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Investigating the role securitisation could play in deepening the financial sector in Namibia

by

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Table of Contents

List of Acronyms

ABS	Asset Based Securities
AGRIBANK	Agricultural Bank of Namibia
BOE	Bank of England
BON	Bank of Namibia
BW	Bank Windhoek
CMA	Common Monetary Area
DBN	Development Bank of Namibia
FHLMC or Freddie Mac	Federal Home Loan Mortgage Corporation
FNB	First National Bank of Namibia
FNMA or Fannie Mae	Federal National Mortgage Association
GNMA or Ginnie Mae	Government National Mortgage Association
GDP	Gross Domestic Product
IMF	International Monetary Fund
JSE	Johannesburg Stock Exchange
MBS	Mortgage Based Securities
MRLGHD	Ministry of Regional and Local Government and Housing and Rural Development
NAMPOWER	Namibia Power Corporation
NHAG	Namibia Housing Action Group
NHE	National Housing Enterprise
NSX	Namibian Stock Exchange
N$	Namibia Dollar
R	South African Rand
RMBS	Residential Mortgage Backed Securities
SDFN	Shark Dwellers Federation of Namibia
SPV	Special Purpose Vehicle
SOE’s	State Owned Enterprises

UK	United Kingdom
USA	United States of America
US$	United States Dollar

Abstract

The objective of this study was to investigate whether securitisation could increase the number of investment instruments in the economy and thus contribute to the deepening of the financial sector. In addition, the study was intended to investigate whether securitisation could increase funding to municipalities and towns for infrastructure development; and also reduce the exposure risks of banking institutions to real estate risk. Securitisation is defined as the process by which an institution converts various assets on its balance sheet into marketable securities which can then be sold to investors and traded on the capital market. Securitisation can serve as an alternative source of liquidity for any financial institution, a means for diversifying risks and a tool for managing interest rate risks. Securitisation, however, might aggravate the problems of asymmetric information regarding the true quality of loans. Securitisation is complicated, time consuming and costly. Moreover, securitisation has contributed to high mortgage defaults in the United States of America (USA) which subsequently led to the global financial crisis. In South Africa stringent practices and regulation cushioned the industry from the risks posed by securitisation. The study found that securitisation was not developed in Namibia. Securitisation could introduce a new investment instrument in Namibia, and thus contribute to the deepening of the financial sector. Three of the four banking institutions surveyed in Namibia were keen to securitise; however two of them cautioned that it was not the best time to consider it presently, while the fourth banking institution was not eager to securitise. Asset management companies expressed interest to invest in securitised assets. Securitisation might however, not increase the funding to municipalities and towns for infrastructure in Namibia in the short run. The study therefore, advises potential initiators of securitisation and investors to draw lessons from the experience of South Africa before embarking on securitisation. There is a need however, to exercise caution when dealing with securitisation given the fact that it caused a financial crisis.

I. INTRODUCTION

Namibia has a well developed financial system in Africa. For instance, private sector credit as a percentage of GDP, which is a key measure of financial sector deepening, stood at 59 percent of GDP in 2007, compared with only 15 percent for Sub-Saharan Africa, excluding South Africa. Despite this fact, there are limited investment instruments in the financial market. The country's financial market instruments are limited to interest-bearing securities and equities. This can be attested by over-subscriptions whenever there is issuance of securities, particularly interest-bearing securities. The issuance of tradable securities by parastatals is also limited. It has been argued that due to limited investment instruments, there is a large outflow of capital, as evidenced by the consistent deficit on the capital and financial account of the balance of payments. This state of affairs has contributed to the low economic growth and high unemployment in the country. It is suggested that financial sector deepening and development could play an important role in retaining the necessary capital to fund domestic investments and to stimulate economic growth. This is underpinned by the fact that the financial sector development supports the process of economic growth through among others: mobilizing savings, risk diversification as well as reducing the costs associated with investments.

Mortgage loans are the main lending instruments of banking institutions in Namibia. For example, by December 2007, mortgage loans accounted for 52.6 percent of the total loans and advances of banking institutions. In nominal terms this amount stood at N$14.0 billion, while the total loans and advances of banking institutions stood at N$26.6 billion. Total mortgage loans outstanding for the whole financial sector were N$15.2 billion, representing 32 percent of GDP at the end of 2007, which is the highest in Africa[2]. The higher concentration of credit to mortgage; exposes banking institutions to real estate risks at a systemic level, IMF (2006). In addition, Namibia finds itself in a precarious situation where the demand for housing outstrips supply, especially the supply of low cost housing of which there is an acute shortage. This could be explained by a host of factors, such as inadequate supply of urban land, limited finance for low cost housing, and limited finance to municipalities to service land. The mismatch between the supply and demand, has therefore contributed to the increase in residential property prices.

Given the above background, the need for additional investment instruments which could deepen and widen the financial sector, increase funding to municipalities and diversify the risk exposure of banking institutions, becomes imperative. Accordingly, the IMF and the World Bank (2006) have proposed that securitisation could address the identified problems. Securitisation is defined as the process by which an institution converts various assets on its balance sheet into marketable securities which can then be sold to investors and traded on the capital market.

By making immobilized long term loans more liquid, securitisation could be a better way to spread the market, credit and liquidity risk to which banking institutions are exposed. Securitisation could increase the number of investment instruments and thus contribute to the development of the financial sector. Moreover, securitisation could enable local authorities to raise the funds necessary for urban infrastructure development and thus increase the provision of housing.

[2] For South Africa this indicator is at 18 percent. The provision of finance for housing is far less developed anywhere else in Sub-Saharan countries and is sometimes non-existent.

In Namibia, the main prerequisites for secondary market securitisation seem to be met, contrary to many countries where governments try to promote it. On the capital market, there is a strong investor base and significant yield curve for long term maturities, mainly on account of government bonds and a well functioning financial market. On the primary market, the volume of lending is large, relative to the size of the economy; the infrastructure is efficient and the delinquency rates are very low. There is therefore, a large reservoir of loans with good risk profiles which could back the issue of mortgage securities without requiring excessive costly structures to enhance credit. Against this background, the main objectives of the study are to:

- Ascertain whether securitisation could increase the number of investment instruments and thus contribute to the development of the financial sector,
- Increase funding to municipalities and towns; and
- Reduce the real estate risk exposure of banking institutions.

In order to address the above objectives, the study used a desk literature review to examine the benefits and problems associated with securisation. In addition, the study administered surveys to potential originators and investors of securitisation. The surveys were intended to assess demand and supply conditions for securitisation in Namibia. Institutions on which the survey was administered, included banking institutions, the National Housing Enterprise (NHE), the Namibian Stock Exchange (NSX), asset management firms, the Ministry of Regional and Local Government and Housing and Rural Development (MRLGHRD) and selected local authorities. The surveys of local stakeholders were complemented by surveys of the South African and Mauritian banking institutions. The latter was intended to establish how securitisation operated in those countries. In addition, the study, through a desk survey, sought to draw from the experiences of the USA and the UK with regard to the sub-prime market crisis which is attributed to securitisation.

The rest of the study is organised as follows: Section 2 documents financial instruments and mortgage and infrastructure financing in Namibia. Section 3 reviews the literature on securitisation, while section 4 contains the survey design and analysis. Section 5 draws on the experience of South Africa, Mauritius, the USA and the UK with regard to securitisation, while Section 6 provides conclusions and recommendations.

II. Overview of financial instruments, mortgage and infrastructure financing in Namibia

This section reviews the main financial instruments available in Namibia, as well as the mortgage and infrastructure funding mechanisms. The primary objectives of undertaking this review were to identify possible constraints which could be addressed by way of securitisation. The choice of the items to be reviewed was determined by the main objectives of the study.

