SECURITISATION AND ITS APPLICATION TO LOW COST HOUSING FINANCE IN SOUTH AFRICA

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ABSTRACT

Section 26 of the Constitution of South Africa Act 108 of 1996 provides that housing is a basic human right and that the government must take reasonable legislative and other measures to achieve the realisation of this right. A number of measures were taken to try to resolve this socio-economic issue. A number of housing institutions were established, various pieces of legislation were passed and housing subsidies were provided. However, housing backlogs remain a challenge. In March 1994 the housing backlog was estimated between 1,3 and 1,8 million units. When more than a million houses were provided by 2001, the housing backlog had increased to between 2 and 3 million houses. To date subsidies in excess of R29 billion have been spent on housing provision. A study by the Department of Housing concluded that, at the current rate of increase of housing funding vis-à-vis the growing backlog and rapid urbanisation, the household backlog will not be changed in ten years' time.

The United States of America (USA) had a similar low cost housing problem, but securitisation alleviated it with the participation of government agencies Fannie Mae, Ginnie Mae and Freddie Mac. In South Africa, the NHFC tried to emulate the USA model by establishing Gateway Home Loans (Pty) Limited (Gateway) in 1999. Gateway, however, was not a success. This research investigates whether securitisation can be applied in South Africa to alleviate the low cost housing issue.

The study finds that there is a credit availability gap for the low income sector earning less than R8 000 per month because of the perceived risk of default and unwillingness by banks to lend to this sector. The increase in housing backlog that continues unabated, inadequate housing finance system to low income earners, the lessons learnt from the failure of Gateway, the success factors of the USA securitisation model and the sound and sophisticated South African financial system are the rationale for applying securitisation. A proposal of how to effectively apply securitisation to low cost housing in South Africa is provided with recommendations to revive the primary market.

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For my family and Mariam Ssonko: a special debt of gratitude for your tolerance and support.

DECLARATION

I certify that this work has not been submitted for a degree at any other university and that it is my original work except for where referenced within the document.

Signed:.......................................

Date: 15 December 2006

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CHAPTER ONE

INTRODUCTION

1.1. INTRODUCTION

This thesis is organised into five chapters. Chapter one is an introductory chapter. It provides the context, objectives, key assumptions and limitations of the thesis. This chapter ends with a brief description of the subsequent chapters.

1.2. CONTEXT OF THE THESIS

Section 26 of the Constitution of the Republic of South Africa Act 108 of 1996 provides that housing is a basic human right and that the government must take reasonable legislative and other measures within its available resources to achieve the progressive realisation of this right. In an attempt to eradicate or reduce the housing backlog, the government formulated and implemented a housing policy. A number of measures were taken to try to resolve this socio-economic issue. The measures include the establishment of a number of housing institutions, passing various pieces of legislation and the provision of housing subsidies.

The housing finance institutions established include the Home Loan Guarantee Company (HLGC) established in 1990, the Community Bank in 1994, the National Urban Reconstruction and Housing Agency (NURCHA) in May 1995, the Mortgage Indemnity Fund (MIF) and Servcon Housing Solutions (SHS) in June 1995 and the National Housing Finance Corporation (NHFC) in 1996. These institutions were set up with different mandates.

According to SA Financial Sector Forum (2003: 2), "the main purpose of the HLGC is the facilitation of access to finance for low income housing by providing guarantees of last resort for mortgage-backed and non-mortgage-backed finance and providing, mobilising and managing mortgage insurance."

The Community Bank was established to address the savings and borrowing needs of low income individuals. NURCHA offers guarantees to financial institutions that provide bridging finance for housing projects and to those that extend credit to small housing loans. According to NURCHA (2003: 1), it was "established to facilitate finance for low income housing projects focusing on households with an income of below R1 500 per month."

The MIF was established as a wholly government-owned company to provide cover to banks in the event of default. According to SA Financial Sector Forum (2003: 1), "the expectation was that it would unlock significant mortgage lending for the low income market in areas where the banks were refusing to lend." The SHS was established as a joint venture between the government and several banks. Its main purpose was to deal with the properties that had been repossessed in certain areas where the banks were unable to physically repossess.

NHFC (2003: 1) states that the NHFC was established by government to create "housing opportunities for the low and moderate income families by funding intermediaries like retail lenders, small banks, niche and micro lenders." These would provide finance to households with monthly incomes between R1 000 and R6 000 for home improvement, ownership and rental housing. All the above-mentioned institutions were established to alleviate the housing finance problem.

The government also took legislative measures in an attempt to address this socio-economic issue. In 2002 the Community Reinvestment Bill (2002) was tabled in parliament. The bill is still under discussion by the banking sector, the government and other stakeholders. The bill aims at discouraging financial institutions from refusing loans to the low income housing market. It calls for penalties of up to R500 000 for financial institutions that discriminate against low income earners. Another piece of legislation, the Home Loan Disclosure Act (2000), requires banks to disclose information relating to their home loans applications.

The other notable measure that the government implemented in 1994 is the provision of housing subsidies to all households earning not more than R3 500 per month. To date the government has spent in excess of R29 billion on housing provision (Sisulu, 2005b: 3).

Despite taking the above mentioned measures, housing provision remains a challenge. In March 1994 it was estimated that the housing backlog was between 1,3 and 1,8 million units (Stratoudakis, 1994: 16). By July 2001 1,1 million houses were built. However, the housing backlog had increased to between 2 and 3 million houses translating to approximately 7,5 million people without adequate housing (Knight, 2001: 1). A study by the Department of Housing concluded that, at the current increase in housing funding vis-a-vis the growing backlog and rapid urbanisation, the household backlog will not be changed in ten years' time (Sisulu, 2005b: 4).

In the early 1930s, the United States of America (USA) had a similar low cost housing problem, but securitisation alleviated it with the participation of government agencies Federal National Mortgage Association (Fannie Mae), the Government National Mortgage Association (Ginnie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac). The NHFC tried to emulate the USA model of utilising securitisation to fund low cost housing by establishing Gateway Home Loans (Pty) Limited (Gateway) in 1999. Gateway was created to promote the secondary mortgage market. It bought mortgage loans from originators and issued securities in the capital market to fund the purchase of the loans. The

Gateway initiative was discontinued in 2001. The only attempt thus far to use securitisation to fund low cost housing in South Africa had failed.

It may be argued that the South African housing market resembles the USA housing market after the Great Depression (Roberts, 1999: 16). It is notable that the involvement of the USA government in the secondary mortgage market resolved the housing problem (an issue that we will return to later). The same concept has been successfully applied in other countries like Malaysia and Australia. As noted, in South Africa Gateway was not a success. This research attempts to facilitate the understanding of mortgage securitisation and to investigate whether there is a case for applying securitisation to low cost housing finance in South Africa.

1.3. OBJECTIVES OF THE THESIS

The objectives of this thesis are:

- To provide a general overview of mortgage securitisation in order to facilitate understanding of this potentially important low cost housing funding tool.
- To identify the success factors of Fannie Mae, Ginnie Mae and Freddie Mac in the USA and the failure factors of Gateway in South Africa.
- To investigate whether there is a case for applying securitisation to low cost housing finance in South Africa.

1.4. LIMITATIONS OF THE THESIS

This thesis is limited to identifying the success factors of only the USA securitisation model, although this has been successfully applied in other countries. It is also limited to investigating whether there is a case for applying traditional securitisation, although various types such as synthetic and whole business securitisations have evolved.

1.5. CONTENTS OF THE RESEARCH REPORT

Chapter two provides a general theoretical overview of securitisation. The key aspects as well as the accounting issues, taxation, legal issues and regulatory environment of securitisation are discussed. An overview of the South African securitisation market is presented. This chapter ends with a discussion of the benefits and concerns about securitisation.

Chapter three reviews the literature on residential mortgage-backed securitisation (RMBS). A brief history of RMBS and an overview of the USA RMBS market are discussed. The involvement, operations and success factors of the government agencies, Fannie Mae, Ginnie Mae and Freddie Mac are highlighted. An overview of the South African RMBS market is presented. The operations of Gateway and its failure factors are also discussed. This chapter ends with a discussion on the risks involved in RMBS transactions and ways to eliminate or mitigate them.

Chapter four presents a discussion on housing finance in South Africa. The measures taken by the South African Government to address low income housing finance are highlighted. The rationale to apply securitisation to low income housing finance in South Africa is presented. The chapter ends with a proposal of how to effectively apply securitisation to low income housing finance in South Africa.

Chapter five summarises the conclusions of all chapters, and recommendations for further research are presented.

CHAPTER TWO

SECURITISATION: THEORETICAL OVERVIEW

2.1. INTRODUCTION

This chapter provides a general theoretical overview of securitisation. However, to give context to this financial innovation a brief introduction to the financial system is provided.

"A financial system may be defined as a set of arrangements embracing the lending and borrowing of funds by non-financial economic units and the intermediation of this function by financial institutions in order to facilitate the transfer of funds, to create additional money when required, and to create markets in debt instruments so that the price and allocation of funds are determined efficiently," (Faure, 2002b: 8). The financial system is about the deficit economic units borrowing from surplus economic units. This can be done directly, or via financial intermediaries. In direct financing the ultimate borrowers purchase primary securities issued by lenders directly with the interposition of a broker. As cited by Faure (2002b, 8) this "can only take place to the extent that the lenders' requirements in terms of size, risk, return and term to maturity can be matched with the requirements of the borrowers." Financial intermediaries assist in resolving to meet the requirements of both lenders and borrowers by purchasing securities of borrowers and issuing their own (called indirect securities) to lenders for a fee. When new securities (including both primary and indirect securities) are issued, this market is referred to as the primary market. When the previously issued securities are traded, that market is referred to as the secondary market.

Financial intermediaries facilitate the flow of funds between the surplus and deficit units of these categories. Securitisation vehicles are not ongoing lenders and borrowers, and may be regarded as quasi-financial intermediaries as they intermediate on a once-off basis. A securitisation vehicle may hold a portfolio of mortgages which is financed by the issue of mortgage backed securities.

Securitisation has been defined in many ways by different professionals and practitioners. Rosenthal and Ocampo (1988: 3) define securitisation as "the general phenomenon whereby more fund raising is occurring through the agency of securities. Credit securitisation, as a subset of securitisation, is the carefully structured process whereby loans and other receivables are packaged, underwritten and sold in the form of securities (instruments commonly known as asset-backed securities or ABSs)." According to Faure (2002a: 105), "traditional securitisation amounts to the pooling of certain non-marketable assets that have a regular cash flow, in a legal vehicle created for this purpose (called a special purpose vehicle or SPV), and the issuing by the SPV of marketable securities to finance the pool of assets. The regular cash flow generated by the assets in the SPV is used to service the interest payable on the securities issued by the SPV."

Rosenthal and Ocampo (1988: 40) point out that securitisation was applied for the first time to non-mortgage assets in 1985. Kothari (2003a: 1) cites that "later innovation has extended application of securitisation to cover non-financial assets such as aircrafts, buildings and even risk such as insurance risk and weather risk." The traditional boundaries of securitisation were stretched and various types of securitisation evolved. The notable types are whole business securitisation and synthetic securitisation which are briefly discussed below.

Some companies have successfully securitised the cash flows of an entire business unit instead of just a specific pool of assets. According to Harris (2003: 1) this is called *whole business securitisation* and "is particularly attractive for a business that has significant value attached to assets it is unable to reflect on its balance sheet such as brands or other intellectual property rights. Whole business securitisation differs from the traditional form in that there is no sale of the assets to be securitised, but instead a secure loan structure and that the SPV will be a member of the borrowing company's corporate group." As discussed later in this chapter, one of the motivations for securitisation by originators is to remove assets from their balance sheets. From the above-mentioned definition of whole business securitisation, this benefit is not realised because of accounting consolidation.

The South African regulations make a distinction between traditional securitisation and synthetic securitisation. Securitisation Notice (2004: 17) defines a traditional securitisation scheme as one that "involves the legal and economic transfer of assets to an SPV that issues commercial paper that claims against the said assets transferred. Different classes of commercial paper are normally issued, and each class has a different priority claim on the cash flows originating from the underlying pool of assets." In synthetic securitisation transactions banks use credit derivatives to transfer the credit risk of a specified pool of assets to third parties. Securitisation Notice (2004: 25) defines a synthetic securitisation scheme as one that "refers to a transaction whereby an institution uses a credit-derivative instrument to transfer the risk associated with a specified pool of assets to a special purpose institution. Normally, the resulting credit exposures have different levels of seniority."

Securitisation transactions are structured differently depending on the motivation. The following section discusses securitisation structures. Generally, securitisation structuring ensures that the bankruptcy of the originator will not affect the SPV.

2.2. SECURITISATION STRUCTURES

2.2.1. Introduction

As cited by Hamilton (2003: 1), it would be impractical to try to cover all securitisation structures, but the two generic "classic" securitisation structures are *term structures* and *conduit structures.* These are discussed in the next sections.

2.2.2. Term structure

2.2.2.1. Introduction

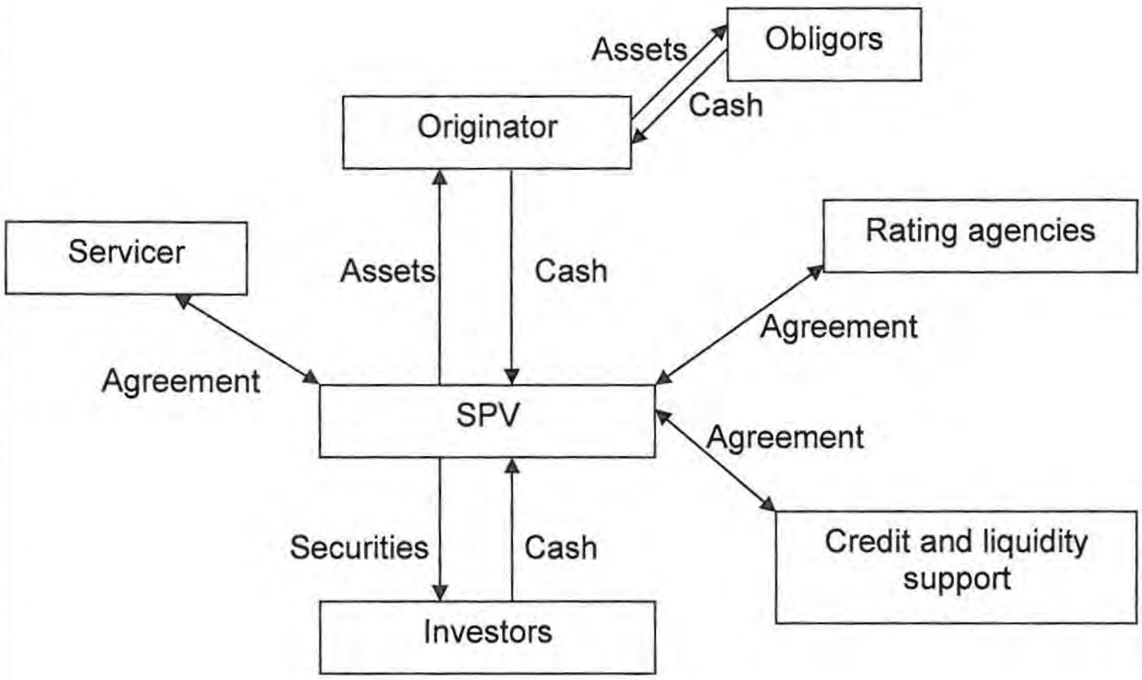
This is the most common securitisation structure. The key aspects of the term structure are briefly discussed in Figure 1.1 below. Reference is made to how the South African regulation on securitisation deals with the key aspects of these structures. Accounting, tax and legal issues are also covered.

2.2.2.2. Originator

In a securitisation transaction the originator is the seller of assets from its balance sheet to the SPV. Originators normally create assets by providing goods and services to their customers (the obligors in Figure 1.1) and in turn receive payment for doing so.

South African regulation for financial institutions makes a distinction between an originator, a remote originator, a repackager and a sponsor. According to the Securitisation Notice (2004: 9), "a remote originator means an institution that directly or indirectly lends money to the SPV in order for the SPV to take transfer of assets in terms of a traditional securitisation scheme, or risk in terms of a synthetic securitisation scheme. A repackager means an institution that transfers assets, or risk relating to assets consisting of national Government securities or

FIGURE 1.1: KEY ASPECTS OF A SECURITISATION TERM STRUCTURE



Adapted from Hamilton, 2003: 4.

qualifying items of third parties via its balance sheet in terms of a securitisation scheme." A sponsor transfers assets indirectly, that is, not from its balance sheet to the SPV as an arranger or a structurer or both (Securitisation Notice, 2004: 11).

Securitisation involves the creation of a security based on the underlying assets placed in an SPV by the originator so that the security is not a claim against the originator, but a claim against such assets. In the United States of America (USA) a number of measures are taken to protect investors of ABSs in the event of bankruptcy of the originator. Three measures, highlighted by Rosenthal and Ocampo (1988: 43), are that "firstly, the transfer of the assets from the originator to the SPV must qualify as a true sale rather than a pledge. Secondly, the SPV that purchases the receivables must perfect its right to the receivables in accordance with the applicable state law. Perfection means that the appropriate documents must be filed and the receivables properly marked as required by the uniform commercial code, in order to legally validate the claim to the receivables. Thirdly, the SPV's business must be restricted to the purchase of the assets and the issuance of ABSs."

