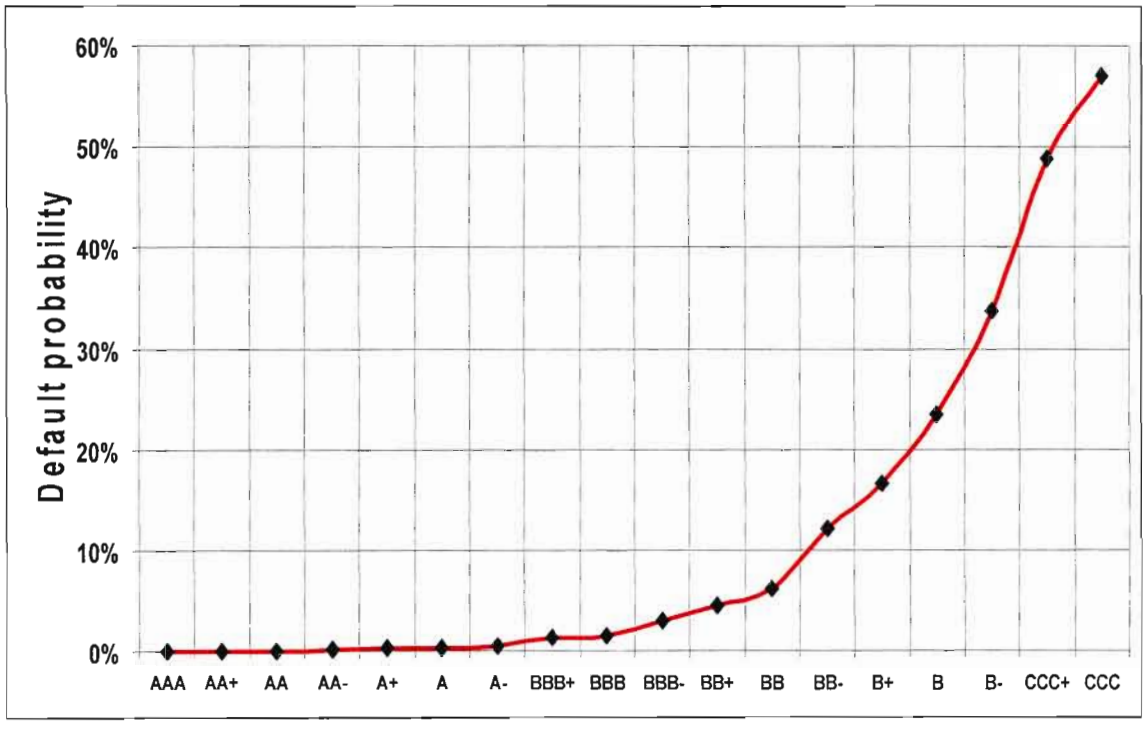
F1	Highest credit quality. Strongest capacity for timely payment of financial commitments.
F2	Good credit quality. Satisfactory capacity for timely payment of financial commitments, but safety of payments margin is less than F1 rating.
F3	Fair credit quality. Adequate capacity for timely payment of financial obligations, but near term adverse changes could result in a reduction to non-investment grade.
B	Speculative. Minimal capacity for timely payment of financial commitments with vulnerability to near term adverse changes in financial and economic conditions.
C	High risk of default. Capacity for meeting financial commitments is solely reliant upon a sustained, favourable business and economic environment.
D	Entity or sovereign has defaulted on all of its financial obligations.

Source: Fitch Ratings, 2008b.

3.2 Fitch Ratings' credit rating methodology

Credit ratings provide an opinion on a counterparty's ability to meet its financial obligations. In other words, the likelihood that the counterparty will be able to get a return on an investment in accordance with the terms with which it was originally invested (Fitch Ratings, 2004:1). According to van Vuuren (2007a), credit ratings are an ordinal measure of risk and do not necessarily indicate the probability of default. However, entities with lower ratings do have a higher probability of default, as can be seen in figure 3.1. (It should be noted that pd's change continuously. Figure 3.1 is therefore a "best fit" mapping at the end of 2007, and not fixed in stone).

Figure 3.1: Annual default probability



Source: van Vuuren, 2007b.

3.2.1 Introduction

The credit rating of a bank cannot be determined by building a model of the "perfect" bank in terms of set ratios and empirical criteria, and then comparing a subject bank with this model. This may be a practical approach when the bank operates in a closely monitored and uniform banking system; but extended across borders, it may become irrelevant and incomparable, as different countries have different strengths and weaknesses.

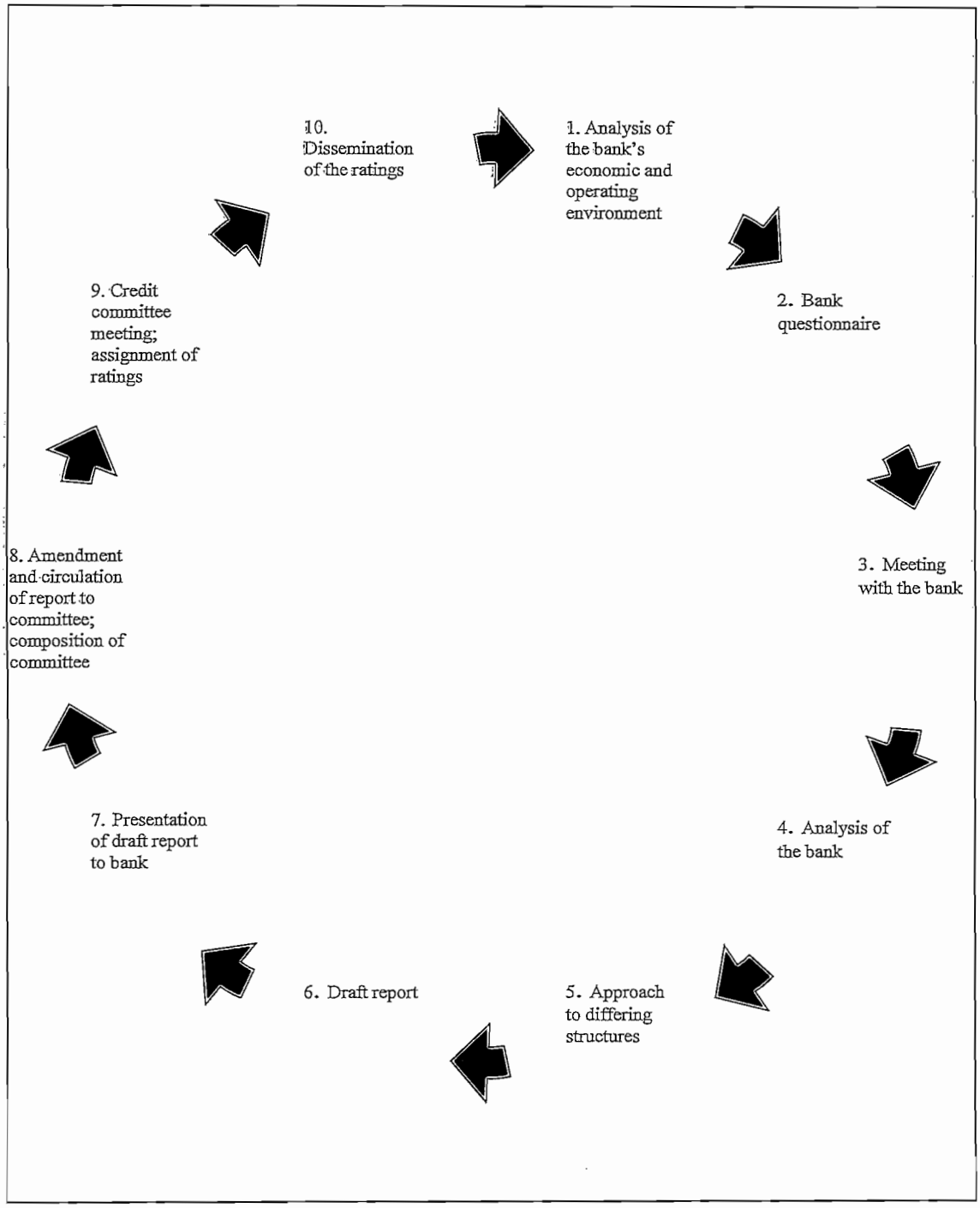
When rating banks on an international basis, the approach has to have a certain amount of flexibility (Fitch Ratings, 2004:1). In order to maintain this flexibility, Fitch Ratings tries to understand the concerned bank's business, the risks inherent to this business, management's objectives, its operational environment and possible future changes to this environment. This enables Fitch Ratings to arrive at a judgement-based rating that is not based on criteria that may be irrelevant, but rather on the circumstances of that bank.

However, Fitch Ratings does have a relatively uniform set of informational requirements which they expect from banks. This is due to the international banking sector becoming more sophisticated, forcing Fitch Ratings to expand their analysis to include new information, together with the fact that some attributes – such as asset quality – are universally applicable (Fitch Ratings, 2004:1).

3.2.2 The rating process

Rating relationships should be long-term and based on the understanding that it is in both parties' interests that an independent, professional result is achieved. Ratings should be revised at least semi-annually. Once a request for a new rating of a bank is accepted, a fee letter is issued and the following procedures (see figure 3.2) are followed:

Figure 3.2: The rating process.



Source: Fitch Ratings, 2004:2.

3.2.2.1 Analysis of the bank's economic and operating environments

The economy in which a bank operates plays a significant role in its financial performance (Fitch Ratings, 2004:2), therefore it is essential to take into account any economic risk that may affect its creditworthiness. Thus, the basic economic indicators of a country are taken into account. These include the size of the economy, growth in gross domestic product (GDP) and consumer lending, inflation, savings and investment, trends in unemployment, exchange rates, bond yield and property prices (regional and national). Other factors include structural changes in the economy, economic problems faced in the past or problems it may face in future. A country's political stability is also taken into account as this has bearing on the confidence of investors.

Fitch Ratings then analyses the relevant national banking market and the existing or potential competition, as well as the degree of concentration within that market. It examines the role and function of the banking supervisors as well as the degree of state control or decontrol of the country's banking system. The requirements for public reporting and the accounting practices underlying these publicly reported figures are also examined.

Fitch Ratings does not audit the financial statements of the bank, but does examine its accounting policies and also whether these accurately reflect the bank's financial performance and balance sheet integrity. The more aggressive the accounting practice, the better.

Finally, Fitch Ratings establishes a "peer group" of banks to help them rate the client bank as effectively as possible. These banks are usually similar banks in other countries or comparable banks within the same country.

3.2.2.2 Bank questionnaire

Based on Fitch Rating's analysis of the initial publicly available information regarding the bank, a questionnaire is prepared for submission to the management of the bank. The questionnaire covers nine broad topics and is modified to address the specific circumstances of the country being rated. In most cases, the banks need to supply Fitch Ratings with a written response to these questions before a meeting between the two parties is held. The questionnaire forms the framework for Fitch Rating's subsequent analysis.

A copy of an unmodified version of the questionnaire can be found in Appendix A.

3.2.2.3 Meeting with the bank

The next step is to have a meeting with the senior management of the entity being rated in order to discuss and assess the provided data. The meetings are usually arranged between members of Fitch Ratings and investor relations departments, or in the case of more sophisticated groups, rating agency liaison officers. For Fitch Ratings to obtain an overview of the bank's various activities, it is imperative that they meet with several members of the senior management team as well as leaders of significant business divisions or subsidiaries.

The complexity of the entity being rated will determine the length, number and regularity of the meetings. In most cases, when a bank is rated for the first time, only one meeting will take place and it will usually last for an entire day. Afterwards, there will be regular contact between Fitch Ratings and the bank. Follow-up meetings will take place in order to discuss and review interim figures, major changes in the bank's business, or at least once a year to review the latest financial figures.

3.2.2.4 Analysis of the bank

In most cases, two analysts (with the appropriate language capabilities where ratings take place in non-English-speaking countries) are assigned to a rating. The analysts will concentrate on the questionnaire as this determines the principal facets of the analysis. The most important topic the analysts will address is risk, and in particular, the exposure to credit and market risk. Other important topics that will be covered are: findings, liquidity, capital, securitisation, earnings, market environment and planning, management and strategy, corporate governance, ownership and audit. These topics are discussed in section 3.2.3 in this chapter.

3.2.2.5 Approach to differing structures

Fitch Ratings prefers to analyse the consolidated accounts of the entities being rated. However, this does not mean that this is necessarily always the case. In some instances it is necessary to also analyse the individual unconsolidated accounts of the holding company, depending on the purpose of the rating. In the event of an issuer rating the consolidated figures will suffice, but in the event of a group holding company rating it is desirable to analyse both forms of accounts. When rating a particular security issue, Fitch Ratings will analyse the results of the issuing entity, which may be a subsidiary or sub-subsidiary of a group holding company. In instances where the entity being rated is guaranteed by the group holding company or sub-holding company, Fitch Ratings analysts will want to examine the consolidated figures of the guaranteeing entity (Fitch Ratings, 2004:3).

When rating an "allfinanz" group (i.e. groups in Germany and France that incorporate both banking and insurance activities), Fitch Ratings considers that such type of integration leads to different risk and benefit profiles than with traditional financial services operations. In such events, Fitch Ratings' approach

depends on the business model employed, its strategic benefits or deficiencies, the structure of the group and support. Capital adequacy is a crucial element in the analysis of such "allfinanz" groups. Therefore, Fitch Ratings places significant emphasis on their consolidated management of capital adequacy.

3.2.2.6 Draft report

After their initial meeting with the bank and their subsequent analysis of the data obtained, a rating report is drafted by the analysts. Depending on the terms of the fee letter and particular circumstances, either a short-form report (spreadsheets, plus one page of text containing a rating summary) or a long-form report (same as short-form report, but with about four pages of rating analysis, spreadsheets and an appendix to explain the spreadsheets) may be published.

3.2.2.7 Presentation of the draft report to the bank

The draft report, without ratings, is sent to the bank being rated for two reasons: the first is to give management a chance to agree to the data report (they do not necessarily need to agree, this is more as a professional courtesy) and the second is to allow management to determine whether confidential information was included in the draft which should be excluded.

3.2.2.8 Amendment and subsequent circulation of the report to the credit committee; composition of the committee

In this step, the report is amended following comments that meet the criteria as discussed in the previous paragraph. The amended report, together with relevant documents, is then circulated amongst the credit committee which consists of up to seven voting members.

This committee consists of the two analysts who conducted the meetings with the bank and two senior analysts with relevant experience. The remaining members are selected from the pool of Fitch Ratings employees with principal responsibility for the analytical coverage of banks in other countries. As such, the committee does not consist of a set group of members, as the composition of the group varies from country to country or to cover a certain peer group of banks. Furthermore, Fitch Ratings does not allow outside members to sit on the credit committee as this could lead to prejudicial ratings.

3.2.2.9 Credit committee meeting; assignment of ratings

The (possibly amended) report is presented to the credit committee by the two analysts responsible for the work done up to that point. Relevant, but confidential, information which could not be filed as part of the draft report, as well as the peer group analysis, which compares the bank to its domestic and foreign peers, is also presented.

To add a non-quantitative element to the rating decision and to ensure a certain amount of consistency, the analysts also present a computerised score sheet to the committee. On this sheet, scores have been pre-assigned to the bank for profitability, credit risk, market risk, operational risk, funding, liquidity, capital, franchise and diversification, management and strategy, the economic, regulatory and banking environments, size potential and outside support. These scores are used to derive an implied rating which is only used as further input into the more subjective rating method used by Fitch Ratings. Neither subscribers to the rating service of Fitch Ratings nor the bank being rated are ever informed of their score.

Reports are updated annually, unless circumstances require this to be done more often. The ratings are also reviewed at least once a year by the credit committee.

3.2.2.10 Dissemination of the ratings

When a bank is rated for the first time, after having been informed of the decision of the credit committee, it has no specific recourse to appeal against this decision. Although the bank may request an appeal, Fitch Ratings has the right to reject such a request. In cases when an appeal is authorised, it is incumbent on the issuer to provide new information. Also, the appeal must be resolved within 48 hours.

Once the bank has been officially informed of its assigned rating, the report and rating is dispatched to Fitch Ratings' subscribers, and is also made available to investors and the general public by publishing this information on its website, as well as via wire services and press releases.

3.2.3 The analytical process

The qualitative and quantitative factors upon which Fitch Ratings base their ratings follows next.

3.2.3.1 Risk management

In order to understand the term risk management adequately, risk must first be defined. According to Knight (1921:233), risk relates to the objective probability that the result will not be as planned; while Markowitz (1952) defined risk as the variance in return on portfolio investment. However, the best definition of risk is provided by Holton (2004:23), who combined the above two definitions to reach the conclusion that risk requires both exposure and uncertainty. He defined risk as an exposure to a proposition of which one is uncertain.

Bessis (2007:53) describes risk management's ultimate goal as the process that facilitates a consistent implementation of both risk and business policies. This

consists of setting risk limits based on economic measures of risk while ensuring the best risk-adjusted performances.

Risk management has become a critical issue for commercial and investment banks due to the process of financial deregulation, by heightened competition, causing increased pressure on banks and their risk-taking practices (Saita, 1999:95). These trends have increased the need for risk management in financial institutions and forced both regulatory authorities and bankers to improve internal systems devoted to risk evaluation, pricing and control. This has caused new risk divisions to be developed and monitored (Saita, 1999:95), as well as an increase in the usage of derivatives as a method of risk mitigation (Bodnar, Hayt and Marston, 1998:70).

In this section of the process Fitch Ratings analyses the bank's appetite for risk and the management systems in place to handle the risk. It examines the independence and effectiveness of the risk management function by looking at whether all risks are managed independently or if they are amalgamated, the limits and procedures being implemented, the persons responsible for setting these limits or procedures and to what degree they have been adhered to. Furthermore, an assessment of senior management's understanding of, and involvement in, risk management is undertaken.

3.2.3.2 Credit risk

The characterisation, measurement, and management of credit risk has become of increasing importance to policymakers and practitioners (Carty, 2000:67). This has caused new financial instruments, such as asset put options, linked credit notes, methodologies for portfolio credit risk assessments and pricing models to be developed in order to aid in the pricing and allocation of credit risk. Kao (2000:50) explains that this phenomenon is primarily due to the rapid growth in credit derivatives, securitised asset pools and other credit-structured products.

Altman, Caouette and Narayanan (1998:7), however, hold lending institutions' increasingly high comfort with transacting their assets in counterparty arrangements, which shifts credit risk exposure, responsible.

During this part of the process all credit risks are taken into account, regardless of whether they are on-balance sheet activities or off-balance sheet commitments. Possible additional risk for senior unsecured creditors arising from any securitisation undertaken by the bank is also considered as well as the bank's balance sheet structure, including relative proportions of different asset categories. In most cases the loan book will constitute the largest proportion of a bank's assets (as well as risk) and, as such, a comprehensive review of the loan book remains essential.

3.2.3.3 Market risk

Market risk is the possible downside variation of the market value of transactions and of the trading portfolio during the liquidation period (changes in market value and market parameters are the main risk drivers). Market risk can be split between standalone market risk and portfolio risk (Bessis, 2007:360-361).

In the determination of market risk, an analysis of all structural and trading risks across the bank's entire business needs to take place. To determine structural risk, an examination of the bank's asset and liability management strategy, role of position taking, hedging and accounting is performed. Levels of interest rate, foreign exchange and equity risks and how they compare with the limits that have been set, are scrutinised as well.

3.2.3.4 Operational risk

According to the Basel II accord (2006:217) and Bessis (2007:48), operational risk is defined as: "the risk of loss resulting from inadequate or failed internal

processes, people and systems or external events". Legal risk is included in the definition, but it excludes reputation and strategic risk.

A minimum of 20% of regulatory capital is required for operational risk, as provided for by the 1988 Basel Capital Accord (Bessis, 2007:49). The Accord proposes three increasingly sophisticated approaches to capital requirements for operational risk: basic indicator; standardised; and internal measurement.

The analysis of operational risk examines several issues, including: the bank's own definition of such risk, the quality of its organisational structure and operational risk traditions (the development of its approach to the identification and assessment of key risks, data collection efforts and overall approach to operational risk quantification and management). Furthermore, the success of integrating these approaches in a logical framework is also assessed.

3.2.3.5 Other risks

For certain banks, some risks that have not been named previously can play a large role. For instance, reputation risk can play a significant role for private banks. A good name and brand image are often important differentiators of long-term performance.

Other risks include equity risk and conversion risk. Equity risk is the variation in the value of existing property, whereas conversion risk is the uncertainty of the values of structures that could replace existing ones (Garratt and Marshall, 2003:440). These are of importance as some banks own property, provide home loans or provide insurance services.

Another risk that should be taken into consideration by banks is interest rate risk, as it contributes to market risk (MacDonald and Koch, 2006:166). Interest rate risk is caused by a difference between all assets and liabilities whose interest

rate reset dates are within that period. There are two types of interest rate gaps, a fixed interest rate gap and a variable interest rate gap. The fixed gap is the difference between fixed rate assets and liabilities, while the variable rate gap is the difference between interest rate sensitive assets and liabilities (Bessis, 2007:165).

3.2.3.6 Funding and liquidity

Crosse and Hempel (1980:136) describe bank liquidity as a bank's ability to meet the demand for deposit withdrawals and to provide for the credit needs of a community. However, Burns (1984:185) explains it as a bank's ability to obtain a certain amount of funds at a certain cost, within a certain time-frame. In order for a bank to be referred to as having good liquidity, it should be able to meet its demands for cash as they arise (Gallinger and Healy, 1991:69). From the above, liquidity risk can be thought of as the risk that a bank will not have sufficient cash to operate normally (Uyemura & Van Deventer, 1993:5), that is, to settle its financial commitments timorously (Finansbank Limited, 1989:78).

The need for liquidity arises from a net outflow of deposits as balances held with Federal Reserve Banks or correspondent banks decline (Maconald and Koch, 2006:253). In most cases, these withdrawals are predictable since they are contractually based or follow a well-defined pattern. Banks can obtain funding from a variety of sources, including retail funding, wholesale funding, borrowed funding, and equity funding. The need for sufficient liquidity is due to deposit withdrawals as well as regulatory purposes (Gardner and Mills 1994:347). Due to the volatility of deposits, regulatory authorities set certain liquidity requirements to which all banks must adhere.

Kelly (1993:352-353) provides the best description of the need for liquidity by banks and states that banks require liquidity in order to:

- replace the net outflow of funds that occurs when retail deposits are withdrawn, or wholesale deposits or loans are not renewed. This can be referred to as the funding aspect of liquidity risk,
- compensate for expected income that is not received due to a borrower not making payments at the expected time. This is also known as the time aspect of liquidity risk,
- obtain funds when contingent needs for funds arise, such as existing overdraft facilities that are used more fully or commitments caused by the endorsement of bills. This represents the call aspect of liquidity risk.
- enable them to commence new desirable transactions such as extending additional credit to valued customers. This also represents the call aspect of liquidity risk.

In order to determine whether a bank has sufficient liquidity, liquidity ratios, asset and liability liquidity indicators, the net liquid assets and liquidity duration of the bank needs to be assessed (Saayman, 2002:18). The most important areas to analyse are the structure and diversification of a bank's funding base, including deposit concentration and trends in funding sources and also in the bank's liquidity (Fitch Ratings, 2004:7). The main risk in terms of funding is that the bank may not be able to replace or renew maturing liabilities, either at a reasonable cost or even at all. This risk can be limited by a diverse and stable funding base with an extensive spread of suppliers in each source type. Therefore, the bank's deposit base should also be analysed in terms of maturity, geographical source, currency and size.

3.2.3.7 Capitalisation

A bank's equity capital acts to absorb unforeseen losses and allows it to continue as a going concern. Thus it can stave off insolvency or, in cases where

insolvency is inevitable, it can, to some degree, absorb losses that would otherwise have been the burden of the creditors. Therefore, when analysing creditworthiness, the absolute size of the bank's equity capital together with its capital adequacy are important considerations.

Fitch Ratings has its own standard quantitative measures of capitalisation which it applies to banks right across board, the most important being pure common equity as a percentage of total average assets. Preference shares and hybrid debt also enjoy some significance. According to Fitch Ratings the aforementioned two should not exceed 25% of a bank's pure common equity. Any organisation in excess of this ratio should not be given any capital or equity credit.

3.2.3.8 Securitisation

The term "securitisation" has been used in two different ways. Initially, it referred to debt securities issued by sovereign entities and private corporations as substitutes for bank credit. However, since the mid-1980s it has also been used to describe the isolation of cash flows of specific assets from the balance sheet of an institution and the issuing of marketable securities, supported by the cash flow of the assets (Thompson, 1995:15). This form of securitisation can be referred to as secondary securitisation (Feeney, 1995:2). Narrowly defined, securitisation is the process in which pools of individual loans, debt instruments or receivables are packaged in the form of securities (Cox, 1990:2 and Kendall, 1996:1-2).

The securitisation market had increased dramatically as a form of financing in the past decade and held both risks and benefits for banks (Imhoff, 1992). At the end of 2008, however, it had declined to almost nothing. According to Loutskina and Strahan (2008:52), more than 60% of outstanding mortgages are currently securitised. Securitisation provides added liquidity, access to cost-effective

funding, assistance in the management of credit risk exposure and regulatory capital relief, as well as enhancing earnings performance. However, the risks they hold, such as several forms of liquidity risk (e.g. early amortisation) need to be identified and managed effectively. Fitch Ratings does this by taking a case-by-case approach when analysing securities. Each transaction's characteristics, benefits, risks and motive are assessed.

The market impact of the sub-prime crisis has made it much more difficult for business securitisations to re-enter the market (Borod, Tan and Ballogly 2008:52). With credit markets remaining seized up, and almost no insurance activity across all sectors including commercial mortgage backed securities and leveraged finance, an extensive portion of bridge loan commitments, used to finance acquisitions by private equity firms, have been funded by committing banks alone. These same banks were unable to fill out their organisations with other bank participants, causing the refinancing of these leveraged loans through whole business securitisation to be non-existent in the current credit market. The same troubles are also present in other securitisation markets.

3.2.3.9 Earnings and performance

As a bank's solvency may ultimately be affected by its income earned, it is important to analyse this aspect as well. The bank's capacity to generate profits, the stability and quality of its earnings and historical trends in the bank's earnings performance are all examined. The reliability of management to provide accurate budget forecasts, and to identify possible external factors that could influence future earnings, is also taken into account.

3.2.3.10 Market environment

Various aspects pertaining to a bank's operating environment can influence its creditworthiness. This includes the size and health of the bank's domestic

economy, along with prospects for its future economic growth. Any structural problems that the economy might be facing; the political situation of the country, the structure of the banking sector, the bank's competitive position within the banking sector, the market share in its main business line, competition from rivals and its ability to influence prices, together with the quality of accounting, auditing and reporting standards within the country, are all taken into account when analysing the market environment.

3.2.3.11 Diversification of the business franchise

The diversity of activities undertaken by the bank in terms of geographical (domestic and foreign) and industrial sector is analysed. Furthermore, product and service diversity, together with the bank's ability to create new products, is all taken into consideration. Finally, the bank's strength and depth of franchise is taken into account, as well as its ability to safeguard its existing business and its ability to gain new business.