A. Financial Instruments in Namibia

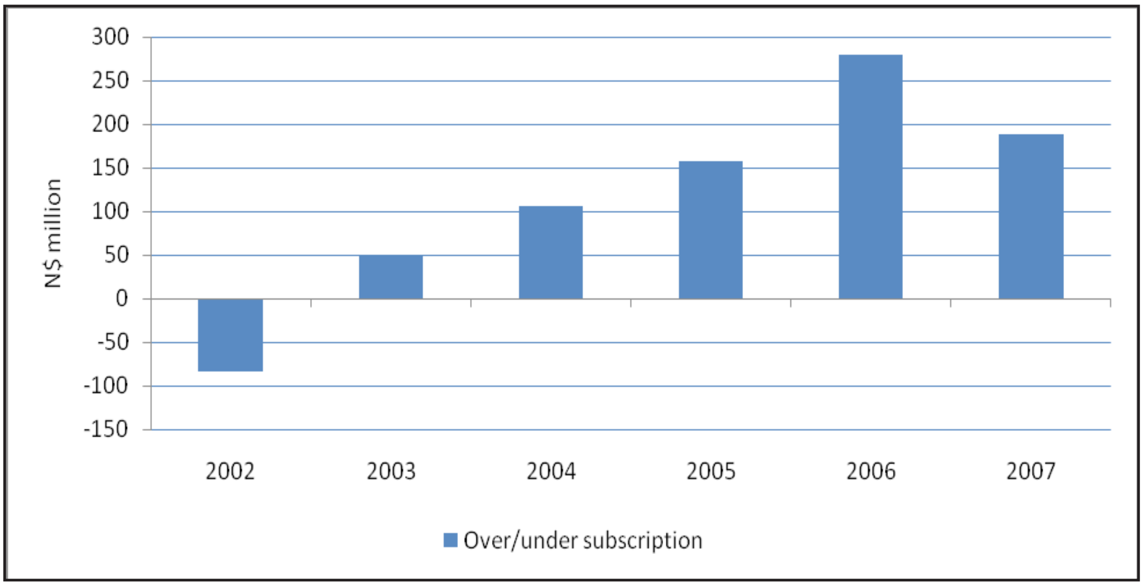
The Namibian financial market offers a range of financial instruments. Major instruments are the Internal Registered Stock (bonds) of the Government and the debentures issued by the State Owned Enterprises (SOEs). There are also issuances of interest-bearing securities by the private sector, particularly banking institutions. In addition to long term interest-bearing securities, there are also short term interest-bearing securities, in the form of treasury bills and equities traded on the Namibian Stock Exchange. The main features of some of these instruments are outlined in subsequent paragraphs.

Bonds

The total value of outstanding bonds in the Namibian market stood at N$7.9 billion by the end of 2007, an increase from N$3.0 billion in 2002. The Government dominates the bond market in Namibia. In 2007, N$5.8 billion bonds were Government bonds and only N$2.1 were private sector bonds. The equivalent amount of Government bonds in 2002 was N$2.7 billion, out of a total of N$3.0 billion. Initially, Government bonds had a limited maturity period of only six years. This was changed in 1998, when all bonds available by then, were consolidated into major bonds namely the GC02, GC05, GC10, maturing in 2002, 2005 and 2010, respectively. In the same vein, additional bonds were issued in 2002 and 2004, namely the GC07, GC15 and GC24. Most of these bonds had since then matured, leaving the market with only GC10, GC15 and GC24.

It can be safely said that these instruments were insufficient for the market. This can be supported by the resultant over-subscription recorded in most of bond issuances over the past few years. The over-subscription amounted to N$157.4 million in 2005 and increased to N$278.9 million in 2006, before subsiding to N$187.6 million in 2007 (Chart 1). It must be cautioned however that the over-subscription could also have been caused by the price of these instruments, in addition to supply and demand factors.

Chart 1: Over and under- subscription of Government bonds



The issuance of parastatal bonds took off, after the Government had undertaken to provide guarantees on papers issued by the State Owned Enterprises (SOEs). The Agricultural Bank of Namibia and the National Housing enterprise were the first state-owned entities to issue bonds in 1996, followed by Air Namibia in 1999 and the Road Fund Administration and Nampower in 2003 and 2007, respectively. Bonds issued by the Agricultural Bank of Namibia, the National Housing enterprise, and Air Namibia have since expired. This has left the market with state-owned enterprise bonds of the Road Fund Administration and Nampower which will mature in 2010 and 2020 respectively.

It can be argued that the bonds of the state-owned enterprises are inadequate, when considering the funding requirements of these entities. This can be supported by the fact that some parastatals have to be provided for in the national budget by the Ministry of Finance. For example, in 2007/08 national budget alone, about N$1.1 billion were set aside for parastatals. This practice of providing subsidies to profitable SOEs prevents these institutions from issuing tradable papers.

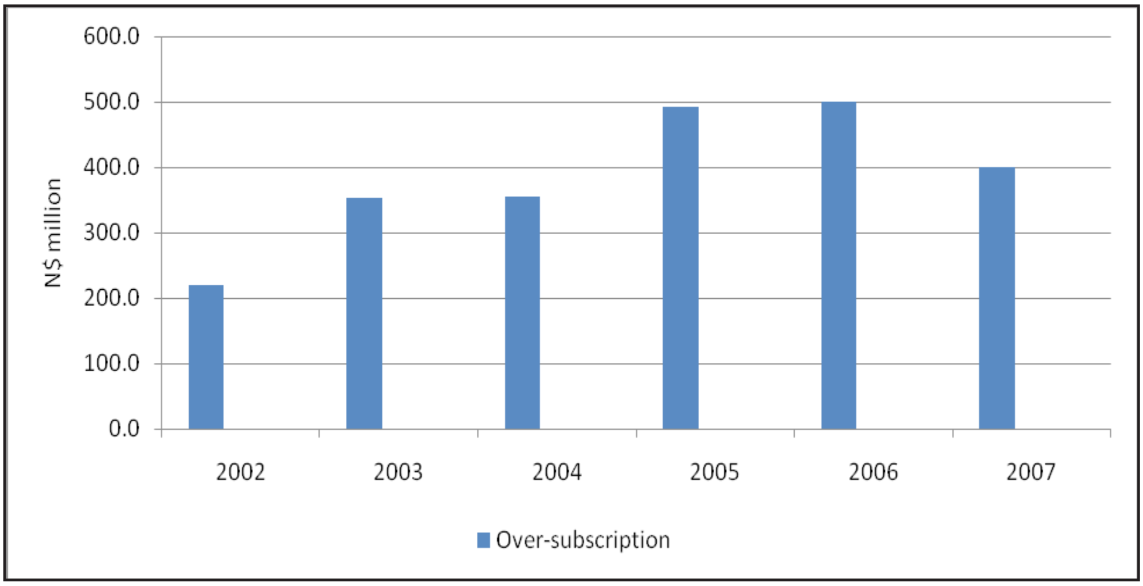
The private sector has also issued bonds. The first corporate body to issue a bond was the Standard Bank in 2000.This was followed by Bank Windhoek in 2004 and most recently by the First National Bank in 2007. Information on the subscription of corporate bonds is however, not available. Due to limited instruments, it can be assumed fairly, that they were equally oversubscribed. Most of these bonds seem to have a long maturity. Bank Windhoek's BW01 and BW10 will expire in 2014 and 2015, respectively; while the First National Bank's FNB17 will mature in 2017, and the Standard Bank's SBK11 and SBK16 will reach maturity in 2011 and 2016, respectively.

Treasury Bills

The Namibian Treasury bill market consists of 91-day, 182 day and 365 day treasury bills. The outstanding T-bills have decreased to N$3.0 billion in 2007, from N$3.6 billion in 2002. Similar to the bond market, the Treasury bill market is also characterized by over-subscription, which could be attributed to low supply and high demand situation.