Kothari (2003c: 2) suggests that the transfer of assets could be by novation, participation or assignment. Novation is alteration in the terms of the original contract with the obligor. Participation is the creation of a right in favour of the transferee in the proceeds of the asset. Assignment is full legal transfer.

Securitisation Notice (2004: 14) defines transfer by virtue of a sale "or such other method of transfer as may be approved by the Registrar." This transfer shall divest the originator of all rights and obligations regarding the assets transferred. The SPV shall have no right of recourse against the originator regarding costs incurred in connection with the assets transferred.

True sale is required in securitisation, otherwise the transaction becomes collaterised lending. Rosenthal and Ocampo (1988: 43) cite that in the USA securitisation market, true sale is fulfilled when "the transfer of the assets is accounted for, as a sale on the originator's financial statements. Recourse to the originator should not be for an amount much greater than the reasonably anticipated losses on the assets based primarily on historic performance of similar assets."

According to Kothari (2003e: 1), "the requirements for true sale may be laid down by the law of the land or by the courts or be implied from judicial history or legal tradition or be inferred from international practice of securitisation industry."

In South Africa, the Securitisation Notice (2004: 18) provides that "a true sale is likely to occur when the conditions relating to limiting of association as set out below are met:

- when the transfer of assets divests the originator of all rights and obligations originating from the underlying transactions and all risks in connection with the assets;
- the SPV shall have no right of recourse against the originator with respect to financial obligations incurred as a result of the transferred assets;
- repurchase can only be done as an independent activity from transfer with no prior obligation to do so."

Accounting is a crucial issue in securitisation, as one of the motivations is to take assets off the balance sheet. The South African accounting statements and the securitisation regulations provide guidelines on this issue. SAICA's accounting statement AC133 (2002b) states that an originator can only remove the assets from its balance sheet if it "loses control of the contractual rights over the asset that comprises the financial asset. An enterprise loses such control if it realises the rights to benefits specified in the contract, the rights expire, or the enterprise surrenders those rights." Control is not lost if the transferor has the right to reacquire the assets or the transferor has retained substantially all the risks and rewards of ownership. Control is also not lost if the asset is not readily obtainable in the market or if the transferee does not have the ability to obtain the benefits of the assets.

SAICA's accounting statement AC412 (2002b) requires the consolidation of an SPV if the originator maintains any beneficial interest in the SPV, even though it may own little or none of the SPV's equity. According to SAICA's accounting statement AC412 (2002b), "a beneficial interest in an SPV may, for example, take the form of a debt instrument, an equity instrument, a participation right, a residual interest or a lease. This ensures accounting consolidation of a securitisation vehicle if the originator maintains any interest in the SPV or provides credit enhancement in the form of a subordinated loan."

SAICA's accounting statement AC412 (2002b) requires consolidation of the SPV when the substance of the relationship between the originator and the SPV indicates that the originator controls the SPV. Control may arise through a number of ways. It may be through the predetermination of the activities of the SPV (operating on autopilot) or through the activities being conducted on behalf of the originator so that the originator benefits from the SPV's operation or when the originator has decision-making powers. The statement envisages a situation where the operations of an SPV are solely for the benefit of the originator. Accounting consolidation is required in this case even if the originator has no beneficial interest in the SPV. A situation could therefore well occur where accounting consolidation becomes necessary, but the requirement for the originating bank to include the assets and liabilities of the SPV in its reporting forms to the South African Reserve Bank (SARB) does not occur.

Kothari (2003d: 3) cites that "the basic determinant of removal of asset accounting is the transfer of control." This perspective is reflected in the South African accounting guidelines.

Securitisation Notice (2004: 38) provides that an originator may account for the difference between the book value and the price below book value at which the assets were transferred to the SPV as a loss in its income statement. If this is not done it requires that the difference in prices should be regarded as a first-loss credit-enhancement facility which shall, for the purpose of calculating a bank's prescribed capital requirement, be treated as an impairment against the bank's primary capital and reserve funds.

2.2.2.3. Special purpose vehicle (SPV)

This is an entity whose sole purpose is to acquire the assets from the originator, and funds this by issuing securities, backed by the underlying assets, to investors. SPVs can take the form of corporations, companies or trusts depending on the applicable accounting and legal regulations. SPVs in the USA usually take the form of trusts to take advantage of the tax benefits.

The SPV is generally required to be independent of the originator. This structure achieves two significant aims of securitisation. The sale of assets to the SPV by the originator removes the assets from the originator's balance sheet. Secondly the bankruptcy remoteness of the SPV protects the investors from the credit risk of everything other than the assets themselves.

In the South African financial markets, an SPV may be classified as a quasi-financial intermediary. Faure (2000: 7) adds that "this vehicle may hold a portfolio of mortgages financed by the issue of MBSs. In so doing it is intermediating, but on a once-off basis."

The Securitisation Notice (2004: 22) requires that an originator may not:

- acquire or hold 20 per cent nominal value of the issued equity share capital in the SPV;
- have the right to determine the result of the voting at the SPV's general meeting;
- directly or indirectly hold more than 20 per cent of the beneficial interest or be a beneficiary of the SPV;
- exercise control over or manage the SPV.
- The board of directors of the SPV shall be independent of the originator. The originator may, however, appoint one director or one trustee to the

board of directors or the body of trustees of the SPV which must consist of not less than three members.

- The name of the SPV shall not include the name of the originator or imply any association with such an originator.

Since SPVs (issuers of ABSs) are created as legal entities they are subject to applicable corporate or income taxes. The tax perspectives in securitisation markets of the USA and South Africa are discussed below.

According to Rosenthal and Ocampo (1988: 48), "in the USA there are generally three types of issuers of ABSs to consider from a tax perspective:

- grantor trusts that typically issue pass through certificates;
- issuers of debt securities typically termed pay-through securities;
- real estate mortgage investment conduits (REMICS)."

A grantor trust is a fixed investment trust created by a contract called a trust agreement or a pooling and servicing agreement. *A grantor trust is not subject to tax*. Rosenthal and Ocampo (1988: 51) state that, "grantor trusts function as non-taxable conduits so long as two conditions are met. Firstly the trustee does not have the power to purchase new assets or substitute assets (except for substituting new receivables for defective receivables during an initial period) or any other power to reinvest money in the trust. Secondly, with limited exceptions, the trust has only a single class of pass-through certificates."

Issuers of pay through certificates can be corporations or owner trusts. *The ABSs, issued by a corporation, have to qualify as debt securities so that interest received by the SPV is tax deductible.* According to Rosenthal and Ocampo (1988: 56), certain features have to be incorporated into limited purpose issuers. They must contain some additional real layer of equity to distinguish the ABSs from equity securities. Structurers create economic differences between the receivables' collateral and the investors' debt securities. Such differences may include payment frequencies on the debt securities that differ from those of the receivables, over collateralisation of the debt securities, optional call provisions on the debt securities and maturity and interest schedules on the debt securities that differ from those of the receivables.

Rosenthal and Ocampo (1988: 58) define an owner trust as "a business established when the originator (often called the depositor) contributes assets to a trust by entering into a deposit trust agreement with a trustee." *The owner trust as the SPV issuing ABSs is not subject to tax.* As a result double taxation at the SPV level and when the owners receive the proceeds is avoided.

Real estate mortgage investment conduits (REMICS) is a tax classification which was created by the USA government in 1987 to benefit issuers of MBSs. *The issuer of MBSs can be any form, corporation or trust and can issue multi class and multiple maturity securities without any taxation at the REMICS level.*

There are no specific guidelines in South Africa regarding the tax treatment of securitisation assets and income flows. The taxation framework in South Africa may be looked at from the point of view of the Income Tax Act (1962), the Value Added Tax Act (1991) and the Uncertificated Securities Tax Act (1998).

Income tax is governed by the Income Tax Act (1962). The SPVs are regarded as pass through vehicles. SPVs that are companies are taxed on interest received, less interest paid and less deductible costs like fees and expenses. Reinvestment income is taxable within the SPV.

The application of the Value Added Tax Act (1991) comes from the nature of tax treatment regarding the income flows that support the securitisation transaction. When securitising bank loans, VAT on the income flows is not important; however with securitising income flows which will only come into existence in the future, such as a rental stream or a trade receivable, the VAT attached needs to be considered with regard to the correct treatment subsequent to the conduct of the securitisation.

The Capital Gains Tax (CGT) principles that apply to companies also apply to securitisation transactions, but usually there are no CGT implications as the assets held by the SPV are of revenue nature. The legal document by which the transfer of assets from the originator is effected is regarded in law as conveyance and is liable for a stamp duty. Stamp duty is a tax on the instrument, not the transaction. The Uncertificated Securities Tax Act (1998) provides for substantial cost savings available to the SPV regarding the issuing of ABSs in that no stamp duty is payable by an issuer where the ABSs are listed and immobilised. Van Zyl (2003: 270) adds that "the government further enhanced the development of the South African corporate bond market by abolishing the stamp duty on listed instruments from the 1st of April 2002."

In securitisation transactions, Kothari (2003f: 3) argues that, "a pass through certificate is pro-rated interest in receivables held by the SPV in trust. Hence transfer of pass through certificates is only a transfer of beneficial interest and not of assets as the SPV continues to hold the receivables. Therefore, there is no duty applicable on transfer of pass through certificates."

2.2.2.4. Servicer

Servicing of the SPV includes administration of the underlying assets, receiving all related cash flows on behalf of the SPV, managing the relationship between the SPV and borrowers and administering the priority of payments. The other duties include providing cash management services to the SPV, maintaining and making claims under the insurance contracts, managing the computer and information systems of the issuer and providing general company secretarial and administrative service to the SPV.

The originator is usually the servicer and the SPV pays a service fee for it. This is because the originator normally has the necessary systems and records and it usually wishes to preserve its customer relationships. In this way the originator earns money, while having transferred the credit risk to investors. There will normally be a replacement administrator should the servicer fail to adequately perform this function.

Securitisation Notice (2004: 48) requires that a bank or any other institution within a banking group may act as a servicer provided that, among other things, there is a formal servicing agreement in place. This agreement has to specify the services to be provided and the standard for the performance of these services.

2.2.2.5. Rating

A rating by a rating agency adds value to securitisation transactions in that it measures payment ability under different macro-economic scenarios and different default stress levels. Rating is both initial and periodical. According to Rees (2002: 17), the issues that rating agencies review include bankruptcy remoteness of the SPV from the originator, credit enhancement required, risk of the SPV bankruptcy because of other liabilities, audit on the quality of receivables and systems of the administrator.

Faure (2002b: 66) also notes that the rating agencies "collect and analyse all available accounting, other financial and subjective information in order to arrive at a rating that reflects the issuer's ability to pay the interest and repay the principal of the debt. They endeavour to arrive at a probability of default. They make use of complex financial ratio analysis, industry analysis and economic analysis."

A good understanding of applicable rating criteria allows for optimised transaction structuring. The benefit of an acceptable rating increases the chances of placing paper. A rating on its own, however, should not be an investment decision in itself.

The credit rating of ABSs issued by the SPV can be higher than the originator's general credit rating because of credit enhancement. Rating agencies do not rate the traditional collaterised bond much higher than the overall corporate rating of the issuing company. This is because bankruptcy of the issuer will cause default on the timely payment of interest and principal. There are a number of rating agencies, but the three principal ones are Standard & Poor's (S & P), Moody's and Fitch IBCA. Table 2.1 below shows the ratings of Moody's and S & P.

Rating agencies seek to ensure that their rating is internationally consistent, for example a USA AAA rating is the same as the English AAA rating. The best quality AAA rating is rewarded with a keen rate in the market.

In mature securitisation markets like the USA, the rating is required as a condition of portfolio mandates. The rating is also accepted as a true reflection of the quality of a securitisation issue. According to Jacobs and Fergus (2003: 3), "this is not currently the case in the South African market. Ratings provided by local rating agencies have not yet achieved the status of acceptability that investors feel allows for a level of confidence in the paper based on the rating. There is little rate differentiation between an AAA rating and an AA rating."

Securitisation Notice (2004: 6) defines a domestic rating as "a rating that is tiered against an assumed best possible rating, which is usually that of the national Government, and which rating does not incorporate the sovereign risks of South Africa and which gives an indication of the relative risks only within the Republic of South Africa and which is not comparable across different countries." Securitisation Notice (2004: 5) also defines a credit rating as "a domestic rating

TABLE 2.1: MOODY'S AND STANDARD & POOR'S RATINGS AND SUCCINCT EXPLANATIONS		
Rating explanation	Moody's rating	S & P's rating
Best quality, smallest degree of risk	Aaa	AAA
High quality, slightly more long-term risk than top rating	Aal Aa2 Aa3	AA+ AA AA-
Upper medium grade, possible impairment in the future	A1 A2 A3	A+ A A-
Medium grade, lack outstanding investment characteristics	Baa1 Baa2 Baa3	BBB+ BBB BBB-
Speculative issues; protection may be moderate	Ba1 Ba2 Ba3	BB+ BB BB-
Very speculative; small likelihood of interest and principal payments.	B1 B2 B3	B+ B B-
Issues in poor standing; may be in default	Caa	CCC
Speculative in a high degree, with marked shortcomings	Ca	CC
Lowest quality; poor prospects of attaining real investment	C	C
Adapted from Faure, 2002b: 66.		

assigned by a credit-rating agency to commercial paper issued in respect of a traditional or a synthetic securitisation scheme."

2.2.2.6. Trustees

A trust enhances the independence of the SPV and provides added security for the investors. The body of trustees holds the securities in favour of the investors. The trustees ensure quality controls and monitor the SPV on an ongoing basis. They also ensure that measures normally put in place by rating agencies to protect investors are maintained. The body of trustees has the power to close the SPV down in circumstances deemed appropriate.

The trustees also monitor the work of the servicer, especially the monthly cash flows, to ensure that the investors receive payments they are entitled to. In the event that the servicer does not honour its obligation of collecting receivables or paying proceeds to investors, the trustees would take appropriate corrective legal action on behalf of the investors.

2.2.2.7. Credit enhancement

Credit enhancement in securitisation transactions aims at protecting investors against losses arising from the non-performance of the assets securitised. It also ensures that the risk of default is minimised and that appropriate rating is achieved by the SPV. The types and amounts of enhancement are dictated by the quality of the underlying assets and the nature of the security issued.

Originators normally provide some credit enhancement in securitisation transactions. According to Rosenthal and Ocampo (1988: 66), "a sound and economic credit securitisation system usually requires some credit support by the originator. The retention of credit risk by the originator will help to ensure that the originator retains an incentive to continue to originate quality assets rather than sticking investors and third-party credit enhancers with uneconomic assets."

Credit enhancement can be internal or external. Internal credit enhancement can be achieved using a cash reserve account, over collateralisation of underlying assets and structural credit enhancement. Any surplus or difference between the interest on the securities and interest on the receivables is kept in the cash reserve account. The over collateralisation of underlying assets sold to the SPV is in relation to the amount of debt offered to investors. This can be expensive, as the tied up collateral cannot be used for other purposes. Structural credit enhancement is a technique of credit enhancement whereby different classes of debt instruments are created with varying levels of default risk.

External credit enhancement is also referred to as third party credit enhancement. It includes provision of a subordinated loan, guarantees by insurance companies and letters of credit (LOC). Gangwani (1998: 26) points out that external credit enhancement was mainly used in the late 1980s and early 1990s, but this has declined over time in favour of internal credit enhancement. This is because of the inherent risk of reliance on the credit rating (subject to possible down grades over time) of the third party. This is reiterated by Obay (2000: 84) who cites that in the event of having a third party as a credit enhancer, there is always the risk of a downgrade in the security's rating if the credit enhancer's rating is lowered. The development of a senior or subordinated enhancement structure alleviates this risk and enhances the credit rating of the senior securities.

Securitisation Notice (2004: 35) highlights that "credit-enhancement facilities can be provided on a transaction-specific or a programme-wide basis. Transaction-specific credit enhancement serves as the first layer of loss protection and addresses the unique characteristics and credit risk of the underlying or referencing asset. A programme-wide facility serves as a second layer of loss protection, absorbing losses in excess of the transaction-specific enhancement, which losses are typically due to the size and composition of the credit portfolio."

For a bank or any institution within a banking group in South Africa, there is a distinction in the regulations between a first loss credit enhancement facility and a second loss credit enhancement facility. The first loss credit enhancement facility is a credit enhancement facility that represents the first level of credit enhancement to parties involved in a securitisation scheme. The second loss credit enhancement facility is a credit enhancement facility that may only be drawn after the first loss credit enhancement facility has been exhausted.

In the USA, the Federal Government provided most of the credit enhancement that supported conforming residential mortgage securitisation, but not for non-residential mortgages and non-conforming mortgages. Conforming mortgages are the ones that meet the eligibility criteria established by the agencies (Fannie Mae, Ginnie Mae and Freddie Mac) for being in a pool of mortgages underlying a security that they guarantee. Non-conforming mortgages are the ones that do not meet the criteria. The operations of these USA government agencies will be covered in more detail in the next chapter.