3.2.3.12 Management and strategy

In order to be a successful bank, a well-defined strategy and effective management is essential. The quality and credibility of management is analysed, along with their plans for future internal or external growth. When future plans are analysed, management's ability to adhere to strategies and deliver on past projections is given significant credit.

3.2.3.13 Corporate governance

In assessing corporate governance, a systematic analysis of governance data and information is undertaken. More contextual and qualitative reviews of an individual company's governance practices can also take place. Fitch Ratings is predominantly concerned with evaluating the quality of the bank's corporate

governance from a bondholder's perspective. The most important factors covered by Fitch Ratings in their credit analysis include:

- the independence and effectiveness of the board of directors,
- oversight of related party transactions that may lead to conflicts of interest,
- board oversight of the audit function,
- executive and director compensation,
- complex holding company structures and
- banks that are owned by private individuals or families.

Corporate governance practices can have a material impact on a bank's credit quality. Fundamentally weak corporate governance can make bondholders vulnerable to potentially significant credit losses and thus warrant a negative rating action. Strong governance could warrant special mention from analysts, but ultimately does not drive a positive rating action.

3.2.3.14 Ownership and support

The ownership of, and potential support available to, the bank is crucial to Fitch Ratings' support rating. The stability of the shareholding structure of the bank as well as the ability and willingness of the owners or government to bail out the bank in cases of need is also analysed.

3.2.4 Rationale of Fitch Ratings' rating assessments

3.2.4.1 The particular nature of banks

Banks in free market economies are mostly similar to other businesses, but with a significant difference: their role in the supply, demand and price of money. Rating assessments must take this particularity into account. For example: if a retail store chain or property development company collapses, it is not likely to endanger the economy of a country or the world; but the collapse of a bank, by

its contagious effect, may just do that. Most governments are therefore likely to rescue banks, rather than allow them to default.

National bank regulators need to introduce and maintain confidence in their banking system, together with enabling market participants to act in a practical and professional manner. The most effective way of doing so is to allow for a certain degree of risk, i.e. allow banks' depositors or creditors to lose money on occasion. Losses should not be too regular as this would impinge confidence. It is therefore imperative that the regulator/central bank be vague about which banks it will help and in what situation. If a government help all banks all the time, it could lead to banks making deals irrespective of whether they were profitable or not, as they know they will be bailed out.

3.2.4.2 The Fitch Support rating

Support ratings are formed from Fitch Ratings' assessment of a potential supporter's propensity and ability to support a bank on a timely basis. The rating is achieved by the potential supporter's personal Fitch Ratings long-term debt rating, in foreign and local currency, and is exclusively an expression of Fitch's opinion.

Support ratings and long-term rating floors are likely to be more volatile in emerging markets than in developed countries. The reason is that the ability and propensity of these states and of the owners of banks are subject to more debilitating extraneous influences and bad governance.

3.2.4.3 The Fitch Individual rating

This rating represents Fitch Ratings' view on the likelihood that the bank will fail and therefore require support to prevent it from defaulting. It assesses a bank's exposure to, appetite for, management of and absorption capacity for, risk. This

rating is based on the analysts' findings described in section 3.2.3 "The analytical process".

3.2.4.4 Long-term and short-term credit ratings

In addition to support and individual ratings, Fitch Ratings also assign ratings to securities. The rating is an indication of the probability of receiving repayment in a timely fashion. As stated in section 1.1, investment grade (Long-term "AAA" – "BBB" categories and Short-term "F1" – "F3") indicate a relatively low probability of default. Furthermore, those in the speculative categories (Long-term "BB+" – "D" and Short-term "B" – "D") indicate either a higher probability of default, or in the case of a "D" rating that default has already occurred.

Fitch Ratings' credit ratings are driven by their support and individual ratings. Long-term ratings are explicitly linked to the support rating by the existence of rating floors, thus preventing the long-term rating to fall below a specified floor. A good individual rating, however, can drive a long-term rating up above its support rating floor.

In order to indicate the direction in which a long-term rating is likely to move in the next one or two years, Fitch Ratings applies outlooks on these ratings; these may be positive, stable or negative. However, these outlooks do not indicate that the assigned movement is inevitable. Figure 3.3 below displays a transition matrix which indicates the probability of a rating transferring into another category within a year. For example, an AAA rating has an 87.74% chance of remaining an AAA rating until next year, or it has a 10.93% chance of down-grading to an AA rating, and a 0.2% chance of defaulting. The same method is applied to all the other ratings in the transition matrix.

Figure 3.3. Transition matrix as of Dec. 2007.

Credit rating in one year's time

Current credit rating	AAA	AA	A	BBB	BB	B	CCC	Def
AAA	87.74	10.93	0.45	0.63	0.12	0.10	0.02	0.02
AA	0.84	88.23	7.47	2.16	1.11	0.13	0.02	0.02
A	0.27	1.59	89.05	7.40	1.48	0.13	0.05	0.03
BBB	1.84	1.89	5.00	84.21	6.51	0.32	0.06	0.07
BB	0.08	2.91	3.29	5.53	74.68	8.05	0.16	1.32
B	0.21	0.36	9.25	8.29	2.31	63.89	10.13	5.58
CCC	0.06	0.25	1.85	2.06	12.34	24.86	39.97	18.60

Source: van Vuuren, 2007a.

All ratings, except support ratings, may be placed on a rating watch indicating that the rating is likely to change and in what direction. "Positive" indicates an upgrade, "negative" a downgrade, and "evolving" that it could change either way or remain the same. A rating watch is usually resolved over a short period of time, usually less than a year.

3.2.5 Summary

In this section, insight into the credit ratings methodology of Fitch Ratings was provided. Important factors and sub-factors that are taken into account when Fitch Ratings assesses a bank's risks were indicated, along with discussions as to why these factors are of interest. The rating process employed by Fitch Ratings' was also discussed, along with the rationale underlying their rating assessments. In the following section, the same will be done for Moody's Investors Service.

3.3 Moody's BFSR: Global methodology

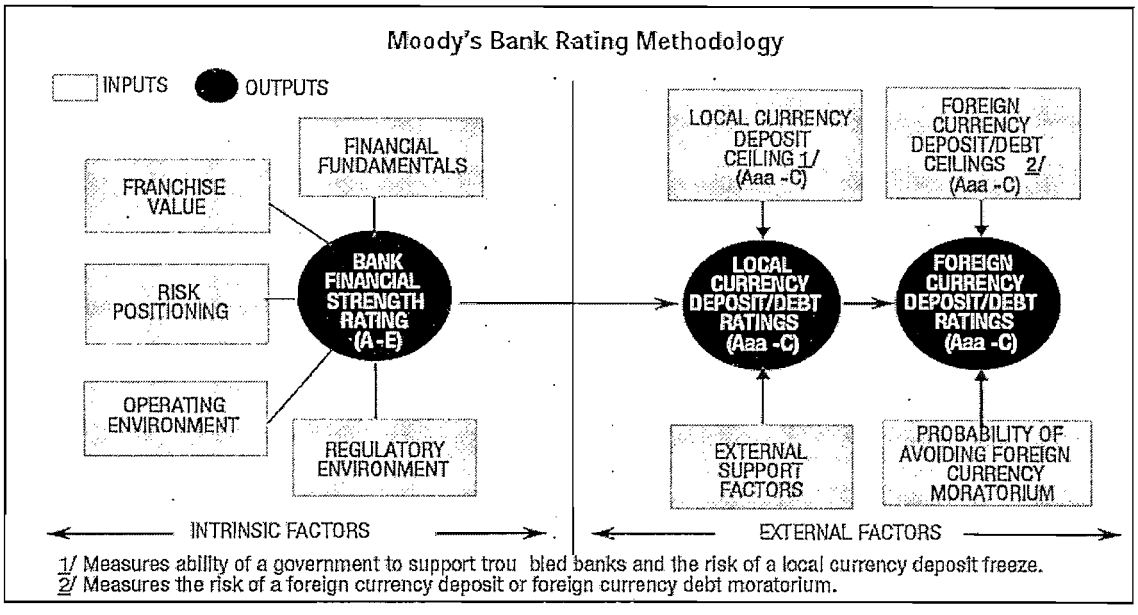
Moody's Bank Financial Strength Ratings (BFSRs) indicate Moody's opinion on a bank's financial strength relative to other banks that have been rated around the globe. BFSRs do not indicate the credit risk the bank faces, but rather the probability that the bank will receive assistance in order to avoid default. They thus serve as the first step of the bank credit rating process. Moody's ratings take into account the bank's BFSRs and the likelihood that the bank will receive such support, as well as the external risk that sovereign action may interfere with the bank's ability to honour its obligations.

3.3.1 About Moody's BFSRs

Bank credit risk is a function of three factors: its intrinsic financial strength, the likelihood that it would benefit from external support in case of need and the risk that it would fail to make payments due to the actions of a sovereign. Therefore, Moody's uses a multi-step process that incorporates a bank's intrinsic risk profile as well as specific external support and risk elements that can affect its overall credit risk, to assign credit risk ratings. BFSRs are the first step in this process.

In order to differentiate between Moody's BFSRs and debt or deposit ratings, different symbols are used. Moody's BFSRs range from A to E, with "A" being the highest rating and "E" the lowest. A "+" modifier may be appended to ratings below the "A" category and a "-" modifier appended to ratings above the "E" category, to indicate those banks that are placed higher (+) or lower (-) in a rating category.

Figure 3.4: Moody's bank rating methodology



Moody's Investors Service, 2007:3.

Figure 3.4 above indicates how BFSRs fit into Moody's overall approach to assigning bank credit ratings. The left side indicates the main factors that are used to determine a bank's BFSR. The remainder of section 3.3 will describe how these are measured and analysed to derive at a specific BFSR. The right side is a summary of the specific external support and risk elements that are combined with BFSRs to determine Moody's local and foreign currency deposit and debt ratings.

The inherent risks in the banking business – as characterised by high leverage (equity capital of only 5%-10% of total assets), illiquid assets financed by short-term liabilities and a cyclical business environment – make it difficult for all but a select few extremely large and diversified banks to achieve and maintain a BFSR in the range from A to a high B. Solid, diversified and sustainable franchises, as well as excellent management, are prerequisites for A and B range BFSRs. However, banking – if conservatively managed without excessive risk-taking – is also a business allowing for stable fee and interest income, barring systematic stress and provided there is reasonable client confidence. A large number of

banks with limited scale franchises and average financials, therefore are able to manage a C range BFSR. Banks that exhibit modest capital, earnings, or business franchise – thus limiting their ability to deal with asset quality problems or other potential balance sheet risk, or operate in unstable and unpredictable environments – are assigned a D range BFSR. Finally, BFSRs in the E range are restricted to those institutions that are under pressure to maintain their capital due to internal or external factors. These factors can be highly volatile operating environments, recurring losses and asset quality problems, or high risk profiles.

3.3.2 Framework for assigning BFSRs and the role of the scorecard

Moody's bank ratings reflect their opinion of long-term relative risk and are forward-looking in nature, as they are applied to liabilities that may pay out over an extended period of time. The Moody's approach makes use of qualitative as well as quantitative analysis and incorporates the opinions and judgements of experienced analysts.

Moody's BFSRs focus on the five key rating factors that they believe to be critical to understand a bank's financial strength and risk profile. They are:

- franchise value,
- risk positioning,
- regulatory environment,
- operating environment and
- financial fundamentals.

In measuring a bank's performance in the scorecard, Moody's has selected quantifiable metrics that are available from publicly reported financial statements. However, although these metrics are globally available, they are not always globally comparable. Local differences in accounting conversions, Basel risk-weightings and asset quality definitions can make it difficult to compare these metrics across regions and countries. Additional adjustments or metrics may

therefore be required to improve comparability. This is discussed in section 3.3.4.1.

3.3.2.1 Relative importance of the key factors can vary

Banks in developing markets face considerably different challenges compared to banks in developed markets. Banks operating in mature markets benefit from more effective financial reporting and regulatory environments, which allows outside observers to ascribe more weight to available disclosed financials in making credit decisions. Banks in developing markets, on the other hand, face a higher degree of financial volatility, as well as the potential for weaker regulatory oversight and less financial reporting. This leads to unacceptably high risk when relying on the disclosed financial figures within developing markets.

Therefore, Moody's applies considerably less emphasis on financial fundamentals when assigning BFSRs to banks in developing markets. As will be discussed in chapter four, financial fundamentals have a weight of 50% when assigning BFSRs to banks in developed countries, with the remaining four variables receiving a combined weighting of 50%. In the case of developing markets, this ratio is changed to 30% for financial fundamentals and a combined 70% for the others respectively. Since this study will be based on circumstances within a developing market, the latter ratios will be used; albeit amended for the purposes required.

The elements of each sub-factor, together with the weights given to each can be seen in Appendix B. The final weight distribution of each sub-factor making up the final rating, as well as a discussion on some important pointers relating to each element, are also available in Appendix B.

3.3.3 Key rating factors for the BFSR

3.3.3.1 Rating factor 1: Franchise value

A bank's franchise value is central to Moody's analysis. It assesses the solidity of a bank's market standing in a given geographic market or business niche. A solid and defensible franchise is a key element in the ability of an institution to generate and sustain recurring earnings, to create economic value, and thus to preserve or improve risk protection in its chosen markets. A strong franchise value, therefore, enables an institution to better withstand prolonged difficult market conditions.

To determine the franchise value of an institution, Moody's looks at four sub-factors:

- market share and sustainability,
- geographical diversification,
- earnings stability and
- earnings diversification.

Market share and sustainability

The first sub-factor to be considered is an institution's long-term sustainability and market share. A large market share suggests an ingrained market position with strong brand name recognition that tends to go hand in hand with high pricing power. These elements act as a barrier to entry of other entities, and are indicative of the likely sustainability of a bank's positioning and its ability to defend itself from competitors.

A bank's market position, however, may change over time so Moody's takes the specific characteristics and recent trends of the market into consideration. Some markets only allow gradual shifts in market share over time, whereas others allow for more frequent swings.

Geographical diversification

Moody's believes that the more geographically and economically diversified an institution is, the easier it is for the entity to ride trough business cycles without undue harm to its asset quality. Conversely, excessive concentration on lending in a single geographic area, within relatively undiversified economies, heightens an institution's risk profile and plays an important role in weakening asset quality. (However, this is not always the case, as will be explained in chapter 4).

Earnings stability

The third sub-factor to be analysed is the degree of predictability of an institution's main business lines. Moody's favours retail-based institutions in this regard, as they have highly predictable, risk-adjusted earnings streams which are an invaluable asset in times of stress or volatility. Earnings stability is usually the result of strong customer relationships, a higher customer switching cost and highly granular loan portfolios frequently found in traditional retail banking. On the contrary, banks with wholesale/corporate banking or trading activities often have more volatile results that may vary extensively over short periods of time, driven by factors out of the bank's control.

Earnings diversification

The final sub-factor to be analysed under franchise value is the degree of diversification of an institution's main business lines. In the scorecard, focus is maintained on whether there is an absence of diversification, penalising banks that are overly dependent on a single business line. When a bank is overly reliant on a single business line, it can be highly vulnerable to potential changes in market dynamics, which could be sudden and unpredictable, with no offsetting earnings to protect its solvency.

3.3.3.2 Rating factor 2: Risk positioning

Risk positioning of a bank is another fundamental qualitative factor in Moody's credit analysis. The majority of banking income is from compensation for taking calculated risks. Management's approach to managing any risk, be it operational, credit or market risk, is the key ingredient in underpinning strategic decisions and chance of such decisions succeeding. The more risk management is integrated with the bank's overall operating philosophy, the more likely it is that different operating units within the bank will make it part of their everyday operations management.

Moody's uses a framework that relies on qualitative and quantitative assessments, as it believes it will provide great insight into a bank's management discipline and ultimate effectiveness. Moody's believes that risk management should aim to reduce, control or take advantage (when beneficial to the bank) of the risks that a bank faces. Moody's divides risk positioning into six sub-factors:

- corporate governance,
- controls and risk management,
- financial reporting transparency,
- credit risk concentration,
- liquidity management and
- market risk appetite.

Corporate governance

High-quality corporate governance reduces the likelihood of future problems and speeds remediation when they do occur. Corporate governance focuses on the relationship between the board of directors, management and shareholders, as well as the degree to which the board and management effectively balance shareholder and creditor interests. Within the global BFSR scorecard, particular "red flag" aspects, which are easy to observe or calculate, receive focus. These "red flag" factors are:

- ownership and organisational complexity,
- key man risk and
- insider and related party risks.

Controls and risk management

A well functioning and deeply imbedded system of controls and internal checks and balances are a means of reducing operational risk and a bank's overall risk profile. Control issues have increased in recent years, reflecting the industries' higher complexity of business mix, the growing importance of trading activities at some banks, the effect of technological advances, financial liberalisation and changing regulation. The BFSR scorecard takes into consideration two separate factors:

- risk management and
- controls.

Financial reporting transparency

Financial and operating data reported by entities act as a starting point for Moody's in their credit analysis and are important in the overall assessment process. In addition, poor financial reporting often hides risk. Moody's believes that reliable, transparent and timely financial information is therefore necessary for a bank to achieve a strong BFSR. The factors considered in a bank's financial transparency rating are:

- global comparability of reported financial information,
- frequency and timeliness of reporting and
- quality of financial information reported by banks.

Credit risk concentration

The credit risk of a portfolio is increased when there are large concentrations within the lending, trading and investment portfolios. Conversely, highly granular credit portfolios are leading indicators of better credit quality over the cycle. It is Moody's opinion that large exposures to single obligors, industries or regions are

a potential source of earnings volatility. The metrics used by Moody's to measure credit risk concentration are:

- borrower concentration and
- industry concentration.

Liquidity management

Effective liquidity management is essential for banks, as too little or too much liquidity costs the bank money. Too little liquidity may force the bank to obtain liquidity from the market at times when rates are high, whereas too much liquidity is costly when the cash position is financed with long-term deposits at higher interest rates (Finansbank, 1989:85). Banks' approach to managing liquidity has changed substantially over time. The main theories are the commercial loan theory, the shiftability theory, the anticipated income theory and the liability management theory (Saayman, 2002:37).

According to Moody's, the main reason why banks fail is illiquidity. This is easy to understand as a bank cannot function without money. High liquidity can help a weak institution to remain adequately funded during difficult times, and is one of Moody's principal focal points when analysing a bank's ability to finance itself under stress.

The most important factor is to seek the cheapest funding on a risk-adjusted basis, regardless of maturity and source (Uyemura & Van Deventer, 1993:246). When choosing a liquidity source, certain factors must be considered (Saayman, 2002:34). These include:

- the purpose of the liquidity need,
- the length of time for which funds are needed,
- access to liability markets,
- the managerial philosophy,
- the cost and characteristics of different sources of funds and
- interest rate forecasts.

Liquidity risk is a function of the unique structure of a bank's assets and liabilities. Moody's starts its analysis with an assessment of the degree to which the bank's illiquid assets are funded by stable core liabilities. Banks with stable core funding in excess of their illiquid assets generally face low liquidity risk. Liquidity risk increases to the extent that illiquid assets are funded by more confidence-sensitive funding sources, such as interbank funding or short-term capital market funding.

Market risk appetite

For a greater risk appetite, a greater return is expected, on average. As the expected return increases, the volatility of the return and thus the size of the potential unexpected losses increase and *vice versa*.

The market risk appetite of an institution is a key element in assessing its financial strength. Fixed income investors are always concerned that unexpected events could impair the value of their holdings by drastically damaging core earnings capacity, increasing earnings or cash flow volatility or by reducing capital. With regards to market risk, Moody's assesses the sensitivity of the trading and non-trading books to major changes in key financial variables.

3.3.3.3 Rating factor 3: Regulatory environment

The stand-alone financial strength of a bank can be significantly influenced by the bank's regulatory environment. A bank's financial strength is often enhanced by the presence of an independent bank regulator with convincing and confirmed enforcement powers and by obedience to standards of successful regulation and supervision consistent with global test practices.

Another factor analysed by Moody's is the existence of published regulatory standards. These standards increase transparency in the regulatory environment which increases consistency and efficiency. Moody's evaluates

these standards to see whether they are consistent with the best practices established by Basel. The national adherence to these regulations is also taken into consideration. The most important areas in which these standards should exist are:

- licensing,
- capital,
- asset quality and
- liquidity.

Supervision is also of extreme importance, as without supervision banks are not likely to adhere to set limits. Therefore, Moody's considers the frequency, thoroughness, and length of on-site inspections and the quality, depth and size of the inspection staff.

Active and timely enforcement is another component of effective banking regulation. No matter what regulations are in place, if they are not enforced those regulations will not be effective. The overall rule of law is a good indication of the enforceability of banking regulations.

The overall financial health of a country's banking system is often correlated with the strength of its bank regulatory environment. Although there may be external macroeconomic shocks outside of the bank's control, the existence of an effective, prudential and proactive banking regulation regime should enable a banking system to weather the most macroeconomic downturns. Moody's thus considers all the above-mentioned factors, along with its stand-alone financial strength as a whole, when analysing the regulatory environment.

Moody's rates the regulatory environment by meeting with bank regulators and evaluating their regimes. In addition some of Moody's analysts have previously worked for bank regulators. All bank regulatory regimes that are evaluated by Moody's are rated according to a five point scale, from A to E.

Moody's has developed a relative grouping, based upon the observation and experience of Moody's bank analysts throughout the world, which captures all the previously mentioned elements. The specifics of each bank regulatory regime may vary within a group, but are equal in strength in terms of how they impact credit risk and bank creditors.

For banks that operate in more than one country, Moody's analysis focuses on the regulator in the country where the bank is domiciled due to the importance of regular on-site examinations and familiarity with local risks.

3.3.3.4 Rating factor 4: Operating environment

A bank's operating environment can either enhance or constrain its performance. Violent economic cycles, political decisions damaging business, weak legal systems and irrational competitive environments can jointly impair a bank's creditworthiness, or in extreme cases, do so severally. The key drivers of the operating environment, according to Moody's, are economic volatility, the efficiency of the legal system, the effectiveness of the social and political institutions and the competitive dynamics and industry structure of the banking system.

The Moody's BFSR scorecard makes use of three different quantifiable measures with regards to the operating environment. These measures need to be assessed at least once a year. For banks that have a portion of assets or profits in excess of 20% in another country, a blended operating environment score will be considered, which reflects the bank's overall operating environment based on its asset or profit mix. An analysis of the operating environment includes:

- economic stability,
- integrity and corruption and
- the legal system.

3.3.3.5 Rating factor 5: Financial fundamentals

Financial fundamentals are a relatively easy way to compare banks. Banks have two main businesses, namely lending and borrowing money, and should be easy to compare globally. Financial metrics help to verify or falsify performance assumptions based on past trends. The following sub-factors are used, and are all part of the classical CAMEL approach to bank credit analysis. The ratios used by Moody's for the BFSR can be seen in Appendix B, and consist of:

- profitability,
- liquidity,
- capital adequacy,
- efficiency and
- asset quality.

3.3.4 Weighting the factors in the scorecard

Neither the rating committee nor the analysts are bound by the estimated rating if they believe the scorecard results do not provide an accurate reflection of the bank's credit risk profile relative to other rated banks.

3.3.4.1 Some weightings may shift

While the sub-factor weightings within most of the key qualitative rating factors are constant, the weightings within the sub-factors for risk positioning are more dynamic. This reflects Moody's view of the significant impact this factor, and especially its sub-factors, can have on a bank's intrinsic risk profile. To see how these factors are adjusted, see the tables in Appendix B.

3.3.4.2 Different weightings in mature vs. developing markets

Banks in developing and mature markets receive different weightings for each of the four sub-factors when calculating the BFSR. Markets are defined as mature when their foreign currency ceiling receives an Aa1 rating and defined as developing when it receives a lower rating. Furthermore, the final weight distribution also differs between mature and developing markets. The different weights used by Moody's can be seen in Appendix B.

The weightings differ because Moody's believes that banks in these different economies face different challenges, since country risk and economic volatility are quite substantial in developing economies. In addition, banks in mature markets benefit from more effective financial reporting and regulatory environments, which allow outside observers to ascribe more analytical weight to disclosed figures when making credit decisions.

3.3.5 Possible adjustments to the inputs and outputs of the scorecard

The scorecard is designed to take into account global availability of information, global comparison and reasonable fit for all banks that are rated by Moody's. However, as Moody's rates banks in 85 different countries with different business models, market environments and regulations, the basic scorecard cannot always perfectly fit them all, but allows for perfect global comparability. Allowable adjustments will usually take the form of an adjusted scorecard along with a rationale for the adjustment.

3.3.5.1 Adjusting ratios

The ratios used on the basic scorecard serve as a starting point for Moody's bank analysis. However, if there are ratios in a certain region that have greater explanatory power, the rating committee will consider the possible addition of

new ratios to augment the scorecard ratios, as long as global comparability remains intact. Areas where adjustments may be needed to improve global comparability are in risk-weighted assets and in the liquidity ratio. Therefore, adjustments can take place for:

- trends,
- problem loan number,
- economic insolvency,
- credit concentration exposure,
- business model differentials and
- the franchise value.

3.3.6 Summary

This section provided insight into the BFSR methodology of Moody's Investors Service. The key factors when assigning BFSRs were discussed, along with how these factors were weighed on the scorecard. Instances where ratios or inputs may be adjusted were also discussed.

3.4 Conclusion

In this chapter, insight into the rating methodologies of both Fitch Ratings and Moody's was provided. Whilst their overall methods may vary, the factors that the different rating sub-categories are comprised of are very similar. In the following chapter, the rating methodologies of these two institutions are amended in order to form a new methodology which can be applied to the South African co-operative bank environment.

CHAPTER 4

PROPOSED METHODOLOGY

4.1 Introduction

In the previous chapters a background was given of the history and development of co-operative banks, along with a discussion on the different rating methodologies used by two of the largest rating agencies in the world. In this chapter, these methodologies are amended in order to apply them to co-operative banks in South Africa and ultimately to assist Government in transforming the non-banked population into a banked population.

4.2 Proposed rating methodology

The rating criteria used by the aforementioned agencies is amended in order to take into consideration the particular market, challenges and circumstances faced by CBSAs. Before a discussion of the proposed methodology can take place, however, the concepts behind the acronyms NI, NII, PPP, MIS and RWA must first be explained.

Net income (NI) is a term used to describe a company's total earnings or profit and is calculated by deducting the cost of doing business, including taxes, from a company's revenues. It is used to provide an indication of the company's profitability, and can be used to measure earnings per share.

Net interest income (NII) is the difference between the revenues generated by assets and the cost of servicing liabilities, when both consist of interest payments. Depending on the bank's portfolio mix of assets and liabilities, the bank can be more or less sensitive to changes in interest rates. For instance, if

liabilities reprice faster than assets, a bank is said to be liability sensitive. If assets are more sensitive, a bank is said to be asset sensitive.