For example, in 2002, T-bills issuance recorded an over-subscription of N$220.4 million, which increased to N$400.2 million in 2007(Chart 2). Similarly the over-subscription of the treasury bills could be ascribed to the fact that the supply has been low, most of the times. Treasury bills issued by government always attract a wide range of investors such as banking institutions, fund managers, insurance companies, stock brokers and public enterprises. This is due to the fact that these instruments are considered safe for investment. In addition, banking institutions demand these papers to meet their liquid asset requirements. The above factors have contributed significantly to the high demand for these instruments, resulting in over-subscriptions.

Chart 2: Over subscription of treasury bills



Equities market

Trading activity on the NSX has been on the increase since the inception of the bourse in 1992. The number of deals on the Namibian Stock Exchange has increased during the past five years. In 2002, the total number of deals recorded was 4584, but this has subsequently increased to 5234 by the end of 2007. Most trading on the NSX takes place in dual-listed shares. For instance, the overall turnover stood at N$804.7 million in 2007, from N$250 million in 2002, in contrast to the local turnover which stood at N$49.5 million in 2007, from N$1.5 million in 2002. This trend was also reflected in the size of the market. In 2007, market capitalization for dual listed shares amounted to N$1.2 trillion while market capitalization for local listed shares amounted to only N$4.8 billion.

Although, there had been an increase in the number of activities, the total size of the NSX is somehow misleading because of the presence of a large number of South African companies. Out of a total market capitalization of N$1.68 trillion at the end of 2007, only N$4.8 billion could be classified as truly Namibian equities. The remainders were dual-listed equities of South African companies with primary listing on the Johannesburg Securities Exchange (JSE).

B. Housing financing in Namibia

There are three types of institutions providing housing finance in Namibia, namely banking institutions, the National Housing Enterprise (NHE) and the grass root network organisations. Banking institutions consist of the First National Bank of Namibia, Standard Bank of Namibia, Nedbank and Bank Windhoek. Banking institutions typically lend to the affluent market, clients with monthly earnings of N$6,500 and above. The National Housing Enterprise is a state owned enterprise which was established in 1993 to provide low-cost housing and finance there of. The NHE lends to borrowers whose monthly income is above N$1,700 per month. The scheme is predominantly for Government employees who earn less than N$20,000 per month. The maximum loan amount is N$500,000.

The grass root network organisations, namely the Namibia Housing Action group (NHAG) and the Shack Dwellers Federation of Namibia (SDFN) are community-based savings organisations. They provide technical and financial support to the lowest income group which cannot be catered for by banking institutions and the NHE. These organisations lend to borrowers with monthly earning of less than N$1,000 on concessional terms.

The housing finance market in Namibia has been growing at a tremendous pace. It reached N$15.2 billion[3] at the end of 2007, from N$5 billion in 2000. On average, housing finance grew by 15.8 percent between 2000 and 2003. This was followed by a higher growth rate, averaging 19.5 percent between 2004 and 2007. Home loan financing accounted for 49.2 percent of the total credit to the private sector and about 32 percent of the Gross Domestic Product (GDP) during 2007. A significant proportion of the 92.2 percent of the total mortgage loans was financed by banking institutions. The remaining portions were financed by the Agribank[4] and the NHE. The problem associated with this type of funding structure, is that banking institutions are exposed to the real estate risks. The NHE provided home loans of N$385.9 million in 2003, increasing to N$432.5 million during the following year. This figure declined to N$421.4 in 2004 and fluctuated thereafter. (Table 1).

Table 1: Mortgage loans – outstanding at year ends 2000-2007 - Banking institutions and other depository institutions (N$ million)

	2002	2003	2004	2005	2006	2007
Total Mortgage loans	6804.06	7491.23	8862.79	10621.6	13344.3	15234.2
Banking Institutions	5817.2	6588.1	7882.2	9542.4	12363.4	14054.3
Agribank	601.0	470.6	559.2	640.5	548.7	739.8
NHE	385.9	432.5	421.4	438.7	432.2	440.1

Source: Bank of Namibia and NHE Annual reports

[3] Total mortgage loans excluding loans provided by grass root network organizations, but includes farm mortgage financed by Agribank.

[4] Agribank finance mainly farm mortgages.

The grass root network organisations are fast growing housing financing institutions in the country. In 2006, they provided N$10.3 million home loans compared to only N$4.2 in 2004. Similarly, their savings rose, mainly due to an increase in members. An increase in savings indicates excess capacity to finance more houses. The biggest challenge facing the grass root network organisations, is that they are heavily dependent on the savings of the members for funds. Thus their financing is limited. This therefore, limits their scope and subsequently the number of loans they can disburse.

C. Infrastructure Financing in Namibia

Infrastructure financing in the proclaimed urban and semi-urban areas, is the responsibility of local authorities. This is normally financed in two ways. Bigger municipalities such as the municipality of Windhoek, municipality of Walvis Bay and the municipality of Swakopmund always budget for their own land/infrastructure development. In 2007 for example, some N$66.5 million was put aside for land development by the City of Windhoek and a combined amount of N$44.9 million by the Walvis Bay and Swakopmund municipalities. For smaller municipalities, however, financing for land development is problematic, as most of these municipalities do not have sufficient resources and capacity to develop the land. Thus, smaller municipalities rely on the annual budgetary provisions of the Ministry of Regional and Local Government, Housing and Rural Development to supplement their local budgets (Table 2). In 2007/08 the Ministry budgeted N$72.9 million for infrastructure development of smaller municipalities.

Table 2: Amount budgeted/spent for infrastructure development from 2003-2007 (N$ million)

	2003	2004	2005	2006	2007
City of Windhoek	48.6	55.2	43.6	37.1	66.5
Walvis Bay Municipality	4.9	4.9	0.2	0.4	3.0
Swakopmund Municipality				45.0	41.9
NHE	4.4	5.2	4.6	4.5	46.0
MRLGHRD	65.5	60	75.9	71.3	72.9
Total	**123.4**	**125.3**	**124.3**	**158.3**	**230.3**

Field survey, 2008

In addition, a number of smaller municipalities also rely on loans provided by the National Housing Enterprise and the Development Bank of Namibia (DBN). Loans provided by the NHE to municipalities amounted to N$46.0 million during the financial year 2007. The loans are repaid on a quarterly basis in installments over a maximum period of 30 years.

D. Constraints in financial instruments, housing and infrastructure finance

The number of the instruments available in the Namibian financial market is limited. Effectively, the financial market instruments in the country, are limited to interest-bearing securities, equities and financial derivative instruments. This can be attested by over-subscription, whenever there is an issuance of securities, particularly interest-bearing securities.

As noted earlier, the limited issuance of instruments by the state-owned enterprises could be attributed to the fact that the Government makes funding provisions for these entities in the national budget. Moreover, the low Government budget deficit has reduced the issuance of treasury bills and bonds, thus worsening the supply conditions. Similarly, private sector issuance is so far, also insufficient, as only three banking institutions namely Standard Bank Namibia, Bank Windhoek and First National Bank (FNB), have issued bonds. Likewise, equity trading is also swamped with constraints, such as the infrequent listing on the NSX. Apart from this, the NSX is also dominated by dual-listed companies.

The limitations on the housing and infrastructure financing are many folded. The bulk of financing for housing in Namibia is provided for by banking institutions. Consequently, about 52.6 percent of the loans and advances of banking institutions are home loans. This scenario tends to expose banking institutions to real estate risks, (credit, and liquidity and market risks). Moreover, other lending institutions such as the NHE and municipalities are constrained by lack of financing to build low cost houses. Subsequently, the number of low cost houses has declined, thereby contributing to the scenario where the supply of houses is lower than the demand.