2.2.2.8. Liquidity support

Liquidity is generally needed to mitigate the risks of servicer disruption or insufficient funds in the event of high arrears and to ensure the issuer's credit refund obligation. The issuer needs to have the funds to advance credit refunds. In the event that the issuer does not receive sufficient principal and does not have enough excess spread or funds in the reserve fund, the liquidity facility can be used to temporarily fund the credit refunds.

Liquidity ensures that the SPV will always be able to meet the timely payment of its obligations. Financial institutions that are able to provide these liquidity facilities mostly sponsor this. The institution giving liquidity support provides short-term finance if receivables are not received on time or if there are market disruptions. It may do so through a guaranteed investment contract (GIC) (Duggan, 2003: 1). GIC guarantees a reinvestment rate on all cash flows received prior to its scheduled payment date. This way prepayment uncertainty is eliminated, creating an investment opportunity.

Securitisation Notice (2004: 39) requires that the liquidity facility should be documented with all reference terms and it may not be used as a permanent revolving facility to cover any losses incurred. If a bank does not comply with the liquidity support conditions set out, the liquidity facility concerned shall be regarded as a first-loss credit-enhancement facility.

2.2.3. Conduit structure

The conduit structure is generally the same as the term structure. A pool of assets, which may be taken from more than one originator, is sold to a bankruptcy remote SPV. Hamilton (2003: 4) notes that "in conduit structured transactions, credit enhancement is often provided by over collateralisation. In large conduit transactions additional credit enhancement may be provided in the form of a letter of credit. As a result, one of the most common asset types to be funded by conduits is corporate trade receivables." In the conduit structure, the securities issued by the SPV are commercial paper notes which are short term in nature.

2.3. AN OVERVIEW OF THE SECURITISATION MARKET IN SOUTH AFRICA

According to Kothari (2003h: 5), securitisation is a relatively new development in South Africa, but its history dates back to 1989 when the first securitisation issue was a R250 million mortgage-backed issue by the then Allied Building Society. The securitisation market is in its growth stage. Even though some aspects of the securitisation market like acceptance of ratings still have a long way to go compared with mature markets, certain areas like the regulatory framework have taken great strides.

As noted, Government Notice 26415 (Securitisation Notice, 2004) is the new South African securitisation regulation, and it is in line with mature markets' regulations. The South African accounting guidelines recognise that the basic determinant of removal of asset accounting is the transfer of control. Consolidation of the SPV is required if the originator maintains any beneficial interest in the SPV even though it may own none of the SPV's equity. There are, however, no specific guidelines regarding the tax treatment of securitisation transactions. It has also been noted that rating in South Africa has not yet achieved the status of acceptability to earn investors' confidence.

A number of successful securitisations in South Africa have been witnessed and according to Faure (2002a: 107) the best examples are Kiwane, FirstRand 2000-A, RMB CDO 1 Limited and SA Home Loans (SAHL). These, except SAHL, are briefly discussed below. SAHL will be discussed in the next chapter under the South African residential mortgage backed securitisation section.

The Kiwane transaction was sponsored by Real Africa Durolink and Gensec Bank. In this transaction the originators were several banks and other financial institutions with investment grade rated debt. The SPV, Kiwane Capital Holdings Limited, issued three classes of bonds, namely the senior K001, mezzanine K002 and junior K003 (Rees, 2002: 3).The senior bonds were issued to selected institutional investors. The Financial Mail (2000: 48) cites that the Kiwane K001 bond, released in August 2000, was the first publicly listed collaterised debt obligation securitisation in South Africa.

Faure (2000a: 107) cites that FirstRand 2000-A "involved the securitisation of FirstRand's international card receivables, funded by AAA-rated notes, and credit enhanced by an AAA-rated insurance guarantee. The RMB Collaterised Debt Obligations (CDO) 1 Limited involved the CDO consisting of USA dollar denominated high yield corporate bonds, funded by AAA-rated notes, mezzanine notes and subordinated notes."

2.4. MOTIVATION FOR SECURITISATION

2.4.1. Borrowers

Securitisation can provide borrowers with lower-priced source of finance. As stated by Rosenthal and Ocampo (1988: 12), "this benefit is already evident (in the USA) in residential mortgages. In the USA home buyers are now paying approximately 100 basis points less in interest (as compared to USA treasury yields) on fixed-rate mortgages than they were a decade ago when mortgage securitisation was much less pervasive." Corporations benefit from securitisation when they remove the assets and their supporting debt from their balance sheets. They enhance borrowing flexibility because of less debt on their balance sheets.

2.4.2. Originators

Securitisation provides originators with the opportunity to expand their finance sources. Securitisation allows them to access the capital markets, and in may cases, with securities that have ratings higher than their overall corporate rating. Originators can expand their volume of business without increasing their capital base (i.e. retained earnings or new issues) in the same proportion. Securitisation helps originators by removing assets and their supporting debt from their balance sheets. This enables them, as stated by Rosenthal and Ocampo (1988: 40), "to save more equity costs of on-balance sheet financing and eliminate potential asset-liability mismatch."

Securitisation can be used as a balance sheet management tool. This can be achieved by offering companies opportunities to tap into a new investor market, increase returns on equity, reduce interest rate risk associated with asset-liability mismatch on the part of the origination and manage down credit exposure to their repeat customers.

Securitisation allows a financial institution, or any other company without the balance sheet to support an investment grade credit rating, to execute the transaction off balance sheet and avoid or reduce capital and liquidity / reserve requirements. Institutions can benefit from securitisation by having future cash flows upfront, freeing up funds already tied to outstanding loans enabling them to meet the demand for new loans. Securitisation also allows institutions to source fee income without straining the balance sheet.

2.4.3. Investors

Securitisation offers investors alternative investment instruments which is attractive in terms of diversification. ABSs protect investors from rating downgrades in the event that the originator's credit quality deteriorates. This is because the securitisation structuring process ensures that the issuer of ABSs, the SPV, is bankruptcy remote from the originator. Rosenthal and Ocampo (1988: 13) add that "as a developmental asset class, ABSs typically provide premium yields compared to those of comparable conventional instruments."

2.5. CONCERNS REGARDING SECURITISATION

A number of practitioners and academics have raised concerns regarding securitisation despite the various motivations and benefits discussed above. Rosenthal and Ocampo (1988: 17) cite that originators may lose their incentive to maintain credit discipline since they sell the assets they generate. They further add that asset sales may undermine the impact of capital adequacy guidelines and other regulatory tools.

Securitisation transactions can be abused to the detriment of investors and shareholders. Enron, for example, engaged in the abuse of off-balance-sheet SPVs through manipulative accounting transactions. These manipulations thrived, as noted by Schwarcz (2002: 4), because of conflict of interest when Enron's executives also became principals of the SPVs.

Hamilton (2003: 6) adds that securitisation "is often time consuming and, while credit enhancement structuring can help achieve high ratings, not all pools of assets lend themselves to a securitisation solution."

2.6. CONCLUSION

Simply put, securitisation means the conversion of existing or future cash inflows of any originator into tradable securities which then may be sold in the capital market. For financial institutions, it amounts to the selection of certain assets and taking them off the balance sheet and freeing up capital. For non-financial institutions, it is an alternative to the traditional forms of finance.

How the securitisation transaction is structured depends on the motivation for securitisation. Two structures were discussed, a term structure and a conduit structure. As mentioned earlier in this chapter the term structure is the most common. The conduit structure is best suited for cash flows that are shorter term or revolving in nature. Residential mortgage-backed securitisations (RMBSs) utilise term structures.

As stated by Obay (2000: 9), the accounting and tax treatment desired by the issuer plays an important part on how the securitisation will be structured. These, together with the legal aspects and regulatory issues on securitisation, were discussed. SPVs in the USA usually take the form of trusts. The main reasons for this are the relevant tax implications and that there is no accounting requirement to consolidate the assets of the trust with those of the originator. It is worth mentioning that a number of asset securitisation programmes are arranged through SPVs established in offshore financial centres that are tax efficient jurisdictions such as Jersey, Cayman Islands, Channel Islands or Bermuda.

Securitisation transactions benefit all parties including the deficit units (borrowers), originators and surplus units (investors). However, concerns with securitisation have been raised, one of which led to the collapse of Enron, a world class USA corporation. Arguably the benefits of securitisation outweigh the concerns especially with respect to RMBS which alleviated the low income housing finance issue in the USA. The concerns with securitisation highlight the need for a well regulated securitisation environment. It is noted with interest that lessons learnt from these isolated cases (especially in mature developed securitisation markets) were incorporated in the new South African securitisation regulations gazetted on 4 June 2004 (Securitisation, 2004: 1).

As explained in this chapter, any assets with future cash inflows can be securitised. The following chapter deals specifically with securitisation of residential mortgages, a concept that alleviated the low cost housing finance issue in the USA.

CHAPTER THREE

RESIDENTIAL MORTGAGE –BACKED SECURITISATION

3.1. INTRODUCTION

In the traditional approach of mortgage finance a bank lends funds to an individual for the purchase of a home. In this way the bank creates a mortgage which is a loan with real estate pledged as collateral. This market is referred to as the primary mortgage market since new securities are issued. Mortgages are generally of small amounts and not marketable. If the bank pools a number of mortgages and sells those to a bankrupt remote special purpose vehicle (SPV), that market is referred to (in the USA) as the secondary mortgage market since previously issued securities are being traded. The SPV funds the purchase of the mortgage pool by issuing mortgage-backed securities. This process of transmuting mortgages by creating marketable MBSs is residential mortgage-backed securitisation (RMBS).

This chapter deals specifically with RMBS. A brief history to RMBS is covered. The USA RMBS and the South African RMBS are discussed. The success factors of the USA RMBS as well as the failure factors of Gateway Home Loans (Gateway), the South African securitisation initiative, are outlined. The chapter ends with a discussion of the risks in RMBS and ways to mitigate them.

3.2. A BRIEF HISTORY OF RMBS

RMBS originated in the USA. Housing finance problems that began in the 1920s led to the introduction of housing reforms by the USA government. The culmination of these housing reforms from the 1930s led to the introduction of securitisation in the 1960s.

In the post World War 1 period, demand for housing grew rapidly. During the pre-depression era before the 1930s, mortgage finance in the USA required 40 percent as deposit and had a three to five year term. Mortgagors paid interest only during this term and paid a balloon payment of the entire principal as a final payment. When the stock market crashed in 1929, there were many defaults on mortgages as mortgagors failed to pay the final payment. During the great depression the housing finance market suffered considerable damage, as the flow of funds into housing was reduced. There was no secondary housing finance market.

The USA government introduced a number of reforms in an attempt to restore stability in the housing finance market. According to Sellon and Van Nahmen (1988, in Ghersi, 1991: 184) the four most notable developments that played a key role in this evolution were:

- the establishment of the Federal Home Loan Bank System (FHLBS) and the insurance of savings deposits;
- the adoption of the long-term, fixed-rate mortgage contract;
- the development of government mortgage insurance;
- the establishment of Fannie Mae.

The FHLBS promoted stability by providing liquidity to the savings and loan associations that were the primary source of funds to housing. Deposit insurance provided stability by reducing the risks of financial loss for depositors in the savings and loan associations. The USA government required the housing industry to adopt the long term, fixed-rate mortgage contract after problems with the balloon mortgage mentioned above. This type of loan was affordable to borrowers. In 1934 a piece of housing legislation was enacted to create a secondary market in mortgages. The National Housing Act of 1934 provided for the establishment of the Federal Housing Agency (FHA) whose principal function was to provide insurance of home mortgages made by private lenders. In 1938

Fannie Mae was established by the government of the USA to improve liquidity in housing finance by purchasing government-insured loans.

The credit crisis of 1966 led to the USA government introducing further reforms in the period 1968–70. Securitisation was created when Fannie Mae's role was changed: it became a private company in 1968 and was authorised to issue MBSs by the Charter Act of 1968. Government agencies Ginnie Mae and Freddie Mac were established to participate in the secondary mortgage market and RMBS market. In 1970 the Emergency Home Finance Act was enacted. That piece of legislation authorised Fannie Mae to buy conventional mortgages. These reforms brought changes in the mortgage market, and the secondary mortgage market became more active. However, that did not solve the housing finance problems as the conventional markets were local in scope and there was a lack of integration of these markets with national capital markets. Housing finance was also periodically affected by high interest rates. The next section discusses the USA RMBS market that resolved the housing finance problem.

3.3. THE USA RMBS MARKET

3.3.1. Introduction

The USA secondary mortgage market and the RMBS market are dominated by the participation of government agencies Fannie Mae, Ginnie Mae and Freddie Mac. Passmore *et al.* (2001: 1) cites that the market share of the government agencies in the USA RMBS market is "roughly four times the amount securitised by the fully private part of the market." Furthermore, the government agencies' focus is on the low income housing market, unlike the private issuers of MBSs. This section therefore focuses on the government agencies participation in RMBS market. In order to give context to the government agencies' securitisation processes, a brief background on the primary and secondary mortgage markets is provided.

The presence of government agencies in the mortgage market in the USA effectively classifies mortgages into different segments. A mortgage can be:

- conventional,
- conforming,
- non-conforming or a
- jumbo mortgage.

A *conventional* mortgage is a loan that is not insured or guaranteed by the federal government [i.e. by neither the Federal Housing Administration (FHA) nor the Veterans' Administration (VA)]. A *conforming* mortgage is "one that meets the underwriting standards established by these agencies (Freddie Mac, Fannie Mae and Ginnie Mae) for being in a pool of mortgages underlying a security that they guarantee" (Fabozzi and Ramsey, 2001: 551). Those loans that do not satisfy the set standards are called *non-conforming* mortgages. *Jumbo* mortgages are mortgages exceeding the maximum loan amount of the conforming mortgages. Passmore *et al.* (2001: 5) points out that "most private sector securitisations are backed by jumbo mortgages."

The process of originating a conforming mortgage involves a number of stages. The borrower submits a loan application to the mortgage originator. The mortgage originator then submits the loan application to the guarantor. The guarantor guarantees payments in the event that the borrower defaults. There are government backed as well as privately owned guarantors. The government agencies are the Federal Housing Agency (FHA) and Veterans' Administration (VA). FHA insures mortgages for qualified borrowers while VA guarantees mortgages for veterans only. Both of these agencies have set standards for approving loan applications. The loans have standard terms which include maturity, assumability and prepayment. The government backed guarantors have ceilings for the maximum amount of the loan and rigid requirements in approving loan applications.

A loan application that has been accepted by a guarantor is included in a mortgage pool. Pool organisers can be private or government agencies. The government agencies are Fannie Mae, Ginnie Mae and Freddie Mac whose respective participation is discussed in the next section.

3.3.2. Participation of Fannie Mae, Ginnie Mae and Freddie Mac

Fannie Mae's board of directors, which consists of eight members, determines the general policies of the corporation. The President of the USA appoints five of these directors and the remainder are elected annually by the shareholders (Fannie Mae Charter, 1992: 25). Fannie Mae (2003a: 1) states that currently "Fannie Mae operates under a congressional charter and receives no government funding. Its mission is to provide products and services that increase the availability and the affordability of housing for the low, moderate and middle-income Americans." Fannie Mae's business falls into three major areas which are mortgages pools, MBSs and new investments. These are discussed below.

Fannie Mae operates only in the secondary mortgage market. It does not lend money directly to homebuyers. It buys mortgages from mortgage originators which include mortgage companies, savings institutions, credit unions and commercial banks. Fannie Mae determines the characteristics of mortgages it purchases. However, on conventional mortgages the Fannie Mae Charter (1992: 5) restricts the types of mortgages they may purchase. The restrictions include limiting the loan to value (LTV) ratio to 80 per cent or less and limiting the size of the mortgage purchased.

Fannie Mae purchases more conventional loans than conforming mortgages. It only buys those FHA and VA mortgages that are not eligible for other government agency-sponsored mortgage pools. For example, Ginnie Mae buys FHA and VA loans that are not more than one year old (Fannie Mae Charter, 1992: 6). Fannie Mae either pools these loans to back MBSs or retains the mortgages in portfolio. The mortgages that back the Fannie Mae MBS are held in a trust which is a legal separate entity. The mortgages are not Fannie Mae assets.

Fannie Mae finances the purchases by issuing debt securities both in the domestic market as well as the international market. Fannie Mae (2003b: 1) states that its "debt securities are unsecured obligations of the corporation and are not backed by the USA government." However, its securities are "exempted securities" under the laws administered by the USA Securities and Exchange Commission like the USA government obligations.

"Ginnie Mae was created in 1968 and it operates as a wholly owned government agency within the Department of Housing and Urban Development." (Ginnie Mae, 2003a: 1). Ginnie Mae guaranteed securities backed by FHA and VA loans were first issued in 1970. According to Ginnie Mae (2003b: 1), historically 95 per cent of all FHA and VA mortgages have been pooled and put through the Ginnie Mae securitisation process. Ginnie Mae was initially formed to purchase FHA-insured or VA-guaranteed loans, but this function is now less important than Ginnie Mae's MBS program discussed below.