Management information system (MIS) is a system that transforms data into information in order to facilitate management in making decisions. The most common of these include financial statements, performance reports and stock inventory.

Risk-weighted assets (RWA) is a term used to describe assets weighted in terms of their risk. On and off-balance sheet items are weighted according to risk, with off-balance sheet assets converted to balance sheet equivalents, using credit conversion factors.

Both Fitch Ratings and Moody's are internationally established, proven and respected rating agencies with extensive experience. The writer thus cannot significantly deviate from their methods. However, since the rating method of Fitch Ratings is less structured than that of Moody's, the latter's method will be amended in this chapter in order to be more domestically focused. As Moody's are more structured it is easier to indicate the proposed changes using their methodology. Fitch Ratings' beliefs are included where appropriate. The explanations as to why the chosen factors are of importance took place in the previous chapter, and will not be repeated here.

4.2.1 Rating factor 1: Franchise value

The four sub-factors considered in respect of franchise value are: market share and sustainability, geographical diversification, earnings stability and earnings diversification.

4.2.1.1 Market share and sustainability

Brand recognition of a co-operative bank in South Africa (CBSA) depends on the definition of a 'market'. As CBSAs serve a local, somewhat uniform market, brand dominance is high for the participants of a CBSA irrespective of the footprint of the particular CBSA. In the broad sense, brand recognition compared to known and established commercial banking institutions such as ABSA Bank or First National Bank can be somewhat low. The nature of a CBSA is to place high reliance on relationship banking, where strong relationships are forged between the customer base and the institution. Furthermore, most CBSAs operate in a small community where the standard and quality of customer information is much higher than those of commercial entities, irrespective of the manner in which commitments are executed (Vosloo & Styger, 2008).

In terms of barriers to entry, most CBSAs are well protected. The Co-operative Banks Act (No. 40 of 2007) makes provision for different categories of co-operative banks, with restrictions on operations for each such category. Stringent requirements for both prospective and registered CBSAs are also stipulated by the Act, and must be adhered to at all times. In terms of regulatory requirements such as required reserves, insurance and disclosure, the application of the Act creates further barriers. Finally, in terms of customer base, a CBSA's operations and local market environment might place some restrictions on competitors in terms of participants and market entry. Additionally, the combined natures of a specific product along with the customer base and local market environment may pose additional barriers to entry for competitors (Vosloo, 2008).

Many CBSAs may have strong franchise value as most operate in well protected markets, and in some cases are the dominant banks in their region, thus scoring high in this sub-section.

4.2.1.2 Geographical diversification

In some cases, such as where shares in a co-operative are pledged as security on a mortgage loan, CBSAs operate in extremely protected markets. The nature of the market in which the co-operative operates may result in a highly protected market and ultimately restrain market share from moving over time.

A high level of geographical diversification leads to lower concentration risk, reduced earnings volatility and facilitates the improvement of asset quality over extended periods of time (by accommodating changes in co-operatives' business cycles). The nature of CBSAs, however, needs to be considered in a rating process. More specifically their increased customer information and enforcement capabilities need to be given greater consideration. It is important not to take into account merely the size of the area, as some smaller regions may be more diversified than other larger ones (Vosloo & Styger, 2008).

A CBSA with local representation may have low earnings volatility and high asset quality. However, as business cycles are influenced by external factors that go beyond the local market, more difficulty may be experienced in weathering these shocks. Therefore, the quality and experience of an institution's management is of key importance when addressing such an impact, as they can limit the effects that shocks have on asset quality and the associated credit risk. Weightings assigned to geographical diversification should therefore reflect asset quality and associated credit risk, together with weightings relating to risk positioning and financial fundamentals.

4.2.1.3 Earnings stability

As retail-based institutions have a highly predictable risk-adjusted earnings stream, a distinction needs to be made between them and corporate/trading/wholesale institutions. CBSAs predominantly operating as

retail-based institutions have greater earnings stability due to stronger barriers to entry, more expensive switching costs and lower volatility in their earnings. Some CBSAs may, however, find themselves in the other category, especially those defined by the Act as tertiary institutions. Earnings stability ratings, therefore, should include the ease with which customers can switch between institutions, earnings volatility and the quality of customer relationships (Moody's Investors Services, 2007). These factors are dependent on the CBSA's operations, products and operating environment. The greater the volatility, the greater the risk associated with the CBSA and the lower the rating should be.

4.2.1.4 Earnings diversification

As the Act provides for 'mono line' (highly dependent on a single business line in terms of revenue) and 'non-mono line' (more than one business line) CBSAs, a distinction between such two institutions should also be made in terms of their ratings. The Act further differentiates between 'dual line' (CBSAs operating as lending and deposit taking institutions), 'multi line' ('dual line' institutions with additional business lines such as insurance) and other 'multi line' institutions (which operate across the national border). The risk associated with the 'mono line' CBSAs are regarded as high in terms of earnings volatility. The reason why a distinction needs to be made between 'mono line' and 'non-mono line' CBSAs is due to increased operations risk caused by legislative, regulatory and global requirements that may lead to greater earnings volatility (Vosloo & Styger, 2008).

The factors required from the CBSAs in order to receive a specific rating for market share and sustainability, geographical diversification, earnings stability and earnings diversification are stipulated in table 4.1.

Table 4.1: Franchise value

		A	B	C	D	E
Market share and sustainability*	Business lines	Dominant in a multi-product business line with largely unthreatened market position and pricing power.	Important, but not dominant in a multi-product business line, with largely unthreatened market position and pricing power.	Important in a dual-product business line, with good regional market positioning.	Marginal players regionally, or in a niche product line with dual-product business line	Institution with unclear market positioning; OR mono–product business line
	Barriers to entry	Very high sustainability due to excessive barriers to entry.		Moderate barriers to entry and moderate sustainability.	Below moderate barriers to entry and low sustainability.	Low sustainability and barriers to entry.
	Brand name	Only 1 co-operative bank in the area, thus strong brand name.		2 co-operatives in the area, thus price- and service-sensitive customer base.	3 co-operatives in the area, thus highly price-and service-sensitive customer base.	> 3 co-operatives in the area, thus insignificant brand recognition.
Geographical diversification**	Diversity	No one market constitutes >50% of profits. Markets should be lowly correlated, and have highly diversified economies.	>25% of profits come from outside primary market. Markets should be lowly correlated, and have highly diversified economies.	>25% of profits come from outside primary market. Markets should be lowly correlated, and have well diversified economies.	One or more smaller markets. Should be lowly correlated, and have reasonably diversified economies.	One market that does not have a diversified economy.
	Information capabilities	Co-operative must have access to accurate, timely and relevant information.		Information is accurate and timely, but insufficient.	Information is timely but inaccurate or insufficient; OR the bank has limited informational capabilities	Information is untimely and inaccurate; OR the bank has no informational capabilities
	Enforcement capabilities	Must have significant enforcement capabilities		Moderate enforcement capabilities	Limited enforcement capabilities	No enforcement capability
Earnings stability	% of income from retail banking	>80% of income derived from retail banking	60% - 80%	40% - 60%	20% - 40%	Less than 20%
	Customer relationships	Very strong customer relationships	Strong customer relationships	Moderate customer relationships	Weak customer relationships	Very weak customer relationships

	Switching cost & earnings stability	Very high switching cost & earnings stability	High switching cost & earnings stability	Moderate switching cost & earnings stability	Low switching cost & earnings stability	Very low switching cost & earnings stability
Earnings diversification		A mono line co-operative is defined as a single business or product line. A co-operative is defined as mono line if more than 80% of its income is derived from a single business activity or product. If a bank is not mono line, it receives no score on this sub-factor and the weight is distributed evenly over the other three sub-factors of franchise value.				Is mono line: receives in excess of 80% of its income from a single business activity or product.
* The relevant market(s) for market share and sustainability should be determined based upon where the bank makes the majority of its net income. The geographic size and scope of a market for any give business line depends upon the nature of the customer, the products and the existence of legal or *de facto* barriers to entry (or lack thereof). The relevant market may include bank and non-bank competitors. ** For the geographical diversification sub-factor, a market is based on the economy and not by political boundaries.						

Source: Author and Moody's Investors Service, (2007).

4.2.2 Rating factor 2: Risk positioning

One of the most important indicators of the long-term viability of CBSAs is their corporate governance. Risk positioning not only provides an excellent overview of an institutions risk philosophy, but also serves as an indicator of the importance of risk management to the board of directors and senior staff. The risk management culture of an institution is ultimately a function of the board and management's ethics, experience and knowledge. As there are a wide range of CBSAs, as provided for by the Act, the rating methodology should accommodate the simple as well as the more complex CBSAs.

4.2.2.1 Governance

Governance reflects on the board's efficiency, structure and experience in dealing with risk (Vosloo, 2008). Simple CBSAs are penalised in terms of their rating assessments as they are unable to adhere to some of the governance criteria. More complex CBSAs, however, receive a neutral rating as the perception is that the given criteria should form the base of an institution's corporate governance criterion (Vosloo & Styger, 2008).

It should be noted that the Act stipulates certain requirements in terms of directors, office terms and duties that CBSAs must obey. The institution's articles of association and statutes, combined with the Co-operatives Act (No. 14 of 2005), allow for the basic requirements to be applied in the assessment process. These requirements are not incorporated separately in the assessment process, as this would be unnecessary, but, rather, the criteria focus on the execution and application thereof.

CBSAs primarily operate within the spheres of two acts, namely; the Co-operatives Act (No.14 of 2005) and the Co-operative Banks Act (No. 40 of 2007). Ownership of CBSAs thus resides with its members. The following three criteria are regarded as important: independent directors, voting rights and shareholder control (with the latter only being possible in cases of majority ownership where the institution's statutes provide for such). Therefore, an institution's statute needs to be studied in terms of voting rights and shareholder control, as well as whether there is potential for undue influence due to the complexity of the organisational shareholding structure. Scrutinising the above-mentioned criterion should provide insights into the independence of the board and senior management's oversight, which has bearing on potential conflicts of interest.

4.2.2.2 Key man risks

Key man risk refers to the dependence on an individual or group of individuals for the management of an institution's affairs (Moody's Investors Services, 2007). Due to the nature of CBSAs (small banks with limited personnel, diversification and infrastructure), key man risks should be evident in the operations of the institutions. Greater importance and reliance, therefore, need to be placed at board level. Firstly, to determine the level of key man risk present at board level and secondly, to determine the amount of influence senior operational management have on the board in the decision-making process (Vosloo &

Styger, 2008). Here policies and practices should be reviewed in order to determine the extent to which these risks are addressed and mitigated.

4.2.2.3 Insider and related party risks

These risks refer to a possible lack of independence when, for example, granting loans or mortgages to insider or related parties. The set criteria should identify these risks and when identified, quantify their potential impact and frequency. The weights assigned should be based on their existence, the manner in which they are addressed and their frequency and value. If a CBSA has a large number of independent directors, it should receive a high rating as this counteracts the possibility that insider risks may be prevalent. If there are few independent directors, conflicts of interests may take place when decisions are made and this may ultimately have a negative effect on corporate governance. The nature and wide spectrum of CBSAs imply that insider and related party risks should carry more weight as there is potential for discrimination, mismanagement and misappropriation of funds.

4.2.2.4 Risk management

Risk management is divided into governance and management, systems and legislative compliance.

In terms of governance and management, the rating criteria aim to evaluate the existence and application of strategies that address the major risks, as they reveal the stance of the board and senior management towards mitigating risk. Weights need to be assigned based on the existence of risk management strategies, the force with which they are applied, the independence of the risk official, the regularity and value of potential deviations and the necessary corrective steps.

Most of the smaller CBSAs do not have the infrastructure and systems to achieve the quality of management information that the more sophisticated CBSAs do. The set criteria should be more focused on the existence and application of policies in smaller CBSAs, with those having a high frequency of policy execution receiving a higher rating. Furthermore, it is important that the systems and processes used to gather information in alignment with the policies in place and that a standard measure should exist for all risks.

As CBSAs are not required to be Basel II compliant (Vosloo, 2008), a distinction should be made between those that are and those that are not. Although a high degree of assurance exists in Basel II compliant CBSAs, in terms of risk information provided, it does not necessarily indicate a higher quality of asset. Basel II provides a specific methodology and manner in assigning risks to assets and meeting capital requirements. This, however, does not necessarily imply that the non-compliant CBSAs' methodologies are inferior. Focus thus needs to be directed at results rather than methods used. Weights are assigned in terms of the manner in which policies are applied, the extent to which there is deviation from said policies and the extent to which the used methods are forward-looking and take various scenarios into account (Vosloo, 2008).

Compliance to legislation is important to CBSAs as it is indicative of reputation risk and therefore the sustainability of the institution. Less sophisticated CBSAs may have some compliance problems. The main legislation relevant for CBSAs, apart from the previously mentioned Acts, are the National Credit Act (No. 34 of 2005) and the Financial Intelligence Centre Act (No. 38 of 2001). Adherence to the requirements of these Acts promotes the institution's risk positioning. Weights need to be assigned in terms of the extent to which such requirements are adhered to, and those CBSAs that do not comply should be heavily penalised in terms of their ratings.

4.2.2.5 Financial reporting transparency

The rating methodology should cater for a domestic rating of CBSAs and, should at least focus on comparability to the GAAP SA accounting standard. With some adjustments however, comparisons can still be made to other global financial reporting criteria (Vosloo & Styger, 2008).

It is of extreme importance that a CBSA's financials be compiled by a large, recognised accounting firm (e.g. PricewaterhouseCoopers or Ernst & Young) as they provide reasonable assurance with regard to the accuracy and relevance of the financial information provided. They also report in a user-friendly manner. Furthermore, they incorporate management's analysis of key risk and performance indicators, as well as important sales ventures.

The time lapse between the financial year end of an institution and the date of it reporting its financial statements further enhances relevance. Positive scores should be given to CBSAs who do so within three months, relative to CBSAs that exceed this time frame. In terms of reporting, a standardised checklist should be utilised which states the basic information and minimum requirements expected from CBSAs in their financial statements. World best practices can be combined with the King II Report's "Code of Conduct" section on risk management in this regard.

4.2.2.6 Credit risk

Credit risk concentration prevails for reasons discussed previously under franchise value in section 4.2.1. Although credit risk concentration originates from lending activities for most CBSAs, the assigned financial fundamentals, as well as the nature of the market, needs to be considered when assessing them.

The two aspects that are considered are borrower concentration and industry concentration. Borrower concentration refers to the largest single credit exposures in the loan, trading and investment portfolios. Industry concentration, on the other hand, relates to the total exposure to a single industry. The associated risk of CBSAs serving a specific customer base or community will be addressed under franchise value and not industry concentration. In such cases, the weightings would not be included in industry concentration, but would be added to borrower concentration.

4.2.2.7 Liquidity risk

When considering a rating methodology for CBSAs, liquidity risk is probably the most important sub-factor as it is the key driver in the rating of a CBSA and can result in the failure of these banks (Vosloo, 2008). The ultimate aim of CBSAs is to be able to obtain confidence-sensitive funds from external sources in the financial markets, in times of extreme financial strain. It should be noted that CBSAs primarily make use of internal sources of funding, resulting from their loans and deposits.

A liquidity management system must be determined, indicating how liquidity is measured, the risk measure used and to what extent their management information system (MIS) allows the board to perform their supervision duties with discretion and uniformity. An analysis of a CBSA's funding diversification should include an evaluation of its degree of net funding from both an internal and overall perspective (which should be positive), as well as an analysis of its reliance on external sources.

A contingency planning process should be in place, in addition to a clearly defined funding requirement methodology, for bank-specific and market-related crises.

4.2.2.8 Market risk appetite

The same criteria used by Moody's should be applied to CBSAs, with the only alteration being that cognisance should be taken of the spectrum of CBSAs as defined by the Act. This implies that the weightings should be amended so that they do not penalise small CBSAs operating in a closed market environment.

Tables 4.2 – 4.7 indicate which factors lead to a specific rating in terms of risk positioning, as discussed in the above paragraphs.

Table 4.2: Corporate Governance

	D	E
Corporate governance*		
Ownership and management independence	Family shareholders or government officials dominate management OR own >50% - <60% of bank. High potential for conflicts of interest.	Family shareholders or government officials dominate management, OR own >60% of bank. High potential for conflicts of interest.
Key man risk	Lack of management depth (management dominated by two people at most, no apparent successor, lack of succession planning, OR dominance of a single generation within the ranks of senior management, OR excessively high influence on the board by senior management, with no apparent decision-making process.	Lack of management depth AND dominance of a single generation within senior management and/or at board level AND excessively high influence of board by senior management, with no apparent decision-making process.
Insider and related party risk	Total related party loans: >25% and <40% of Tier 1 capital OR less than 25% of supervisory board is independent, and the apparent risks associated are not addressed.	Total related party loans > 40% of Tier 1 capital OR no member on the supervisory board is independent, and the apparent risks associated are not addressed.
*If not D or E, scoring on an individual component is neutral and does not contribute to the co-operative rating in any way.		

Source: Author and Moody's Investors Service, (2007).

Table 4.3: Risk Management

Risk management and controls	
Risk Management*	
A	**Excellent risk management practices** Very high awareness of the risks of the firm by both supervisory board and senior executives that together, and on an annual basis, establish the firm's risk appetite, and discuss all risk issues at least quarterly. Executives discuss risk issues including the largest credits and investment portfolios and their respective internal limits monthly and on an ongoing basis, e.g., through an asset and liability committee (ALCO)and a risk committee. High effectiveness of governance structure supported by a dedicated credit risk officer (CRO), who reports independently to the supervisory board. The CRO will have regular sessions with the board without other senior management in order to ensure full independence. Risk function is fully independent from business line management, has veto power, and is proactive. Risk management is a key component of the discussion-making process of the bank. Very high quality and robust information systems and practices, commensurate with the bank's risk appetite and profile. These systems and policies are executed without qualm or exceptions. All risks, including credit, market (in both trading and banking books), and operational risk are measured individually using a measure of total

	aggregate risk. Market risk exposures can be detected real-time and credit risk exposures can be extracted the same day. Uniform market and credit risk limits in place and enforced by the institution; limit breaches reported the same day. Proprietary systems developed as additional support to risk control decisions. Quarterly credit portfolio reviews as well as topical customer or industry credit reviews are conducted regularly, including portfolio exposures and assessments of expected loss and economic capital. Stress analyses are done on a regular basis on all risks of the firm. Risk-adjusted performance measures like RAROC are used throughout the firm. **Note:** All the above criteria must be met in order to achieve an A rating.
B	**Very good risk management practices** High awareness of the risks of the firm by both supervisory board and senior executives that together, and on an annual basis, establish the firm's risk appetite and discuss all risk issues at least quarterly. Executives discuss risk issues including the largest credits and investment portfolios and their respective internal limits monthly and on an ongoing basis, e.g. through an ALCO and a risk committee. Effective governance structure supported by a dedicated CRO, who may report independently to the supervisory board. The CRO is not necessarily a member of the management committee. The risk management function is independent from business line management but may have more of an advisory role than having full veto power. Risk management is a key component of the decision-making process of the bank. High quality information systems, measurement tools and practices which are commensurate with the bank's risk appetite and profile. These systems and policies are executed without qualm or exceptions. Credit, market (in both trading and banking books), and operational risk exposures are measured and reported to executives regularly. Market risk exposures can be detected real-time and credit risk exposures can be extracted the same day. Uniform market and credit risk limits in place and enforced throughout the institution; limit breaches reported the same day. Proprietary systems developed as additional support to risk control decisions. Semi-annual credit portfolio reviews as well as topical customer or industry credit reviews conducted regularly, including portfolio exposures and assessments of expected loss and economic capital. Stress analyses and risk adjusted performance measures are used for key business areas. **Note:** To achieve a B score, a large majority of the above criteria must be met, particularly with regard to board involvement in risk matters, the independence and importance of risk management in the firm's business strategy, effective systems and measurement tools commensurate with the bank's business lines and profile, frequent management review of the institution's major exposures, and use of stress tests for key business
C	**Satisfactory risk management practices** Supervisory board is aware of the key risks of the firm but its role in establishing the bank's appetite may be limited. Board should discuss overall risk issues with senior executives on a formal basis at least semi-annually. Executives discuss risk issues monthly and largest credits (including house limits) and investment portfolios and their respective internal limits quarterly, e.g. through an ALCO and a risk committee. Good governance structure. Emerging role of CRO, though not necessarily in place, encompassing credit, market and operational risk. Exposures are reported to executives regularly, and risk units have enforcement power delegated by senior management. Risk functions are independent from business line management; however, credit and market risk teams may have separate reporting lines. Operational risk management structure and database may be starting to develop. Satisfactory information systems and practices in line with the bank's risk profile, but may need further integration or upgrade. Risk management systems and policies are executed, but with some exceptions and not as regularly as necessary. Available data on largest exposures are very good; less timely data available for smaller exposures. Quantitative credit and market risk limits exist, but may not have a comprehensive limit per borrower, perhaps due to a lack of fully integrated systems. Extraction of information on current exposures subject to some delays (but less than a week) or requiring some manual intervention. Credit portfolio reviews are conducted at least annually; largest credits and exposures reviewed more often. Escalation process for limit breaches in place, and enforced within a reasonable amount of time. Slippage may occur, though not frequently. Risk adjusted performance measures may be used. Stress testing may be used on an *ad hoc* basis for only the largest exposures.
D	**Modest risk management practices** Modest awareness of key risks of the firm by supervisory board and senior executives and less than adequate governance structure. Very limited involvement of board in establishing bank's risk appetite (senior executives' role). Risk issues may be discussed less than twice a year by the board; credit and market risks and limits discussed less than quarterly by executives at ALCO and credit risk committees. Have not addressed operational risks in a systematic manner. Developing risk governance structure: no dedicated CRO overseeing all business risks. Risk function not fully independent, and may report to business line management; credit and market risk teams may have separate reporting lines. No formally scheduled annual credit portfolio review. Developing information systems, uneven quality, availability, and timeliness of risk data: weakness in measuring and monitoring risks, with policies and systems not sufficiently executed. Current exposures only available with delays in excess of a week, and require manual intervention to remove inaccuracies. *Ad hoc* quantitative risk limits and significant weaknesses in escalation process (a week or more). Slippage may occur from time to time. Risk-adjusted performance measures are not used. Stress tests used in limited fashion.
E	**Poor risk management practices** Poor awareness of key risks of the firm by supervisory board and senior executives and weak risk governance structure. No board involvement in establishing bank's risk appetite or strategy. Risk issues may be discussed on an *ad hoc* basis by executives, but may be too infrequent or superficial to be effective. No dedicated CRO overseeing all business risks. Risk function not independent from business line management. Developing information systems, uneven quality, availability, and timeliness of risk data: weakness in measuring and monitoring risks. Current exposures only available with delays in excess of a week, and require manual

	intervention to remove inaccuracies. No formalised system of quantitative risk limits or regular portfolio reviews. Credit risk committee meetings are *ad hoc*. No ALCO exists or there is a lack in the depth of risk management structure. Market risk and quantitative tools to measure risk management are undeveloped. Operational risk has probably not yet been addressed. Poor information systems, leading to weak quality, availability, and timeliness of risk data, limit the escalation process and allow for limited corrective action. Extracting of risk exposure data is mainly a manual process that may take weeks or months to complete. Stress tests and risk-adjusted performance measures are not in use.
* Basel II compliance is not necessary. However, banks that make use of forward-looking, comprehensive and effective risk management practices will be positively scored compared to those who do not. The manner in which policies are applied or deviated from will play a major role in this sub-section as policies in themselves serve no purpose if they are not adhered to.	

Source: Author and Moody's Investors Service, (2007).

Table 4.4: Controls and financial reporting transparency

	A	B	C	D	E
Controls*	No control or governance issues in the last 5 years.	Between 1 and 2 minor control or governance issues in the last 5 years. No qualified audits in the last 5 years.	1 major control or governance issue in the last 5 years.	Between 1 or 2 major control or governance issues in the last 5 years, or any deliberate earnings mistreatment in the same period.	Weak controls with more than 2 major control or governance issues in the last 5 yrs, or any past fraud by current senior management.
Financial reporting transparency					
Global comparability	Consolidated financial statements prepared under IFRS/ US GAAP or GAAP that is substantially based on IFRS or US GAAP and audited by a independent, globally recognised accounting firm.	Consolidated financial statements prepared under IFRS/ US GAAP or GAAP that is substantially based on IFRS or US GAAP and audited by an independent, nationally recognised accounting firm.	Unconsolidated financial statements prepared under SA GAAP or GAAP that is substantially based on SA GAAP and audited by an independent globally or nationally recognised accounting firm.	Financial statements audited by an independent accounting firm.	Financial statements not audited by an independent accounting firm.
Frequency and timeliness	Quarterly reports within 12 weeks after reporting date.	Semi-annual reporting within 12 weeks after reporting date, AND quarterly trading updates.	Semi-annual reporting within 14 weeks after the reporting date, AND quarterly trading updates.	Semi-annual reporting within 16 weeks of reporting date, no quarterly trading updates.	Does not fall in the previously mentioned categories.
Quality of public financial information	Published financial statements are presented in a user-friendly manner and all important information is disclosed at least annually, with most information disclosed semi-annually or quarterly. This includes PLs,	Financial statements are presented in a user friendly manner, with most important information being included. However, disclosure is not as full as for A. Management analysis provides full insight into business and	Management analysis provides good insight into business and financial performance of the bank based on economic substance and gives and provides good understanding about the level of risk carried by the bank in	Adequate disclosures, some information may be missing. Management analysis provides some insight into business and financial performance of the bank and provides adequate understanding	Limited disclosure, critical information may be missing. Limited or no discussion of business and financial performance of the bank. Boilerplate language is used to describe risk.

	PL coverage provisions, RWAs, Tier 1 ratio, credit risk concentration (as defined in table below), detailed business line performance, funding structure, and use of derivatives for trading and hedging purposes. Management analysis provides full insight into business and financial performance of the bank based on economic substance and gives a comprehensive and customised description of the level of risk carried by the bank in issuer specific language. All financial information is publicly available, thus disclosing in excess of standardised checklist.	financial performance of the bank based on economic substance and gives a comprehensive and customised description of the level of risk carried by the bank in issuer specific language. All financial information is publicly available, thus disclosing in excess of standardised checklist.	issuer specific language. The quality of disclosure is not as good as for categories A or B, but is available. All financial information is publicly available, thus disclosing according standardised checklist.	about the level of risk carried by the bank, although in a boilerplate language and some disclosures may be lacking. Important financial information is publicly available, thus disclosing less than required by the standardised checklist. If the PLs, RWAs, or Tier 1 ratio is not disclosed, the bank must fall in either this category or below.	Only limited financial information is available, such as key financial indicators.

*A major control issue is a breakdown in audit, risk management operations accounting and/or compliance with the National Credit Act, the Financial Intelligence Centre Act, the Co-operatives Act or the Co-operative Banks Act that results in either regulatory sanctions or constraints on activities, or large penalties or fines relative to those imposed on firms for that type of issue in that jurisdiction, economic losses, sizable litigation exposures, OR damage to reputation.
(ii) A minor control issue more commonly results in no economic losses, may involve regulatory agreements seeking corrections (but no sanctions), and causes little or no reputation damage.
(iii) Suggestions for control improvements made during the normal course of business by a regulator, external auditor or internal control executives are generally not considered control issues. In addition, legal settlements made with regard to common business practices would also not be considered a control issue, unless the settlement costs or fines are outsized for that type of issue in a given jurisdiction.