The main reasons for the backlog in housing deliveries are the insufficiency of land and the difficulties in acquiring the serviced infrastructures. With the exception of the City of Windhoek, Swakopmund and Walvis Bay, most municipalities do not have the funds to finance infrastructures. They rely on the annual budget of the Ministry of Regional and Local Government, Housing and Rural Development for their funding, which is always limited.

Given these constraints, it is argued that securitisation could increase the number of investment instruments in the market and thus contribute to the development of the financial sector. Securitisation could create a secondary trading in mortgage financing and thus open the market to other investors apart from the banking institutions. This might diversify the risks of banking institutions to this segment of the financial market. The NHE and smaller municipalities could securitise their mortgage loan books and income streams respectively. This could increase their financing and ultimately lead to the building of more low cost houses.

III. Literature review

A. What is securitisation?

Securitisation is defined as the practice of structuring and selling negotiable investments, in order to spread the risk which is normally faced by a single lender or syndicate of a broad group of investors (Donaldson in Saayman, 2004: 6). Thus securitisation is the process where individual loans, receivables or debt instruments are packaged in the form of securities, thus enhancing their credit status or rating and finally distributed to investors (Cox, 1990, Kendell, 1996 and Saayman 2004). Gardener and Revell (1988) define securitisation as a process which entails converting assets into marketable securities, and therefore, transferring the rights of the securities concerned to investors. With securitisation the transfer of rights to an asset can take form of either a traditional or synthetic securitisation.

In a traditional securitisation scheme, there is a legal and economic transfer of assets to a special purpose vehicle, the (SPV[5]) .The SPV issues asset-backed securities which are claims against a specific asset pool. Different classes of asset-based securities may be issued; with each class having a different priority claim on the cash flows originating from the underlying pool of assets. Under this scheme, a true sale takes place and all rights and obligations are transferred to the SPV. Ultimately, assets are transferred from the balance sheet of a banking institution. A synthetic securitisation scheme refers to a structured transaction whereby an institution uses a portfolio of credit derivative[6] instruments to tranche and transfer the credit risk or market risk[7] associated with a specified pool of assets to the SPV. The resulting credit exposures have different levels of seniority. Under a synthetic securitisation scheme, the underlying assets are not necessarily moved off the balance sheet of the originator.

More than one asset can be securitised. In international markets there is a clear distinction between “mortgage-based” securities (MBS), where the underlying assets consist of residential mortgages, and “asset-backed” securities (ABS) where the security is backed by any other asset except residential mortgages (Thomson, 1955). Such assets include credit card receivables, auto loans and corporate loans or any other assets which are homogeneous and have a reliable loss and prepayment data (Albert, 1991).

B. The securitisation process

i. Securitisation typically consists of six steps as illustrated by Andreas Saayman (2004). The lender also called the originator (usually a financial institution), makes a loan to a borrower also referred to as the obligator.

ii. The loan is warehoused until the originator has a sufficient volume of loans to securitise.

[5] A special purpose vehicle in this context is defined as a company incorporated or a trust created, insolvency-remote from the institution transferring the assets in terms of a securitisation scheme, and solely for the purpose of the implementation and operation of a securitisation scheme.

[6] A credit derivative instrument is any contract in terms of which the credit risk (default risk) associated with a financial asset is isolated from the other risks associated with the particular financial asset concerned, and which creditrisk is transferred from one counterparty (the protection buyer or credit risk seller) to another counterparty (the protection seller or buyer of the credit risk).

[7] Credit risk is the risk the counterparty to a financial obligation, such as a loan, will default on in repayment and is linked to the obligation. Market risk is the risk which the market price of an asset may change, and which may result in a loss to the reporting bank on the realization of that asset.

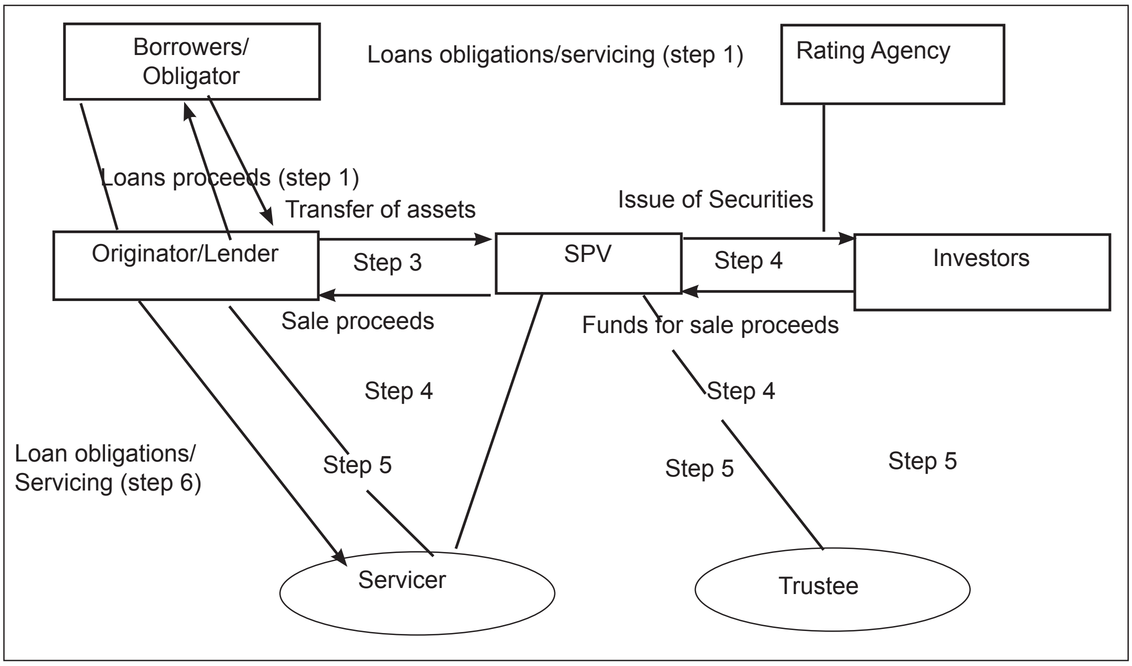
iii. The originator sells the loans to a special purpose vehicles (SPV) – a legal entity created by the originator, which may take on the form of a trust, a group of underwriters or a receivables investment company.

iv. The SPV pays for the loans by selling certificates, representing ownership of the loans to investors. At this stage a credit rating agency rates the securities issued by the SPV.

v. A servicer is appointed to provide the administration for the duration of the issue. The duties of the servicer include among others, the servicing of the loans in the trust and servicing of problem loans. In many cases the role of the servicer is performed by the originator. A trustee can also be appointed to ensure that investors are paid in accordance with the terms of the securities and to monitor the performance of the servicer.

vi. The borrower is instructed to make payment to the servicer and direct all inquiries to the servicer. These steps are further illustrated by the diagram below, as adapted from Andreas Saayman.

Figure 1: The securitisation process



Adapted from Andreas Saayman

C. The benefits of securitisation

here are a number of market benefits to securitisation. Securitisation offers an alternative, reliable source of liquidity for the bank (Albert, 1991 and Orchart 1990). Greenbaum and Thakor (1987) indicated that by selling loans rather than funding them through deposits, banks could provide a useful signal of the quality of the loan. Securitisation allows investors to purchase the securities of an issuer, based primarily on the credit quality of the underlying assets, when these investors would not purchase conventional debt obligations from the originator (Elmgren, 1995). This is because securitised assets might obtain a higher rating than the originating institution. Hess and Smith (1988) argue that asset securitisation is a means to diversify risks. When assets are assembled together in portfolios, their yields are easier to evaluate because diversification eliminates information asymmetries.