Ginnie Mae has two MBSs programs: the Ginnie Mae 1 MBS Program and the Ginnie Mae II MBS Program. The Ginnie Mae 1 MBS Program is for the issuance of securities backed by either single family or multifamily loans while Ginnie Mae II MBS Program is backed by single-family loans only. There are a few other differences, but generally the programs have identical features. One notable difference is that all securities of Ginnie Mae 1 MBS program must bear an adjustable rate of interest (Ginnie Mae, 2003c: 1-2).

Unlike Fannie Mae and Freddie Mac, Ginnie Mae does not issue MBS or purchase mortgage loans, but guarantees MBSs issued by Ginnie Mae approved issuers. If an issuer fails to make the payment, Ginnie Mae will make the payment to the investor. Ginnie Mae (2003b: 1) states that the "Ginnie Mae guaranty is backed by the full faith and credit of the USA government."

The issuer is responsible for servicing the mortgage pool until maturity or termination. One of the success factors of Ginnie Mae is the stringent requirements of becoming a MBS issuer. The eligibility requirements that an institution must satisfy before becoming a Ginnie Mae issuer are that the prospective issuer must:

- be approved by Ginnie Mae. The approval requirements include net worth requirements and being an approved FHA mortgagee;
- get a commitment authority. This will give an issuer a specified maximum dollar amount of Ginnie Mae MBSs;
- enter into a contract with document custodian (DC). The DC has to meet Ginnie Mae eligibility requirements. The DC also works under the direct contract with the issuer and keeps safe mortgage loan, pool and loan package documents;
- open custodian accounts that hold principal, interest, fax, insurance and escrow funds;
- issue MBSs of minimum denominations of a given figure.

The issuer pays investors and a guarantee fee to Ginnie Mae monthly. If the amount collected from the borrower is less than the amount due, the issuer adds an amount from its own funds to make the payment complete. If the issuer defaults, Ginnie Mae makes the payment to the investor, eliminating credit risk for the investor.

The interest rate on the underlying mortgages is always higher than the rate on the Ginnie Mae security. This is because the guarantee fee and the payment to the servicer are deducted from the interest received from the underlying mortgages.

Freddie Mac was created in 1970, under the Emergency Home Finance Act, in order to develop a secondary market for conventional mortgage loans (Ginnie Mae, 2003d: 2). In 1971 Freddie Mac introduced its own MBS program. According to Freddie Mac (2003: 5), "Freddie Mac and Fannie Mae have the same charters, same mandates and regulatory structure, but different business strategies." Freddie Mac does not make loans directly to homebuyers. Like Fannie Mae, Freddie Mac provides insurance guarantees, issues MBSs and invests in mortgage loans. Freddie Mac purchases mortgages that conform to its eligibility requirements from lenders and packages them into securities that are sold to investors.

These agencies issue different types of MBSs depending on the type of the underlying mortgage pool. The types include fixed rate MBSs, adjustable rate MBSs, Fannie Mae Megas and Remics. A fixed rate MBS is a type backed by a pool of mortgages with interest rates that are fixed for the whole term of a mortgage. Fannie Mae issues both single class and multi-class MBSs.

The different types of MBSs are structured in many different ways. The most generic structures are those of pass through securities, mortgage backed bonds and pay through securities. Pass through securities are single class payment instruments that represent direct ownership in a portfolio of assets that are usually similar in terms of maturity, interest rate and quality. The most common pass through securities are the MBSs developed by Fannie Mae and the "participation certificate" developed by Freddie Mac. The assets are sold to a grantor trust and pass through certificates are then sold to investors.

A grantor trust in the USA is created by a contract called a trust agreement or a pooling and servicing agreement. According to Rosenthal and Ocampo (1988: 49), typically this contract will provide for a number of contractual obligations which include the appointment of the trustee and servicer. Once the grantor trust is created, the originator deposits the receivables into the trust in exchange for pass through certificates. The originator then sells the pass through certificates to the investors utilising an underwriter. According to Rosenthal and Ocampo (1988: 52) "the grantor trust structure has been used extensively for a number of years. Ginnie Mae, for example, guarantees pass-through certificates backed by government-insured mortgages to numerous investors."

Obay (2000: 73) defines pay through securities as collateralised debt obligations of the issuer that are usually set up through the creation of a financial subsidiary or a conduit into which a pool of assets is sold. These securities have a fixed interest rate and a set schedule of payments. The most common pay through security is the collaterised mortgage obligation (CMO) that has a series of bond classes. The first CMO was developed by Freddie Mac in 1971.The SPV for this structure can be a corporation or an owner trust. Once the SPV is established, the originator sells it its receivables. The SPV owns the assets sold and it does not just pass through the proceeds like the grantor trust pass through structure. Since it owns the assets, it can structure the debt as it pleases, for example into different maturity tranches. This way it eliminates the disadvantage of a single maturity of the pass through structure. This structure creates pay through securities.

The real estate mortgage investment conduits (REMICS) are an extension of the basic CMO. This originated in the USA when REMIC legislation was created by the USA government in 1986. According to Rosenthal and Ocampo (1988: 60), this legislation was enacted "in order to enable issuers to issue multi-class and multiple maturity securities so that no tax is imposed at the REMIC level." However, REMICS cannot be used for non-mortgage collateral. A basic REMIC structure may include any number of classes of regular interest and a single class of residual interest. According to Obay (2000: 79), "the regular interest classes or tranches are often labelled by letters (A class, B class etc) and one or more Z classes, similar to a zero coupon bond is included. These classes are assigned a fixed, floating or zero-interest rate, a fixed principal amount and payment conditions." Several innovations were developed from the basic REMIC structure.

3.4. SUCCESS FACTORS OF FANNIE MAE, GINNIE MAE AND FREDDIE MAC

3.4.1. Introduction

The successes of the agencies Fannie Mae, Ginnie Mae and Freddie Mac can be attributed to a number of factors. These include the USA government's support, the agencies' policies, systems and procedures, the acceptance of ratings in the USA financial sector and the investors' perception of these agencies.

3.4.2. The USA government's support

The USA government's initiatives and support created an environment conducive to the successes of the agencies. These include the insurance of savings deposits, government mortgage insurance and tax benefits.

The insurance of savings deposits alleviated the risks of bank runs and insolvency, and provided a stable source of funds. As cited by Sellon (1988, in Ghersi, 1991: 187), mortgage insurance had a number of consequences for housing. It allowed other investors besides savings and loan depositors to commit funds to housing with reduced credit risks. These investors, because of reduced credit risks, accepted lower yields on their investment that translated to reduced costs for mortgagors. The government mortgage insurance program required standardisation of the mortgages, which was crucial to the development of both the primary market and the secondary mortgage market. The government mortgage insurance program effectively created separate markets for government insured and conventional mortgage loans. The conventional mortgage market was local in scope and was dominated by the savings and loan associations. The government insured mortgage market was national in scope and dominated by life insurance companies and mutual savings banks as investors.

The USA government created the REMICs tax classification in 1987 to specifically benefit issuers of MBSs. The issuer of MBSs can be any form, corporation or trust and can issue multi class and multiple maturity securities without any taxation at the REMICS level. The grantor trust and the owner trust as SPVs issuing ABSs are not subject to tax.

3.4.3. The agencies' policies, systems and procedures

The other contributing factor to the success of Fannie Mae, Ginnie Mae and Freddie Mac is their sound policies, systems and procedures. Examples are set standards for loan applications, eligibility requirements for issuers of guaranteed MBSs and different MBSs programs.

3.4.4. The acceptance of ratings in the USA financial sector

The third success factor of Fannie Mae, Ginnie Mae and Freddie Mac is the existence and acceptance in the USA financial services sector of ratings as a true reflection of the credit standing of a securitisation issue. For example Fannie Mae (2003b: 1) states that "Fannie Mae's debt obligations are treated as USA agency securities in the marketplace, which is just below USA treasuries and above AAA corporate debt." This gives the agencies' debt obligations a competitive advantage in the capital markets.

3.4.5. The investors' perception of these agencies in the RMBS market

The fourth success factor of Fannie Mae, Ginnie Mae and Freddie Mac is the investors' perception that these agencies have the implicit backing of the USA government. The USA president appoints five of the eight directors of Fannie Mae and Freddie Mac respectively. This gives these agencies a political clout. Ginnie Mae guaranty is backed by the full faith and credit of the USA government. Passmore *et al.* (2001: 4) adds that "the agencies' charters give them several competitive advantages over private firms when issuing securities which include:

- an exemption from Securities Exchange Commission registration requirements and permission to clear agencies' securities transactions through the Federal Reserve's book-entry system;
- treatment of their securities as government securities in the context of the Securities Exchange Act of 1934, which allows many trusts and other non-profit organisations to purchase them;
- the risk-based capital requirements for banks' holdings of agencies-issued MBSs are substantially lower than for their holdings of private MBSs;
- the implicit USA government guarantee that backs the agencies' securities. This allows them to sell securities without the credit enhancements needed in the private sector."

3.5. THE SOUTH AFRICAN RMBS MARKET

3.5.1. Introduction

The RMBS market in South Africa dates back to 1989 when the first securitisation issue was a R250 million mortgage-backed issue by the then Allied Building Society. To date there are a few major residential mortgage-backed securitisations (RMBSs) that have been done in South Africa. These were done by ABSA Bank, Investec and SA Home Loans (SAHL). Gateway Home Loans (Gateway) was a government initiative aimed at creating a secondary mortgage market for low income earners. These transactions are briefly discussed below.

3.5.2. Major private sector RMBS transactions in South Africa

ABSA Bank has done a R1 billion domestic medium term note programme with NBC Future Guard (Proprietary) Limited as issuer. ABSA and NBC Negotiated Benefits Consultants (Pty) Limited established a joint venture for the purpose of granting home loans to members of registered pension funds. This joint venture then entered into a home loan sale agreement with NBC Future Guard (Pty) Limited, the SPV, to sell home loans that comply with the eligibility criteria.

The home loans originated by the joint venture are advanced to members of the registered pension funds administered by NBC. The employer undertakes to deduct monthly instalments from the employee's (borrower's) salary and pays the originator. The member's pension fund binds itself as surety for the member under the home loan agreement.

The security SPV's purpose is to hold and realise security for the benefit of secured creditors. The owner trust's sole purpose is to own, as beneficial shareholder, all the ordinary shares in the capital of the SPV and to stand surety to the security SPV. The security SPV binds itself under a guarantee to each secured creditor, including note holders, to the full amount then owing by the issuer to such secured creditor pursuant to occurrence of an event of default by the SPV. The liability of the security SPV under the guarantee is limited to the amounts recovered by the security SPV from an indemnity. The Pension Funds Act's clause 19(5) (1956) provides for the fund withdrawal benefits to be utilised as security for housing loans guaranteed by a fund. The eligibility criteria of the home loans are as follows:

- the borrower should be a member of a fund administered by NBC and the fund should be registered in terms of the Pension Funds Act (1956);
- at least one instalment should have been received in respect of such a home loan;
- the interest rate on the home loan should not be less than prime minus 1,5%;
- the borrower should be between 18 years and 60 years old;
- the principal balance should be between R1 000 and R200 000 inclusive;
- the weighted average LTV ratio of the home loan pool should not exceed 45%;
- the weighted average interest rate of the home loan pool should not be less than the prime rate minus 45 basis points.

Private Mortgages 1 is the securitisation of home loans originated by Investec. The SPV, Private Mortgages 1, purchased the home loans using a warehouse facility provided by Investec which is also the originator. The issuance of the notes repaid the warehouse facility. A warehouse facility agreement is an agreement between the SPV, the originator and the security SPV whereby the originator grants a loan facility to the SPV for the purpose of funding the acquisition of home loans which facility is to be repaid from the proceeds of the issue of asset-backed securities (ABSs). The eligibility criteria of the home loans are as follows:

- the maximum term should be 20 years and the remaining term at least 10 years;
- at the time of sale, the minimum amount should be at least R250 000 and the maximum amount R2,5 million;
- the home loan should have a variable rate of interest;
- at the time of sale the LTV ratio should be less than 100%;
- borrowers are required to take out and maintain homeowner's insurance;
- at least four instalments should have been received in respect of such a home loan.

SAHL was launched in February 1999 as a private company with seven shareholders, most of the shares being held by Standard Bank Invest Corporation Limited (32,29 per cent) and Peregrine Strategic Investment (Proprietary) Limited (30,27 per cent). (Van Zyl, 2003: 275). SAHL originates home loans using its own sales agents, a telecentre, web-based applications and third party agents. Properties are registered in the client's name and the mortgage loans are housed in the SPV called Thekwini, which is insolvency remote. Thekwini is overseen by independent trustees and auditors. SAHL is the servicer of the home loans.

SAHL has done four securitisation transactions namely Thekwini 1, Thekwini 2, Thekwini 3 and Thekwini 4. Thekwini 4 is the sixth publicly rated securitisation of home loans in South Africa. When a borrower takes out a home loan from SAHL, the loan agreement is between the borrower and the funding vehicle. Main Street 65 is the special purpose vehicle for Thekwini 4. The funding vehicle funds the home loans through a wholesale facility from Standard Bank. The borrower grants an indemnity to a guarantee trust, which initially guarantees the performance of the home loans to Main Street 65. The guarantor trust holds all the mortgage rights of home loans originated by SAHL, irrespective of the vehicle used to fund the home loan. As a result SAHL is able to transfer home loans between funding vehicles without involving the Deeds Office, hence reducing the time and costs. Thekwini 4 purchases home loans from Main Street 65 using the proceeds from the issuance of notes to investors. Main Street 65 uses the funds to repay the wholesale loan. The home loan eligibility criteria are as follows:

- the loan should be residential located in South Africa which is freehold or sectional title units in complexes of less than 10 storeys;
- the maximum term should be 20 years;
- the minimum amount is R100 000 (or R75 000 for a home loan granted in terms of an approved employee benefit scheme);
- the maximum amount is R2 million;
- the LTV ratio should be less than 80% and the payment to income (PTI) ratio should be less than 30%;
- borrowers are required to take out and maintain homeowner's insurance cover.

3.5.3. Gateway Home Loans (Gateway)

Gateway was established as a subsidiary of the National Housing Finance Corporation (NHFC), after the concept of a secondary home loan market was endorsed at the Presidential Job Summit in October 1998. Gateway (2000: 6) cites that Gateway was established in March 1999 as a partnership between the government and the private sector for a period of two years after which Gateway's performance was to be evaluated.

The Gateway model was the only securitisation initiative of low income housing finance in South Africa. Originators were paid an origination fee of R1 000 per loan originated and sold to Gateway and a monthly servicing fee of 1 per cent per annum on the outstanding balance of the loan (Gateway, 1999: 4). Gateway's target market was the formally employed that could not afford a mortgage loan, but needed a larger micro loan that was not available at the time (Tomlinson, 2000: 5).

The NHFC assumed Gateway's administrative and secretarial services. Gateway accredited loan originators who originated mortgage loans that conformed to set criteria. Gateway's target loan range was between R20 000 and R50 000. Its initial loan product was called Makhulong Home Loan and had three key characteristics:

- repayment by payroll deduction;
- collateral was obtained from guarantees from retirement funds of at least 50 per cent;
- it was to be used only for the purchase of a house (Department of Housing, 2003: 15).

Standard Bank and Nedcor Bank were the first originators. Gateway also embarked on accrediting micro lenders and smaller banks that had an interest in originating housing loans. There were only three institutions that became involved. These were Cash and Savings Bank Limited (Cashbank) a second tier bank, South Financial Services (Pty) Limited (trading as Southfin) a micro lender and Greenstart Home Loans (Pty) Limited (Greenstart), which was established specifically to take advantage of the Gateway model (Moodley, 2003: 79).

In mid 2000 Gateway introduced the primary market originators (PMO) concept. This concept entailed accrediting loan originators known as brokers. The brokers were formed to fill the gap between the banks and borrowers. They acted as intermediaries and brought business to the banks, and were paid commissions for successful transactions. They also acted as intermediaries between micro lenders and borrowers, where the concept was more suited than to the big banks. This was because micro lenders were small institutions without a large branch network and it was cost effective for them to use brokers to get business (Moodley, 2003: 80).

It is notable that Gateway did not issue MBSs to fund mortgage purchases. Gateway did not accept a proposal by Standard Bank to buy its fully guaranteed loan (FGL) book funded by issuing MBSs. The NHFC was not prepared to take the major portion of the risk (Gateway Home Loans, 2000: 17).

A decision was taken in early 2001 to absorb Gateway into the NHFC during a restructuring of the NHFC. The external shareholders' shares were bought out by the NHFC. Gateway was absorbed into the Home Ownership Division of the NHFC.

3.5.4. Failure factors of Gateway

Gateway's failure has been attributed to a number of reasons by different practitioners and academics. According to Craven and Mothapo (2001: 1), reasons for Gateway's failure were that:

- the banks were hesitant to provide finance to the lower-end of the market;
- the government failed to provide security of R300 million to cut the cost of lending;
- Gateway was not run effectively and efficiently.

Jara (2001: 1) states that the banks' view is that Gateway failed because it did not plan its activities with them and that its target market should have been those with a monthly income above R3 500.