Source: Author and Moody's Investors Service, (2007).

Table 4.5: Credit risk concentration

	A	B	C	D	E
Credit risk concentration*					
Borrower concentration**	Top 20 group exposures are the worse of <50% of Tier 1 OR <100% of pre-tax pre-provision income (PPI)	Top 20 group exposures are the worse of 50%-80% of Tier 1 OR <100%-200% of PPI	Top 20 group exposures are the worse of 80%-100% of Tier 1 OR 200-350% of PPI	Top 20 group exposures are the worse of 100%-200% of Tier 1 OR 350%-750% of PPI	Top 20 group exposures are the worse of >200% of Tier 1 OR >750% of PPI
Industry concentration	Largest single sector concentration is <50% of Tier 1	Largest single sector concentration is 50% - 200% of Tier 1	Largest single sector concentration is 200% – 350% of Tier 1	Largest single sector concentration is 350% - 500% of Tier 1	Largest single sector concentration is >500% of Tier 1

* The overall credit risk concentration score equals the lower score of borrower concentration or industry concentration.
**Based on the sum of the 20 largest group exposures. "Group exposure" includes the aggregate of all loans (outstanding amounts plus undrawn committed exposures), investment or trading exposures, counterparty exposures, etc. to related borrowers within a group or family. Excludes advised lines or internal limits, i.e. those instances where the bank is not obligated to extend credit. Also includes government-related and private sector exposures.

Industry concentration measures exposures to borrowers in specific industries or sectors of the economy; for example, commercial real estate, oil and gas, fishing, mining, etc. Does not include exposures to specific product lines. Aggregate exposure to banking or financial institutions is considered to be an industry concentration. Aggregate exposures to the "public sector" are not considered to be an industry concentration unless the public sector entities are highly correlated.

Source: Author and Moody's Investors Service, (2007).

Table 4.6: Liquidity management

	Liquidity management*
A	**Excellent liquidity management** Effective measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active (secondary and tertiary co-operatives). Effective board and senior management oversight underpinned by good MIS that provides timely and sufficiently detailed info. Limits are appropriate to the size, complexity and financial condition of the bank. Banks in this category should have positive net funding – defined as Sources/Inflows (S) minus Uses/Outflows (U) in excess of zero at every point in time over 12 months non-access to unsecured capital markets, with no reduction in business activities. Specifically, an A bank can pay all its liabilities as they fall due over the next 12 months with (i) no recourse to unsecured funding in the capital markets, (ii) no recourse to its own class 4 or class 5 liquidity sources (see table below), and (iii) no reduction in business activity (e.g. maturing loans would not constitute a Source, but rather would be rolled or replaced with new lending). Also, the extent that banks in this category rely upon non-core funding, they should enjoy sufficient diversification of funding sources by type, nature of the provider of funds and geographic market and enjoy strong relationships with key providers of funding (indicated by frequency of both contact and use of funding source). Liquidity contingency planning is prudent, incorporating an analysis of net funding requirements under both bank-specific and market-related crises).
B	**Very good liquidity management** Effective measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active (secondary and tertiary co-operatives). Effective board and senior management oversight underpinned by good MIS that provides timely and sufficiently detailed info. Limits are appropriate to the size, complexity and financial condition of the bank. As a general rule, banks in this category also should have positive net funding at every point in time over 12 months non-access to unsecured capital markets with a modest reduction in business activities. Specifically, a B bank can pay all its liabilities as they fall due over the next 12 months with, (i) no recourse to unsecured funding in the capital markets, (ii) limited recourse to its own class 4 liquidity sources, (iii) no recourse in its own class 5 liquidity sources, and (iv) only a modest reduction in business activity (any reduction in business activity limited to non-core, non-franchise business). Also, the extent that banks in this category rely upon non-core funding, they should enjoy sufficient diversification of funding sources by type, nature of the provider of funds and geographic market and enjoy strong relationships with key providers of funding (indicated by frequency of contact and use of funding source). Liquidity contingency planning is prudent, incorporating an analysis of net funding requirements under both bank-specific and market-related crises).

C	**Satisfactory liquidity management** Effective measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active (secondary and tertiary co-operatives). Effective board and senior management oversight underpinned by good MIS that provides timely and sufficiently detailed info. Limits are appropriate to the size, complexity and financial condition of the bank. As a general rule, banks in this category should have positive net funding at every point in time over 12 months non-access to unsecured capital markets, with only a modest reduction in business activities. Specifically, a C bank can pay all its liabilities as they fall due over the next 12 months with (i) no recourse to unsecured funding in the capital markets, (ii) heavy reliance on its own class 4 liquidity sources, (iii) no recourse to its own class 5 liquidity sources, and (iv) only a modest reduction in business activity (no reduction in business activity that could permanently impair franchise value owing to a loss of customer reputation). Modest diversification of funding sources by type, nature of the provider of funds and geographic market and questionable relationships with key providers of funding (indicated by frequency of contact and use of funding source). Liquidity contingency planning is prudent, incorporating an analysis of net funding requirements under both bank-specific and market-related crises).
D	**Modest liquidity management** Questionable measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active (secondary and tertiary co-operatives). Questionable board and senior management oversight underpinned by good MIS that provides timely and sufficiently detailed info. Limits may not be appropriate to the size, complexity and financial condition of the bank. As a general rule, banks in this category should have positive net funding at every point in time over 12 months non-access to unsecured capital markets, but may have some timing gaps and some reduction in business activities. Specifically, a D bank can pay all its liabilities more or less as they fall due over the next 12 months although there may be some gaps in the timing, with (i) no recourse to unsecured funding in the capital markets, (ii) recourse to all sources of liquidity classes, including 5, and (iv) some reduction in business activity (eg: less than half its maturing loans could be replaced or rolled with new lending). Modest diversification of funding sources by type, nature of the provider of funds and geographic market and questionable relationships with key providers of funding (indicated by frequency of contact and use of funding source). Less realistic liquidity contingency planning.
E	**Poor liquidity management** Institutions that do not qualify for previous categories

*Liquidity management notes:
This sub-factor focuses on how well a bank can manage a name-specific distribution of its funding. This could be the result of investor reaction to problems at similar institutions or to problems at the bank itself, including a multi-notch downgrade. While such a downgrade may be unlikely, a highly rated bank is nonetheless expected to be able to survive a multi-notch downgrade without defaulting on its obligations (or requiring a bailout to avoid default). The focus is on how quickly and easily the bank will be able to access alternative liquidity to meet ongoing liquidity needs in the event the bank suffers a loss of access to unsecured funding.

Liquidity uses/outflows (U)
Liabilities falling due – wholesale debt as well as other confidence sensitive deposits – and contingent liabilities (i.e. committed line of credit that can be drawn down as well as other funding requirements for off-balance sheet commitments such as letters of credit and financial guarantees, swaps, written OTC options, margin calls etc.) Factors such as diversification and relationship building are seen as especially important in evaluating the extent of liability run-off and a bank's capacity to replace funds. Matched books (e.g. repos) should be netted, and only net liability amounts considered a use.

Liquidity sources/inflows (S) By class (based on time within which can be converted to cash)
Sources of liquidity include cash flows from operations and dividends from subsidiaries (net of taxes, and only if not restricted by a subsidiary's regulator) plus the following sources and should be estimated net of reasonable haircuts for price fluctuations, etc.. Maturing assets should be considered a source of liquidity only to the extent the corresponding reduction in business activity is consistent with the scoring described above.

CLASS 1 (1 week sources)
Cash government securities or other assets which can be sold/repoed/used as collateral in the market (with appropriate haircuts) or are eligible as collateral in central bank's routine open market options (but only if such central bank borrowings will not jeopardise customer confidence), and established and committed secured and unsecured credit lines with no Material Adverse Change (MAC) clauses from similar or higher rated banks.

CLASS 2 (2 week sources)
Other marketable securities such as listed equities and interbank loans with appropriate haircuts, and assets that can be used as collateral in well-established securitisation and/or covered bond programmes (programmes must be able to provide cash within two weeks).

CLASS 3 (3 month sources)
Banks' saleable loan portfolio with reasonable schedule for disposal. Includes assets that can be used as collateral in established securitisation and/or covered bond programmes (but only for banks that have used such *programmes* within the past year for this class of assets). Limited credit should be given to (i) markets where loans are not frequently transferred and do not routinely include loan-sale clauses in loan documentation, (ii) for those banks that

have not developed a network of customers with whom loan-purchase agreements can be concluded. CLASS 4 (3-6 month sources) Illiquid loans or securities not capable of being readily sold, including assets that can be used as collateral in securitisations or covered bonds, but at banks that have not utilised such assets in a securitisation or covered bond programme within the past year. CLASS 5 (uncertain sources) Bank premises, investment in subsidiaries, private equity holdings, subordinate/mezzanine debt holdings, and troubled credits.

Source: Author and Moody's Investors Service, (2007).

Table 4.7: Market risk appetite

	A	B	C	D	E
Market risk appetite*	< 15% of Tier 1 capital is at risk due to market risk events	16%-25% of Tier 1 capital is at risk	26%-35% of Tier 1 capital is at risk	36%-50%of Tier 1 capital is at risk	> 50%of Tier 1 capital is at risk

*

1) If stress tests or economic capital allocated to market risk capture the potential loss of both the trading and banking books to major market movements are available, the results should be used, expressed as a percentage of Tier 1 capital, as the measure of market risk appetite.
2) If stress tests are not available, add up separately estimated losses coming from the trading and banking books, and express as a percentage of Tier 1 capital:

(a) For the trading book, multiply 5 times the 10-day 99% average VaR for a firms' trading book for a given calendar year (a 1-day 99% VaR can be converted to 10-day 99% by using a multiplicative factor of 3.162).
(b) For the banking book, estimate the open, unhedged positions of the firm for each of the following risks to calculate the potential loss before tax for each risk based on the sensitivity of the book to the following stress tests. If available, one year VaR can be used for those risks on which it is reported, stress test should be calculated for the other risks.

	Interest rate risk	Equity risk	Foreign currency risk
Developing markets	+/- 500bps	50%	40%

Source: Author and Moody's Investors Service, (2007).

4.2.3 Rating factor 3: Regulatory environment

No adjustments are proposed to Moody's BFSR rating criteria in this section as it evaluates the regulatory environment in which banks operate, and does not form part of the internal CBSA environment. It should be applied without alterations.

For a discussion of the rating criteria pertaining to the regulatory environment, please see chapter 3.

4.2.4 Rating factor 4: Operating environment

No adjustments are proposed to Moody's BFSR rating criteria in this section as it evaluates the operating environment in which banks operate, and does not form part of the internal CBSA environment. Rather it focuses on evaluating certain country parameters relating to its political, socio- and economic systems, as indicated in table 4.8 below.

Table 4.8: Operating environment

	A	B	C	D	E
Economic stability	Standard deviation of GDP growth < 2.3	Standard deviation of GDP growth 2.3 – 4.0	Standard deviation of GDP growth 4.0 – 7.0	Standard deviation of GDP growth 7.0 – 12.0	Standard deviation of GDP growth > 12.0
Integrity and corruption	WB corruption index >/= 2.00	WB corruption index between 1.20 and -1.99	WB corruption index between 0.60 and -1.19	WB corruption index between 0.35 and 0.59	WB corruption index < -0.35
Legal system*	Length of foreclosure on residential real estate < 1yr	Length of foreclosure on residential real estate 1-2 yrs	Length of foreclosure on residential real estate 2-3 yrs	Length of foreclosure on residential real estate 3-5 yrs	Length of foreclosure on residential real estate > 5 yrs
* Legal systems should be evaluated primarily as stipulated in the table above. If this information is not readily available or is not considered indicative of the overall rule of law, analysts will evaluate the legal system on the basis of the effectiveness of commercial contract law, the perfection of collateral, bankruptcy laws or other considerations in light of their impact on the banking system. However, if foreclosure data is not used, then the score cannot exceed a C.					

Source: Author and Moody's Investors Service, (2007).

For a more detailed discussion on the rating criteria pertaining to the operating environment, please see chapter 3.

4.2.5 Rating factor 5: Financial fundamentals

With regard to financial fundamentals, no changes are proposed to the BFSR rating criteria in terms of the profitability rating criteria. However, some alterations are necessary with regard to liquidity, efficiency, asset quality and capital adequacy.

Liquidity should focus on three areas, namely:

- net cash flow being greater than zero, where inflows include new and current deposits and outflows include new and current loans, as well as deposit withdrawals.
- Anticipated cash flow and the size of the liquid asset portfolio.
- The ease op case conversion of a portfolio, given its composition (Vosloo & Styger, 2008).

The *efficiency* ratio should be broadened to include total cost to net interest income (NII), total cost to fee income, operational cost to NII and operational cost to fee income and not just remain at the cost-to-income ratio. This is required as some CBSA's income ratios will be low due to benefits in income being diverted to its members (Vosloo & Styger, 2008).

The ratios on *asset quality* should also be broadened to include a measurement reflecting the quality of the amalgamated book. Additional ratios should include provisions for uncertain advances as a percentage of both risk-weighted assets and total loans and advances, as well as a bad debt ratio.

Finally, *capital adequacy* should at least be equal to 10% as this used to be the Basel Tier 1 requirement (it has now been changed to 8%), irrespective of the regulatory requirements set for CBSAs. Furthermore, both specified and unspecified should also be measured instead of measuring tangible common equity as a percentage of risk-weighted assets. This is because reserves provide further indication regarding adequacy against losses.

Table 4.9 indicates the ratios and percentages required from CBSAs in order for them to receive a specific rating.

Table 4.9: Financial fundamentals

	A	B		C		D		E
Profitability	>=	>=	<	>=	<	>=	<	<
PPP % of Avg RWA	3.5%	2.4%	3.5%	1.4%	2.4%	0.5%	1.4%	0.5%
NI % Avg RWA	2.0%	1.7%	2.0%	1.0%	1.7%	0.3%	1.0%	0.3%
Liquidity	<	>=	<	>=	<	>=	<	<
Net cash flow / net cost	135%	135%	125%	125%	115%	115%	105%	105%
Liquid management score from risk positioning	A	B		C		D		E
Convertibility (As % of asset value)	5.0%	5.0%	10%	10%	15%	15%	25%	25%
Capital Adequacy	>=	>=	<	>=	<	>=	<	<
Tier 1 ratio (%)	10%	8.0%	10%	6.0%	8.0%	4.0%	6.0%	4.0%
Specified equity % RWA	7.0%	5.5%	7.0%	4.0%	5.5%	2.5%	4.0%	2.5%
Unspecified equity % RWA	7.0%	5.5%	7.0%	4.0%	5.5%	2.5%	4.0%	2.5%
Efficiency*	<	>=	<	>=	<	>=	<	>=
NII / Total cost	75%	75%	85%	85%	95%	95%	105%	105%
Fee income / Total cost	5.0%	5.0%	3.0%	3.0%	2.0%	2.0%	1.0%	1.0%
Oper. cost / NII	25%	25%	35%	35%	45%	45%	55%	55%
Fee income/Oper. cost	8.0%	8.0%	6.0%	6.0%	4.0%	4.0%	2.0%	2.0%
Asset Quality	<	>=	<	>=	<	>=	<	>=
Problem loans % Gross loans	0.8%	0.8%	2.0%	2.0%	5.0%	5.0%	12%	12%
Problem loans % (shareholders' equity + LLR)	10%	10%	20%	20%	30%	30%	50%	50%
Total assets % RWA	65%	65%	67%	67%	70%	70%	72.5%	72.5%
Uncertain advances % total loans and advances	0.3%	0.3%	0.5%	0.5%	0.8%	0.8%	1.0%	1.0%
Bad debt ratio.	1.0%	1.0%	3.0%	3.0%	5.0%	5.0%	7.0%	7.0%

Source: Author and Moody's Investors Service, (2007).

4.2.6 Rating factor 6: Policy implementation

This sub-factor is a combination of all the above-mentioned factors. It takes into consideration whether the co-operative bank has policies in place for credit risk, liquidity risk, market risk, operational risk and key man risk. These are basic yes or no questions which indicate whether the management of the co-operative bank takes these factors into consideration.

The second part of this sub-factor takes into consideration how frequently these policies are implemented and to what extent the pre-decided warnings and ratios are adhered to. These policies are all evaluated according to a five-point scale

indicating how strictly these policies are adhered to. The rating criteria for this sub-factor are provided in table 4.10.

Table 4.10: Policy implementation

	A	B	C	D	E
Policy Existence*					
Credit Risk	A written and fixed risk management policy does exist. E.g. ALCO or VAR.			Policy does exist, but is more of a mindset, rather than written down guidelines.	Co-operative does not have any policy in place pertaining to any of the risks mentioned.
Liquidity Risk					
Operational Risk					
Market Risk					
Key man Risk					
Policy Implementation	**A**	**B**	**C**	**D**	**E**
Credit Risk	Policy, ratios and early warning systems are kept to >90%.	Policy, ratios and early warning systems are kept to between 70%-89% of the time.	Policy, ratios and early warning systems are kept to between 50%-69% of the time.	Policy, ratios and early warning systems are kept to between 40%-49% of the time.	Policy, ratios and early warning systems are kept to <40% of the time.
Liquidity Risk					
Operational Risk					
Market Risk					
Key Man Risk					

* If the policies do exist and are followed, the co-operative receives an automatic A grading. If not, either a D or E rating is available.

Source: Author and Moody's Investors Service, (2007).

4.2.7 Overall weights

The following table provides the weights each category and sub-category has in the final rating of the bank.

Table 4.11: Overall weighting

				Category Weight	Overall Weight		Sub-factor Weight	Overall Weight
DEVELOPINGG MARKETS	Qualitative factors	60%	Franchise value	10%	6%	Market share and sustainability	25%	1.5%
						Geographical diversification	25%	1.5%
						Earnings stability	25%	1.5%
						Earnings diversification	25%	1.5%
			Risk positioning	30%	18%	Corporate governance	16.67%	3.%
						Controls & Risk management	16.67%	3.%
						Financial reporting transparency	16.67%	3.%
						Credit risk concentration	16.67%	3.%
						Liquidity management	16.67%	3.%
						Market risk appetite	16.67%	3.%
			Regulatory environment	30%	18%	Regulatory environment	100%	18%
			Operating environment	30%	18%	Economic stability	33.33%	6%
						Integrity and corruption	33.33%	6%
						Legal system	33.33%	6%

	Financial factors	30%	Profitability	15.75%	4.725%	PPP% Avg RWA Net income % AVG RWA	50% 50%	2.363% 2.363%
			Liquidity	15.75%	4.725%	(Market funds – liquid assets) % total assets Liquidity management	40% 60%	1.89% 2.835%
			Capital Adequacy	15.75%	4.725%	Tier 1 ration (%) Tangible common equity	50% 50%	2.36% 2.36%
			Efficiency	7%	2.1%	Cost/income ratio	100%	2.1%
			Asset quality	15.75%	4.725%	Problem loans % gross loans Problem loans % (equity + LLR)	50% 50%	2.363% 2.363%
			Lowest score	30%	9%	Assigned to lowest combined financial factor score	100%	9%
	Policy implementation	10%	Policy existence	50%	5%	Credit risk policy Liquidity risk policy Market risk policy Operational risk policy Key man risk policy	10% 10% 10% 10% 10%	1.0% 1.0% 1.0% 1.0% 1.0%
			Policy implementation	50%	5%	Credit risk policy Liquidity risk policy Market risk policy Operational risk policy Key man risk policy	30% 20% 20% 20% 10%	1.5% 1.0% 1.0% 1.0% 0.5%

Source: Author and Moody's Investors Service, (2007).

4.3 Conclusion

In section 4.2, a co-operative rating method was developed in order to better cater for the CBSA market and to assist the government in reaching the unbanked population of South Africa.

The next chapter addresses the results of the feedback received from a standardised questionnaire – created and sent to five banks in order to identify which policies and sub-factors have a larger bearing on ratings, as well as testing whether the assigned weights are correct.

CHAPTER 5

APPROPRIATENESS OF RATING METHODOLOGY

5.1 Introduction

In the previous chapter, a credit rating method was proposed in which the nature of CBSAs was taken into account. Changes were proposed in terms of how franchise value, risk positioning and the financial fundamentals, along with their sub-factors, are to be rated. Findings indicated that greater emphasis should be applied to the experience of prudent and thorough management practices, along with their increased informational capabilities. No changes were proposed to the rating methodology of the regulatory and operating environments, as these do not form part of the internal CBSA environment.

In this chapter, the proposed methodology is tested in terms of its suitability for credit co-operatives in South Africa. Financial fundamentals are excluded as the co-operatives did not wish to make such information available. The regulatory and operating environments were also excluded for the previously mentioned reasons.

Five credit unions of different sizes in the Gauteng and North West provinces were supplied with a questionnaire. The client bases of the co-operatives ranged from just over 400 clients to upwards of 2000 clients. In this study, there was a strong relationship between the book size of each co-operative and its client base, though this might not always be the case. The questionnaire was sent to the public relations office of each credit union, as published on SACCOL's website, with a request for the questionnaire to be forwarded to the appropriate staff member. Subsequently, a meeting was then scheduled for two weeks later, to discuss these questions with the appropriate persons. Only three of the

banks' offices replied to the questionnaire, the other two were either too busy or did not find it to their advantage to partake in the study. These three banks were, however, well diversified in terms of size, geographic location, economic sector dependence and financial strength, and thus met these essential requirements of the study.

During the meetings with the two larger co-operatives, only the respective public relations officers were present. At the meeting with the smallest of the co-operatives, the entire senior management was present. After considering the questionnaire during these meetings, the co-operatives were asked to rate themselves on a five-point scale. Additional important factors were also discussed where it was deemed necessary. Prior research was done with regard to each of the co-operative's client base, financial strength and size.

5.2 Results

Each of the three banks received a questionnaire and were assigned a rating of between one and five (five being the highest and one the lowest), depending on the applicability of the specific qualitative factor at the co-operative bank. The remainder of the questions were in open field format allowing the banks to provide their answers by means of narrative text or data input (see questionnaire in Appendix C). All the participating co-operatives' clients were from their local district or community and were open to everybody in that district. One of the non-participating co-operatives, however, served only employees of a specific company. The results of the questionnaire are discussed in the following sections.

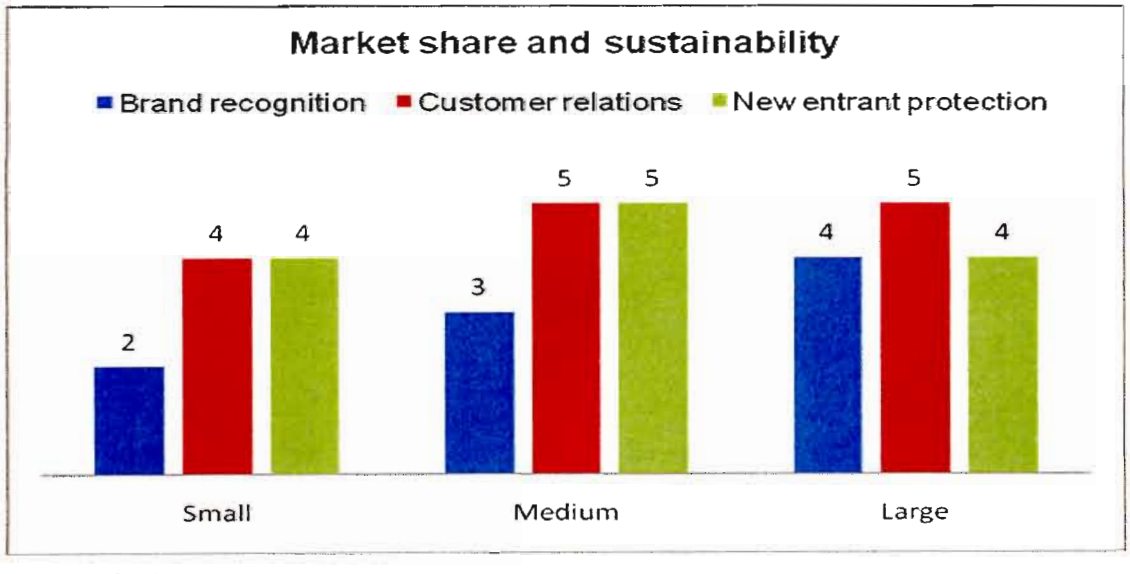
5.2.1 Franchise value

Market share and sustainability. In this sub-category, all the co-operatives scored well, as can be seen in figure 5.1. All three of these banks were the only

South African Credit Co-operatives (SACCO) in their area, which was expected as co-operatives are still a relatively new concept in South Africa. Size is a relevant factor regarding brand recognition, as the largest of the three co-operatives enjoyed the best brand recognition and the smallest the worst. However, the smallest was still relatively new which could have contributed to its lower score.

All three co-operatives gave themselves very high scores in terms of their customer relationships, with the smallest bank rating itself four out of five in this sub-category. This was to be expected as the majority of co-operatives make use of relationship banking as discussed in chapter 4. Most co-operatives are well protected in terms of new competitors entering the market through legislation, their strong relationships with their clients and also the local market environment. This was evident as all three co-operatives scored four or above in this category.

Figure 5.1: Market share and sustainability.



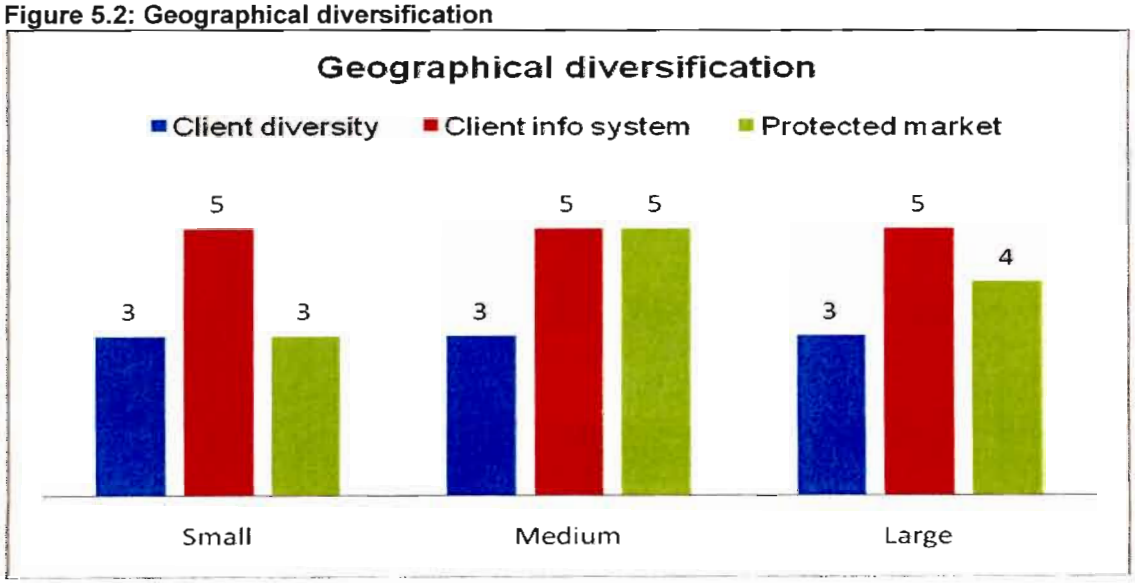
Source: Author.