Securitisation reduces funding risks by diversifying the sources of funds for the banking institutions. Donahoo and Shaffer (1991) and Pennacchi (1988) suggest that banks may securitise assets in order to lower reserves and capital requirements and thus reduce the costs of financing. With the sale of assets, these assets are taken off the balance sheet of the bank, which impacts on the capital requirements of the bank, its costs as well as the financial ratios. Securitisation provides the bank with cheaper source of funds, or funding at more favourable terms, thus improving the profitability of the bank (Albert, 1991, Tensfeldt et al., 1993 and Thompson, 1995). Non-interest income is increased as securitisation creates a new source of fee-income for banks. Through this process, a bank can expand its loan volume faster than the growth of its deposits without becoming capital constrained.

Securitisation can serve as a tool for managing interest rate risks. Securitisation reduces the balance sheet mismatches between the assets and liabilities (Fisher et al., 1991). Investors broaden their investment choices into higher – grade, asset –backed securities; whose yields are normally higher than treasury instruments. Borrowers on the other hand, reap the benefit of lower interest rates and more readily available credit (Tensfeldt et al., 1993). Ayotte and Goan (2005) have developed a theoretical model which incorporates the differential control and cash flow rights which various lenders receive on bankruptcy. They argue that asset securitisation maximizes ex-post protection of creditors in times of bankruptcy.

D. Problems of securitisation

Other researchers argue that there are several problems associated with asset securitisation. Securitisation might aggravate the problems of asymmetric information regarding the quality of loans. Passmore and Sparks (1996) stress that securitisation might cause adverse selection, which gives originators an information advantage over the mortgage securitiser. Pennachi (1988) emphasized that securitisation might lead to moral hazards, because the bank had less incentive to service loans after they are sold. Stiglitz (2007), cited that securitisation reduces the incentives of banks to screen and monitor borrowers.

By selling loans to investors and removing them from their balance sheets, banks no longer take the risks or delinquencies which might arise from the loan. Tensfeldt et al., (1993) and Bhattacharya and Dandapani, (1991) cited that securitisation is a complicated, time-consuming process which required substantial preparation in computer programming and accounting areas. Moreover, securitisation involves costs such as underwriting fees, fees to external auditors, credit rating agencies, trustees, transfer fees and stamp duties. The process of packaging loans into “tranches” reduces the transparency of the quality of individual loans to the investors, thus creating asymmetries in information. Moreover, there is a possibility that banks might securitise only low risk debts, thus leaving other debtors with inferior asset bases.

Securitisation of bank loans could reduce the monetary and credit aggregates. This might occur particularly in the traditional securitisation, in which assets are transferred from the balance sheet of the originating bank to a SPV. These assets are loans, which could be included in the measured level of credit extended to the private sector by the monetary sector; while still on the balance sheet of the bank. Despite that SPVs are created by banks, they are classified as other financial intermediaries in the monetary and financial statistics, which make them part of other private-sector financial institutions and not part of the monetary sector. Similarly, SPV liabilities are not liabilities of the monetary sector and therefore cannot form part of the monetary aggregates. What happens is that the SPV issues securities which are purchased by institutional investors. Institutional investors buy the securities by drawing on their deposits with banks. Ultimately the level of credit extension of the monetary sector and money supply declines.

E. Empirical evidence

Empirical evidence indicates that securitisation is used in both developed markets as well as in developing countries. There are a number of studies which have attempted to show that securitisation could be used for the development of secondary markets, improved liquidity and as a risk mitigation tool. Heuson et al (2000) argued that mortgage securitisation could be used to reduce the volume of poor quality mortgages. This was further echoed by Hess and Smith (1988) who demonstrated that asset securitisation was a means of reducing risk through diversification.

Keys et al (2008) empirically investigated whether securitisation had adverse effects on the ex-ante screening activity of banks in the United States subprime lending market. Their study used a sample of more than two million home purchase loans for the period 2001-2006. They found that about 80% increase in the volume of securitised assets was associated with an approximate 20% increase in defaults. Thus, their results suggested that securitisation adversely affected the screening incentives of lenders.

Mian and Sufi (2008), demonstrated the effects of disintermediation (the process by which originators sold mortgages in the secondary market after origination) in the USA. They found that disintermediation was the driving force behind the increased supply of credit to the mortgage sector, thus resulting in a huge appreciation in the price of houses. In addition, it led to an increase in credit in the previously high latent demand areas, and ultimately contributed to the mortgage default crisis.

Summary

Securitisation has its own merits and demerits. On the positive note, securitisation can serve as an alternative source of liquidity for a bank, a means for diversifying risks, a tool for managing interest rate risks. On the negative side, securitisation might aggravate the problems of asymmetric information regarding the true quality of loans. Securitisation is complicated, time consuming and expensive. It could also reduce monetary and credit aggregates. Moreover, securitisation has contributed to high defaults on mortgages in the USA.

IV. Potential domestic demand and supply for securitisation in Namibia

To determine whether securitisation could play a role in Namibia, the study administered surveys to potential originators and investors of securitisation locally. The surveys were intended to assess the demand and supply conditions for securitisation in Namibia.

Design of the field survey

The survey was administered to institutions such as banking institutions, the Namibian Stock Exchange (NSX), the National Housing Enterprise (NHE), the Municipalities of Windhoek, Walvis Bay and Swakopmund and the Ministry of Regional and Local Government and Housing and Rural Development on the supply side. In addition, selected asset managers such as, Investec Namibia, Allan Grey and Sanlam Investment Management were interviewed on the demand side. The Ministry was selected to solicit the opinion of the small local authorities, given that the researchers faced financial constraints which prevented them from travelling to the respective local authorities' country wide. The survey was conducted during the month of March 2008.

The choice of the banking institutions and the NHE was informed by their likelihood of becoming market players, especially on the supply side, while the NSX was chosen on the ground of being a potential facilitator. For the municipalities of Windhoek, Swakopmund and WalvisBay, the selection was underpinned by their size as well as the fact that they generate more income from the sale of serviced land which could be securitised. Asset management companies, on the other hand, were considered on the basis of being the potential institutional investors of the securitised instruments. More particularly, the survey targeted treasurers and finance managers of the various institutions. The analysis of the field survey are summarised below.

A. Namibian banking institutions

Level of exposure to mortgage loans

Three of the four banking institutions felt that they were fairly exposed to mortgage loans, while one banking institution considered itself under- exposed. They argued that this was a direct result of prudent lending practices, where the total monthly deductions for a mortgage loan had to be less than 30 percent of the clients' income. Furthermore, the Namibian banking institutions stated a strong belief in the principle of responsible lending and they therefore tended to be conservative when it came to loan terms and conditions. The tight lending practices could be attested by the lower rate of delinquencies on mortgage loans which had been recorded since 2003 (table 3).

Table 3: Rate of delinquencies on mortgage loans 2003 to 2007 (N$ millions)

Years	2003	2004	2005	2006	2007
Total Mortgage loans	5,952,667	7,882,167	9,542,388	12,363,452	14,054,263
Loan Amount Classified	160,208	227,755	194,042	259,574	371,694
Loss/Bad	36,283	37,820	50,902	149,299	216,243
Doubtful	52,069	63,523	28,018	37,489	69,574
Substandard	71,856	126,412	115,122	72,786	85,877
Amount Classified (% total Mortgage)	2.69	2.89	2.03	2.10	2.64
Loss/Bad (% total Mortgage)	0.61	0.48	0.53	1.21	1.54

Bank of Namibia

The principle of responsible lending was also applied to vehicle financing. Two out of four banking institutions pointed out that they were fairly exposed to auto loans, whilst two were of the opinion that they were under- exposed in this category.