According to Moodley (2003: 77), Gateway failed for a number of reasons. There was a lack of a primary market to originate loans and the banking sector was not willing to support the programme. There was no concerted effort from Standard Bank and Nedcor, who were signed up as originators, to originate loans. "Standard Bank, in particular, had a large captive market in terms of employers and pension funds that they signed up for their fully guaranteed loan book. They were reluctant to use existing agreements as they believed that such agreements were specific to the product being offered by them and new agreements would have to be signed between Gateway, the employers and the pension funds for the new product to be rolled out. From Standard Bank's perspective, it did not make business sense for them to market a loan that was in competition with their fully guaranteed loan product which was structured without any risks for themselves."

Moodley (2003: 77) cites that the originating software that Gateway developed did not materialise. This was because for the entire system to work, the origination system had to access the system of the credit bureau and the credit-scoring system which were located at remote sites. Synchronising these various systems and making them work together was a complicated and time-consuming task. Cashbank experienced liquidity problems in the last half of the year 2000. It then merged with BOE bank to create a new entity.

Moodley (2003: 80) further adds that Gateway's PMO concept failed because the originators and the brokers did not have systems to pre-qualify borrowers nor verify their creditworthiness. The brokers were used to completing loan applications and forwarding them to financial institutions for further processing. This resulted in very few applications qualifying in terms of the stipulated criteria. The PMO concept was in contravention of the exemption granted by the Minister of Finance to the NHFC. The NHFC was exempted from the provisions of the Banks Act (1990), but was prohibited from providing a retail service directly to end users in competition with the banks.

Kothari (2003b: 5) notes that "during the first year of its operations, Gateway failed to buy any loans. Gateway has not been able to convince banks and housing lenders to sell their portfolios to it. Gateway feels that unless there is a primary market in housing loans, there is no scope for creating a secondary market."

3.6. RISKS IN RESIDENTIAL MORTGAGE-BACKED SECURITISATION (RMBS)

3.6.1 Introduction

Securitisation transactions, like any other financial transactions, have risks that need to be identified and managed for the process to be worthwhile to any organisation's value chain. The risks in RMBS are mainly interest rate risk, prepayment risk, reinvestment risk, liquidity risk, credit risk, yield curve risk, exchange rate risk, incident, inflation and counterparty risk. These are briefly discussed below.

3.6.2 Interest rate risk

Interest rate risk arises where there is a mismatch between the interest rate on the receivable and the interest rate on the funding loan. This may arise for example if the underlying assets in a securitisation transaction generate a prime rate-linked return to the SPV, but the investors require a fixed rate of return.

Oliver and Sallis (2003: 4) note that through the use of derivatives, such as interest rate swaps, both variable and fixed rate securities can be issued by the SPV without exposing the issuer to interest rate risk. If the underlying assets generate a prime-linked return to the SPV, for example, but the investor requires a fixed rate of return, a floating for fixed swap is used to hedge this interest rate risk. Alternatively if the securitised assets generate a fixed return but the investor requires a floating return, the SPV can enter into a swap or a cap with a reputable counterparty so that the counterparty pays the excess of floating over the fixed on the receivables.

3.6.3. Prepayment risk

According to Eppel (2001: 1) prepayment arises in RMBS "when the SPV receives settlements in excess of contractually required principal payment." The risk of a prepayment happening is called prepayment risk. As a result the MBS cash flows might not be forecast with certainty.

In the USA, the government agencies Fannie Mae, Ginnie Mae and Freddie Mac guarantee timely payment of interest and principal to investors. The investors carry only prepayment risk. When a prepayment is done the investor receives only the mortgage's outstanding principal, not any market premium. According to Guttery *et al.* (1995, in Obay, 2000: 78), "this is equivalent to a borrower calling a bond away from an investor at its par value even though the bond's market value is set above par." As a result this reduces the potential gains to the investor when interest rates fall.

Eppel (2001: 1) cites that "refinancing is one of the biggest factors that contribute to prepayments. High levels of refinancing occur in the case of fixed rate loans when interest rates fall, while for floating rate loans, high levels of refinancing occur when rates are expected to rise." Mortgage backed derivatives were created to reduce the interest rate and prepayment risks associated with traditional fixed rate MBSs.

3.6.4. Reinvestment risk

The other risk that MBS investors face when interest rates decline is that of reinvestment as they can only do so at lower returns. Rees (2003: 15) states that this can also arise as a result of "a prepayment of high interest bearing receivables when the SPV cannot reinvest the proceeds at the same rate in the market pending payment of the funding loan, so that there is a timing mismatch between the prepayments of the receivables and the next interest payment on the funding loan."

This exposure may be managed with the use of a guaranteed investment contract (GIC). The GIC guarantees a reinvestment rate on all cash flows received prior to the scheduled payment date. The contract should be entered into with a reputable third party at a predetermined interest rate. Obay (2000: 75) states that "the GIC eliminates prepayment uncertainty and creates an investment opportunity." Rees (2003: 16) also cites that "a cash fund generated by a subordinated loan or a class A/B note structure can reduce this risk."

3.6.5. Liquidity risk

This risk arises, as cited by Faure (2002b: 65), when a mortgage backed bond is sold below its true value, "i.e. at a price that is lower than the prices of recent trade in bonds of the same maturity/duration. This may happen if the bond market happens to be less liquid at the time of selling." Liquidity risk is also the risk of a timing mismatch between mortgage payment recoveries (because of their terms or because the mortgage obligor delays payments) and the interest on and the repayment on the MBS. Changes in interest rates may further increase the cash flow mismatch between assets and liabilities.

Credit enhancement using a cash reserve account reduces liquidity risk. Liquidity risk can also be reduced by an immunisation technique whereby the duration of the asset pool will be matched to the duration of the liability it is expected to fund. This way the interest rate risk for assets will be made equal to the interest rate risk of the liabilities. In case of an interest rate decrease or increase movement, the portfolio must be re-immunised by rebalancing the portfolio to match the duration of the liabilities. Various derivative instruments can be used to adjust asset duration so as to ensure that matching is present. For example, buying bond futures increases duration while selling bond futures decreases duration.

There is no assurance that a secondary market of issued MBS will develop, or if that secondary market develops that it will provide investors with liquidity of investment, or that it will continue for the life of such MBSs. In South Africa, Oliver and Sallis (2003: 4) note that, "historically, the majority of investors in securitised paper held the instruments to term." This is because the South African secondary market for ABSs was still in its early stages. When the Sasfin Group listed the paper issued by its securitisation vehicle in 1991, there was minimal trade in the instruments, which resulted in the decision to de-list.

Liquidity risk may be alleviated through liquidity support by financial institutions. The USA government played a pivotal role in establishing the RMBS market through the participation of agencies Fannie Mae, Ginnie Mae and Freddie Mac. These agencies bought mortgage pools and guaranteed payments on mortgage backed securities, increasing liquidity in the secondary mortgage market.

3.6.6. Credit risk

Fannie Mae (2003d: 2) defines credit risk as "the possibility that the issuer or another party may have its credit rating downgraded by a rating agency; may experience changes in the market's perceptions of its creditworthiness; or may default on its financial obligations to the investor." The obligations include payment by the SPV of the different kind of fees, periodic interest and principal value at maturity of the MBSs.

Credit risk can be mitigated by credit enhancement. This risk can also be managed by ensuring that there is sufficient subordination of claims and transferring the credit risk to another party using credit derivatives, namely guarantees, insurance policies, credit default swaps and total return swaps.

Guarantees or insurance policies are the most traditional form of credit derivative. Credit default swaps cover default and events like a downgrade in the credit rating of the securities. Total return swaps swap the total return generated from the asset for a predetermined fixed return.

Investors rely on the rating assigned to the MBS by a rating agency to assess the credit quality of the investment because the SPV does not have a history of financial performance that can be evaluated. However, a security rating is not a recommendation to buy, sell or hold securities as it may be subject to revision, suspension or withdrawal at any time by the rating agency. A rating assigned by another rating agency that has not been requested by the SPV to do so, may be lower than the equivalent ratings assigned by the chosen rating agency. There is no assurance that a rating will remain for any given period of time. If the assigned rating is given on a national scale, there can be no assurance of any connection between that rating and any international scale rating.

An example of the non-permanence of a rating will be useful: the Kiwane transaction, sponsored by Real Africa Durolink and Gensec Bank, was extolled as one of a few successful securitisations in South Africa. Thomas (2002: 34) states that "failure of Saambou Bank shook confidence prompting rating agencies to adopt a defensive stance. Fitch downgraded Kiwane's senior bonds from an AA- investment grade rating to a B-. Fitch's concerns involved Kiwane's R34 million exposure to Saambou promissory notes (6,74 per cent of its portfolio) as well as the spread of assets. Gensec chose to offer Kiwane's 12 per cent K001 bondholders a buyout escape route at 150 basis points above the R150 government bond rate on March 14, 2002." The offer was much below where the K001 should have been trading. As a listed asset-backed securitisation issue, the K001's demise was a reminder of the lurking risk a downgrading holds for any listed security.

3.6.7. Yield curve risk

Yield curve risk applies to a portfolio of mortgage-backed bonds. A yield curve presents, graphically, the relationship between the rate and the maturity of a number of bonds at a particular time. According to Faure (2002a: 64) "yield curve risk has two dimensions. (Firstly) the curve may shift in a parallel fashion or a non-parallel fashion to reflect changes in expectations. This of course means that the prices of the bonds in the portfolio change. (Secondly) the prices of the different bonds do not change by the same extent in the case of a parallel shift, because of the different maturities and the different coupon rates. It is likely that the individual bonds have different coupon rates, including those of the same maturity."

3.6.8. Exchange rate (currency) risk

Exchange rate risk is the risk that the movement of one currency in relation to the local currency affects negatively the securitisation transaction. This may arise when an SPV is established in a tax efficient jurisdiction or when MBSs issued are not denominated in the local currency. The investor has the risk that the currency in which the MBSs are denominated depreciates and as a result will receive less interest and principal.

3.6.9. Incident risk

According to Faure (2002a: 65) this risk arises when incidents happen that affect the interest and/or principal payments on an MBS. The varieties of incident risk in RMBS are regulatory and political risks. Regulatory risk arises as a result of a change in laws or regulations that affect the status of a security. Political risk may arise when a new government changes the terms and conditions of existing issues of MBSs.

The security for the MBS consists mainly of SPV's interest in the home loans. If property values in the residential property market experience an overall decline, this could result in the value of the security created by the home loans being significantly reduced and may result in losses to the investors.

3.6.10. Inflation risk

According to Faure (2002a: 66) inflation risk is the risk that the real rate of interest earned on an MBS falls due to inflation.

3.6.11. Counterparty risk

The SPV is exposed to counterparty risk with respect to contracts entered with other parties like the liquidity facility agreement and hedging transactions.

3.7. CONCLUSION

In RMBS, mortgage originators pool together mortgages and sell them to bankrupt remote SPVs. The SPVs fund the purchase of these mortgages by issuing MBSs.

The RMBS market originated in the USA in the 1960s after a culmination of housing finance reforms that started after the great depression of the 1920s. Its success is attributed to the active support of government and the participation of agencies Fannie Mae, Ginnie Mae and Freddie Mac. The support of government included the insurance of savings deposits and the government mortgage insurance. The insurance of savings deposits reduced the risks to financial losses, and the government mortgage insurance allowed investors to commit funds to housing. It may be argued that the participation of the agencies Fannie Mae, Ginnie Mae and Freddie Mac was the key to the successes of the USA secondary mortgage market and the RMBS market.

The USA RMBS process may be summarised as follows. Mortgage originators pool conforming mortgages which back the issue of MBSs. The government agencies FHA and VA insure the mortgages. Fannie Mae, Ginnie Mae and Freddie Mac guarantee full and timely payment of principal and interest on their MBSs. According to Livingston (2001: 179), the default problem "has been overcome by the guaranteeing of mortgages by government agencies and by private insurance companies. The resulting guaranteed mortgage trades as if it is default free". The SPVs fund the purchase of these mortgages by issuing MBSs.

The two most common MBSs structures that were discussed are pass through securities and pay through securities. The main reason why a pass through structure may be chosen over a pay through structure is the true sale of assets for accounting and regulatory purposes. However, pass through securities structures have two disadvantages. The structure is limited to the issuance of only one tranche of securities, e.g. only a 5 year tranche or a 10 year tranche. This limits the number of interested investors. The structure also involves high prepayment risks. The advantages of a pay through structure are that the securities can be issued in multiple classes and there is limited prepayment risk to the investors.

The South African RMBS market was discussed. There are a few major RMBS transactions done in South Africa. However, the successful ones were not focused on low income earners and were initiatives of the private sector. Gateway was a government initiative to try and address housing finance problems for low income earners. The initiative was not a success and its failure factors were highlighted. The main reason cited by many experts and academics was a lack of a primary market as the banks regard this section as high risk. The other factors included lack of efficient and effective systems and that securitisation was in its early stages in South Africa. It can be argued that the South African government did not give as much support as compared to initiatives by the USA government that led to the successes of Fannie Mae, Ginnie Mae and Freddie Mac.

This chapter dealt specifically with RMBS, how it evolved, the success factors of the USA RMBS market, the failure factors of Gateway in South Africa, the risks involved and ways to mitigate them. The next chapter investigates whether RMBS can be applied to the South African low cost housing market.

CHAPTER FOUR

APPLICATION OF SECURITISATION TO LOW COST HOUSING FINANCE IN SOUTH AFRICA

4.1. INTRODUCTION

Section 26 of the Constitution of South Africa (1996) provides that housing is a basic human right and that the government must take reasonable legislative and other measures within its available resources to achieve the progressive realisation of this right. Eradicating the housing backlog is one of the biggest challenges facing the South African government.

The South African government measures adequate housing in terms of certain factors which include legal security of tenure, provision of basic services, affordability, accessibility and location. According to the Department of Housing (2005b: 1) in 1997 the number of families without adequate housing was 2.2 million and this figure was expected to increase by about 204 000 per year. This backlog is attributed to a number of factors. These include population growth, urbanisation, influx of immigrants into South Africa since 1994, lack of affordability and lack of end-user finance.

This chapter investigates whether there is a case for applying securitisation to low income housing finance in South Africa to alleviate the housing backlog. An overview of housing finance in South Africa as well as the measures taken to address low income housing backlog are discussed. The motivations to apply securitisation to low income housing finance in South Africa are presented and the chapter ends with a proposal of how this can be done.

4.2. HOUSING FINANCE IN SOUTH AFRICA

As housing finance is an integral part of the financial system, an overview of the South African finance system is presented to give context to the discussion. The financial system was defined in section 2.1. There is a wide range of financial intermediaries and financial securities in the South African financial system as presented in Tables 4.1, 4.2 and 4.3 below. The financial intermediaries can be broadly categorised into deposit and non-deposit intermediaries. The non-deposit intermediaries can further be classified into contractual, portfolio and development finance intermediaries. There are other intermediaries that border on qualifying as financial intermediaries and these can be categorised as quasi-financial intermediaries. Some examples are investment trusts, micro-lenders, savings and credit co-operatives, finance companies, stokvels and securitisation vehicles. Securitisation vehicles intermediate on a once off basis.

The financial securities can be described as reversible (marketable) or non-reversible (non-marketable). The reversibility or marketability of a financial security is the ease with which the holders of securities (or claims) can recover their investments by recourse either to the issuer or to a secondary market (Faure, 2001: 13).

The three categories of intermediaries make housing finance available in various ways. The private banks, which are deposit intermediaries, provide credit or loans. Contractual and portifolio intermediaries invest in mortgage-backed securities. Development finance intermediaries, for example the National Housing Finance Corporation (NHFC), provide finance to institutions that lend to consumers. Quasi-financial intermediaries provide micro loans, personal loans, revolving savings schemes. Securitisation vehicles provide liquidity to the mortgage primary market by buying mortgage-pooled/backed securities. Table 4.4 presents various house finance products available to consumers.

TABLE 4.1: FINANCIAL INTERMEDIARIES IN SOUTH AFRICA
DEPOSIT INTERMEDIARIES South African Reserve Bank Corporation for Public Deposits Land and Agricultural Bank Private banks Mutual banks Postbank NON-DEPOSIT INTERMEDIARIES ***Contractual intermediaries*** Long-term insurers Short-term insurers Pension and provident funds Public Investment Commissioners ***Portfolio intermediaries*** Unit trusts Property unit trusts Participation mortgage bond schemes ***Development finance intermediaries (DFIs)*** Development Bank of Southern Africa Industrial Development Corporation National Housing Finance Corporation Khula Enterprise Finance Infrastructure Finance Corporation
Adapted from Faure, 2001: 11.

TABLE 4.2: NON-MARKETABLE SECURITIES
PRIMARY SECURITIES (IE ISSUED BY ULTIMATE BORROWERS)
Obligations of the household sector
Hire-purchase contracts
Leasing contracts
Mortgage advances
Bank overdrafts
Personal IOUs
Obligations of the corporate sector
Bank loans
Obligations of the government sector
Bank loans
INDIRECT SECURITIES (IE ISSUED BY FINANCIAL INTERMEDIARIES)
Obligations of deposit intermediaries
Bank notes (issued by the Reserve Bank)
Savings accounts
Fixed deposits
Obligations of contractual intermediaries
Insurance policies
Retirement annuities
Obligations of portifolio intermediaries
Participation mortgage bonds
Unit trust units
Obligations of the DFIs
Bank loans
Adapted from Faure, 2001: 14.