Geographic diversification. In respect to this sub-factor, the co-operatives were not diversified at all with regard to their physical locations and served only

members of their own respective communities or districts. All the co-operatives scored a three on the diversity of their client base in terms of economic activity. Some co-operatives also had hawkers making up part of their customer base, which is indicative of the lower income groups that comprise their clients and which the co-operatives aim to serve. This is partly due to job opportunities in rural areas being very limited, together with high unemployment caused by increasing urbanisation. All the co-operatives gave themselves a rating of five in terms of the system which captures client information.

Only one of the three co-operatives took collateral against loans in the form of a monthly fee of R100 paid by all clients, irrespective of whether they had a loan or not. In terms of the safety of their market or market share, the smallest co-operative rated itself a three as it is a fairly new co-operative. However, the large and medium-sized co-operatives scored four and five respectively. They both contributed this rating to customer loyalty and the relationships they had with their clients. Figure 5.2 provides a visualisation of the co-operatives' scores in this sub-category.

Figure 5.2: Geographical diversification



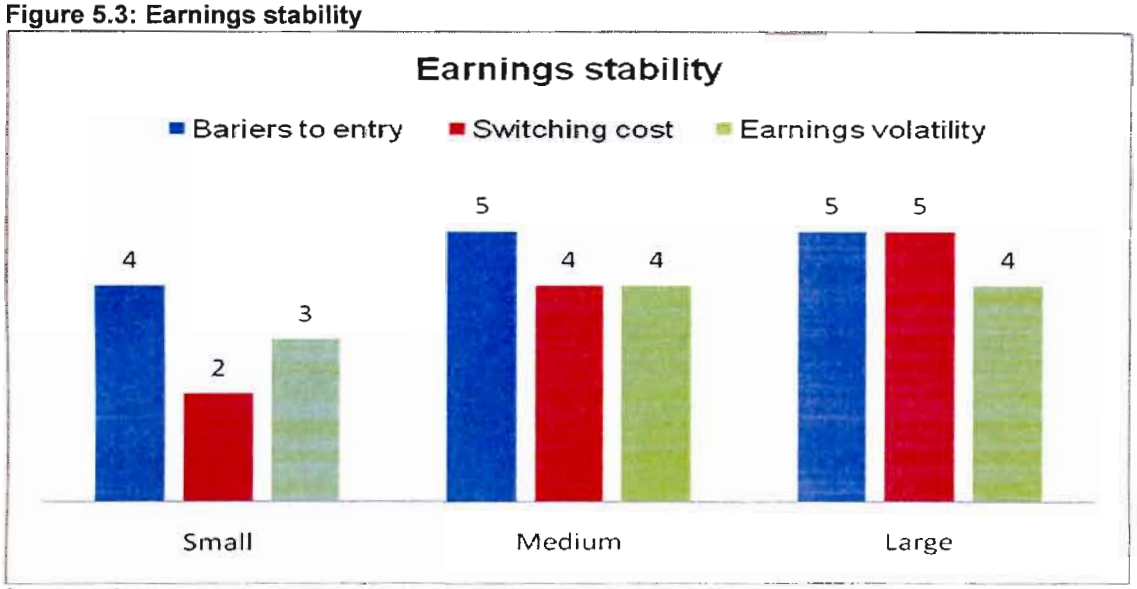
Source: Author.

Earnings stability. In terms of this sub-factor, answers varied dramatically in terms of their client base, their main sources of business and the areas in which the co-operatives were based. The main source of income for the two larger co-operatives was income received from interest charged, with the smallest of the three receiving the bulk of its income from joining and administrative fees. This can be attributed to the smallest co-operative being in its start-up phase, whilst the other two were already well established and operated in the mature phase of their business life cycles.

The only co-operative bank to have any other form of recurring income was the largest of the three with 5% of its recurring income not being in the form of interest. The other two only had interest as a recurring income. This can be attributed to the largest co-operative being city-based, whilst the other two were in smaller towns and they did not have such a wide variety of products. Due to the nature of these banks, recurring income cannot be generated if there is insufficient demand for a certain product within that community.

The quality of the co-operatives' earnings stability varied according to their size. All three believed that there were strong barriers to entry, and the smallest scored very low in terms of switching cost whereas the other two scored higher. In terms of the volatility of their earnings, the larger two co-operatives scored well, whilst the smallest did not. In fact, the latter scored considerably lower in every aspect of earnings stability. The large uncertainty associated with new ventures, together with the trying global economic circumstances, could be the cause of the small co-operative's poor score in this sub-factor. The scores of each bank to the questions provided are given in figure 5.3.

Figure 5.3: Earnings stability

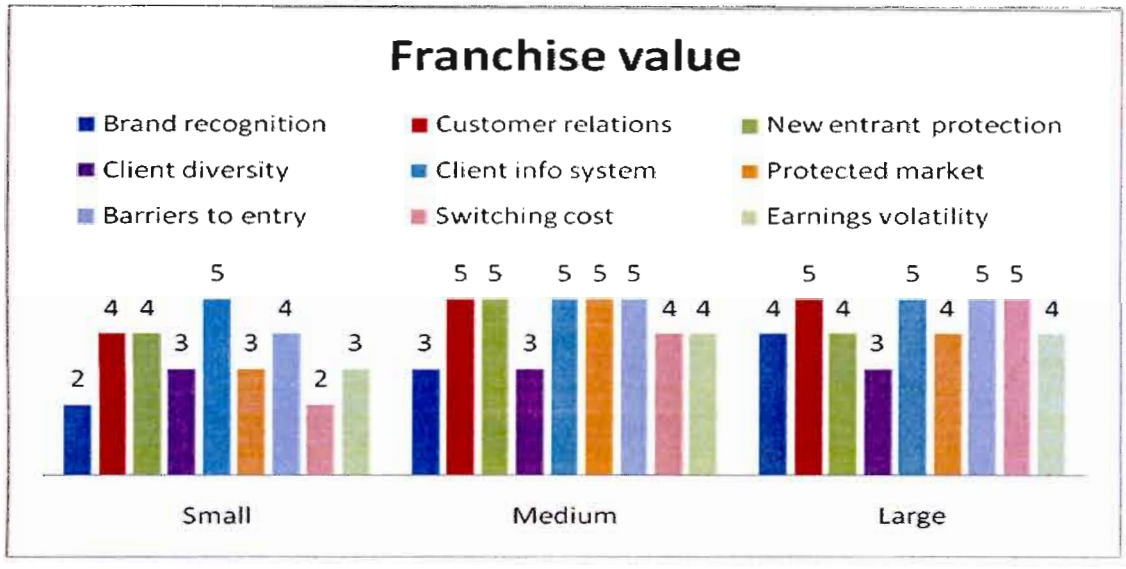


Source: Author

Earnings diversification. All three co-operatives' main line of business was in savings and loans and in mobilising these products to the advantage of their clients and community. This is consistent with the historic business nature and aims of co-operative banks. The largest co-operative offered the most products and scored the highest in this sub-category. Both the medium and small co-operatives only had five products and carried a higher risk than the larger co-operative. However, all three had a variety of loan types, rather than totally different products in different sectors. Only one of the three co-operatives sold a form of insurance product, other than funeral insurance, and none provided any type of investment options for their clients. All the co-operatives took deposits.

Figure 5.4 provides an amalgamated graph of the previous three in order to provide an overview of the scores of the co-operative banks.

Figure 5.4: Franchise value



Source: Author

5.2.2 Risk positioning

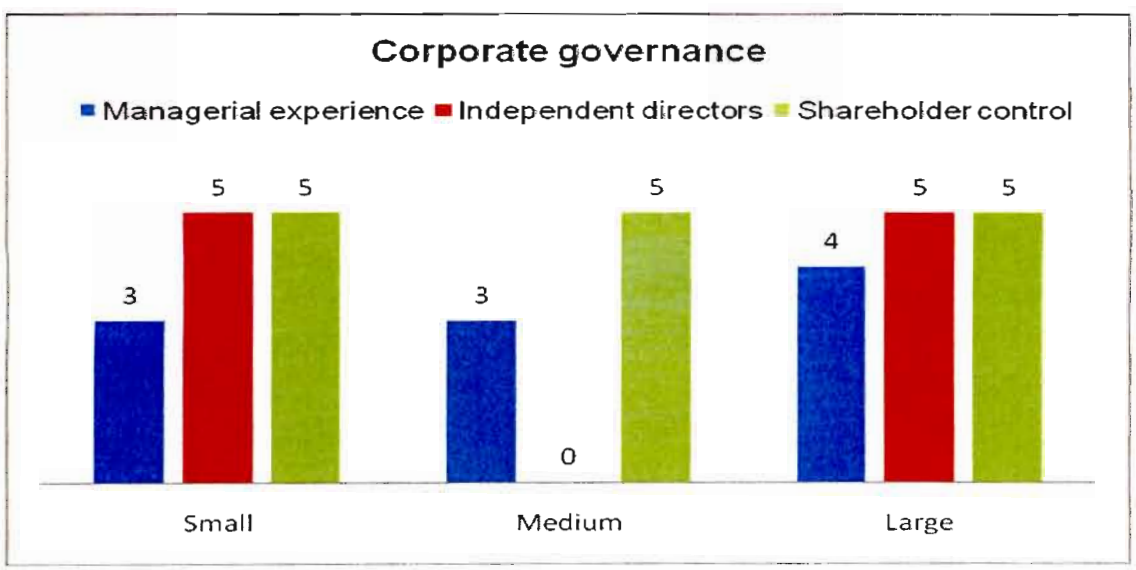
Corporate governance. As previously stated, corporate governance acts as an indicator of the board's efficiency, structure and experience in dealing with risk. In terms of the rating criteria, the size of the co-operative had a bearing on the quality of corporate governance, with the largest of the banks scoring the highest, and for the smallest it was the lowest. In terms of managerial experience, the largest of the co-operatives rated themselves as four and the other two as three respectively. However, another explanation for the findings could be that the largest of the co-operatives operated in a city, whereas the other two were situated in smaller rural towns. This could have led to a higher availability of managerial skills and experience for the largest co-operative.

In terms of the manner in which the board dealt with risk, the results indicated that the largest co-operative had the most structured management policy. The smaller co-operatives only dealt with such risks at monthly board meetings and also only addressed those risks that were most prominent at that moment. All of

the co-operatives had monthly board meetings with interim emergency meetings if necessary.

Size did not make a difference in terms of the independence of directors. The smallest and largest both had entirely independent directors, whilst the medium-sized co-operatives' directors had to be members of the co-operative. However, all co-operatives adhered to the principle of one member one vote, and rated themselves a full five out of five in terms of shareholder control. This indicated that the members of each co-operative had significant bearing on the direction that the union was moving, as well as the products it would develop and offer to its clients.

Figure 5.5: Corporate governance



Source: Author.

Controls and risk management. In terms of key man risk, none of the co-operatives had large dependency on any single person, or group of persons. This should be advantageous to these co-operatives as legislation does not allow directors to serve more than two terms. Insider or related party risk is a phenomenon which is not present at all in any of the co-operatives, as all rated themselves a five out of the possible five marks in this respect.

To a large extent, senior management had a strong influence on the decisions made by the board, except for the smallest co-operative which had an average influence. The fact that co-operatives may be influenced by senior management may hold both positive and negative possibilities for a credit union. On the positive side, management has a better idea of events in the economic markets, as well as with the products that they sell. As credit unions have a large percentage of unskilled and unschooled clients, this could be of importance when the right decisions need to be made for the co-operative, irrespective of the feelings or emotional influences of the clients. However, policies should be in place allowing steps to be taken if it is deemed that the management or board make decisions for their own profit and not for the benefit of the co-operative.

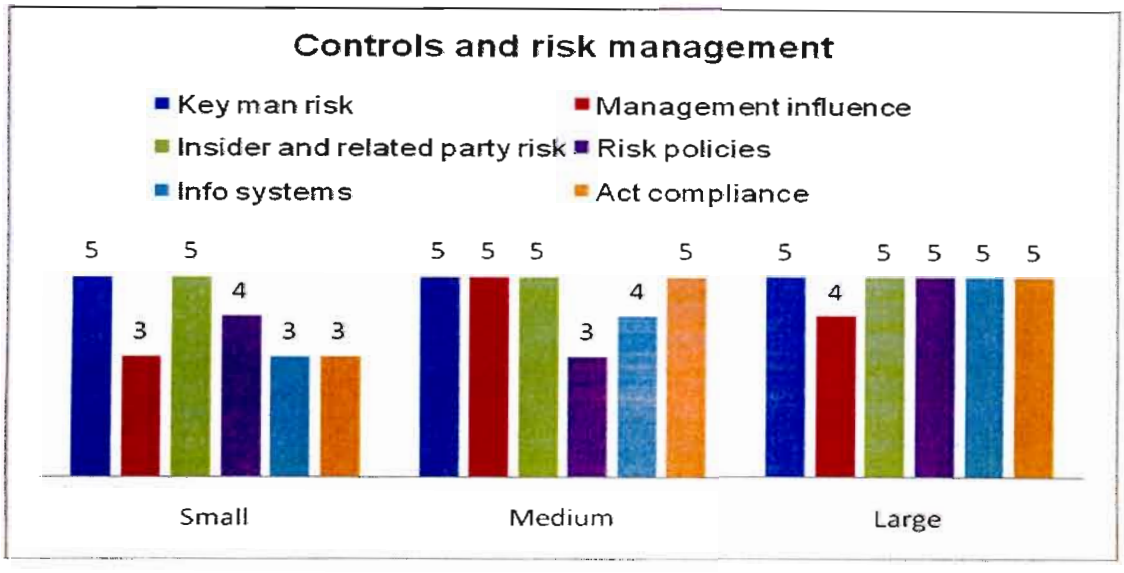
All directors and senior management are subject to the same policies as those applied to the non-management clientele. All the members are appropriated loans according to their ability to repay them which is calculated according to financial ratios specific to each co-operative.

Not all the co-operatives have clearly defined structures which indicate, quantify and address their respective major risks. In this regard, the largest scored the highest, followed by the smallest and finally the medium co-operative. However, all those policies that are in place are followed stringently. The smallest co-operative did indicate that some exceptions are made, although very seldom and only under the most dire of circumstances.

The quality of the systems that provide customer and market information were found to decrease along with the size of the co-operative. The largest of the co-operatives rated five in this regard and indicated that they have perfect customer information. The medium-sized co-operative rated itself as four and the smallest three, indicating that, in some instances, events and changes in client information do seem to go by undetected. Finally, the larger two co-operatives stated that they complied entirely with the National Credit Act and the Financial Intelligence

Centre Act. The smallest indicated that they complied to a degree, but found that some of the criteria were difficult to follow and rated themselves as three.

Figure 5.6: Controls and risk management

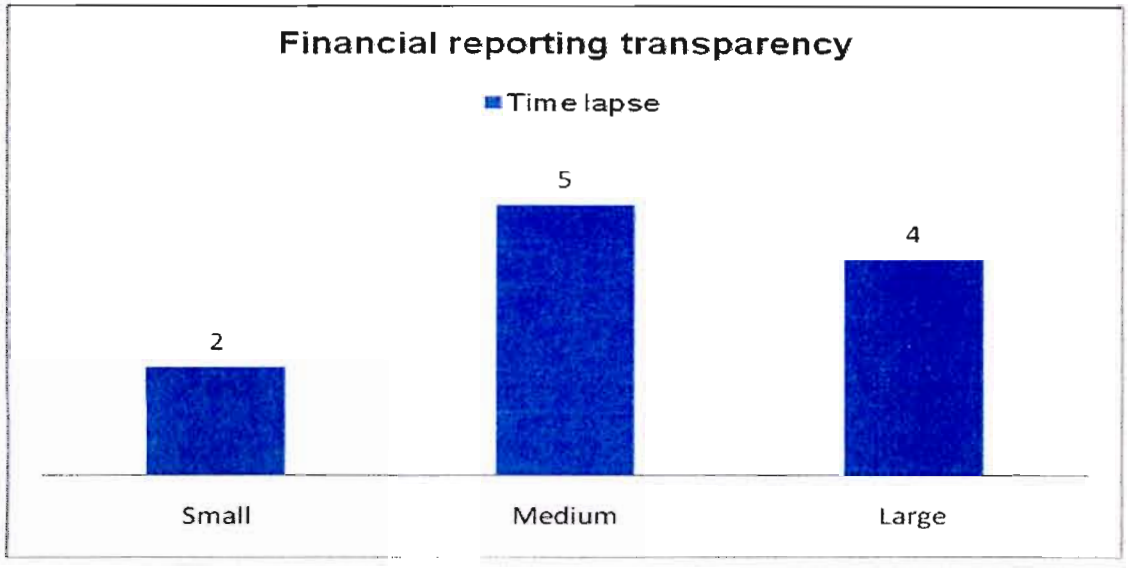


Source: Author.

Financial reporting transparency. In this respect, all of the co-operatives' financial statements were prepared according to GAAP SA accounting standards, and were audited by external and internationally recognised auditing firms. This naturally increases the relevance and international comparability of each co-operative's statements.

In terms of the time delay between the financial year end and the reporting of such information, however, the smallest co-operative did very poorly by only releasing their financial information between six and 12 months afterwards. The relevance of the financial information in such cases is thus extremely compromised. The other two co-operatives complied with legislation by making public their financial information within the allotted three months. The largest co-operative, in fact, completed this in less than two months.

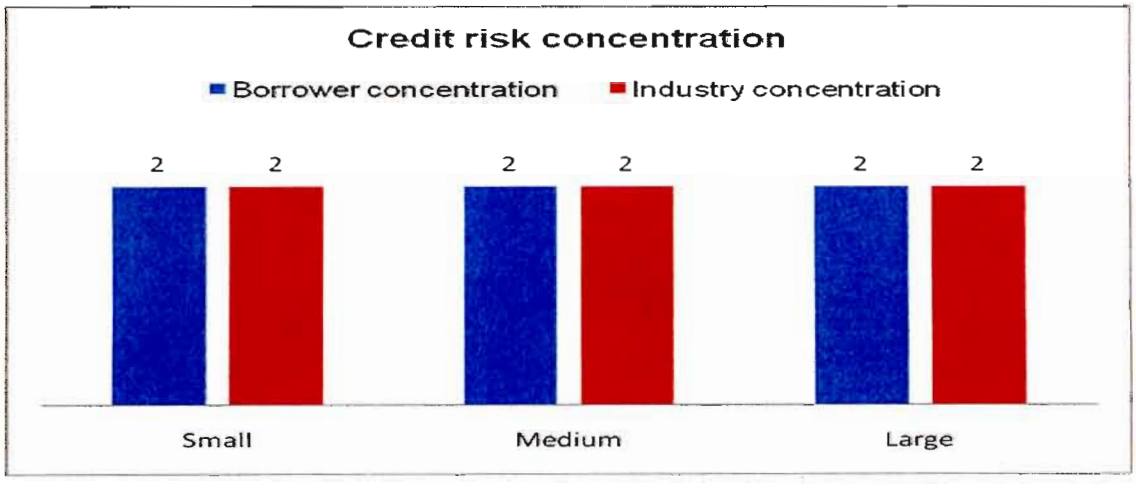
Figure 5.7: Financial reporting transparency



Source: Author

Credit risk concentration. The business of co-operatives led to a high degree of credit concentration and ultimately credit risk. The nature of the co-operative as well as the financial fundamentals should be considered. However, credit risk was highly prominent at all three tested co-operatives. All three stated that they had a very high degree of borrower and industry concentration, and none rated higher than two in both sub-sections.

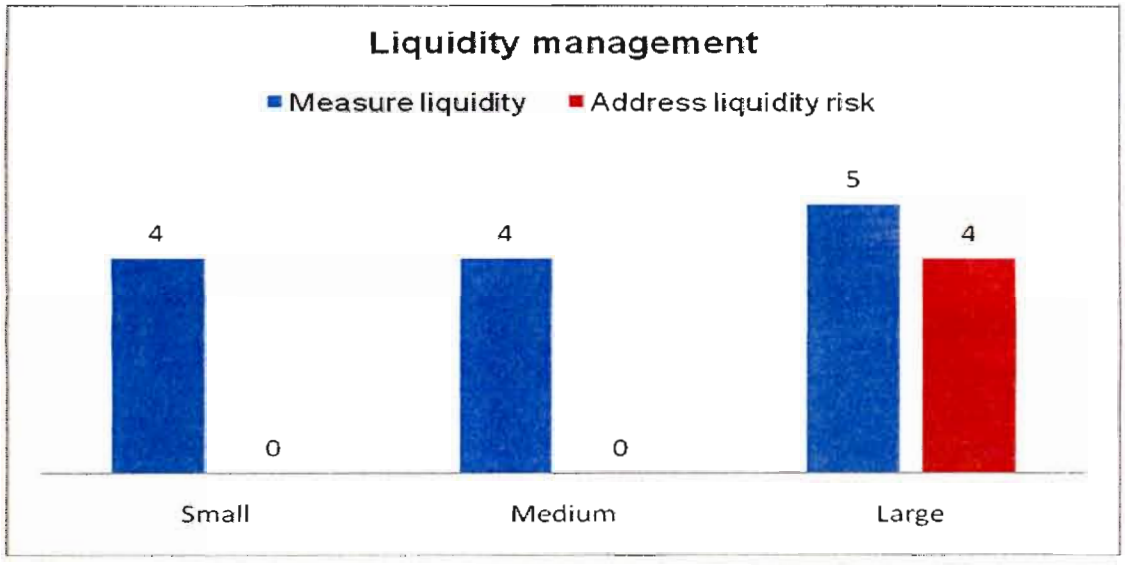
Figure 5.8: Credit risk concentration



Source: Author.

Liquidity management. All the co-operatives were well equipped in terms of measuring liquidity risk. They all had well-defined and structured mechanisms with which these risks were identified and calculated. It included an Asset and Liability Management (ALM) strategy in the case of the largest co-operative, combined with a well-defined lending and investment structure. However, the smaller two co-operatives' spokespersons were unable to accurately identify appropriate liquidity management schemes and merely indicated that they do address liquidity.

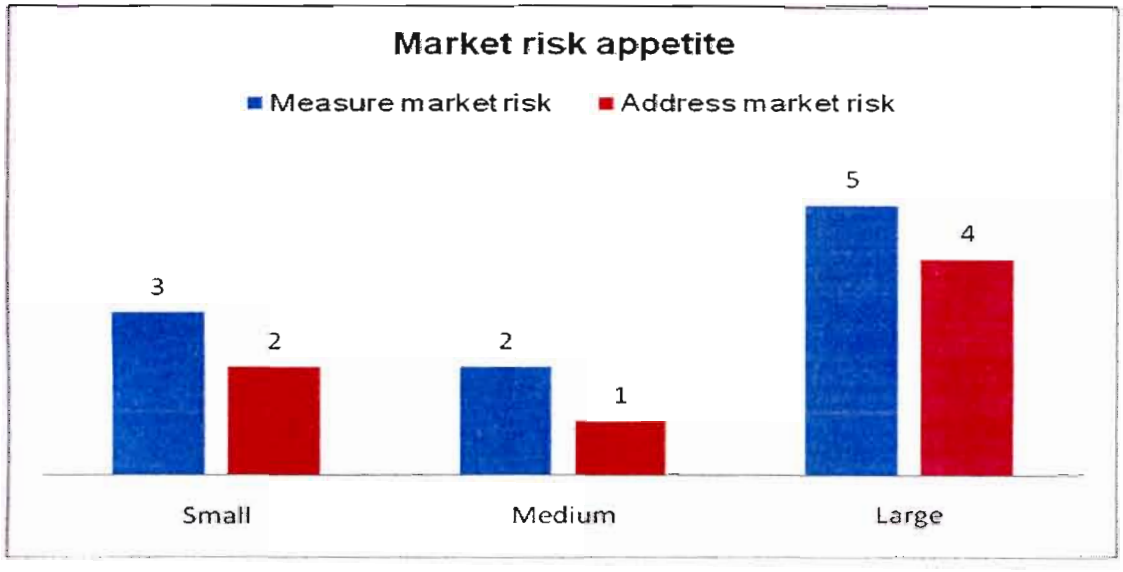
Figure 5.9: Liquidity management



Source: Author.

Market risk appetite. Only the largest of the three co-operatives had a defined manner in which it addressed market risk. In the case of the other co-operatives, very little attention was given to this sub-factor. This could be attributed to a lack of resources and available funds in the case of the smallest co-operative. However, the medium-sized co-operative did not have any such justification, yet it did the least to address this risk.

Figure 5.10: Market risk appetite



Source: Author.

Other. All of the co-operatives applied the five C's of credit when granting loans, namely capital, capacity, character, conditions and collateral. All the co-operatives made provision for bad debt, with some having a more structured approach in this regard than others. The largest co-operative had certain provisions for the timeframe that debt is overdue, up to a 100% provision for outstanding debt in excess of one year.

Finally, bad debt is a concern that these co-operatives do not have an extensive problem with, even in the harsher economic conditions that South Africa faced at the time of this study. This can be attributed to the strong relationship banking practices, together with the informational and enforcement capabilities of the co-operatives.

The largest co-operative had the largest percentage of overdue loans at 5%. Second was the smallest of the three with 2%, and finally the mid-sized co-operative with 0.1% of its loans being overdue. This can be ascribed to the largest co-operative being situated in a city and having more members, thus having more difficulty in gathering information compared to the smaller two. The

other two co-operatives, being situated in smaller rural communities, have traditionally closer relationships than can be found at larger co-operatives.

5.2.3 Comments

The rating methodology does seem to be applicable to co-operative banks in South Africa. However, some of the answers given by the management of the co-operatives were found to be contradictory. An example of this is where the largest co-operative indicated that it had excellent customer information yet had the highest percentage of overdue loans. A possible solution to overcome this problem is to gain greater information in terms of the questions asked, instead of the five-point rating scale on the questionnaire where co-operatives could simply choose a score.

A problem generally found was that in terms of risk, very few of the interviewed personnel at the co-operatives knew what some of the terminology meant. Whether this was due to inadequate management, the absence of a risk officer or lack of preparation for the interview appointment by the co-operative management remains unanswered.

5.3 Possible rating enhancement

In the previous section, the appropriateness of the new rating methodology was assessed, as well as how the co-operatives scored in the questionnaire. In the next section, the factors that co-operatives could concentrate on in order to increase their ratings is discussed. This discussion only pertains to the operating and regulatory environments for the same reasons as discussed earlier in this chapter.