Terms and conditions

Different banking institutions interviewed imposed a number of conditions on clients when they borrowed money for housing. The normal repayment term for mortgage loans was 20 years for all banking institutions. In some cases however, repayment terms could be extended for up to 30 years, but these were exceptional cases which applied only to young borrowers. All banking institutions interviewed offered variable interest rates; whilst two of the banking institutions occasionally offered fixed interest rates on home loans. When offered, fixed interest rates were normally for a limited period, ranging between 18 months to 3 years only. Such rates were usually given at the beginning of an upward interest rate cycle. The fixed rates were normally above the prevailing market rates. The advantage of fixed rates is that it allowed better budgeting and financial planning.

Willingness to participate in securitisation

Three banking institutions indicated willingness to securitise some of their assets and at the same time partake as investors. The fourth banking institution pointed out that it was not ready for securitisation; citing the surplus liquidity in the market and the subprime crisis. The latter was also expressed by two of the three banking institutions which indicated willingness to securitise. The motives for participation, however, differed from one banking institution to the next. Banking institutions indicated that they would consider securitising on the grounds of deepening and widening of the financial sector, liquidity management, risk diversification and to create a stable source of long term funding. In addition, they were of the opinion that the assets to be securitised would depend on factors such as the market appetite, risk management and the reputation of the banking institution. In terms of the asset class, three banking institutions indicated that they would consider securitising mortgage loan books.

Why had banking institutions not considered securitisation as a source of funding previously?

Banking institutions argued that the common monetary area (CMA) made it easier and cheaper for them to raise capital from the South African financial markets, compared to securitisation. Thus they would only consider securitising based on the facts indicated above, rather than on the basis of short term liquidity. This was due to the availability of excess liquidity in the market; which is attributed to regulation 28 and 15, which had impacted positively on liquidity in the domestic market. One banking institution indicated that it had considered securitisation before, but felt that there were no potential investors at that time. Other banking institutions cited that securitisation was costly, especially when compared with other sources of funding. Moreover, the banking institutions indicated that the securitisation process took a long time to develop from the initiation process to completion. This argument was also expressed by one of the commercial banks in Mauritius, which indicated that a securitisation transaction took between six months to one year to be completed.

Banking institutions had moreover; expressed concerns on the determination of the rates to be charged on securitised assets. One banking institution argued that it did some preliminary calculations to determine the potential yield of securitised assets. Based on those calculations, the yield of securitised assets could be lower than the prevailing interest rates. Their arguments were however, contrary to the views of South African based banks. In South Africa the securitisation rates were determined by a pricing model, which gave yields which were above the prevailing interest rates. The model was fed with inputs such as the nominal value of the securitised asset, duration, maturity repayment period, the probability of default and the probability of recovery. The model then produced the yield rate. Most importantly, it appeared that the yield rates were greatly influenced by the market which in turn, closely mimicked the yield of the underlying assets.

One banking institution expressed the sentiment that issuing of a tradable paper was costly in Namibia. This sentiment was however subjective, since it was found that issuing of marketable securities, bills of exchange or promissory notes other than cheques; was subjected to stamp duties which was equal to only 0.2 percent of the value of the instrument. For example, a stamp duty on a security worth N$1 million would cost only N$2,000. In addition, there could be a further charge of N$5,000 charged by the Namibian Stock Exchange should the security be listed. In addition, there were other costs such as conveyance fees, stock broking fees and consultancy fees which needed to be paid.

Conditions necessary for securitisation

Banking institutions stated that the country had sound economic conditions which necessitated securitisation, but cited liquidity surplus in the Namibian financial market as a possible hindrance. They indicated that the Namibian market was always in surplus despite the fact that temporary shortages occurred sometimes. On the legal and regulatory issues, some of the banking institutions felt that the Bank of Namibia, (BON) as supervisory authority should spearhead the securitisation process by introducing the necessary laws pertaining to securitisation. In this connection, it should be noted that the Bank of Namibia was in the process of drafting a Determination on Minimum Capital Charges for Credit Risk, which also included a regulatory aspect regarding securitisation transactions. Other banking institutions were of the opinion that as long as the country had laws pertaining to the sale of assets and an insolvency act, the legal and regulatory issues were taken care of.

B. Local Authorities (Windhoek, Walvis Bay and Swakopmund)

Major constraints with regard to infrastructure development

Two of the municipalities visited expressed the opinion that the major constraint hampering infrastructure development and subsequently housing, was the availability of land rather than the availability of finance. Thus, one municipality indicated that it might consider purchasing commercial farm land which could be converted into residential properties in the medium term. This option would only be considered in times of an acute shortage of residential land. The third municipality was, however, an exception, citing that neither the availability of finance for infrastructure development nor land was seen as a constraint. Accordingly, the constraint was the unwillingness of financial institutions to finance low cost borrowers in the particular municipal area. This could partially be attributed to the fact that the Local Authorities Act restricted banking institutions from lending into certain areas.

Sources of funding for infrastructure Development

All three local authorities surveyed, indicated that their principal source of finance for infrastructure development was the sale of erven, municipal properties, or loans from banking institutions. They indicated that their alternative sources of finance for infrastructure development were loans from international institutions such as the Development Bank of Southern Africa, the European Investment Bank and the Development Bank of Germany (KFW). In the case of the latter, the Government of Namibia had entered into a loan agreement with the international lending institution, and later disbursed the funds to the local authority concerned. Despite the fact that two of the three municipalities visited, had cited having sufficient funds for infrastructure development at present; the third municipality indicated that it might need more funds in the medium term to finance the purchase of farm land which would ultimately be converted into residential properties.

Willingness to participate in securitisation as a source of funding for infrastructure

All the local authorities visited could not explicitly express the need for securitisation. This was due to the fact that their primary constraint was the availability of land rather than finance per se. Moreover, they indicated that they were moving towards a practice of selling ervens on a cash basis, rather than on the traditional credit basis (a five year period) due to the high default rate of the latter. The practice of selling ervens on a cash sale basis did not augur well with the securitisation process which required the securitised assets to generate a steady income inflow over a period of time. In addition, the fact that the provision of electricity had moved away to rural electricity distribution (Reds), implied that the asset base of municipalities was reduced, making it difficult to consider securitisation.

These constraints were also compounded by a directive from the Ministry of Regional and Local Government and Housing and Rural Development, which prohibited municipalities from selling land to developers in large quantities. The directive was underpinned by the need to conserve land for the future, and also to grant a continued revenue inflow to municipalities in the long run. One municipality suggested that it might consider to outsource (factor out) the entire debt management of its erven sales book to a financial institution in an attempt to strengthen its revenue collection. Only one of the major municipalities suggested that it could in the future consider securitising its assets in the medium term. The other two municipalities cited that should there be a serious need for infrastructure funding; the best option would be to issue bonds or borrow from the Central Government.

Conditions (economic, institutional, legal and regulatory) necessary for mortgage securitisation to be developed in Namibia

All municipalities indicated that the policy which governs them would need to be amended first to allow for securitisation of assets.

C. Ministry of Regional and Local Government and Housing and Rural Development

Major constraints with regard to infrastructure development

The MRLGHRD had expressed the opinion that smaller local authorities were in dire need of funding for infrastructure development, despite their having abundant land.

Sources of funding for infrastructure development

The MRLGRD cited that it always financed smaller local authorities especially during their early stages of development. It was however, pointed out that such funding was not always adequate; and thus impeded the development of the infrastructure and subsequently the provision of housing. Other sources of infrastructure funding for smaller municipalities were rates and taxes. The constraints with regard to rates and taxes were the poor revenue collection records of smaller authorities due to poor billing systems. It was cited that among the smaller local authorities, only Ongwediva had recently put a good billing system in place.