TABLE 4.3: MARKETABLE SECURITIES
PRIMARY SECURITIES (IE ISSUED BY ULTIMATE BORROWERS) **Obligations of the corporate sector** Bankers' acceptances Trade bills Promissory notes Commercial paper **Obligations of the government sector** Treasury bills Government bonds Commercial paper (called parastatal commercial paper) Municipal bonds Public corporation bonds **Obligations of the foreign sector** None in rand INDIRECT SECURITIES (IE ISSUED BY FINANCIAL INTERMEDIARIES) **Obligations of deposit intermediaries (banks)** Negotiable certificates of deposits Bonds of banks (for secondary capital) Reserve Bank debentures Land bank bills Land Bank promissory notes Land Bank call bonds Land Bank debentures **Obligations of contractual and portfolio intermediaries** None **Obligations of the DFIs** DBSA bonds and bridging bonds IDC bonds NHFC bonds INCA bonds
Adapted from Faure, 2001: 15.

TABLE 4.4: HOUSING FINANCE FOR CONSUMERS IN SOUTH AFRICA				
	Product	**Description**	**Terms (size, interest rate & term)**	**Sources**
1.	Retail finance products			
1.1	Personal mortgage loan	Individual loan (to property buyer) secured by the underlying value of the property. Can be guaranteed.	From R75 000 generally over R100 000 approximately; prime (-2 to +2); 10 to 20 years	Banks
1.2	Personal equity-backed loans / covering bonds	Individual loan fully secured by cession of accumulated withdrawal benefits from pension / provident fund / other assets e.g. households goods. Can be guaranteed.	Generally between R5 000 and R10 000 approximately; prime +1 or +2; 3 to 5 years	Banks & non-bank lenders
1.3	Instalment sale	Institutional finance provides for regular payments over a number of years, after which housing asset is transferred into the ownership of the occupant. Default negates occupant's right to asset transfer.	Depends on unit size / rental calculation; 4+ years	Specialist housing institutions (e.g. Cape Town community housing company)
1.4	Unsecured small loan	Individual, unsecured loan often used for housing purposes. Exempted from Usury Act provisions.	Generally below R5 000 to R10 000; approximately 40%; 1 to 5 years	Non-bank lenders (e.g. Kuyasa Fund, uTshani Fund)
1.5	Savings-linked micro-loan	Very small individual loan at high interest rate to cover administrative costs and high risk profile. Generally partly secured against regular savings history of borrower. Exempted from Usury Act provisions.	Generally below R5000; approximately 40%; 6 months to 2 years	As in 1.4 above.

1.6	Building materials credit facility	Individual building material credit provided by building materials suppliers (backed by balance of subsidy)	Generally similar to micro-loans	Special programmes (e.g. TUSK)
2.	Savings schemes			
2.1	Savings-backed subsidy schemes	Regular savings records used to "queue" subsidy beneficiaries. Can offer access to credit.	Regular savings coupled with interest. May be used as a deposit for credit.	Special programmes (e.g. Nurcha's national savings programme)
2.2	Personal loans / revolving savings schemes	Personal loans and *stokvel* savings schemes are common mechanisms through which households accumulate small lump sums of cash for housing	Various. Members contribute same amounts on a regular basis, with full proceeds being given to a member on a revolving basis.	*Stokvel* schemes
Adapted from Gardner, 2003: 48.				

Credit is advanced by financial institutions on certain criteria and conditions and for various products. The moderate and high-income sector earning more than R8 000 per month which is approximately 10% of the population can afford a conventional house and for this category a mortgage finance system operates successfully. Successful residential mortgage backed securitisation (RMBS) in South Africa, covered in section 3.5.2, targeted this category. The RMBS enhances liquidity in the primary mortgage market for this category.

The low income sector, which is approximately 20%-30% of the market, accesses housing finance through housing development institutions that have been established to facilitate access to finance specifically for this sector, either through banks or non-banks. Tomlinson (2000: 2) cites that "research has revealed that these borrowers (low income sector) prefer to borrow smaller amounts for shorter periods of time and with a fixed interest rate. Hence, since the mid 1980's the banks have offered a non-mortgage backed product called a *micro loan*." The micro loans, however, are very small and can only assist with incremental building rather than buying a complete house. The mortgage finance system for the low income sector is negligible. Gateway Home Loans (Gateway) was a government initiative aimed at creating a secondary mortgage market and RMBS for this low income sector in an effort to promote the mortgage primary market. This, however, was not a success as indicated in section 3.5.3. Since the demise of Gateway in 2001, the secondary mortgage market and RMBS for low income housing finance in South Africa is non-existent.

The bottom 60% of the population which comprises the very low income (less than R3 500) and the unemployed do not have access to housing credit (Tomlinson, 2001: 1). This sector is eligible for the government housing subsidy which is covered in section 4.3.4.

Banks are the biggest, and arguably the most important, source of housing credit to consumers. "Banks are the only group of financial intermediaries that have a relationship with all ultimate lenders and borrowers, as well as all other financial intermediaries" (Faure, 2001: 52). In South Africa the biggest four commercial banks, ABSA, Standard Bank, Nedcor Bank and First National Bank, boast about 80% of the deposit market. They are therefore at the very centre of the financial system. Banks have the ability to create additional money when required, for example by offering overdraft facilities. Should this not be controlled, this would result in the increase in money supply and consequently inflation. The South African Reserve Bank (SARB) supervises banks. The Banks Act 94 of 1990 and the South African Reserve Bank Act 90 of 1989 are the two most important pieces of legislation that regulate the businesses of the banks. Sections 70, 72 and 73 of the Banks Act 94 of 1990 provide the prudential requirements that banks have to comply with. The South African Reserve Bank Act 90 of 1989 requires banks to comply with the cash reserve requirement.

The above overview highlights the sophistication of the South African finance system. Faure (2001: 5) adds that "in fact, South Africa's financial services are even superior to those of some first world countries." Despite the sophistication of this financial system the lack of low income housing finance remains one of the biggest contributors to housing backlog. The South African government has taken a number of measures in an attempt to address low income housing finance issues. These are discussed in the next section.

4.3. MEASURES TAKEN TO ADDRESS LOW INCOME HOUSING FINANCE

4.3.1. Introduction

The government has formulated and implemented a housing policy in an attempt to address housing challenges that include lack of housing finance for low income earners. According to the Department of Housing (2005b: 7) the South African national housing policy is being undertaken in terms of seven key strategies which are discussed in the following subsections. The strategies are:

- stabilising the housing environment,
- mobilising housing credit,
- providing subsidy assistance,
- supporting the people's housing process,
- co-ordinating government investment in development,
- rationalising institutional capacity and
- facilitating speedy release and servicing of land.

4.3.2. Stabilising the housing environment

During the 1980s and early 1990s, financial institutions engaged in lending in the townships. During the period of political transition the number of defaulters increased. The reasons for defaults included loss of income, bad workmanship by unscrupulous builders and political boycotts. The culture of boycotts arguably carried on after the democratic elections in 1994. As a result of that and other factors, some lenders became reluctant to lend to low income families. The situation was worsened by "red-lining", a practise whereby banks refuse to grant home loans in certain areas. Gumede (2002: 34) cites that "the banking sector was reluctant to abandon the practice (redlining) fearing large scale default on loans." The legal processes could not assist the banks. The sheriffs refused to carry out their duties in certain areas for fear of victimisation. In areas where evictions were carried out, the evicted households moved back into the property. Servcon (2005a: 1) cites that because of that situation, "the protection afforded a lender by the mortgage instrument became worthless and loans were effectively reduced to unsecured personal loans." Banks then stopped lending in those areas.

This strategy aims at creating a stable environment for housing, alleviating the perceived risk in the low income housing market and ensuring good quality housing. To stabilise the housing environment, the government established a number of housing institutions, entered into agreements with the banking sector and passed legislation in favour of housing consumers. The institutions established were the Home Loan Guarantee Company (HLGC), the National Home Builders Registration Council (NHBRC), the Mortgage Indemnity Fund (MIF), Servcon Housing Solutions (Servcon) and Thubelisha Homes. The agreements entered into were the record of understanding (ROU) and the *new deal*. The pieces of legislation that were passed are discussed in section 4.3.9 below.

HLGC was established in 1989. Its mandate is to facilitate access to finance for low-income housing. It provides guarantees of last resort for mortgage-backed and non mortgage-backed finance. It also provides, mobilises and manages mortgage insurance.

As part of an initiative to get the financial institutions to start lending again in those affected areas, the ROU was signed in October 1994 between the government and the then Association of Mortgage Lenders (now called the Banking Council). The purpose of the ROU was to increase the availability of house credit to the low income sector and secondly to implement risk alleviation interventions. The activities undertaken to increase the availability of credit will be discussed under the mobilising housing credit strategy in section 4.3.3 below. The activities undertaken to alleviate the perceived risk in the low income sector include the Masakhane campaign, the NHBRC, the MIF and Servcon.

The Masakhane campaign was initiated by the Departments of Housing and Constitutional Development and the Reconstruction and Development Programme (RDP) office which is now defunct. This campaign aims at encouraging communities to pay their rates, services, mortgage and rental payments and encourages individuals to feel a sense of community pride.

The NHBRC was registered in June 1995 as a section 21 company. Its mandate is to ensure good quality standards for the home building industry and to protect home owners from unscrupulous contractors. The NHBRC initially focused on homes valued between R20 000 and R250 000. However, the Housing Consumers Protection Measures Act 95 of 1998 (HCPM Act) increased the mandate to regulate all home builders irrespective of the cost of the house. Section 10 of the HCPM Act requires all home builders to register with the NHBRC except owner builders. This registration remains valid for a year. As one of the requirements, the home builder must notify the NHBRC inspectorate within sufficient time, during construction phase, to allow the NHBRC to do inspection at its discretion (NHBRC, 2005a: 1).

NHBRC (2005b: 1) cites that it deals with three types of complaints. These are rectification of defects by the builder within three months of the date of occupation, one-year warranty against roof leaks and a five-year major structural defects period. If the matter falls outside the scope of the HCPM Act, the NHBRC advises the parties to resolve the matter through legal proceedings. This, however, poses a challenge to low income earners who may not be able to afford legal proceedings or may not be aware of their rights as house consumers. Sisulu (2004: 5) cites that by June 2004 NHBRC had registered 19 448 homebuilders, 281 462 homes, conducted 470 921 inspections and received 16 288 complaints. The boom in the South African residential home market in the past few years might have presented capacity challenges for the NHBRC. The huge number of reported complaints indicates that the quality of houses being built leaves a lot to be desired.

The MIF was a wholly owned government company that was established in June 1995 for a three year period. The mandate for the MIF was to encourage financial institutions to lend in the affordable housing market in neglected areas in the country. It did so by providing indemnity insurance against those areas where financial institutions were unable to repossess properties as a result of a breakdown in the due process of law. Tomlinson (2000: 4) cites that by the time the MIF was closed, it had accredited fifteen financial institutions and provided indemnity cover in 543 areas. As a result 140 000 mortgages were granted by financial institutions with a value of over R10 billion. 73 000 loans of the 140 000 loans granted were in the subsidy-linked segment with a value of R4.1 billion.

Servcon was established in June 1995 as a private company where the government and the Banking Council each own 50% share. Servcon (2005a: 1) points out that "Servcon was established to provide management services on a uniform basis on behalf of all participating banks and specifically to assist borrowers and ex-borrowers in difficulty." The ROU was terminated in 1998 and the *new deal* was signed between the government and the banks. The *new deal*, signed in April 1998, gave Servcon a renewed mandate and ensured that all properties in possession (PIPs) and non-performing loans (NPLs) covered by MIF were to be managed by Servcon. The Department of Housing (2005a: 1) cites that Servcon's renewed mandate is to provide management services with respect to a portifolio comprising 33 322 PIPs and NPLs with a value of R1.3 billion for a period of eight years from 1 April 1998 to 31 March 2006. Servcon's objective is to *satisfactorily dispose of* a loan in its portifolio. Moroka (2003: 2) defines to *satisfactorily dispose of* as to have the property normalised and removed from Servcon's portifolio (returned to the bank) through a payment normalisation programme which offers a number of options. The options are instalment sale, right-sizing programme and rescheduled payment. In terms of the instalment sale, households can buy back their repossessed property on a subsidised instalment programme. The rescheduled payment option allows for the loan balance to be recalculated and the loan repayments rescheduled. The right-sizing programme assists households in finding alternative affordable accommodation.

Sisulu (2004: 5) cites that by June 2004 Servcon had disposed of 19 783 properties. In doing so Servcon faced a number of challenges. Moroka (2003: 3) cites that the eviction process takes a long time to be implemented because of widespread disrespect and defiance of the law. Moroka (2003: 3) further points out lack of education, lack of financial discipline, poor community leadership, the absence of a vibrant mortgage secondary market and the effects of HIV/AIDS on breadwinners. Moroka (2003: 5), however, argues that "the issue is not really a housing problem, but rather a mixture of social, justice, safety and security, economic as well as housing." Since the August 1997 deadline for Servcon, there were more than 20 000 township bondholders who had defaulted (Servcon, 2005b: 1). This highlights that the cause of the problem was not being addressed even though Servcon was delivering on its mandate. A number of interventions including educating the housing consumers, good lending criteria and policies to deal with defaulters need to be considered. Sisulu (2005: 4) pointed out that Servcon will be terminated in 2006 as per its mandate.

Thubelisha Homes was established in 1997 jointly by Servcon and the government as a section 21 company. Moroka (2003: 2) cites that Thubelisha Homes's mandate is to provide houses suitable for right-sizing so that Servcon's payment normalisation programme can be fully implemented. Thubelisha (2005: 1) cites that it has to-date built over 7 000 homes in six provinces. When Servcon is terminated in 2006 Thubelisha Homes will serve a different purpose within the Department of Housing, probably building capacity at local government level (Sisulu, 2005: 4).

Thubelisha Homes faces a number of challenges in implementing its mandate. Some Servcon clients object to the alternative housing as they often have large families or lots of furniture. In certain areas local house owners, where Servcon clients are to be relocated, refuse introduction of reconstruction and development programme or "RDP" houses for fear of reducing their house values. RDP houses, as they are better known, have a top structure which is approximately 30 square metres in size and are built to achieve economies of scale. In certain instances local homeless communities refuse to be relocated and they eventually move into these alternative houses.

4.3.3. Mobilising housing credit

This strategy aims at increasing lending into the low income housing sector. According to the Department of Housing (2005b: 11) this strategy focuses on two areas which are firstly to provide guarantees supported with government funds to indemnify financial institutions from loss of investment, and secondly to mobilise credit provision so that financial institutions lend to the low income sector.

The initiatives to implement this strategy include the establishment of a number of institutions namely the Community Bank, the National Urban Reconstruction and Housing Agency (Nurcha), the National Housing Finance Corporation (NHFC), the Social Housing Foundation (SHF) and Gateway Home Loans (Gateway). These institutions are discussed below. The other initiative by the government was the signing of a memorandum of understanding on 31 March 2005 with the banks whereby the banks pledged to lend R42 billion to low income earners by 2008.

The establishment of the Community Bank in 1994 was an initiative that aimed at providing housing loans to low income earners. Slovo (1994: 1) cites that the first priority of the Community Bank was to see to it that ordinary people accessed loans they could afford, which would help them become first-time homeowners. The Community Bank, however, failed in 1995 due to liquidity problems and inefficient management (Okeahalam et al., 2002 in Ngauke, 2003: 90).

Nurcha was established in May 1995 as a non-profit section 21 company. Its purpose is to facilitate low cost housing development through its two programmes, mainly for households earning up to R1 500 per month. The programmes are the guarantee programme and the joint venture development fund.

The guarantee programme aims at facilitating bridging finance and end user finance. Nurcha offers guarantees to financial institutions that lend bridging loans to developers and contractors of low income housing. Nurcha also assists the low income sector that does not meet the lending criteria of financial institutions, through savings linked credit schemes, housing institutions that accommodate both rental and instalment sale schemes and guarantees for established banks and non bank lenders. Nurcha (2004: 3) cites that as a result of its experience in savings linked credit schemes, Nurcha was appointed by government on 16 May

2003 as its intermediary tasked with the collection of the R2 479 contribution towards housing subsidies. Department of Housing (2005) cites that the joint venture development fund's purpose is to "invest equity into joint ventures with private sector developers and contractors to encourage and facilitate the development of housing in the R20 000 to R60 000 range" (Department of Housing, 2005b: 13).

Nurcha (2004: 1) highlights that although it financed over 400 projects involving emerging contractors, it incurred more than R6 million losses on failed projects. However, Nurcha facilitated and financed a total of 135 424 houses since its establishment (Nurcha, 2005: 1).

The NHFC was established in April 1996 as a public company wholly owned by the government. The NHFC (2005a: 1) cites that "the NHFC addresses the housing finance needs of the housing market that have an ability to contribute financially to their housing costs, but to whom bank-funded housing finance is not readily available." This sector has a household monthly income of between R1 500 and R7 500 and is not eligible for full government housing subsidies.