5.3.1 Franchise value

All of the co-operatives scored very poorly in terms of the diversification of their clients with regard to their economic activities. Co-operatives mainly focus on the lower to middle income groups. Their products and services are dedicated to a specific sector of the economy which – due to the limited financial capabilities of their clientele – place barriers on the variation of the products available for them to develop further. However, co-operatives should develop campaigns to reach higher income classes. Factors such as the lower risk inherent in such investments should act as an incentive to lower risk-prone investors. This could ultimately diversify the co-operative's dependence on a specific economic sector and assist it in riding out sector-specific economic shocks.

With only one of the respondent co-operatives taking some form of collateral against loans, it is evident that more should be done by co-operatives in this area. In instances where no collateral is taken against loans and the client is unable to pay, the co-operative suffers a 100% loss in terms of that loan. If collateral is taken, some form of remuneration becomes available to the bank and a total loss is not incurred. Though the lower and middle income groups may not necessarily have good quality collateral to offer, their assessed ability to pay does indicate that some form of collateral may be available.

The final factor discussed under franchise value had to do with the limited choice of services and products available to clients. This was more evident as only one of the co-operatives offered more than five products. Co-operatives should make more products available to its clientele. Although these banks only serve specific communities and their particular needs – and have little need to diversify their offering – a more diversified product line would enable them to enter new markets and reach new clients. This in turn will assist in solving the problem with diversification that was discussed earlier, as well as the low prevalence of

recurring income in co-operatives. An increase in recurring income, excluding interest, would also lead to higher ratings for these banks.

5.3.2 Risk positioning

As discussed in earlier chapters, the experience of management and directors are critical in terms of risk positioning. Well-trained and experienced management and directors are able to uphold co-operatives in weathering difficult economic situations by enhancing the quality of assets in their co-operatives. As a result, the easiest and most important plan for a co-operative to increase its rating is by employing competent and experienced management and directors.

The directors that co-operatives appoint should be entirely independent as this will indicate that the co-operative is managed according to the principles that would serve it best, and not those that would serve only the specific needs of a non-independent director. Ultimately, this serves as an assurance that prudent business practices are followed at board level.

All co-operatives should have a clearly defined and structured manner in which their major risks, inherent in the co-operative's business, are assessed. As co-operatives serve different communities, their products and ultimately their risk management practices would differ. However, it was apparent from this study that none of the co-operatives really focussed on market risk, largely due to them not having a trading portfolio. The Co-operative Banks Act only allows secondary and tertiary co-operatives to trade and a possible manner for these banks to increase their ratings, is for them to be more attentive in this aspect.

Not all of the co-operatives fully complied with all of the applicable Acts. Compliance with the Acts should, however, be compulsory and viewed as a

minimum requirement in terms of management practices and financial reporting by all of the co-operatives.

As the relevance of the financial information provided by co-operatives deteriorates over time, it is imperative that this information is made public within at least three months, is required by legislation. Though only the smallest co-operative in this study did not adhere to legislation in this regard, many more co-operatives may be doing the same. This is an effective and uncomplicated manner in which a co-operative could increase its rating and it should be relatively easy to implement as all respondents indicated that they were audited by internationally recognised auditing firms.

Credit risk is highly prevalent in co-operatives due to their nature and business, as discussed under franchise value. Therefore, a more diversified customer base, along with industry diversification, could lead to a better score in terms of this sub-factor.

Finally, only one of the co-operatives made provision for bad debt. Although co-operatives enjoy better informational abilities than commercial banks, the existence of bad and overdue debt is still a reality and very prevalent. In order to facilitate trust and certainty in the practices of a co-operative, through clients and authorities alike, certain provisions should be made in this regard.

5.4 Conclusion

Section 5.2 tested the rating methodology for appropriateness and found it to be sufficient in term of franchise value and risk positioning. Financial fundamentals, the operational environment and the regulatory environment were excluded from this validation section as they do not form part of the internal CBSA environment or are too sensitive a matter for its nature to be disclosed.

Possible factors that could lead to an improved rating for co-operatives were discussed in section 5.3. The most important of these was the need for a more diversified client base, along with prudent and standardised risk management practices. These should all be backed up by knowledgeable and experienced management and independent directors.

In the next chapter, the conclusion of the study will be undertaken. This includes a summation of the study, its shortcomings and potential areas for future research.

CHAPTER 6

CONCLUSION

6.1 Introduction

Chapters two and three provided a literature review on co-operative banks, their legislation in the South African banking environment and the rating methodologies of Fitch Ratings and Moody's. Chapter four explored the insights gained from the literature study to develop a rating methodology for South African co-operative banks. Chapter five tested the developed methodology by means of a questionnaire.

This chapter provides a logical closure to the dissertation and addresses three key issues. Firstly, an overview of the research is provided in order to review the various aspects touched on in each chapter. This is followed by the problem statement and research objectives, along with the degree to which they have been met. The dissertation concludes with some recommendations and a closing remark.

6.2 Summary and overview of the research

Chapter one presented the background to the dissertation, followed by a problem statement, motivation and research objectives. The chapter concluded with a research method and a discussion on the dissertation's chapter layout.

Chapter two presented the development of co-operative banks, their particular business activities and finally their management structures. The Co-operative Banks Act (No. 40 of 2007) of South Africa was also discussed.

Chapter three presented the existing bank rating methodologies of Fitch Ratings and Moody's. These were presented to identify the different methods used by rating agencies, as well as the most important factors considered when rating a bank.

Chapter four focused on developing a credit rating methodology for co-operative banks in South Africa. Information and insights gained from the literature study formed the background for the development of the methodology. As excessive deviation from the existing rating methodologies would be unwise, these were merely altered to be applicable to co-operative banks in South Africa.

Chapter five provided the final aspect of the dissertation: testing the amended rating methodology. This was accomplished by means of a questionnaire provided to various credit unions of different sizes and in different areas. The methodology was found to be sound and could be applied to South African co-operative banks.

6.3 Problem statement and research objectives

6.3.1 Problem statement

If a bank experiences a liquidity shortage, it must satisfy its liquidity requirements by placing paper in the market, borrowing from other financial institutions or making use of its own reserves. This dissertation proposed a credit rating methodology for co-operative banks in South Africa, in order to facilitate their interest rate negotiations when addressing their funding requirements at external institutions or institutional investments.

6.3.2 Research aims and objectives

While credit rating methods exist for corporate banks, large companies and countries, no such methodology exists for small co-operatives. The purpose of this dissertation was to propose a method on how co-operative banks could be

rated in South Africa, in order to determine the appropriate interest rate charged when external funding is required. The dissertation aimed to achieve four goals, which were:

- to give the reader a better understanding of the history and management structures of co-operative banks around the world,
- to define how banks are rated and to propose a method on how South African co-operative banks could be rated,
- to test the accuracy and suitability of the methodology by means of a questionnaire submitted to random co-operative banks in South Africa and
- to indicate which rating sub-factors co-operatives could enhance in order to acquire a higher rating.

6.3.3 Meeting the objectives

The primary objective of formulating a credit rating methodology for co-operative banks in South Africa has been successfully met – tables, percentages and important factors are indicated and discussed in chapter four.

The secondary objective of providing readers with the history of co-operative banks, both in South Africa and abroad, and providing a discussion on the different management structures of co-operative banks was discussed in sections 2.2 and 2.3.

The objective of defining how banks are rated was discussed in chapter three. The different methodologies of Fitch Ratings and Moody's Investor Services were used for this objective.

The objective of testing the accuracy and suitability of the proposed methodology by means of a questionnaire was discussed in section 5.2. The questionnaire used is available in Appendix C.

The final objective, providing areas where rating enhancement is available for the South African co-operatives was discussed in section 5.3.

The proposed methodology made use predominantly of the rating methodology of Moody's BFSR. Adjustments were made in order to take into consideration the unique business of co-operative banks, the vigour with which risk mitigation policies were applied, along with Fitch Ratings' belief that since no bank's environment is the same, neither should their rating methodology be.

6.4 Conclusion and recommendations

Although the proposed credit rating methodology was developed for co-operative banks in South Africa, none exist yet. Credit unions only have to comply with the Co-operative Banks Act (No. 40 of 2007) of South Africa by the end of 2009. In most cases, the credit unions have had a look at the Act, but have yet to start the implementation process.

Receiving cooperation and information from the South African credit union management body, as well as the individual co-operative credit unions, proved to be a considerable challenge. Some credit unions do not believe it to be in their best interest to be forthcoming with any information and most of all with their financial information, raising questions regarding their transparency and the prudence of their accounting practices.

In some cases, the person charged with the interviews with the writer did not have answers ready, nor could they answer some of the questions posed. Whether this was due to a lack of knowledge or preparation is still unknown. Furthermore, some of the co-operatives gave themselves a high score in the questionnaire, but were unable to back up their scores with appropriate reasoning.

In terms of shortcomings and possible areas of further research, the relevance of ratings in terms of default was not addressed. In current economic conditions where investment grade banks have defaulted, the relevance of ratings with regard to the probability of default can be assessed. An evaluation to determine whether credit rating methodology sufficiently assesses the risks inherent in a bank's practices, and ultimately the probability of default, could prove to be useful considering. Operational risk was not taken into account in the rating methodology as it does not make up a specific section of the BFSR criteria.

Finally, the proposed rating methodology could be applied to co-operative banks along with existing methodologies to determine the difference in ratings. A more detailed assessment of the co-operatives, which takes into account their financial fundamentals, operational and regulatory environment would be required.

Adopting and applying the proposed credit rating methodology to co-operative banks could assist their executive management in negotiating interest rates when funds are required from external sources. In addition it could assist the government in its drive to reach the large unbanked population, as start-up co-operatives would be able to obtain funds for growth more easily. This could ultimately alleviate some of the poverty problems in South Africa.

APPENDIX A
FITCH RATINGS' GENERAL BANK RATING QUESTIONNAIRE APPLICABLE TO ALL COUNTRIES

Introduction

This questionnaire serves as a prototype which may be adapted by eliminating irrelevant sections or added to in order to be appropriate for the analysis of a particular country, type or individual bank. The questionnaire can also be used without being adjusted in cases of emergency, or where an adaptation is not necessary.

Main headings are applied in order to minimise overlapping. However, as banking activities are intertwined, some overlapping is bound to take place.

In terms of financial data, a minimum of three years and a maximum of five years worth of data are used, depending on the availability and circumstances. Fitch Ratings try to inconvenience their clients as little as possible. Therefore, if the data required is only available as internal management information but different from that actually requested, the management information will often suffice.

It should be assumed that Fitch Ratings always require consolidated and independently audited information, unless specifically assigned otherwise. In case of a bank holding company, consolidated data for the entire group is required; in case of a subsidiary of a bank holding company, consolidated data for the subsidiary are required. In countries were consolidated data are not required from banks, Fitch Ratings can not insist, but deficiencies such as these are taken into account when the company is rated.

Market environment and planning

1. If the structure of the bank/group is complex, may we have a legal and operational organigram?
2. We would also like, if possible, an organisation chart of the bank's main operational subsidiaries and affiliates.
3. We would like a description of the bank's current main business activities, as well as details or plans to withdraw from any of these activities or enter into new activities. Are you intending to make any significant external acquisitions or are you planning to develop your business by organic growth?
4. Are there any plans to develop new products or services?
5. Do you have operational partnerships with other financial institutions and/or are you planning to enter into any such partnerships?
6. We should like an assessment of your competitive position, both domestically and internationally? How do you review competition in the market and what role do you expect your bank to take in any consolidation of the banking sector?
7. How independent is your business in the state of the major economies in which you are operating? What is you current assessment of these?
8. What are your current market shares in your principle business lines? What are your targets (if any) for increasing these market shares? Do you have any specific targets for percentage asset growth, percentage return on assets and on equity? If so, we would like details. Is there any order of priority for achieving these, and how do you intend to do so?
9. What has been your capital expenditure in the last three years on technology and automation? What are your plans for further technological development?
10. What is the state of your labour relations?
11. Please provide information on pension liabilities (specifying where they are, on- or off-balance sheet). Do you operate a "fully funded" pension

scheme? If this is the case, is there an obligation which requires the bank to fund any deficit which may arise on pensions, and if so how this would be carried out? Has the bank provision against future liabilities?

Ownership

1. Have there been any significant changes in your ownership recently? Are any planned in the near future?
2. We would appreciate details specifying beneficial as well as nominal ownership.
3. What is the substance of the potential support from shareholders for the bank?

Audit/Control by national banking supervisory authority and accounts

1. May we have a copy of the latest report by the independent auditors to the national supervisory authority/latest report on the bank by the national supervisory authority's own examiners/auditors?
2. According to which convention are your accounts drawn up (e.g. national GAAP, IAS, US GAAP, EU Accounts directives for banks, etc.)? Is this likely to change in the foreseeable future?
3. For banks operating in the EU, how advanced is your bank in its preparations for the implementation of IAS in 2005? What impact is the implementation of IAS likely to have on your accounts? What is the estimated cost of this implementation?
4. For banks operating outside the EU and not already reporting according to the IAS, what impact would it have on your accounts if you did adopt IAS?

Corporate governance

The questions in this section are illustrative of the issues currently explored in our analysis of corporate governance practices. In taking a principle-based approach to evaluating corporate governance, Fitch Ratings will continue to refine its analytical approaches as the governance field and bank practices continue to evolve. Therefore, we anticipate over time the questions we ask regarding corporate governance will evolve as well. The following questions will not all be relevant to every bank and therefore, if not applicable, can be ignored.

1. Has the bank drawn up a set of corporate governance policies? Does it have any mechanisms or review purposes for monitoring how these policies are applied?
2. Board independence and effectiveness (for those banks who have a two-tier board system, these questions are more applicable to the supervisory board):

    - How many directors does the bank formally designate as "independent"? What are the bank's criteria for defining a director as "independent"?
    - Do any of the directors have personal or commercial relationships with the bank beyond their board responsibilities? For example, are any of the directors involved in a charitable organisation that has received funds from the bank or its senior executives? Are any if the directors employed by an important counterparty of client of the bank?
    - What type of professional background do the directors have? What are their primary areas of expertise, in particular as related to banking or financial risk management?
    - How are the bank's principle risks presented to the board? How does management convey significant elements of the organisation's credit, market and operational risk management systems to board members

(particularly if these systems are based on technical modelling concepts)? If there have been any recent changes or developments in the bank's risk management systems, what specific thoughts or guidance has the board provided to management for these changes?

- We would like, if possible, to have some examples of the types of issues that the board has considered or reviewed in the past year. If there have been recent cases where the board did not approve or support a proposal from management, what were some of the reasons the board provided for its decision?
- Please give us details of any significant questions that were posed or guidance provided by the board to management during the past few meetings. For example, if the company experienced any unexpected or negative events affecting its operations (e.g., operational failure, poor financial results), what were some of the main issues that the board focused on? Please provide some examples of issues on which the board has asked management to follow up or provide additional explanation
- What is the length of time that each of the directors have served on the board?
- If there is a nominating committee in place, is it comprised of independent outsiders? If there is not a nominating committee, who is responsible for the nomination of board members?
- What are some of the main factors or attributes that the nominating committee (or equivalent) considers in identifying possible director candidates? How is the pool of candidates determined?
- What is the CEO's role in the nomination process? Do any of the recent appointments have prior affiliations or relationships with the CEO?
- What is the board's process for setting the agenda of topics covered at meetings? What role do the directors individually play in determining the list of discussion topics?

- Do any of the directors serve on the boars of other companies and, if so, how many? As a general matter, what other professional commitments do the board members have?
- How often, and for how long, does the board meet each year? How much time do directors spend, on average, in preparing for and attending board meetings?
- If the bank has audit, compensation and nominating committees, how often do these committees meet?

3. Related party transactions:

- What are the firm's policies on related party transactions? If these policies are written, please provide us with a copy.
- Does the bank currently engage in any related party transactions? If so, what are the terms and conditions of these deals and how are they negotiated? What is the business purpose of these transactions? How do the transactions benefit the company? What types of information is received in its review of the transactions? What type of questions, if any, did they pose about the transactions?

4. Oversight of the audit process:

- Does your bank have a governance or audit committee? If so, how many members of this committee are deemed to be "independent" directors?
- What type of accounting or corporate finance background do the members of this committee have?
- What are the committee's procedures for reviewing major accounting issues, potential audit risk, and the quality of internal control systems? What are some examples of recent decisions this committee has taken in regard to the bank's accounting practices and internal control

processes? What is the committee's approach to anticipating or preparing for forthcoming or expected changes in accounting policy standards?

- What is the scope and scale of any non-audit services provided by the bank's external, independent auditor?
- If the bank enters into complex structured finance transactions (for example, with a corporate client), what types of internal controls or audit procedures are in place to help manage the risks (e.g., credit, operational, legal, reputation) that may be associated with these transactions? For example, what types of control processes does the bank have to ensure that neither the bank, nor the client uses these transactions to circumvent reporting requirements, evade tax liabilities, or further improper activities?
- Does the bank have internal auditors? If so, what process does the audit of governance committee have for overseeing or monitoring their work?

5. Management compensation/remuneration:

- What are the components of the CEO's overall compensation (e.g. including base salary bonuses, stock or option awards, below market-rate loans, corporate requisites, etc.)?
- Does the bank have a compensation/remuneration committee or equivalent? If not, who is responsible for the determination of the compensation/remuneration of executives?
- If there is a compensation committee or equivalent in place, how many of its members are deemed to be "independent" directors? What guidelines does the compensation committee use in setting executive compensation levels? For example, does the committee look to the compensation levels at competitor banks and benchmark?

- Is management compensation linked to any specific performance indicators? If so, what is the reason or rationale for choosing these particular indicators?

6. Executive/Director stock ownership:

   - Do senior executives and/or directors own shares, options, restricted stock or other forms of equity in the bank? If so, how substantial are these holdings (e.g., how many shares/options in total)?
   - Does the bank explicitly encourage or promote stock ownership as an incentive mechanism? If so, for how long has the bank followed such a strategy?
   - What (if any) conditions or restrictions are placed on stock-based compensation? For example, how long is the vesting period for restricted stock?
   - Have directors or executives recently sold any of their holding is the bank's stock. If so, how much?

7. Takeover defences:

   - Does the bank have any takeover defences (e.g. "poison pills" that dilute the interests of potential acquirers and therefore make the target's stock less attractive) in place or other mechanisms to maintain ownership control? Does the bank have a dual-class share structure with certain holders having preferential rights over others?
   - More generally, what practices or processes does the bank have in place to ensure that minority shareholders or other major stakeholders participate in the governance process?

8. Complex holding company structures:

   - Is the bank part of a broader holding company structure with multiple subsidiaries? If so, we would like to have full details of the legal consolidated structure.
   - What are the financial relationships between the subsidiaries and their parent? What types of transactions occur between the various subsidiaries and the parent? What are the bank's policies regarding payment of dividends between parents and subsidiaries? Do major operating subsidiaries have a separate oversight and control structure?
   - Are any of the bank's subsidiaries incorporated in a foreign regulatory jurisdiction?

9. Majority-controlled companies:

   - If the bank's shareholders are private individuals or families, are these involved in any other businesses? If so, are there any financial or commercial relationships between the bank and those businesses? What is the legal structure of these different business holdings? What is the size of these businesses (revenues, assets, pre-tax profits, equity, etc.)?
   - How are private individual or family owners compensated? What are the bank's dividend policies? Do the owners have drawing accounts and/or do they borrow from the bank? If so, please give details.
   - If the private individual of family owners do not own 100% of the bank, who are the other shareholders? How are they represented on the board?
   - How has the bank's corporate governance structure evolved over time as the bank has grown?

Performance/earnings

1. If published annual earnings figures differ substantially from the unpublished, management accounts figures, then we would welcome receipt of a reconciliation of the published figures with the accounts used by management
2. We would like as detailed as possible a breakdown of earnings by business line. We would also like to have profitability figures for each business line (in terms of operating and/or net income as a percentage of allocated equity capital).
3. We should like to have your comments on the developments of the bank's net interest revenue and net interest margins. What is your policy re recognition of interest on problem loans (see *"risk – lending and other counterparties"*); has the policy changed recently?
4. We require a breakdown of fees and commissions by type. We would also like your comments on the recent development of these items.
5. We require a breakdown of other income.
6. What percentage of your operating earnings do you consider to be recurrent? In relation to your trading activities, what proportion of revenues is customer related and how much is own-account trading.
7. We require a breakdown of operating expenses with a commentary on significant changes up or down and an explanation of the tax charge; if this is not straightforward. Please provide details of any restructuring charges incurred, and whether these are included in operating or exceptional expenses.
8. We need an explanatory breakdown of exceptional income and expenses, including any significant capital gains, provisions for unrealised capital losses, and goodwill charges.
9. We need details of appropriations (if any) to equity of quasi/equity reserves made as deductions from income and/or of transfers (if any) from equity or quasi/equity reported an income in the bank's published figures.

10. We would like a copy of your budget for the current financial year? We would also appreciate receiving management's assessment of earnings and other prospects for the current year and beyond. If you have a medium-term business plan, we would like to have a copy.
11. Which business do you consider to have the most potential in terms of earnings growth for the bank?

Risk

Risk Management

1. How would you describe the bank's appetite for risk in general?
2. How are risks managed within the bank? Is there an independent risk management function? If so, does this function cover all risks (credit, market and operational)? Who heads this function and who does he/she report to? An organigram highlighting the various responsibilities and reporting lines within the risk management function would be useful.
3. If there is no separate risk management function, we should like details of the organisation of your risk management systems.

Lending and other counterparties

1. We need details of your counterparty assessment and credit/exposure approval procedures and limits. In particular:

    - Do you impose country/geographic limits on your lending? If you do, who sets them and who can alter them and for what reasons?
    - Do you impose industry/economic sector limits on your lending? If you do, what industry/economic sector definitions do you use? Who sets the limits and who can alter them and for what reasons? How do you differentiate between the borrower's industry classification and any

collateral offered by the borrower? For example, is a loan to a motor-repair business collateralised by a private dwelling house defined as a service industry loan or a real estate loan?

- Do you impose limits on loans to individual borrowers? If you do, how do these tie in with any limits set by the law or by the regular authorities? Who in the bank sets these limits and who can alter them and for what reasons?
- In relation to real estate lending what are your loan-to-value (LTV) policies and your valuation procedures?

2. In relation to Basel II:

   - Which of the three options offered by the proposed new Accord relating to credit risk are you planning to adopt: Advanced IRB, Foundation IRB or Standardised approach?
   - Have you generated default or recovery statistics in-house or have you brought them in? How comprehensive are these statistics? In which sectors are you most advanced? How far back do your statistics go?
   - We would like details of your initial rating systems? For which businesses are these already in place and for how long have they been in operation? Do you comply with the requirements of the latest version of Basel II? For which businesses do you not yet have rating systems in place and what are your plans for implementing systems for these businesses?
   - What, if any, stress testing procedures do you have in place?
   - Have you calculated the impact the new Accord will have on your capital coverage of credit risk? If so, what is it?

3. We require an approximate breakdown of the bank's non-bank risks (both on-and off-balance sheet) in terms of economic sector (as you define them), of ultimate country risk and of currency.

4. What percentage of your lending is secured? What is the nature of that security and how is it valued?
5. We need information on the make-up of your risk (both on- and off-balance sheet) in terms of size, i.e. concentration of exposure to single entities including groups of related entities.
6. We require a list of your twenty largest non-bank risk exposures.
7. Do you lend to "hedge funds"? If so, please provide details of the principle exposures.
8. We would like an update of your emerging market country exposure, including sovereign, inter-bank and corporate risk, as well as details of reserve level and any new provision and/or write-backs of provisions made during the last reporting period. What internal ratings have been assigned to these exposures?
9. We would like a breakdown of your real estate portfolio and details of your criteria for making such loans. What are your average LTVs for residential mortgage lending and for commercial real estate lending? What are the maximum LTVs allowed?
10. What percentage of the portfolio is in the form of residential housing loans? Within this portfolio, please provide a geographical distribution of lending, as well as a breakdown of properties under development, rented properties and owner-occupied properties and a breakdown of the portfolio by internal rating. We also require details of any repossessed properties.
11. Please give a breakdown of any commercial real estate loan portfolio in terms of office, retail, industrial or other. We also require a geographic breakdown of the portfolio, a breakdown by internal rating and details of any repossessed properties on your books.
12. We would like details of your personal loan portfolio, including how you define personal loans, the maturity of this market in your country, the existence of any credit bureaux and information on criteria for granting personal loans and any scoring system you have put in place.

13. We need information on any exposure you have to your major shareholder(s) or to any associates or affiliates of you major shareholder(s).
14. We require a list of your twenty largest interbank exposures plus assessment criteria for such exposures and limits in place.
15. We also require a list of the largest counterparties in your securities portfolio (both trading and investment) as well as a breakdown of these portfolios by internal and external rating category if possible.
16. How do you define and assess your "doubtful" and/or "non-performing" (or equivalent) exposure? Are definitions different for personal loans from those for corporate loans? We need details of these loans and other exposures, specifying whether they are domestic or foreign. We also need to know how much, if anything, you have provided against them. See "*Capital, 'Hidden reserves' and Loan Loss/Risk reserves",* below. (In this context we require a list of your 20 largest problem loans and your 20 largest accumulated loan loss provisions.)
17. Please give us details of any restructured loans. How do you classify overdrafts/bullet repayment loans?
18. How do you ensure the maximum recovery on loans that have gone bad? Do you have a separate "Recoveries" section? If so, how is it organised and how does it operate? How successful has it been?

Contingent (including off-balance sheet) risks

1. We will need details of any assets and income streams that have been securitised (see *"Securitisation",* below).
2. We will also need details of any other significant off-balance sheet liabilities, in particular:

    - Derivatives business: we are interested in the consolidated derivatives portfolio of the entire bank or banking group.

- What are your main derivative products? Could we have a breakdown by national principle and your estimate of outstanding risk (with an explanation of how you have calculated this)? We would also like a list of the largest derivative counterparties.
- What technical tools are employed to price, value and monitor positions?
- How frequently are price valuations validated? By which individuals and/or databases are the value substantiated?
- Are these exposure limits based on instrument type? How are they determined/ By whom?
- Are there maturity limits by product, counterpart, investment grade or business sector?
- How are policy breaches dealt with?
- How many times over the past year have your internal limits been exceeded? By how much?

Credit derivatives

1. Is your bank active in the credit derivatives (CDX) business and if so for how long has it been involved? If not, please ignore the remaining questions in this section.
2. What has been the overall rate of growth of this business?
3. What are the primary motivations for using CDXs: hedging, trading, alternative investment, risk based capital relief, portfolio rebalancing (relative value trading) and/or economic capital management?
4. Please provide us with organisational details of your CDX business and reporting lines. Who, for instance, is responsible for the risk management of this business? Is senior management involved? Who books the transactions, settles cash, sends documentation and who calculates the impact on the profit and loss account? Who approves the valuation of CDXs and the risk models used? Are you able to aggregate and monitor

CDX positions by business line and legal entity? Are CDX positions and risk management reporting integrated with cash positions? If so, describe how these are reported and managed on an integrated basis. How are hedge vs. trading positions reported?