The MRLGRD had earlier suggested the need to establish a government supported municipal guarantee fund for infrastructure. This fund would therefore provide guarantees to smaller local authorities for loans obtained from banking institutions or other lenders. This proposal was however, not well received by the Ministry of Finance. The Fiscus felt that local authorities owed the Central Government a great deal of money, and this would worsen such a scenario. The private sector was also seen as a potential provider of infrastructure funding for smaller local authorities.

Willingness to participate in securitisation as a source of funding for infrastructure

The MRLGRD felt that smaller municipalities could securitise their accounts of land sold as a way of financing infrastructure development. The MRLGRD suggested that it would do everything possible on its part, to facilitate the process of local authorities participating in securitisation.

Conditions (economic, institutional, legal and regulatory) necessary for securitisation to be developed in Namibia

The MRLGRD felt that for securitisation to work for local authorities, it would require that all decisions of local authorities be fully decentralised. In addition, securitisation could work better for local authorities with abundant land available for development; such as Kavango, Katima Mulilo, Opuwo and Khorixas. It was cited, however, that the mushrooming of local authorities could impact negatively on securitisation. With a high number of smaller municipalities created countrywide, resources to develop them would be very limited, thus impacting negatively on their abilities to collect revenue and their candidacy for securitisation.

D. National Housing Enterprise

The NHE also cited availability of finance as a serious constraint to the provision of low-cost housing. It was also mentioned that the development of municipal infrastructures was costly and thus demanded more financial resources. The NHE cited the Government as its major source of funding. Furthermore, the NHE expressed the opinion that it is over exposed to the housing sector. This was based on the fact that the provision of housing was its sole and only mandate. The NHE felt that securitisation would be ideal due to the serious liquidity considerations it was faced with, but this would need to be considered in conjunction with other options. Securitisation would however, need to have the blessing of the NHE board.

E. Asset Managers

All the four asset management companies visited, expressed an interest to participate in securitisation if it was introduced. Moreover, the creation of a new asset class meant an addition of assets in their portfolio. They cautioned however, that their participation would depend on the risk–return profile of the securitised instrument. Asset managers cited the lack of capacity with regulatory authority as a possible constraint to the smooth operation of securitisation. The asset managers further argued that securitisation needed a strong understanding on the part of the treasury department of the originating institution.

Asset managers also stated that they would prefer investing in assets which were backed by fixed assets i.e. those backed by mortgages as oppose to those backed by liquid assets. Three out of four asset managers interviewed, pointed out that they would not seek investment approval from elsewhere, while one indicated that it would only seek advice from its parent company in South Africa.

F. Namibian Stock Exchange

The NSX cautioned that given the experience with regard to the sub-prime market in the USA, banking institutions in Namibia might not be very keen to securitise. The NSX felt that the best institutions which could consider securitisation in Namibia were the retail outlets such as Ellerines or Edgars as had been the case in South Africa; as well as the NHE. The NSX suggested further that municipalities could sell more land and issue bonds as a source of finance, rather than securitising. The NSX felt that securitisation could generally improve secondary trading on the NSX, especially during the initial stages. If the supply of securitisation was not very strong however, it could end up with investors holding up on securitised assets. For securitisation to be effectively implemented, securitised assets would need to be rated by agencies, such as Moody or Ca Ratings. On the point of the required legal framework, the NSX indicated that securitisation required the supervisory agency to declare it as an investment instrument.

G. Summary

Opinions of the potential participants in the securitisation market appeared to be mixed. Three of the banking institutions interviewed, indicated a willingness to participate both as originators of the securitised instruments and as investors in the near future. The fourth banking institution was not keen to securitise. Two of the three banking institutions which were eager to securitise however, cautioned that timing at present did not warrant securitisation. This was due to the US subprime crisis which was attributed to securitisation. Major local authorities indicated that securitisation might not work for them, given that their constraint was land rather than finance. Thus they would consider issuing bonds or direct borrowing from Government, should they need financing for infrastructure.

Smaller municipalities might consider securitization; however, given their weak revenue collection mechanism it might be impractical for them to securitise. This was also due to the fact that the MRLGRD had issued a directive cautioning them not to sell their land in abundance to property developers. On the potential investor’s side, all interviewed asset managers expressed willingness to participate in the securitisation market when introduced. They however, cautioned that their participation would be guided by the normal investment analysis of the instruments. The Namibian Stock Exchange expressed the sentiment that banking institutions might not be keen to securitise as a result of the recent developments in the securitisation market in the world.

V. The experience of South Africa and Mauritius, the USA and the UK with regard to securitisation

Domestic surveys were complemented by South African and Mauritian banking institutions to establish how securitisation operated in those countries. In addition, through a desk research, the study drew from the experiences of the USA and the UK with regard to the sub-prime market which was attributed to securitisation.

A. South Africa

Securitisation was at an advanced stage in South Africa. Asset securitisation had grown from zero in 2000 to about R100 billion by the end of 2007. Although securitisation was dominated by banking institutions, non-banking institutions as well as general corporations participated in securitisation. The type of assets securitised were residential mortgage loans, auto loans, corporate loan books and credit card receivables. The motives for securitisation varied according to institutions. Two of the surveyed institutions indicated that their main motive was liquidity consideration, while one pointed out the need to diversify risk. It also emerged that all institutions considered capital management as the second motive for securitisation. The South African banking institutions argued that their initial objectives for securitisation were met. Thus they had managed to reduce liquidity mismatching, and had protected their income statements against credit losses as well as raising cheaper funds.

It also emerged that securitisation, ensured that the home loan book was kept within reasonable (manageable) levels. This was achieved by securitising some assets whenever the home loan book reached a certain level. South African banking institutions argued that securitisation had no impact on delinquencies; given the fact that the performance of securitised assets mimicked the performance of their underlying assets. For example, the performance of securitised residential mortgage loans was similar to the residential mortgage loan book of the banking institution.

On quality, banking institutions similarly agreed that loan quality was unaffected by securitisation. They attributed this to the methods which banking institutions used in deciding on the assets to be securitised. One banking institution indicated that it used a representative sample while other banking institutions used a vertical slid of the loan book and delivery ability criteria. Eighty (80) percent of most securitised deals in South Africa were financed by investors while the remaining 20 percent were financed by the originators in the form of loan guarantees. These methods helped to deal with the issues of adverse selection and moral hazard.

All institutions surveyed, agreed that a strong legal and regulatory environment was a prerequisite for securitisation. They furthermore, argued that securitisation required stable macroeconomic conditions. They also indicated that securitisation could operate under a legal framework which dealt with the sales of assets.

Securitisation related legislation had been in place in South Africa since 1994. This had however, been ineffective and restrictive. The old legislation allowed banking institutions to securitise but not participate as investors. Moreover, it allowed synthetic securitisation, as certain assets were not allowed to be securitised. The amendment of the South African Banking Institutions Act in 2000, allowed banking institutions to participate both as originators and as investors. Similarly, the restriction on the type of assets to be securitised was also amended. The amended Act also permitted non-banking institutions to participate in the securitisation market, both as originators and as investors. The Government and other corporations were also enabled to securitise their accounts receivable. The South African Reserve Bank (SARB) uses the formal regulation which is provided for in the Act as opposed to guidelines which are used in other countries.

Institutions aspiring to securitise were required to apply to SARB for approval. This process also involved external auditors who verified the financial statements of the originators and then recommended whether the aspiring securitisation institution was qualified to take part in securitisation. In addition, after securitisation, the securitising institutions were required to report to the Reserve Bank on the quality of the unsecuritised part of their assets. Consequently, South African financial institutions managed to reduce the risks posed by securitisatiion

B. Mauritius

Securitisation was relatively new in Mauritius. Only one of the three banking institutions visited had securitised a part of its assets. The second banking institution was in an advanced stage of the securitising the assets of a parastatal which is into housing finance. The third banking institution and the other banking institutions were however, not involved in securitisation. The total volume of assets securitised was also minimal (U$3 million). The assets securitised were accounts receivable of a number of corporate clients and mortgage loans. The motive for securitisation was underpinned by liquidity and diversification considerations. Thus securitisation had created liquidity for the banking institution involved and the client institution.