The NHFC does not lend directly to individual borrowers, but to social housing institutions and approved retail finance intermediaries which are spread countrywide. The NHFC implements three funding programs, namely alternate tenure (AT), home ownership (HO) and incremental housing (IH). The three programs mentioned above, AT, HO and IH, aim at enabling rental, home ownership and improvement to property respectively. NHFC (2005b: 1) cites that it has "approved R2.3 billion in facilities and disbursed R1.9 billion by 31 March 2005. Through lending activities, 51 734 new housing units have been built and 182 438 loans originated."

The SHF was established by the NHFC in November 1997 as a section 21 company (Department of Housing, 2005b: 13). Its purpose is to promote and assist the development of social housing by providing guidelines in setting up social housing institutions (SHIs) and providing social housing policy for South Africa. The Department of Housing (2005b: 7) defines social housing as "being density subsidised housing which is managed by independent social housing institutions." Sisulu (2004: 5) cited that by June 2004 SHF had established 59 SHIs that had constructed 30 332 housing units.

In addition to its programmes, the NHFC established Gateway in 1998 as an initiative to create a secondary mortgage market and apply securitisation to the low income housing market. As highlighted in the previous chapter, Gateway was a failure and it was absorbed into NHFC's home ownership division in 2001.

4.3.4. Provision of subsidy assistance

South Africa has a high unemployment rate and relatively low average wage levels. According to the Department of Housing (2005b: 1) in 1996 it was estimated that of all families living in South Africa, 80% did not earn more than R3 500 per month and that more than 50% of families did not earn more than R1 500. This portion of the population cannot afford to provide for their own housing needs. This strategy aims at providing subsidy assistance to these households. The strategy has three different programmes, namely the housing subsidy scheme, the discount benefit scheme and the public sector hostels redevelopment programme.

The Department of Housing (2005b: 15) states that the housing subsidy scheme, introduced in March 1994, "provides a subsidy to households earning up to R3 500 so as to assist them to acquire tenure, basic services and a top structure. A range of subsidy mechanisms is provided, namely the individual subsidy, the project linked subsidy, the consolidation subsidy, the institutional subsidy, the relocation assistance subsidy and the rural subsidy."

An individual subsidy is made available to a qualifying beneficiary who wants to enter into a house building contract, purchase serviced stands or an existing property which is not part of the approved housing subsidy projects. The project-linked subsidy is available to developers who implement the approved projects to enable qualifying beneficiaries to own completely built houses. A consolidation subsidy is for top structures to qualifying beneficiaries with serviced land from previous dispensation subsidies. The institutional subsidy is made available to qualifying institutions so that they can provide affordable rental or instalment sale housing to beneficiaries. The relocation assistance subsidy is for qualifying beneficiaries who have defaulted on their home loan and are on Servcon's rehabilitation programme. The rural subsidy is for qualifying beneficiaries who do not have legal security of tenure on land, but on functional tenure rights as the land belongs to the state. The rural subsidy is not only limited to the rural areas, but also made available in urban areas.

The discount benefit scheme aims at providing home ownership to those households that have been renting state owned houses prior to 15 March 1994 and those that intended to buy, but with outstanding loans obtained before 15 March 1994. These households receive a maximum discount of R7 500 on the historic cost of the property.

The public sector hostels redevelopment programme aims at rehabilitating hostels owned by provincial housing boards and municipalities so that the living conditions are the same as the surrounding communities. Furthermore, households living in these hostels will benefit up to R16 000 per family or R4 000 per individual.

Since the introduction of the housing subsidy scheme, the subsidy levels have been increased five times: in 1996, 1999, 2002, 2003 and 2005. Gardner (2003: 20) points out that the first increase was due to value added tax (VAT) exemption of the subsidy and the next two increases were intended to counteract the effects of inflation. The last increases were to bring subsidy levels in line with inflation and to cover the costs of the NHBRC's product defect warranty. The government introduced the contribution policy in April 2002 whereby households have to pay a deposit of R2 479 before they could apply for housing subsidies except the aged, the disabled, those who were chronically sick or who planned to build their own houses. Households earning less than R1 500 are exempted from paying R2 479 from March 2005 as shown in Table 4.5 below.

4.3.5. Supporting the people's housing process

This strategy aims at assisting households that wish to build their own houses with access to the household subsidy scheme. The strategy comprises support organisations, funding and the People's Housing Partnership Trust (PHPT). Support organisations are housed in support centres that are usually easily accessible by all communities. These support organisations assist communities in applying for their subsidies, in obtaining land to build houses, and in technical and administrative support during construction. The funding component of the strategy comprises the housing subsidy scheme discussed earlier, the facilitation grant and the establishment grant. The facilitation grant can be used to bring about awareness to the communities through workshops. It is also used to prepare subsidy applications. The establishment grant is used by support organisations to provide technical, financial and administrative support to beneficial households. The PHPT is a national organisation that implements awareness programmes in support of the people housing program. It promotes all housing delivery processes at provincial and local levels.

TABLE 4.5: HOUSING SUBSIDY AMOUNTS			
Income category	Subsidy amount	Contribution	Product price
1. Individual, project linked and relocation assistance subsidies			
R0 to R1 500	R31 929	None	R31 929
R1 501 to R3 500	R29 450	R2 479 + shortfall	R31 929
Indigent: Aged, disabled & health stricken R0 to R800	R25 580	None	R25 580
2. Institutional subsidy			
R0 to R3 500	R29 450	Indirect-Institution must add capital	At least R31 929
3. Consolidation subsidies			
R0 to R1 500	R18 792	None	R18 792
R1 501 to R3 500	R16 313	R2 479	R18 792
For aged, disabled or health stricken groups R1 501 to R3 500	R18 792	None	R18 792
4. Rural housing subsidies			
R0 to R3 500	R29 450	None	R29 450
People's housing process			
R0 to R3 500	R31 929	None	R31 929
5. Emergency housing programme			
Temporary assistance	R26 874	Shortfall	R26 874
Services	R13 137	None	R13 137
Houses	R18 792	None	R18 792
6. Public sector hostels redevelopment programme			
Family units	R29 450	None	R29 450
Individual units (per bed)	R7 234	None	R7 234
Adapted from Department of Housing, 2005c: 1.			

4.3.6. Co-ordinating government investment in development

This strategy aims at maximising the impact of overall government investment through planning and co-ordination of activities. The Housing Act (1997) specifies a number of mechanisms, namely the formation of the South African housing development board, interdepartmental forums and policy formulation through *housing minmec*. The *housing minmec* is a forum where the Minister of Housing meets with the provincial Members of the Executive Councils (MECs) responsible for housing. The housing and urbanisation information system (HUIS) is an information system that assists in the management of the national housing policy by generating reports that show trends, projects performance and expenditure on allocations. The provincial government housing policy is co-ordinated through the provincial housing development boards while local government is co-ordinated in terms of integrated development plans.

Housing developments need infrastructure, namely water supply, roads, sanitation, electricity and waste disposal. It is to be noted that infrastructure provision is monitored by the Department of Provincial and Local Government (DPLG) through the municipal infrastructure grant (MIG). Projects prioritised for implementation are identified by municipalities while DPLG only provides the funding allocation. There is a campaign by government to eradicate water and sanitation backlogs by 2007 and 2010 respectively. As a result municipalities focus on the provision of basic level of water and sanitation facilities regardless of inadequate housing in those areas being serviced. Furthermore, municipalities are water services authorities as provided for by the Water Services Act (1997) mandating them to provide water and sanitation services, but most of them are not accredited to provide housing, which remains a function of provincial departments. As a result most municipalities do not plan or budget for housing developments.

The need for coordinating government investment in development was highlighted by Sisulu (2005: 4) who stated that at a recent meeting with the South African Local Government Association it was discovered that in some municipalities there are no officials dealing with housing.

4.3.7. Rationalising institutional capacity

The strategy aims to create an efficient housing funding process and institutional system in the government sector. The South African housing fund is the single national housing fund. It disburses funds to provincial housing development funds. The statutory bodies that have been created are the South African housing development board and the provincial housing development boards. The roles in housing provision of the three spheres of government, namely the national, provincial and local, are set out in the Housing Act (1997). The National Department of Housing is implementing the national capacitation programme to build capacity in government to ensure efficient and effective implementation of housing policy.

4.3.8. Speedy release and servicing of land

This strategy aims at facilitating the speedy release and servicing of land for housing delivery. This is done mainly through the provisions of the Development Facilitation Act (1997). The key elements of the Development Facilitation Act (1997) regarding housing are the principles for land development, the development and planning commission (DPC), development tribunals and land development objectives. The Development Facilitation Act (1997) provides a set of principles that aims at speedily undertaking land development projects. The DPC is responsible for reviewing all provincial planning related legislation in South Africa. Development tribunals are established at provincial levels by the Premiers comprising of experts, officials and stakeholders. Should a dispute arise regarding an application for development, the tribunal is mandated to resolve and impose time frames for the resolution. Each municipality is required by the Development Facilitation Act (1997) to set and document land development objectives for future land development. These objectives should highlight the levels of service, the number of housing units and the implementation approach.

The servicing of land is guided by the national norms and standards for housing, NHBRC, the national building regulations, the *red book* and by-laws. The guidelines of the housing norms and standards require that up to R7 500 of the basic subsidy scheme can be spent on services. The remaining amount of subsidy in terms of the housing subsidy scheme must be spent on the top structure which should be a minimum of 30 square metres in size.

4.3.9. Legislation

The government has initiated and passed pieces of legislation in an effort to promote lending by financial institutions to low income earners. This section is not exhaustive as it intends to highlight legislation that directly impacts on the low income housing finance only.

Section 26 of the Constitution (1996) provides that housing is a human right. The Thematic Committee (2001:2) cites that "South Africa is one of just more than 30 countries that have included the right to housing in its Constitution." This was given effect by the Housing Act (1997) which sets out the roles and responsibilities of all three spheres of government and the basis for the housing subsidy programme.

The Housing Consumer Protection Measures Act of 1998 (HCPM Act) aims at protecting homeowners from unscrupulous builders. The NHBRC, established as a result of the HCPM Act, regulates the building industry. The Rental Housing Act (1999) aims at ensuring that more houses are provided for rental purposes and to regulate the behaviour of landlords. The Rental Housing Act (1999) outlaws the eviction of long standing tenants without mediation.

The Home Loan and Mortgage Disclosure Act of 2000 (HLMD Act) aims at monitoring financial institutions' lending practices. The HLMD Act requires banks to reveal information on how they handle home loan applications. The Community Reinvestment Bill (2002) was designed to complement the HLMD Act by compelling banks to lend to a specific number in the low income housing market. Banks that do not comply would be penalised and charged fines of up R500 000. The bill is still under discussion between the government and the banking sector.

Other pieces of legislation impacting on the housing finance include the Public Finance Management Act (1999) and the Municipal Finance Management Act (2003). These pieces of legislation impact on how the different spheres of government should conduct their financial affairs.

4.4. THE MOTIVATIONS FOR APPLYING SECURITISATION TO LOW INCOME HOUSING IN SOUTH AFRICA

4.4.1. Introduction

A number of interventions by the government have been done in an attempt to resolve the housing backlog issue. The challenge, however, remains unresolved. Securitisation has assisted the USA and other countries in alleviating this socio-economic issue. This section aims at making a case for applying securitisation to low income housing in South Africa, under the following headings:

- housing backlog
- inadequate housing finance to the low income earners
- lessons learnt from the failure of Gateway

- successes in other South African securitisation markets and the USA RMBS market
- the sophisticated and sound financial system in South Africa.

4.4.2. Housing backlog

Eradicating housing backlog is a challenge that the government has been trying to resolve for more than a decade. Stratoudakis (1994: 16) estimated that in March 1994 the housing backlog was between 1.3 and 1.8 million units. Knight (2001: 1) cites that by July 2001 1.1 million houses have been built providing shelter to 5 million people. The South African housing programme is considered by many practitioners to be the most successful worldwide, because of achieving to provide the publicly announced housing target of a million houses in five years (Gardner, 2003:7). However, when more than a million houses were provided in 2001 the housing backlog had increased to between 2 and 3 million houses translating to approximately 7.5 million people without adequate housing (Knight, 2001: 1). To-date the government has built 1.6 million houses, but approximately 2.4 million people live in informal structures (Sisulu, 2005b: 3).

Different measures discussed above were put in place which include establishment of housing institutions, provision of subsidies, putting institutional arrangements in place and passing legislation in order to eradicate the housing backlog. However, this issue remains unresolved. Some measures were delivering on their mandates, while others like Gateway and the Community Bank were failures. Sisulu (2005b: 3) cites that over the past ten years the government has spent R29.5 billion on housing. Sisulu (2005b: 3) further points out that "between 1996 and 2001 the number of households living in *shacks* (informal settlements) and backyards increased from 1.45 million to 1.84 million reflecting a 26 percent increase, a figure far greater than 11 percent population increase over the same period."

Sisulu (2005b: 4) cites that a study by the Department of Housing concluded that at the current rate of funding against the growing backlog and rapid urbanisation, in ten years' time the household backlog will not have changed. As a result, the government has shifted emphasis from how many houses have been built to how many home owners have been created. This paradigm shift can be promoted by providing housing finance to the low income sector using securitisation. Securitisation has been applied successfully in other countries to address the same issue.

4.4.3. Inadequate housing finance to the low income earners

Despite the measures and initiatives taken by the government which include the establishment of housing institutions, passing pieces of legislation and signing agreements with the banks, there is still reluctance by the banks to lend to the low income sector. Many reasons have been advanced as to why banks in South Africa are reluctant to lend to the low income sectors. Sundberg and Thunstrom (1998: 18) pointed out that banks are reluctant to lend to the low income earners because of "both unwillingness to deal with low income earners and the risks associated with lending to this group, such as low repayment rates on loans and difficulties in putting pressure on defaulters." They add that there is unwillingness to pay by low income earners and those willing cannot afford to, for various reasons including loss of income, impact of HIV/AIDS and company liquidations. Banks cite that this sector demands small loans that are not profitable. Most individuals in this sector do not have any kind of security or collateral and lack financial discipline. A greater percentage of low income earners are first time home buyers who do not understand their own obligations and that of the different role players in housing finance. In the event of shoddy workmanship by the builders, often the borrowers refuse to pay their loans to the banks.

The government has made a commitment to eradicate informal settlements by 2014 (Sisulu, 2005c: 3). Loans advanced by alternative lenders cannot achieve this target as they are not always suitable for housing finance. The use of the pension or provident fund as security can be risky to the borrower in the event of default because both the house and the security can be at jeopardy (Sundberg and Thunstrom, 1998: 43). Repayment periods, required for example by unlicensed lenders known as *loan sharks*, are always very short and the interest rates are higher than on mortgage loans. As a result repayments are very high for low income earners.

Non-governmental organisations (NGOs) contribute to the housing finance system. However, in the long run they are normally not financially sustainable as they rely on donations. The uTshoni Fund, for example, receives donations from the South African government and international organisations and these donations cannot be guaranteed.

Rental housing is an option that can be investigated. However, the culture of non payment may be a deterrent to investors. A lot of previously disadvantaged South Africans would want to own a house, rather than rent for life, as they never had the opportunity to do so in the previous dispensation. Gardner (2003: 69) argues that the Value Added Tax Act (1991) impacts negatively on rental housing "in that rental housing services are exempted from VAT, which implies that rental institutions are unable to claim back VAT inputs costs incurred during the development of such housing."

The subsidy system had the greatest impact on the low income sector. This is evidenced by the 1.6 million houses built to-date. However, this system is too costly. To-date over R29 billion has been spent on the subsidy scheme. This excludes the cost of services like water, roads, sanitation and electricity provision which are managed and monitored by other national departments. Indications are that the rate of increase of housing backlog is higher than housing provision. There are other challenges with the subsidy system. There is always under-expenditure of allocated amounts by provincial departments due to lack of capacity. The subsidy values always decrease with time due to inflation, and as a result contractors' and developers' profit margins become smaller. This leads to shoddy workmanship by unscrupulous builders who opt for inferior cheap materials. Sisulu (2004: 5) cites that these government subsidy houses, also known as RDP houses, can be bought for R5 000 despite the fact that the government spends more than R25 000 per house as subsidy. Most beneficiaries cannot easily raise the R2 479 contribution required. Knight (2001: 3) adds "that the two most important goals of GEAR, the South African government's macroeconomic policy, are to reduce inflation and government expenditure to below 4 percent of the gross domestic product. This in effect limits the amount which the government can spend on social needs including housing."

Gardner (2003:12) cites that there is a credit gap for products in the range R26 000 to R120 000 that imposes serious constraints on housing delivery. Gardner (2003:35) further states that the only efficiently functioning housing submarket in South Africa is for households with incomes that are above R8 000 per month. The low income earners face a number of challenges, especially those households earning between R1 500 to R7 500 per month (Merten, 2005: 2). Households earning more than R3 500 are not eligible for government housing subsidies and mortgage finance is not readily available for this submarket. This submarket is perceived as high risk by banks. Households earning between R1 500 and R3 500 are eligible for government housing subsidies, but they have to contribute R2 479. Savings linked credit or pension fund guaranteed credit's downside is that in the event of loss of income, the house and the savings or pension fund are also lost. It is imperative to consider alternative housing finance for low income earners.