5. What are the key risk management, operational, reporting ad IT issues arising from your CDX businesses? How are these being assessed?
6. Have you experienced any operational losses from model risk/valuation issues, disputes or inaccurate position reporting?
7. Please give us details on the types of CDX you use: single name credit default swaps, credit linked notes (CLN), synthetic CDOs and basket products, total return swaps, spread options and any others.
8. Please give us details of your gross sold and bought positions in CDXs (broken down by type of product) as well as your net sold/bought positions, before and after other offsets, including cash positions.
9. Do CDXs serve as an overall hedge against other credit risks? If so, explain?
10. To what degree are net CDX positions less than perfectly matched, either by tenor, name and other mismatch, thereby creating a degree of basis risk? How are such risks managed?
11. Besides gross and net notional sold/purchased positions, what other measures do you use internally to manage and measure CDX exposures (e.g. MTM exposure or value on default)?
12. What percentage of credit risk has been transferred via CDXs (as well as other hedges)?
13. Describe the decision process for using hedges.
14. What is the amount of your total credit exposure including the net position in CDXs? How does it break down by sector?
15. Please give details of specific risk concentrations that have been hedged.
16. If you use CDXs as a form of alternative investment, what is the size of your investments relative to your cash portfolios? Is the protection sold funded (e.g. CLN) or unfunded? How much do these investments

contribute to the separate lines of revenue? What are the ten largest reference entities and industries you have exposure to? If you are holding CDOs, please give a breakdown by organisation, asset type and current rating.

17. Please give us details of the top ten counterparties in terms of protection purchased (including MYTM and notional exposures). To what extent is your counterparty risk mitigated by netting and collateral arrangements? What sort of triggers are in place to collateralise exposures? Do you have a contingency plan in the event of a large counterparty default?
18. Please describe the accounting treatment of your CDX business: mark-to-market vs. accrual; trading vs. hedging. Do financial results for credit derivatives include trading and hedging activities? Can you break out performance result for hedging vs. trading?
19. Where do CDXs appear in your financial statements and supporting footnotes?
20. How are key financial rations influenced by accounting treatment of credit derivatives (e.g. are asset quality and reserve rations understated or overstated compared to a pure cash lender)? Is protection sold or purchased captured in traditional leverage and capital adequacy measures?
21. What proportion of your CDXs is off-balance sheet? How are these reflected in your financial ratios and analysis?
22. What percentage of cash CDO investments is carried at original face vs. lower impaired value? What percentage is deemed to be a candidate for additional impairment?

Securitisation

1. Please give us a breakdown of any assets and/or income streams you have securitised by type of technique used:

- Consumer and corporate assets (ABS)
- Commercial and residual mortgage backed securities (CMBS & RMBS)
- Asset-backed commercial paper (ABCP)
- Balance sheet collateralised debt obligations (CDOs), either true sale or synthetic.

If your bank has not securitised any assets or income streams or invested in any securitisation issues, please ignore the remaining questions in this section.

2. What is the total volume of assets securitised in each of these categories on a nominal and risk-weighted basis?
3. What is the motivation for securitising the assets or income streams in each case?
4. How were such assets determined? Were they, for instance, "cherry-picked"?
5. Has the bank securitised any non-performing loans?
6. How are the asset treated from an accounting and regulatory point of view?
7. How have the securitised assets performed in relation to equivalent assets left on-balance sheet?
8. Has the bank ever supported any of its issues either directly, e.g. the purchase or substitution of assets that were securitised or lending to the special purpose vehicle (SPV) outside contractual obligations or indirectly e.g. deferral or fee income from SPV?
9. In case assets have to be brought back on-balance sheet, for example, because of a regulatory ban or securitisation issues, does the bank have any contingency funding plans in place?

10. How would the bank's medium-term funding strategy be affected by a hypothetical closure of the securitisation market? Again, what contingency plans are in place to address such an eventuality?
11. Does the bank hold any junior subordinated/"first loss" tranches of its own securitisation issues, which are currently deducted from regulatory capital?
12. Is the bank an investor in other institutions' securitisation issues, such as junior subordinated/"first loss" paper? If so, how much paper does it hold and is it deducted from regulatory capital?
13. Are there any plans for further securitisations in the future? If yes, what types of structures and what types of assets?
14. What effect will the latest version of the proposals relating to capital coverage in the new Basel Accord have on the bank's securitisation activity?

Supplementary questions for CDO securitisation

1. Are there any mechanisms in the transactions which reduce any residual income from the assets for the bank, e.g. such as excess spread on the securitised portfolio which covers loss in the portfolio, or interest-rate sub-participation (or similar) to refund losses borne by the first loss investors?
2. For synthetic securities, is the underlying asset always protected to it full term, or may the term of the underlying assets be longer the protection under the CDO?
3. Has the transaction an optimal call right? If yes, what are the conditions and when can it be called?

Supplementary questions for ABCP securitisations

1. Does the bank sponsor an ABCP conduit? If not, please ignore the remaining questions in this section.

2. If so, is it a "single seller", "multi seller", "synthetic", "securities-backed" conduit or an SIV (structured investment vehicle)?
3. What is the total volume of paper issued through this (these) conduit(s)?
4. Are the conduit backed by liquidity facilities, i.e. are such facilities at least equivalent to 100% of the programme's size?
5. What proportion of the liquidity facilities is provided by the bank?
6. Do these facilities possess any credit enhancement features?
7. Does the bank provide liquidity facilities to other conduit not sponsored by it?
8. Does the bank hold any related junior subordinated tranches, or provide any other form of credit enhancement/support to its conduits? If so, how are these treated for regulatory capital purposes?
9. Is such support available for all transactions under the programme or transaction-specific (i.e. available only for an individual seller within the programme)?
10. Are the rating of any of the bank's conduits explicitly or implicitly tied to the bank's own rating, e.g. by provision of support facilities such as liquidity lines?
11. Does the following "scenario" description fit any of the bank's ABCP conduits? If the bank were to lose tier 1 ("F1+" or "F1") or its tier 2 ("F2") issuer status, it might either be unable to roll over or restricted in rolling over its commercial paper. For example, if the bank was downgraded, the conduit might be prevented from rolling over commercial paper until a replacement provider with the appropriate rating had taken over the support role, or the bank itself had cash collateralised its obligations under the facility and placed such collateral in an appropriately rated bank account. At what stage in such a scenario would the programme be wound up?
12. What programmes does the bank provide backup facilities to? What specific structural or other triggers would cause such lines to be drawn?

13. What contingency measures does the bank have in place to deal with funding/liquidity needs should trigger events be crystallised and its programme wound up or backup facilities drawn?
14. If the bank is the sponsor of a synthetic ABCP programme, are these funds deposited with the bank? If so, how much and on what terms? Is there a contingency plan in place should such funds have to be repaid because of a structural trigger event?

Market risk

1. In calculating market risk, do you use the concept of "Value at risk" (VAR) or a similar measure? If so, please give us the following information for each product portfolio:

    - What method do you use for calculating value: historical simulation, variance/co-variance, Monte Carlo simulations or other?
    - What observation period do you use for historical data?
    - What confidence interval do you use?
    - What holding period do you use?
    - What was the high, low and average VAR in the most recent reporting period?
    - How does VAR utilisation compare with limits set?
    - How many days (if any) was/were the VAR limit(s) exceeded? What was the largest excess? What was the reason? What action was taken?

2. How do you value your market risk transactions? Do you, for instance, use value accounting?
3. For regulatory capital adequacy purpose, which methods do you use to calculate your market risk: the standardised or internal models approach?

4. Do you use stress testing? If so, could you give us a recent schedule explaining the results (assuming all limits are fully utilised) and the assumptions behind them, either in terms of scenarios or confidence levels used?
5. If the above are not applicable, do you have a system for measuring market risk? If so, please provide details.
6. What instruments do you trade? How are your trading activities organised?
7. What are your current limits by major trading area (fixed income, equities, etc.) and what has been the average, highest and lowest utilisation of these limits over the past financial year? Have these limits been exceeded at any time, and, if so, what action has been taken?
8. What is the size of your trading activities and which are the most important of these activities?
9. How much experience do you have in your different trading activities and how profitable have these businesses been in the past?
10. How much of you trading is client related and how much for your own account?
11. We require a breakdown of the different types of market risk you run, e.g. interest rate risk (including spread, basis and directional risk), equity risk, currency risk, etc. What is the greatest source of market risk for the bank? How diversified are these risks?
12. We need an assessment of the banks interest rate, currency sensitivity.
13. What degrees of mismatch are allowed?
14. How is the policy implemented? How successful has it been to date?
15. With regard to your fixed-income securities portfolio, we require a breakdown of your trading and investment (or equivalent categories) securities, distinguishing between types of securities. We also need details of any portfolio which is managed separately at the discretion of senior management.

16. Likewise, we would like a rough breakdown of your equities portfolio, and in particular details of the largest exposures in the portfolio.
17. How do you measure equity risk in your banking book? In relation to Basel II, are you planning to adopt the market-based approach or the PD/LGD approach to calculating capital coverage of your equity exposure?
18. What are your portfolio valuation policies (both in relation to bond and to equities)?
19. What are your policies for managing investment risk?

Operational Risk

1. How do you define "operational risk"? Do you include strategic and reputation risk in this definition?
2. Who is responsible for the bank's operational risk management framework? Is this framework subject to independent review? If so, who conducts this review and how often does in take place?
3. Who is responsible for reporting to the board on operational risk? Are the designated operational risk managers, if so, how are they assigned (by business line, region, transaction, etc.)?
4. In identifying business lines, do you use the Basel II definitions? If not, how do your definitions map to the proposed new Basel II Accord definitions?
5. In order to identify and assess operational risk, do you currently use: self assessment (or scenario analysis), risk mapping, key risk indicators, score cards, threshold limits and/or other measurements? Which processes do you intend to be using in 2007/8?
6. What, if any concerns do you have about the overlapping of operational risk with credit and market risk events?
7. in respect to Basel II, which method do you intend to adopt to measure operational risk in each of your business lines: the basic indicator,

standardised, alternative standardised, or advanced measurement approach?

8. What have been the costs to date of developing the methodologies and what is the anticipated or budgeted expenditure for the period running up to 2007/8?
9. How much capital do you estimate that your operational risk will require (in absolute terms and as a percentage of your total economic and regulatory capital)? Please give details by business line if possible.
10. Do you have loss date collection in place for each business line? If so, how long has it been in place? If not, when do you plan to introduce it?
11. What were the total number of losses and the total loss amount, both direct and indirect, by business line and event type over the past three years?
12. Do you apply threshold limits to losses recorded? If so, what are these limits?
13. How does your historical data collection compare with your self-assessment or scenario analysis?
14. Do you use an external loss database? If so, how effective is this? How many observations do the data contain? What is the geographical split of the observations? How often are these data updated? What are the deficiencies in the external loss database?
15. Do you subscribe to other qualitative data sources? If so, how effective are these? What is the geographical split of the observations? Where are the deficiencies in these external data sources?
16. Does insurance form part of your present operational risk mitigation strategy? If so, please indicate, by business line and event type, how much of your risk is currently covered by insurance? What is the cost of this insurance by business line and event type? If you do not currently have insurance, do you expect to do so in the future? Do you use any other operational risk mitigation techniques?

17. Does the bank have any client litigations outstanding? If so, we would like details of these. What measures, if any, does it have for reducing the risk of client litigation?
18. Does the bank have other risks of legal origin?

Other risks

1. If you have an asset management business, please provide a breakdown of assets managed between private banking, institutional asset management, fund management and any other category. We would also like a breakdown of investors by nationality, by size of portfolios managed and by any other characteristics which may appear to be relevant. Please provide the share of the top ten customers in each asset management category. What is the percentage split between discretionary and non-discretionary management?
2. We should also like a breakdown by type of instrument (equity/fixed interest) and, within these, issuer, currency and maturity (if applicable).
3. If you administer "fiduciary" funds/deposits, what are their totals, by country of origin and by currency? How are they invested – country, currency and nature of investment?
4. Is there any latent risk to you in these funds/deposits? For example, although these funds are legally at the client's risk, have you ever/would you ever refund clients for any loss incurred on them? Please site circumstances.
5. If you have a custody business, we would like data on the volumes and profitability of businesses involved and details of clients. Does the bank act as a custodian or sub-custodian for funds it does not manage? We would like a list of your sub-custodian network and also details of your IT capability in this area.

6. How far would your bank go to support its reputation? Would it, for instance, support all its major subsidiaries? Would it support its securitisations, even if legally it is not obliged to?
7. Please give details of any other risk not already mentioned that your bank may be exposed to.

Funding and Liquidity

1. We wish to obtain an understanding of the principle sources and likely volatility of your funding. We thus require a breakdown of your funding by type of depositor/lender, currency and type of instrument. To this end, we require a list of the twenty largest providers of deposits and other funding.
2. Do you have any information which would help to assess the historical stability of your retail funding base?
3. We need to know how dependent you are in any major shareholder(s) for your funding.
4. In the case of bank borrowing, we require an indication of the concentrations of such borrowing, the currencies involved and the countries of origin of the lenders.
5. Are there any significant long-term borrowings which will mature this year?
6. We would like details of outstanding debt in issue, including the type of debt, currency and maturity.
7. Can you provide us with your funding plan for the next 12 months, indicating the likely form (senior, subordinated, etc.) and timing of any debt issuance? In particular can you supply details of any plans to raise regulatory hybrid capital?
8. We require details of any standby lines of credit which are available to the bank? Please inform us whether these are confirmed or unconfirmed lines.
9. We would like a table showing the contractual and expected maturity of assets, liabilities and off-balance sheet terms in each currency ("gap"

analysis). If there are any negative gaps, how does the bank plan to find the necessary liquidity?

10. Please provide us with a breakdown of liquid assets by type.
11. If available, please provide us with copies of regulatory returns relating to liquidity ratios.

Capital, "hidden reserves" and loan loss/risk reserves

1. We require details of your capital/weighted risk ratio calculated according to the existing Basel G10 guidelines, or where relevant, the EU capital requirements (i.e. including both credit risk and position risk weightings).
2. We also need details of the calculation of your capital adequacy ratio in accordance with the national requirements if these differ from the existing Basel G10 Accord (or, where relevant, the EU capital requirements).
3. We require details of any hybrid debt issues outstanding (that are included in the bank's tier 1 capital), including preference shares.
4. We also need details of any other forms of quasi-equity (such as silent partnerships, revaluation reserves, embedded value, unrealised gains, underprovided non-performing loans and overvalued assets) which are included in you calculation of capital.
5. We require details of any double leverage.
6. Does the bank have any plans to raise tier 1 capital in the foreseeable future (other than by internal capital generation)?
7. Have you calculated your capital adequacy ration according to the latest version of Basel II? Will the new Accord lead to a decrease on increase in your capital coverage requirements?
8. We need details of your "hidden"/"inner" reserves (if any) whether officially recognised and qualifying as eligible capital or not.
9. We need a breakdown of the movements on your consolidated loan loss/risk reserve(s)/allowance(s)/accumulated provision(s), i.e. the opening balance, the transfer (provision) from income for the year,

adjustments for exchange rate variations, write-offs (charge-offs) against reserve(s), recoveries of past write-offs and write-backs of past provisions and the closing balance of the reserve(s)/allowance(s)/accumulated provision(s).

10. We require an analysis of the closing balance of the above reserve(s) in terms of economic sector, ultimate country risk and currency.
11. We need details on any valuation reserves (i.e., market value higher than carrying value) on securities, foreign exchange and precious metals.
12. We need approximate details of any real estate undervaluation/overvaluations.
13. Please provide us with details of your most significant intangible assets.

Insurance activities

1. What sort of insurance activities is your bank active in: life assurance, non-life insurance or both? If you do not have any insurance operations, please ignore the following questions.
2. How are your insurance activities organised? If they are carried out by separate subsidiaries, how are these subsidiaries accounted for in your accounts?
3. How long have you been in the insurance business? Did you set up the business from scratch or did you acquire an insurance business?
4. How are insurance products distributed: (e.g. bank branches, insurance agents, independent financial advisers, brokers)? What proportion of the insurance business is sold through bank branches?
5. How is your insurance operation positioned in the domestic market and what market shares does it hold?
6. What are the short-and long-term strategies of your insurance operation? Please provide a business plan if possible.
7. Is your insurance business currently performing well? Please give relevant income statement data for the past three years? Approximately

how much of the group's consolidated total revenues and net income is derived from insurance activities?

8. We would like a breakdown of your insurance company's(companies') investment portfolio by major asset class and industry sector.
9. How are insurance risks factored into consolidated capital adequacy ratio? Do you deduct the value of the insurance participations from regulatory capital (and, if so, from tier 1 or from total capital). What special allocation of capital is made for the regulatory requirements of the insurance business? How fungible is the capital between your banking and insurance business?
10. What is the present value of the future profits of life insurance business and how is it calculated?
11. What (if any) are the amounts of intra-group lending between the banking and insurance operations?
12. What (if any) guarantees or support agreements exist between the banking and insurance components of the group?

APPENDIX B

MOODY'S INVESTORS SERVICE FACTOR MAPPING TABLES

All tables were obtained from Moody's bank financial strength ratings: global methodology paper (2007).

Summary of factor mapping – Franchise value

	A	B	C	D	E
Market Share and Sustainability*	Dominant in a broad (multi-product) business line with very strong, largely unthreatened market position and pricing power (i.e. tier 1). Institutions should have a very high share of the customer's business (typically above 4 products per customer), enjoy strong brand name and display very high sustainability.	Important but not dominant (i.e. tier 2) institutions with a high share of the customer's business (typically 3-4 family products per customer), OR tier 1 institutions in a niche product line. All banks in this rating category should enjoy strong brand name and display very high sustainability.	Good national or regional market positioning but neither tier 1 nor tier 2 player, OR a tier 2 institution in a niche product line; OR institutions with a price- or service-sensitive customer base.	Marginal players nationally, regionally or in a niche product line; OR institutions with a highly price- or service-sensitive customer base.	Institutions without recognized brand name; OR institutions with insignificant market share; OR institutions with unclear market positioning.
Geographical Diversification**	Significant operations in at least one major and at least two large markets. No major or large market constitutes > 50% of profits. Markets must also be lowly correlated and enjoy highly diversified economies.	Significant operations in (i) one major market or (ii) multiple large markets where >25% of profits from outside primary market. Markets must also be lowly correlated and enjoy highly diversified economies.	Significant operations in (i) one large market or (ii) multiple midsized markets where >25% of profits from outside primary market. Markets must also be lowly correlated and enjoy well-diversified economies.	Significant operations in one midsized market or multiple local markets. Markets must also be lowly correlated and enjoy reasonably diversified economies.	Significant operations in one midsized market that does not enjoy a diversified economy, or in one local market.
Earnings Stability***	Combined earnings from the Retail Banking/ Consumer Lending, Asset Management, and Fiduciary/Transaction Services business lines are > 80% of total profits.	60% - 80%	40% - 60%	20% - 40%	less than 20%
Earnings Diversification	A monoline business is defined as single business or product line. Institutions are considered to be monoline if they derive more than 80% of net income from a single business activity or product. Examples include credit cards, mortgage banking, factoring, leasing, securities servicing, project financing, capital markets operations, municipal or public sector lending, ship finance, etc. Traditional retail banking which, by its nature, is diversified between lending and deposit-taking, would not be considered a monoline business.				Bank is a monoline: More than 80% of net income is from a single business activity or product. See examples below.

** The relevant market(s) for Market Share and Sustainability should be determined based upon where the bank makes the majority of its net income. The geographic size and scope of a market for any given business line depends upon the nature of the customer, the products, and the existence (or lack) of legal or de facto barriers to entry. The relevant market for many retail banking products may be local or regional, while for other products it may be national or international in scope. The relevant market may also include nonbank competitors depending upon the product.*

A dominant or "tier-1" bank should have a market share substantially greater (usually at least 50% greater) than lower-ranked competitors. In some highly competitive markets no bank may be dominant, while in others there could be 2 or 3 dominant banks. We would expect that a dominant player would have pricing power. An important or "tier-2" bank usually ranks among the top 5 banks in a market but is not dominant as defined above.

*** For the Geographical Diversification sub-factor, a geographic market is defined based on economy, NOT based solely on political boundaries. A single market may consist of a region within a larger country (for example, the western United States), or may include one or more smaller countries (for example the Nordic countries). A major market has GDP > $UST trillion. A large market has GDP of $300 billion - $1 trillion. A midsized market has GDP of $100-300 billion. A local market has GDP under $100 billion.*

For operations in a market to be "significant" they must be profitable and have a strong representation (i.e. more than just a token presence) throughout the entire market. If a market does not qualify because it is not highly diversified, the bank should be assigned the next lower score.

**** Based on division of the bank's pre-tax net income into the following 6 business lines: (1) Wholesale/Corporate, Investment Banking, & Trading, (2) SME/ Middle Market Banking, (3) Retail Banking/Consumer Lending, (4) Asset management, (5) Fiduciary/Transaction Services (incl. Cash Management + Custody), and (6) Insurance.*

Summary of factor mapping – Risk positioning

	D	E
Corporate Governance*		
Ownership and Organizational Complexity	Complex ownership structure, e.g. multiple minority ownership interests, consortium banks, cross-shareholdings, pyramid structures, or circular shareholdings OR > 50% ownership by an individual legal person (including the government) or family.	Complex or private ownership as described for D, AND either (i) a complex organizational structure (i.e. one that is hard for the board or outside observers to understand) OR (ii) family shareholders or government officials dominate management.
Key Man Risk	Lack of management depth (management dominated by one or two people at most, no apparent successor, lack of succession planning, etc. – e.g. a "one-man shop") OR dominance of a single generation within the ranks of senior management.	Lack of management depth AND dominance of a single generation within senior management.
Insider and Related-Party Risks	Total related-party loans between 25% and 40% of Tier 1 capital OR less than 25% of supervisory board is independent.	Total related-party loans > 40% of Tier 1 capital OR no one on the supervisory board is independent.

** If not a D or E, scoring on individual component is neutral and contributes neither positively nor negatively to the BFSR.*

Risk Management and Controls

Risk Management

A	**Excellent risk management practices** Very high awareness of the key risks of the firm by both supervisory board and senior executives that together, and on an annual basis, establish the firm's risk appetite and discuss all risk issues at least quarterly. Executives discuss risk issues including the largest credits and investment portfolios and their respective internal limits monthly and on an ongoing basis, e.g., through an Asset/Liability Committee (ALCO) and a Credit Risk Committee. High effectiveness of governance structure supported by a dedicated Chief Risk Officer (CRO), who reports independently to the supervisory board. The CRO will have regular sessions with the Board without other senior management to ensure full independence. Risk function is fully independent from business line management, is empowered with veto power, and proactive. Risk management is a key component of the decision-making process of the bank. Very high quality and robust information systems and practices, commensurate with the bank's risk appetite and profile. All risks, including credit, market (both trading and banking books), and operational risk are estimated both individually and using a measure of total aggregate risk (e.g. economic capital). Market risk exposures can be extracted real-time and credit risk exposures can be extracted the same day. Uniform credit and market risk limits in place and enforced throughout the institution; limit breaches reported the same day. Development of proprietary systems as additional support to risk control decisions. Quarterly credit portfolio reviews as well as topical customer or industry credit reviews conducted on a regular basis, including both portfolio exposures and assessments of expected loss and economic capital. Stress analyses done regularly on all the risks of the firm. Risk-adjusted performance measures (e.g. RAROC) are used throughout the firm. *Note:* To achieve an A score, all of the above criteria must be met.
B	**Very good risk management practices** High awareness of the key risks of the firm by both supervisory board and senior executives that together, and on an annual basis establish the firm's risk appetite and discuss all risk issues at least quarterly. Executives discuss risk issues including the largest credits and investment portfolios and their respective internal limits monthly and on an ongoing basis, e.g., through Asset/Liability and Credit Risk Committees. Effective governance structure supported by a dedicated Chief Risk Officer (CRO) that may report independently to the supervisory board. The CRO is not necessarily a member of the management committee. The risk management function is independent from business line management but may have more of an advisory role rather than being fully empowered with veto power. Risk management is a key component of the decision-making process of the bank. High quality information systems, measurement tools and practices that are commensurate with the bank's risk appetite and profile. Credit, market (both trading and banking books), and operational risk exposures are measured and reported to executives regularly. Market risk exposures can be extracted real-time and credit risk exposures can be extracted the same day. Uniform credit and market risk limits in place and enforced throughout the institution; limit breaches reported the same day. Semi-annual credit portfolio reviews as well as topical customer or industry credit reviews conducted regularly, including both portfolio exposures and assessments of expected loss and economic capital. Stress analyses and risk-adjusted performance measures (e.g. RAROC) are used for key business areas. *Note:* To achieve a B score, most of the above criteria must be met, particularly with regard to Board involvement in risk matters, the independence and importance of risk management in the firm's business strategy, effective systems and measurement tools commensurate with the bank's business lines and risk profile, frequent management review of the institution's major exposures, and the use of stress tests for key businesses.
C	**Satisfactory risk management practices** Supervisory board is aware of the key risks of the firm but its role in establishing the bank's risk appetite may be limited. Board should discuss overall risk issues with senior executives on a formal basis at least twice a year. Executives discuss risk issues monthly and largest (including house limit) credits and investment portfolios and their respective internal limits quarterly, e.g., through an Asset Liability Committee (ALCO) and Credit Risk Committee. Good governance structure. Emerging, though not necessarily in place, role of Chief Risk Officer (CRO) encompassing credit, market and operational risks. Exposures are reported to executives regularly, and risk units have enforcement power delegated by senior management. Risk functions are independent from business line management; however, credit and market risk teams may have separate reporting lines. Operational risk management structure and database may be just developing. Satisfactory information systems and practices, in line with bank's risk profile, but may need further integration or upgrade. Data available on largest exposures very good; less timely data available for smaller exposures. Quantitative credit and market risk limits exist, but may not have comprehensive limit per borrower, perhaps because lacking fully integrated systems. Extraction of information on current exposures subject to some delays (but less than a week) or requiring some manual intervention. Credit portfolio reviews are conducted at least annually; largest credits and exposures reviewed more often. Escalation process for limit breaches in place, and enforced within reasonable period of time. Slippage may occur, though infrequently. Risk-adjusted performance measures (e.g., RAROC or equivalent) may be used. Stress testing may be used ad hoc for only the largest exposures.
D	**Modest risk management practices** Modest awareness of the key risks of the firm by the supervisory board and senior executives and less than adequate governance structure. Very limited involvement of board in establishing bank's risk appetite (senior executives' role). Risk issues may be discussed less than twice a year by the board; credit and market risks and limits discussed less than quarterly by executives at Asset/Liability (ALCO) and Credit Risk Committees. Have not addressed operational risks in a systematic way. Developing risk governance structure: no dedicated Chief Risk Officer (CRO) overseeing all business risks. Risk function not fully independent, and may report to business line management; credit and market risk teams may also have different reporting lines. No formally scheduled annual credit portfolio review. Developing information systems. Uneven quality, availability, and timeliness of risk data; weaknesses in measuring and monitoring risks. Current exposures only available with more than a week delay and needing manual intervention to remove inaccuracies. Ad hoc quantitative risk limits and significant weaknesses in escalation process (delay of a week or more). Slippage may occur from time to time. Risk-adjusted performance (e.g., RAROC or equivalent) measures are not used. Stress tests used in limited fashion.
E	**Poor risk management practices** Poor awareness of the key risks of the firm by the supervisory board and senior executives and weak risk governance structure. Board not involved in establishing risk appetite or strategy of the bank. Executives may discuss risk issues ad hoc and discussion may be too superficial and/or infrequent to be effective (e.g., once a year or less). No dedicated Chief Risk Officer (CRO) overseeing all business risks. Risk function not independent from business line management. No formalized system of quantitative risk limits or regular credit portfolio reviews. Credit Risk Committee is ad hoc. No Asset/Liability Committee exists or lack of depth in risk management structure. Market risk and quantitative tools to measure it are undeveloped. Operational risk has probably not yet been addressed. Poor information systems, leading to weak quality, availability, and timeliness of risk data and limits escalation process and allows for limited corrective action. Extracting of risk exposure data is mainly a manual process that may take weeks or months to complete. Stress tests and risk-adjusted performance (e.g., RAROC or equivalent) measures are not used.

	A	B	C	D	E
Controls*	No control or governance issues in the last 5 yrs. No qualified audits in the last 5 yrs.	1-2 minor control or governance issues in the last 5 yrs. No qualified audits in the last 5 yrs.	1 major control or governance issue in the last 5 yrs.	1-2 major control or governance issues in the last 5 yrs, or any deliberate earnings misstatement in the last 5 yrs.	Weak controls with more than 2 major control or governance issues in the last 5 yrs, or any past fraud by current senior management.
Financial Reporting Transparency					
Global Comparability	Consolidated financial statements prepared under IFRS/US GAAP or GAAP that is substantially based on IFRS or US GAAP and audited by an independent, globally recognized accounting firm.	Consolidated financial statements prepared under IFRS/US GAAP or GAAP that is substantially based on IFRS or US GAAP and audited by an independent, nationally recognized accounting firm.	Unconsolidated financial statements prepared under IFRS/US GAAP or GAAP that is substantially based on IFRS or US GAAP and audited by an independent, globally or nationally recognized accounting firm.	Financial statements prepared under local GAAP and audited by an independent accounting firm.	Financial statements not audited by an independent accounting firm.
Frequency and Timeliness	Quarterly reporting within 10 weeks after the reporting date.	Semi-annual reporting within 10 weeks after the reporting date, AND quarterly trading updates.	Semi-annual reporting within 14 weeks after the reporting date, AND quarterly trading updates.	Semi-annual reporting within 16 weeks after the reporting date; no quarterly trading updates.	None of the above.
Quality of Public Financial Information	Published financial statements are presented in a user-friendly manner and all important information is disclosed at least annually, with most information disclosed semi-annually or quarterly. The includes level of PLs, PL coverage by provisions, RWAs, Tier 1 ratio, credit risk concentration (including industry and geographic concentration as well as some discussion of large credit exposures), detailed business line performance, funding structure, use of derivatives for trading and hedging purposes. Management analysis provides full insight into business and financial performance of the bank based on the economic substance and gives a comprehensive and customized description of the level of risk carried by the bank in issuer-specific language (incl. exposures to credit risk, interest rate, FX risk, and also VaR and stress testing information). All financial information is publicly available.	Financial statements are presented in a user-friendly manner, most important information is disclosed, although disclosure is not as full as for A. Management analysis provides full insight into business and financial performance of the bank based on the economic substance and gives a comprehensive and description of the level of risk carried by the bank in issuer-specific language (incl. exposures to credit risk, interest rate, FX risk, and also VaR and stress testing information). Extensive quantitative disclosures on credit and market risks. All financial information is publicly available.	Management analysis provides good insight into business and financial performance of the bank based on the economic substance and provides good understanding about the level of risk carried by the bank in customized, issuer-specific language. The quality of disclosures is not as good as for A and B categories, but the key disclosures are nevertheless available. All financial information is publicly available.	Adequate disclosures, although some information may be missing. Management analysis provides some insight into business and financial performance of the bank and provides adequate understanding about the level of risk carried by the bank, although in a boiler plate language and some disclosures (e.g. on market risk) may be deficient. Important financial information is publicly available. If any of PLs, RWAs, or Tier 1 ratio is not disclosed, bank must be included in this category or the next lower one.	Limited disclosures, critical information may be missing. Limited or no discussion of business and financial performance of the bank. Boiler plate language is used to describe risks. Only limited financial information (key financial indicators) is publicly available.

** Note: A "major control issue" is defined as a breakdown in audit, compliance, risk management, operations, and/or accounting that results in either regulatory sanctions or constraints on activities, or large penalties or fines relative to those imposed on other firms for that type of issue in that jurisdiction, economic losses, sizable litigation exposures, OR reputational damage.*
A "minor control issue" more commonly results in no economic losses, may involve regulatory agreements seeking corrections (but no sanctions), and causes little or no reputational damage. An example of a minor control issue might be a regulatory settlement on anti-money laundering processes or other compliance matters that is not accompanied by severe regulatory constraints on activities, large fines or other punitive regulatory sanctions.
Suggestions for control improvements made during the normal course of business by a regulator, external auditor or internal control executives are generally not considered control issues. In addition, legal settlements made with regard to common business practices would also not be considered a control issue, unless the settlement costs or fines are outsized for that type of issue in a given jurisdiction.

	A	B	C	D	E
Credit Risk Concentration*					
Borrower Concentration **	Top 20 group exposures are the worse of < 50% of Tier 1 OR < 100% of pre-tax pre-provision income (PPI)	Top 20 group exposures are the worse of 50%-80% of Tier 1 OR 100%-200 of PPI	Top 20 group exposures are the worse of 80%-100% of Tier 1 OR 200%-350% of PPI	Top 20 group exposures are the worse of 100%-200% of Tier 1 OR 350%-750% of PPI	Top 20 group exposures are the worse of > 200% of Tier 1 OR > 750% of PPI
Industry Concentration	Largest single sector exposure is < 50% of Tier 1	Largest single sector exposure is 50%-200% of Tier 1	Largest single sector exposure is 200%-350% of Tier 1	Largest single sector exposure is 350%-500% of Tier 1	Largest single sector exposure is > 500% of Tier 1

** The overall Credit Risk Concentration score equals the lower score of Borrower Concentration or Industry Concentration.*
*** Based on the sum of the 20 largest group exposures. "Group exposure" includes the aggregate of all loans (outstanding amounts plus undrawn committed exposures), investment or trading securities, counterparty exposures, etc. to related borrowers within a group or family. Excludes advised lines or internal limits, i.e. those instances where the bank is not obligated to extend credit outstandings. Also excludes Aaa-rated sovereign exposures, but includes all other sovereign, sub-sovereign, and other government-related exposures as well as private sector exposures.*
Industry concentration measures exposures to borrowers in specific industries or sectors of the economy; for example, Commercial Real Estate, Oil & Gas, Fishing, Ship Building, Agriculture, Mining, etc. Does not include exposure to specific product lines (e.g. residential mortgages or credit cards). Aggregate exposures to Banking or Financial Institutions is considered an industry concentration. Aggregate exposures to the "Public Sector" is not be considered an industry concentration unless the public sector entities are highly correlated.

Liquidity Management *	
A	**Excellent Liquidity Management** Effective measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active. Effective board and senior management oversight underpinned by good MIS that provides timely and sufficiently detailed info. Limits are appropriate to the size, complexity and financial condition of the bank. Banks in this category should have positive net funding -- defined as Sources/Inflows (S) minus Uses/Outflows (U) > zero at every point in time over 12 months non-access to unsecured capital markets, with no reduction in business activities. Specifically, an A bank can pay all its liabilities as they fall due over the next 12 months with (i) no recourse to unsecured funding in the capital markets, (ii) no recourse to its own Class 4 or Class 5 liquidity sources (see table below), and (iii) no reduction in business activity (eg: maturing loans would not constitute a Source, but rather would be rolled or replaced with new lending). Also, the extent that banks in this category rely upon non-core funding, they should enjoy ample diversification of funding sources by type, nature of the provider of funds and geographic market and enjoy strong relationships with key providers of funding (indicated by frequency of contact and frequency of use of a funding source). Liquidity contingency planning is prudent, incorporating an analysis of net funding requirements under both bank-specific and market-related crises).
B	**Very Good Liquidity Management** Effective measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active. Effective board and senior management oversight underpinned by good MIS that provides timely and sufficiently detailed info. Limits are appropriate to the size, complexity and financial condition of the bank. As a general rule, banks in this category should have positive net funding -- defined as Sources/Inflows (S) minus Uses/Outflows (U) > zero at every point in time over 12 months non-access to unsecured capital markets, with only a modest reduction in business activities. Specifically, a B bank can pay all its liabilities as they fall due over the next 12 months with (i) no recourse to unsecured funding in the capital markets, (ii) limited recourse its own Class 4 liquidity sources, (iii) no recourse to its own Class 5 liquidity sources, and (iii) only a modest reduction in business activity (any reduction in business activity limited to non-core, non-franchise businesses). Also the extent that banks in this category rely upon non-core funding, they should enjoy ample diversification of funding sources by type, nature of the provider of funds and geographic market and enjoy strong relationships with key providers of funding (indicated by frequency of contact and frequency of use of a funding source). Liquidity contingency planning is prudent, incorporating an analysis of net funding requirements under both bank-specific and market-related crises).
C	**Satisfactory Liquidity Management** Effective measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active. Effective board and senior management oversight underpinned by good MIS that provides timely and sufficiently detailed info. Limits are appropriate to the size, complexity and financial condition of the bank. As a general rule, banks in this category should have positive net funding -- defined as Sources/Inflows (S) minus Uses/Outflows (U) > zero at every point in time over 12 months non-access to unsecured capital markets, with only a modest reduction in business activities. Specifically, a C bank can pay all its liabilities as they fall due over the next 12 months with (i) no recourse to unsecured funding in the capital markets, (ii) heavy reliance on its own Class 4 liquidity sources, (iii) no recourse to its own class 5 liquidity sources, and (iv) only a modest reduction in business activity (no reduction in business activity that could permanently impair franchise value owing to a loss of customers or reputation). Modest diversification of funding sources by type, nature of the provider of funds and geographic market and questionable relationships with key providers of funding (indicated by frequency of contact and frequency of use of a funding source). Liquidity contingency planning is prudent, incorporating an analysis of net funding requirements under both bank-specific and market-related crises).
D	**Modest Liquidity Management** Questionable measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active. Questionable board and senior management oversight. MIS may not provide timely and sufficiently detailed info. Limits may not be appropriate to the size, complexity and financial condition of the bank. Questionable measurement, monitoring and control system for liquidity positions in the major currencies in which the bank is active. Questionable board and senior management oversight. MIS may not provide timely and sufficiently detailed info. Limits may not be appropriate to the size, complexity and financial condition of the bank. As a general rule, banks in this category should have positive net funding -- defined as Sources/Inflows (S) minus Uses/Outflows (U) > zero over 12 months non-access to unsecured capital markets, but may have some timing gaps and some reduction in business activities. Specifically, a D bank can pay all its liabilities more or less as they fall due over the next 12 months, although there may be some gaps in the timing, with (i) no recourse to unsecured funding in the capital markets, (ii) recourse to all classes of liquidity sources (even Class 5), and (iii) some reduction in business activity (eg: less than half its maturing loans could be rolled or replaced with new lending). Modest diversification of funding sources by type, nature of the provider of funds and geographic market and questionable relationships with key providers of funding (indicated by frequency of contact and frequency of use of a funding source). Less realistic liquidity contingency planning.

Liquidity Management *	
E	**Poor Liquidity Management** Institutions that do not qualify for previous categories

** Liquidity Management Notes:*
This sub-factor focuses on how well a bank can manage a name-specific disruption of its funding. This could be the result of investor reaction to problems at similar institutions or to problems at the bank itself, including a multi-notch downgrade. While such a downgrade may be unlikely, a highly rated bank is nonetheless expected to be able to survive a multi-notch downgrade without defaulting on its obligations (or requiring a bailout to avoid default). The focus is on how quickly and easily the bank will be able to access alternative liquidity to meet ongoing liquidity needs in the event the bank suffers a loss of access to unsecured funding.

Liquidity Uses/Outflows (U) --
Liabilities falling due -- wholesale debt as well as other confidence sensitive deposits -- and contingent liabilities (i.e. committed lines of credit that can be drawn down as well as other funding requirements for off-balance sheet commitments such as letters of credit and financial guarantees, swaps, written OTC options, margin calls etc). Factors such as diversification and relationship building are seen as especially important in evaluating the extent of liability run-off and a bank's capacity to replace funds. Matched books (eg: repos) should be netted, and only net liability amounts considered a use.

Liquidity Sources/Inflows (S) By Class (based in time within which can be converted to cash) --
Sources of liquidity include cash flow from operations and dividends from subsidiaries (net of taxes, and only if not restricted by a subsidiary's regulator) plus the following and should be estimated net of reasonable haircuts for price fluctuations, liquidity, relationship ramifications, etc. Maturing assets should be considered a source of liquidity only to the extent the corresponding reduction in business activity is consistent with the scoring described above.

CLASS 1 (one week sources)
Cash, government securities or other assets which can be sold/repoed/used as collateral in the market (with appropriate haircuts) or are eligible as collateral in central bank's routine open market operations (but only if such central bank borrowings won't jeopardize customer confidence), and established and committed secured and unsecured credit lines with no Material Adverse Change clauses - MAC - from similar or higher rated banks

CLASS 2 (two week sources)
Other marketable securities such as listed equities and interbank loans with appropriate haircuts, and assets that can be used as collateral in well-established securitization and/or covered bond programmes (programmes must be able to provide cash within two weeks)

CLASS 3 (3 month sources)
Banks' saleable loan portfolio with reasonable schedule for the disposal. Includes assets that can be used as collateral in established securitization and/or covered bond programmes (but only for banks that have used such programmes within the past year for this class of assets). Limited credit should be given to (i) markets where loans are not frequently transferred and do not routinely include loan-sale clauses in loan documentation, (ii) for those banks that have not developed a network of customers with whom it has concluded loan-purchase agreements.

CLASS 4 (6-9 month sources)
Illiquid loans or securities not capable of being readily sold, including assets that can be used as collateral in securitizations or covered bond, but at banks that have not utilized such assets in a securitization or covered bond programme within the past year.

CLASS 5 (uncertain sources)
Bank premises, investment in subsidiaries, private equity holdings, subordinated/mezzanine debt holdings, and troubled credits.

	A	B	C	D	E
Market Risk Appetite *	< 10% of Tier 1 capital is at risk due to market risk events	11%-20% of Tier 1 capital is at risk	21%-35% of Tier 1 capital is at risk	36%-50% of Tier 1 capital is at risk	> 50% of Tier 1 capital is at risk

** Market Risk Appetite aims at capturing the sensitivity of both the trading and non-trading books to major changes in key financial variables (including interest rates, FX, equity prices, credit spreads).*

1) If stress tests or economic capital allocated to market risk capture the potential loss of both the trading and the non-trading books to major market movements are available, the results should be used, expressed as a percentage of Tier 1 capital, as the measure for market risk appetite.
2) If stress tests are not available, add up separately estimated losses coming from the trading and non-trading books, and express as a percentage of Tier 1 capital:

(a) For the trading book, multiply 5 times the 10-day 99% average VaR for a firm's trading book for a given calendar year (a 1-day 99% VaR can be converted to 10-day 99% by using a multiplicative factor of 3.162).

(b) For the non trading (i.e. banking) book, estimate the open, unhedged positions of the firm for each of the following risks and calculate the potential loss before tax for each risk based on the sensitivity of the book to the following stress tests. If available, one year VaR can be used for those risks on which it is reported, stress tests should be calculated for the other risks.

	Interest Rate Risk	Equity Risk	Foreign Currency Risk
Eurozone, Japan	Change in market value of equity* for a +/- 100 bps change in rates	25% decline in equity prices	20% change in value to exposures in developed market currencies, 40% otherwise
North America, UK, other developed markets	+/- 200 bps		
Developing Markets	+/- 500 bps	50%	40%

Summary of factor mapping – Operating environment

	A	B	C	D	E
Economic Stability	Standard deviation of GDP growth <2.3	Standard deviation of GDP growth 2.3-4.0	Standard deviation of GDP growth 4.0-7.0	Standard deviation of GDP growth 7.0-12.0	Standard deviation of GDP growth >12.0
Integrity and Corruption	WB Corruption Index > or = 2.00	WB Corruption Index between 1.20 – 1.99	WB Corruption Index between 0.60 - 1.19	WB Corruption Index between -0.35 and 0.59	WB Corruption Index < -0.35
Legal System *	Length of foreclosure on residential real estate < 1 yr	Length of foreclosure on residential real estate 1-2 yrs	Length of foreclosure on residential real estate 2-3 yrs	Length of foreclosure on residential real estate 3-5 yrs	Length of foreclosure on residential real estate > 5 yrs

** The legal system should be evaluated firstly based upon length of foreclosure on residential real estate. If such information is not readily available or is not considered indicative of the overall rule of law, analysts will evaluate the legal system on the basis of the effectiveness of commercial contract law, the perfection of collateral, bankruptcy laws or other considerations in light of their impact (favorable or unfavorable) on the banking system. However, if foreclosure data is not used, then the score can only be C or lower.*

Summary of factor mapping – Financial fundamentals

	A	B		C		D		E
Profitability	>=	>=	<	>=	<	>=	<	<
PPP % of Avg RWA	3.5%	2.4%	3.5%	1.4%	2.4%	0.5%	1.4%	0.5%
Net Income % Avg RWA	2.0%	1.7%	2.0%	1.0%	1.7%	0.3%	1.0%	0.3%
Liquidity	<	>=	<	>=	<	>=	<	>=
(Market funds - Liquid Assets) % Total Assets	-10%	-10%	0%	0%	10%	10%	20%	20%
Liquidity Management score from Risk Positioning	A	B		C		D		E
Capital Adequacy	>=	>=	<	>=	<	>=	<	<
Tier 1 ratio (%)	10%	8%	10%	6%	8%	4%	6%	4%
Tangible Common Equity % RWA	7.0%	5.5%	7.0%	4.0%	5.5%	2.5%	4.0%	2.5%
Efficiency	<	>=	<	>=	<	>=	<	>=
Cost/income ratio*	45%	45%	55%	55%	65%	65%	80%	80%
Asset Quality	<	>=	<	>=	<	>=	<	>=
Problem Loans (%) Gross Loans	0.8%	0.8%	2%	2%	5%	5%	12%	12%
Problem Loans % (Shareholders' Equity + LLR)	10%	10%	20%	20%	30%	30%	50%	50%

** Cost/income ratio = total non-interest expense as a percentage of total revenues (which is calculated as the total of net interest income plus non-interest income including the net of gains or losses on securities sales).*

BFSR SCORECARD WEIGHTS FOR BANKS IN MATURE MARKETS

				Category Weight	Overall Weight		Sub-Factor Weight	Overall Weight
MATURE MARKETS	Qualitative Factors	50%	Franchise Value	40%	20%	Market share and sustainability	25%	5.0%
						Geographical diversification	25%	5.0%
						Earnings stability	25%	5.0%
						Earnings diversification	25%	5.0%
			Risk Positioning	40%	20%	Corporate Governance	16.7%	3.3%
						Controls & Risk Management	16.7%	3.3%
						Financial Reporting Transparency	16.7%	3.3%
						Credit Risk Concentration	16.7%	3.3%
						Liquidity Management	16.7%	3.3%
						Market Risk Appetite	16.7%	3.3%
			Regulatory Environment	10%	5%	Regulatory Environment	100%	5.0%
			Operating Environment	10%	5%	Economic Stability	33.3%	1.7%
						Integrity and Corruption	33.3%	1.7%
						Legal System	33.3%	1.7%
	Financial Factors	50%	Profitability	15.75%	8%	PPP % Avg RWA	50%	3.9%
						Net Income % Avg RWA	50%	3.9%
			Liquidity	15.75%	8%	(Market funds - Liquid Assets) % Total Assets	36%	2.8%
						Liquidity Management	64%	5.1%
			Capital Adequacy	15.75%	8%	Tier 1 ratio (%)	50%	3.9%
						Tangible Common Equity % RWA	50%	3.9%
			Efficiency	7.00%	4%	Cost/income ratio	100%	3.5%
			Asset Quality	15.75%	8%	Problem Loans % Gross Loans	50%	3.9%
						Problem Loans % (Equity + LLR)	50%	3.9%
			Lowest Score	30.00%	15%	Assigned to lowest combined financial factor score	100%	15.0%

Note that in the table above there is at least one adverse consideration for Corporate Governance. If there were no adverse considerations, it would receive no weight and the weights for all other factors in Risk Positioning would increase by an equal amount. In addition, a score of D or E in Controls, Credit Risk Concentration, or Quality of Financial Reporting would increase the weights of those sub-factors and reduce the weights on other sub-factors within Risk Positioning. In this case the bank is also considered a "monoline,"and so the weight on each of the four sub-factors for Franchise Value is equal. If the bank is not a monoline, then Earnings Diversification gets no weight, and the weight for Franchise Value is evenly divided over the other three sub-factors (Market Share, Geographic Diversification, and Earnings Stability).

BFSR SCORECARD WEIGHTS FOR BANKS IN DEVELOPING MARKETS

				Category Weight	Overall Weight		Sub-Factor Weight	Overall Weight
DEVELOPING MARKETS	Qualitative Factors	70%	Franchise Value	10%	7%	Market share and sustainability	25%	1.8%
						Geographical diversification	25%	1.8%
						Earnings stability	25%	1.8%
						Earnings diversification	25%	1.8%
			Risk Positioning	30%	21%	Corporate Governance	16.7%	3.5%
						Controls & Risk Management	16.7%	3.5%
						Financial Reporting Transparency	16.7%	3.5%
						Credit Risk Concentration	16.7%	3.5%
						Liquidity Management	16.7%	3.5%
						Market Risk Appetite	16.7%	3.5%
			Regulatory Environment	30%	21%	Regulatory Environment	100%	21.0%
			Operating Environment	30%	21%	Economic Stability	33.3%	7.0%
						Integrity and Corruption	33.3%	7.0%
						Legal System	33.3%	7.0%
	Financial Factors	30%	Profitability	15.75%	5%	PPP % Avg RWA	50%	2.4%
						Net Income % Avg RWA	50%	2.4%
			Liquidity	15.75%	5%	(Market funds - Liquid Assets) % Total Assets	44%	2.1%
						Liquidity Management	56%	2.7%
			Capital Adequacy	15.75%	5%	Tier 1 ratio (%)	50%	2.4%
						Tangible Common Equity % RWA	50%	2.4%
			Efficiency	7%	2%	Cost/income ratio	100%	2.1%
			Asset Quality	15.75%	5%	Problem Loans % Gross Loans	50%	2.4%
						Problem Loans % (Equity + LLR)	50%	2.4%
			Lowest Score	30%	9%	Assigned to lowest combined financial factor score	100%	9.0%

Note that in the table above there is at least one adverse consideration for Corporate Governance. If there were no adverse considerations, it would receive no weight and the weights for all other factors in Risk Positioning would increase by an equal amount. In addition, a score of D or E in Controls, Credit Risk Concentration, or Quality of Financial Reporting would increase the weights of those sub-factors and reduce the weights on other sub-factors within Risk Positioning. In this case the bank is also considered a "monoline,"and so the weight on each of the four sub-factors for Franchise Value is equal. If the bank is not a monoline, then Earnings Diversification gets no weight, and the weight for Franchise Value is evenly divided over the other three sub-factors (Market Share, Geographic Diversification, and Earnings Stability).

APPENDIX C
QUESTIONNAIRE

The questionnaire addresses the qualitative aspects of ratings and tries to establish the quality and frequency of qualitative rating factors in co-operative banks. The regulatory and operative environments are excluded from the questionnaire for the same reasons as discussed in chapter 4. The questions are based on the same format as a multiple choice questionnaire. Answers may range from 1 to 5; 1 being the worst and 5 the best.

- Who are your clients?
- Does your bank serve a community, employees, group etc?

Franchise value

Market share and sustainability:

- How many co-operatives banks are there in your area?
- What would you describe your brand recognition is in terms of the local co-operatives in your region/area/community?
- Describe the quality of customer relationships in your co-operative.
- How well would you say you are protected against new competitors entering the market?
- How many clients do you have?

Geographical diversification:

- How well is your client base diversified in terms of economic activity?
- Do you have a system on which you capture client info?
- What type of collateral do you take against loans?
- How well protected is your market, or market share?

Earnings stability:

- What is your main source of income?
- What percentage of your earnings can be classified as recurring (excl. interest)?
- What is the quality of your earnings stability in terms of:
    - Barriers to entry
    - Switching cost
    - Earnings volatility

Earnings diversification:

- What is your main line of business (product)?
- How many products do you have?
- Are you taking deposits?

Risk positioning

Corporate governance:

- How would you describe the board's efficiency, structure and experience in dealing with risk?
- How is your board dealing with risk?
- How would you describe your quality of execution and application of the criteria stipulated by the Co-operative and Co-operative Banks Acts?
- How regularly do you have board meetings?
- Describe the quality of the following:
    - Independent directors
    - Voting rights
    - Shareholder control

Controls and risk management

- To what extent is key man risk present at board level?
- To what extent do operational senior management have an influence on the board in the decision making process?
- To what extent would you say is insider and related party risk present in your co-operative?

- To what extent are the policies in place that address the major risks inherent to your co-operative?
- To what extent are these policies applied?
- How do you measure risk?
- Do you apply the same risk policies to directors?
- What is the quality of the systems that provide information in terms of the major risks as they pertain to your co-operative?
- To what extent does your co-operative comply to the criteria set out by the National Credit Act and the Financial Intelligence Act?

Financial reporting transparency:

- Is your bank's accounting done in terms of GAAP SA?
- Are you audited by an external, internationally recognised accounting firm?
- What is the time lapse between the financial year end of your institution and the date of you reporting your financial statements?
    - 5 – 2 months
    - 4 – 3 months
    - 3 – 4-6 months
    - 2 – inside a year
    - 1 – longer than a year

Credit risk concentration

- To what extent do you have:
    - Borrower concentration (same area/organisation etc.)
    - Industry concentration (how many industries do you service?)

Liquidity Management

- Does the co-operative have a well-defined manner of measuring and identifying liquidity risk?
- Does the co-operative have a well-defined and structured manner in which it handles liquidity risk? (e.g. ALM, derivatives, etc.)

Market risk appetite

- Does the co-operative have a well-defined manner in which it monitors and measures market risk?
- Does the co-operative have a well-defined and structured manner in which it manages market risk?

Other

- What are your criteria for granting a loan?
- How do you measure credit risk?
- Dou you make provisions for bad debt?
- What percentage of your loans is overdue?

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