4.4.4. Lessons learnt from the failure of Gateway.

Gateway was the South African government securitisation initiative to address housing finance challenge in the low income sector. The failure of this initiative highlighted a need for a concerted effort by all key role players that includes the government, the banking sector, the building and construction sectors and the communities themselves.

The banking sector, as the biggest loan originator, is not too keen to lend to low income earners for fear of defaults and losses. This leads to the non-existence of the primary mortgage market in the low income housing sector. A secondary market cannot exist without a primary market. The government should play a part in restoring law and order in affected areas where due process of law is not respected. As mentioned earlier, confidence can be restored by financial institutions if the properties of defaulters can be repossessed and successful evictions carried out.

It was learnt from Gateway that a lack of proper systems and procedures contributes to failures of organisations. Gateway's originating software did not materialise and its brokers did not have proper systems in place.

4.4.5. Successes in other South African securitisation markets and the USA RMBS market

The success story of securitisation in certain South African markets shows that lessons can be learnt and applied to the low income housing sector. As long as there is a vibrant primary market and keen investors, securitisation can be a success. However, with the challenges in the South African low income sector certain measures will have to be put in place to allay the fears of perceived risks. Securitisation is no longer new in South Africa. The accounting, legislative and regulatory frameworks are conducive to innovative securitisation transactions.

Lessons may be learnt from the success of the USA RMBS. The involvement of the USA government played a key role in making it a success. This was through the government agencies, legislation, tax incentives, guarantees and the provision of resources. The agencies Fannie Mae, Ginnie Mae and Freddie Mac were successful because of the USA government support, the agencies' policies, systems and procedures, the acceptance of ratings in the USA financial sector and the investors' perceptions of these agencies.

4.4.6. The sophisticated and sound financial system in South Africa

Section 4.2 highlighted that the South African finance system is highly sophisticated and developed to the extent that it is better than some first world countries. The South African Reserve Bank (SARB) has to date played its role successfully of establishing financial stability. The SARB has been able to control inflation within its mandated target.

The South African investment market is well regulated. This creates an environment that is conducive for keen investors. The SARB regulates and supervises banks and micro lenders. The Financial Services Board (FSB) supervises various institutions such as the short and long-term insurers, retirement funds and investment institutions. These are the main domestic investors in financial instruments in South Africa. The South African legislative framework for institutional investors consists of the Pension Funds Act (1956), the Companies Act (1988), the Long-term Insurance Act (1998), the Short-term Insurance Act (1998) and the Collective Investment Schemes Control (CISC) Act (2002). The CISC Act (2002) replaced the Unit Trust Act (1981). The CISC Act (2002) has a positive impact on securitisation as investors set up in terms of this piece of legislation are only allowed to invest funds in securities that are listed on a recognised exchange.

The Pension Funds Act's regulation 28 (1956) stipulates the maximum exposure (prudential investment guidelines or PIGs shown in Table 4.6 below) that a fund can have to each type of investment asset class.

TABLE 4.6: PRUDENTIAL INVESTMENT GUIDELINES	
Asset class	**Percentage maximum exposure**
Krugerrands	10
Foreign assets	15
Deposit with a single bank	20
Single issuer of bonds (except South African government)	20
Shares	75
Shares and property	90
Bonds	100
Cash	100
Adapted from Pension Funds Act's Regulation 28 (1956)	

Table 4.6 indicates that a fund can have a 100% maximum exposure to bonds or cash. However, Van Zyl (2003: 270) cites that "South African institutions are underweight in bonds. This refers specifically to the institutional investors, namely unit trusts, pension and provident funds, and long and short-term insurance companies. Only 14 per cent of the assets of these companies consisted of domestic bonds in 1999, while 51 per cent was allocated to domestic equities". Mortgage-backed securities will present alternative investments to the conventional ones since ABSs may be regarded as "bonds created in a securitisation transaction" (Hamilton, 2003: 1).

This section aimed at making a case for the application of securitisation to low cost housing in South Africa. The next section presents a proposal of how this can be done.

4.5. CONCEPT OF AN EFFECTIVE SECURITISATION STRUCTURE TO LOW INCOME HOUSING IN SOUTH AFRICA

4.5.1. Introduction

Lack of end user finance has been cited as one of the reasons for the housing backlog in South Africa. Despite the measures taken by the government, which include establishing housing institutions, passing legislation and providing housing subsidies, the housing backlog is increasing at a faster rate than housing provision. The reluctance of banks to lend to low income earners is one of the biggest challenges in eradicating housing backlog. Banks have suffered heavy losses as a result of lending to low income housing sector due to defaults. The proposal of an effective securitisation structure will try to address the challenges in the primary mortgage market. The proposal is based on the USA securitisation model which used the participation of government agencies Fannie Mae, Ginnie Mae and Freddie Mac.

The proposal is based on six recommendations. The first, second and third recommendations aim at addressing the challenges in the primary mortgage market for low income earners. The fourth and fifth recommendations aim at establishing an effective and efficient special purpose vehicle. The last recommendation is on the issue of mortgage-backed securities (MBSs).

4.5.2. Recommendation 1: Closing the credit gap in the primary mortgage market for low income earners.

It is proposed that the National Housing Finance Corporation (NHFC) should advance housing loans directly to low income earners.

This is recommended for the following reasons:

- the banking sector is currently not keen to lend to low income earners;
- the NHFC has experience with Gateway and a number of housing institutions it provides with wholesale housing finance.

4.5.3. Recommendation 2: The criteria on mortgages advanced to low income earners.

It is recommended that the mortgages advanced to low income earners by NHFC should comply with the following criteria:

- borrowers must submit inspection certificates provided by NHBRC;
- borrowers' income must not exceed R8 000;
- the value of the loan should not exceed R120 000;
- there must be an interest rate cap on the mortgage loan;
- repayment will be by payroll deduction;
- a percentage, minimum of 20%, would have to be guaranteed by the employer or a purchase of a guarantee for up to half the amount from the Home Loan Guarantee Company (HLGC);
- the home owners must occupy the property.

This recommendation is made for the following reasons:

- inspection certificates will ensure that houses are built to required quality and specifications;
- the limits to the borrower's income and to the value of the loan aim at covering the credit gap in the South African housing finance system;
- the interest rate cap is proposed to make the loans affordable even if interest rates go up drastically;

- repayment by payment deduction, the guarantees and occupation by home owner are proposed to minimise the risk of default.

This recommendation aims at standardising mortgages to low income earners. These criteria will form the basis for mortgages that will be pooled together for the securitisation process.

4.5.4. Recommendation 3: The banking sector's participation in the primary mortgage market for low income earners.

It is recommended that the agreement between the government and the banking sector on 31 March 2005 where banks pledged to lend R42 billion to low income earners by 2008 be amended so that the lending criteria includes recommendation 2 above.

This is recommended for the following reasons:

- to address the concerns of the banking sector. Merten (2005: 1) reported that the banking sector is appearing to backtrack on its R42 billion rand commitment by proposing the following conditions:
    i. a levy of 0.1 to 0.2 percent on the first R150 000 of all mortgages to establish a loss limit fund that will reimburse banks in case of defaults;
    ii. government to provide guarantees to low cost mortgage bonds;
    iii. government to re-establish the Mortgage Indemnity Fund (MIF);
- this recommendation aims at creating uniformity in low income mortgages that can be pooled together for the securitisation process;
- the banking sector has branches and systems in place countrywide;
- the prospects of pooling and selling low income mortgages to the SPV will likely motivate the banking sector to originate loans as these assets will be removed from their balance sheets.

4.5.5. Recommendation 4: The establishment of a special purpose vehicle (SPV).

It is recommended that a special purpose vehicle (SPV) of the Fannie Mae model be established and that the President of South Africa should appoint the majority of the SPV's board members.

This is recommended for the following reasons:

- the USA RMBS discussed in the previous chapter presented two options of how the agencies operate. Fannie Mae and Freddie Mac issue mortgage-backed securities (MBSs) while Ginnie Mae does not issue MBSs, but only guarantees MBSs issued by approved issuers. The Fannie Mae model is recommended. The Ginnie Mae model is not recommended because the way Ginnie Mae operates presents a few challenges if adopted in the South African market. The Ginnie Mae process of approving issuers, discussed in section 3.3.2, is quite complicated and better suits a more mature securitisation market;
- the SPV will buy mortgage pools that conform to criteria set by recommendation 2. This will provide liquidity to the low income mortgage market;
- the appointment of the board members by the President of the South Africa will highlight government support.

4.5.6. Recommendation 5: The funding of the SPV

It is recommended that the National Treasury provides a loan to the SPV for the first three years on a revolving credit basis.

This is recommended for the following reasons:

- this will provide liquidity to the SPV which will do the same to the low income mortgage market;
- it will also highlight government support to the securitisation initiative.

4.5.7. Recommendation 6: The issuing of mortgage-backed securities (MBSs) by the SPV.

It is recommended that that the MBSs issued by the SPV should satisfy the conditions set out in the South African regulations that apply to securitisation schemes. Securitisation Notice (2004: 56) provides that:

- the minimum denomination should not be less than R1 million;
- the commercial paper should be listed on a licensed financial exchange;
- the instruments must be endorsed by a bank;
- the instruments must be issued for longer than five years;
- the instruments must be backed by an explicit national government guarantee.

This is recommended for the following reasons:

- it aims at bringing to the market alternative instruments to conventional ones like bonds and shares;
- it aims at boosting the securitisation market in South Africa comparable to the USA.

4.6. CONCLUSION

An overview of housing finance in South Africa was discussed. The secondary mortgage market and RMBS for low income housing finance are non existent because there is no primary mortgage market. The existing RMBS market for housing finance is for medium and high income earners, earning above R8 000 per month, where risk is perceived by banks to be relatively low.

The South African government housing policy was discussed. The government established a number of housing institutions, entered into agreements with the banking sector, passed legislation and provided in excess of R29 billion subsidies to date to housing beneficiaries. Despite these measures, housing backlogs and particularly low income housing finance remains a challenge.

Motivations for applying securitisation to low income housing in South Africa were advanced. These include the unresolved issue of housing backlogs, inadequate housing finance for low income earners, lessons learnt from the failure of Gateway, success factors of other securitisation markets in South Africa as well as the USA RMBS market and the sophisticated and sound financial system in South Africa. The chapter ends with a proposal of how to effectively apply securitisation to low income housing in South Africa. It is hoped that the proposal will assist the authorities in resolving this socio-economic issue.

CHAPTER FIVE

CONCLUSION

5.1. SUMMARY OF CONCLUSIONS

This thesis is on securitisation and its application to low cost housing finance in South Africa. The thesis aimed at providing a general overview of mortgage securitisation, identifying the success factors of USA agencies Fannie Mae, Ginnie Mae and Freddie Mac, the failure factors of Gateway of South Africa, and investigating whether securitisation can be used to finance low cost housing in South Africa

Chapter two provided a general theoretical overview of securitisation. A brief introduction to the financial system was provided to give context to this financial innovation. The financial system is about the deficit economic units borrowing from surplus economic units. This can be directly or via financial intermediaries. Securitisation vehicles are not ongoing lenders and borrowers, and may be regarded as quasi-financial intermediaries as they intermediate on a once-off basis. A securitisation vehicle may hold a portfolio of mortgages which is financed by the issue of mortgage backed securities.

Securitisation simply means the conversion of existing or future cash inflows of any originator into tradable securities that may be sold on the capital market. Different types of securitisations have evolved from the traditional type. These include synthetic and whole business securitisations. There are several securitisation structures, but the most common is the term structure. The key aspect of the term structure is that the originator sells its assets to the bankrupt remote special purpose vehicle (SPV) which funds this by issuing asset-backed securities to the capital market. The other important aspects of the term structure discussed are the servicer, rating agencies, credit and liquidity support. The accounting and tax treatment desired by the issuer plays an important part in how the securitisation transaction is structured. The South African regulations on securitisation provide guidelines on each of the aspects of a securitisation structure.

Securitisation transactions benefit borrowers, originators and investors. Securitisation can benefit borrowers by providing a lower-priced source of finance. Securitisation benefits originators by providing future cash flows upfront, enabling them to meet the demand for new loans. It offers investors alternative investment instruments to conventional ones like bonds and shares. One of the concerns with securitisation is that originators may lose their incentive to maintain credit discipline since they sell the assets they generate. The concerns with securitisation highlight the need for a well regulated securitisation market.

Chapter three provided a theoretical overview of residential mortgage-backed securitisation (RMBS). In RMBS, mortgage originators pool together mortgages and sell them to bankrupt remote SPVs. The SPVs fund the purchase of these mortgages by issuing mortgage-backed securities (MBSs).

The RMBS market originated in the USA in the 1960s after a culmination of housing finance reforms that started after the great depression of the 1920s. Its success is attributed to the active support of government and the participation of agencies Fannie Mae, Ginnie Mae and Freddie Mac. The support of government included the insurance of savings deposits and the government mortgage insurance. The insurance of savings deposits reduced the risks to financial losses, and the government mortgage insurance allowed investors to commit funds to housing. It may be argued that the participation of the agencies Fannie Mae, Ginnie Mae and Freddie Mac was the key to the successes of the USA secondary mortgage market and the RMBS market. The success factors of Fannie Mae, Ginnie Mae and Freddie Mac include the USA government's support, the agencies' policies, systems and procedures, the importance of ratings in the USA financial sector and the investors' perception of these agencies.

The South African RMBS market was discussed. There are a few major RMBS transactions that have been executed in South Africa. However, the successful ones were not focused on low income earners and were initiatives of the private sector. Gateway was a government initiative to try and address housing finance problems for low income earners. The initiative was not a success and its failure factors were highlighted. The main reason cited by many experts and academics was a lack of a primary market, as the banks regard this section as high risk. The other factors included lack of efficient and effective systems and that securitisation was in its early stages in South Africa. It can be argued that the South African government did not give as much support as initiatives by the USA government that led to the successes of Fannie Mae, Ginnie Mae and Freddie Mac.

The risks associated with RMBS as well as ways to mitigate them were discussed. It was highlighted that one of the risks is liquidity risk as there is no assurance that a secondary market of issued mortgage-backed securities (MBS) will develop and provide investors with liquidity of investment. The USA government played a pivotal role in establishing the secondary mortgage market through the participation of agencies Fannie Mae, Ginnie Mae and Freddie Mac.

Chapter four investigated whether securitisation can be used to finance low cost housing in South Africa. It was highlighted that in the South African housing finance market, mortgages can easily be accessed by the moderate and high income sector earning more than R8 000 per month. The very low income sector earning less than R3 500 have access to government housing subsidies. However, the low income sector earning below R8 000 per month cannot easily access housing finance. The banks are reluctant to lend to the low income earners because of the perceived risks associated with lending to this group.

Section 26 of the Constitution of South Africa (1996) provides that housing is a basic human right and that the government must take reasonable legislative and other measures within its available resources to achieve the progressive realisation of this right. Accordingly, the government has formulated and implemented a housing policy which has seen it delivering more than a million houses since 1994. The South African government housing policy was discussed in chapter four. The government established a number of housing institutions, entered into agreements with the banking sector, passed legislation and provided in excess of R29 billion subsidies to-date to housing beneficiaries. Despite these measures, housing backlogs and particularly low income housing finance remains a challenge.

Motivations for applying securitisation to low income housing in South Africa were advanced in chapter four. These included the unresolved issue of housing backlogs, inadequate housing finance for low income earners, lessons learnt from the failure of Gateway, success factors of other securitisation initiatives in South Africa as well as the USA RMBS market and the sophisticated and sound financial system in South Africa. The chapter ended with a proposal of how to effectively apply securitisation to low income housing in South Africa.

The proposal of an effective securitisation structure aims at addressing the challenges in the primary mortgage market. The proposal is based on the USA securitisation model which uses the participation of government agencies Fannie Mae, Ginnie Mae and Freddie Mac. The proposal is based on the following six recommendations:

i. closing the gap in the primary mortgage market for low income earners;
ii. advancing the criteria on mortgages to low income earners;
iii. the banking sector's participation in the primary mortgage market for low income earners;

iv. the establishment of a special purpose vehicle (SPV);
v. the funding of the SPV;
vi. the issuing of mortgage-backed securities (MBSs) by the SPV.

The first, second and third recommendations aim at addressing the challenges in the primary mortgage market for low income earners. The fourth and fifth recommendations aim at establishing an effective and efficient special purpose vehicle. The last recommendation aims at boosting the securitisation market in South Africa comparable to what happened in the USA. It is hoped that the proposal will assist the authorities in resolving this socio-economic issue.

5.2. RECOMMENDED FURTHER RESEARCH

One of the main reasons for the lack of end user finance in the low income sector is the perceived risk of defaults by borrowers. This perceived risk, if not addressed, puts the success of a securitisation initiative in the low income housing sector in jeopardy. It is proposed that further research be conducted on whether there is a case for mortgage insurance in the low income housing sector. The success of such an endeavour will provide confidence to investors to commit funds to low income housing.

It is further recommended that the option of the rental sector be investigated to resolve the housing backlog.

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