In terms of measures to prevent adverse selection and moral hazard issues, securitised assets had to be of high quality. The default rate had to be close to zero and the duration of the loan book also needed to be taken into account. Securitisation in Mauritius took a period of between six months to one year from the initiation to the final stage of securitisation of the assets.

C. The United States of America[8]

The United States of America is the largest securitisation market in the world. It was estimated that approximately 75 percent or more of the global securitisation volume had originated from the USA. The USA was the only securitisation market where participation was drawn from both institutional as well as from individual investors. It was also stated that, even securitisation transactions which had originated from other countries such as Japan, Europe and some of the emerging markets, had drawn investors from the USA.

Evolution of securitisation in the USA[9]

Securitisation goes back to 1934, when the National Housing Act was enacted. At that time, the housing credit market had collapsed, mostly as a result of the Great Depression. Equally, the National Housing Act, which had been designed to reduce the reliance of financial institutions on core business, had failed to increase the supply of mortgage finance. This led to the establishment of the Federal National Mortgage Association

[8] The team did not visit the USA and the UK, but borrowed from other works in these countries.
[9] This section is largely adapted from Saayman, 2002.

(FNMA or Fannie Mae) in 1938 to buy and sell federally insured mortgages, in an effort to develop a secondary mortgage market.

Due to increased demand for mortgage however, FNMA split into two corporations, namely the privately controlled FNMA and a federal agency called the Government National Mortgage Association (GNMA or Ginnie Mae) in 1968. Again, in 1970, a new entity called the Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac) was established. During the 1970s, the demand for home financing increased substantially in the United States, mainly due to baby boomers who had reached home buying ages. This led to the establishment of the thrift industry in the USA, which borrowed money from depositors at floating rates and lent it to borrowers at fixed rates. At the end of 2006, securitisation was estimated at a total of US$8.06 trillion outstanding loans. It was further estimated that about US$3.07 trillion securitisation deals were transacted in the USA every year.

Motive for securitisation

Generally, the expansion of the secondary mortgage market in the 1960s and the subsequent evolution of mortgage securitisation in the 1970s could be attributed to two main reasons. Firstly, there was a huge mismatch of funds in the United States, mainly due to a regional imbalance as people moved to the west coast (the Sunbelt states) and the interstate banking regulation made it impossible for banking and saving institutions to lend money outside their state boundaries. This situation created a surplus on the east coast and shortage on the west coast. Secondly, during the 1970s, an interest rate regulation required that thrift institutions were to keep a 3 percent spread between the cost of funds and the rate at which mortgage loans were financed. This created a situation of an interest rate mismatch as mortgage loans were advanced at fixed rates, while the thrift institutions obtained funds at floating rates, a situation which caused an erosion of earnings during inflationary times.

US subprime crisis and securitisation[10]

The origin of subprime could perhaps be traced back to the 1970s and 1980s. During those times, community activists and other groups such as fair housing activists started to push for an end of discriminatory practices by lenders in minority and low-income communities. The long march towards the relaxation of lending standards, started with the enactment of the Community Reinvestment Act of 1977. This was followed by an observation made by the Federal Reserve Bank of Boston which reported that the banking practice of discriminatory lending called “redlining”, where bankers allegedly drew red lines around particular neighborhoods, needed to be avoided.

As a result, lenders under pressure from community activists and sympathetic politicians, began looking for ways to increase their presence in minority and low-income communities. This led to borrowers obtaining mortgage financing without having to verify their income or deposit money. The distinguishing feature between prime and subprime loans was that the up-front and continuing costs were higher for the latter. In addition to higher risk, loans originated in the subprime market were predominantly in African-American census tracks. Unlike in the agency sector where credit risk was mitigated by implicit or explicit government guarantees’, non agency (sub-prime) securities had no such guarantees.

[10] This section largely borrowed from the contribution of Dunstan Prial, 2008.

Credit enhancement for non-agency deals was in most cases, provided internally by a deal structure which bundled loans into “tranches”.

Thus, some subprime lenders developed high-risks in residential or commercial loans with low qualities. These loans could trap low-income borrowers into exceeding their repayment capabilities. Most of these loans were originated for the purpose of selling them to special purpose vehicles. The latter would issue Residential Mortgage Backed Securities (RMBS) for resale to pension funds and other fixed income investors.

Given the higher interest rates in the 1990s and early 2000’s, the US subprime mortgage market started to crack by the end of 2006. This led to a sharp rise in the subprime mortgage default rates and foreclosures which had seen more than 100 subprime mortgage lenders failing or filing for bankruptcy. The most prominent subprime mortgage lender to file for bankruptcy was the New Century Financial Corporation, which was the second largest subprime lender. The crisis in the US mortgage market has had far reaching consequences across the world as tranches of subprime debts were repackaged by banking institutions into attractive investment vehicles and securities which were taken up by banking institutions, traders and hedge funds in the USA, Europe and Asian market. It was estimated that financial institutions around the world realized subprime related losses and write-down totaling around US$500 billion as at end of August 2008. The IMF estimated that the total subprime related losses could be as high as U$1.4 trillion (Financial Stability Report, October 2008) at the end of the crisis.

D. The United Kingdom[11]

Securitisation has been increasingly used as a financing mechanism in the United Kingdom (UK). The UK is the largest securitisation market in Europe. A number of innovative applications of securitisation have emerged from the UK every year. Securitisation transactions conducted in UK have been more complex than those in any other part of the world.

Evolution of securitisation in the UK

The United Kingdom pioneered securitisation in Europe with the first mortgage securitisation transaction which took place in January 1985. The UK securitisation market differ from that of the United States of America because the U.S market mortgages were at variable interest rates without pre-payment penalties, as opposed to the UK where mortgage rates were fixed. In the UK, the securitisation market had developed far more slowly for number of reasons: firstly, lenders were well funded. Even in cases where they needed to raise money, they could go through covered bonds- a system which had already been established in the UK. Secondly, some small banking institutions found it hard to justify the cost associated with securitisation; this was compounded with the debt culture in the UK which differed from that of the USA.

In spite of the difference in the development of the two markets, securitisation had grown rapidly in the UK during the 1980s due to the boom in the housing market. When housing market boom ceased towards the end of the 1980s, the mortgage securitisation market declined. Similarly, for most of periods during the 1990s, specialised mortgage

[11] This section is partly adapted from an online article by the Karley, Kofi and Whitehead; and the Economist, September, 2007.

lenders who depended on securitisation for funds, had dominated the relatively small market of that period. At the end of the 1990's, the prime mortgage lenders entered the securitisation market again in search of alternative sources of financing, both in terms of financial instruments and for the geographic diversity of investors.

The UK securitisation market has continued to be one of the most diverse and competitive markets in Europe. By the end of 2006, the outstanding mortgage securitisation amounted to £1,000 billion, about 148 percent higher than 10 years earlier, while mortgage transactions during the first quarter of 2007, amounted to £83 billion.

Motive for securitisation in the UK

Most observations on the development of the securitisation market the United Kingdom have suggested that there were three main reasons for securitisation. Firstly, securitisation took off to serve as source of funding for lenders without alternatives. During the early period, there was huge demand for housing finance. The second motive for securitisation in U.K was to respond to the regulations for issuers, subject to a relevant regulatory control - notably with respect to capital-to-asset ratio for those who might use securitisation to balance their portfolio. Thirdly, securitisation was used as a means for diversifications of risks.

Northern Rock crisis and securitisation

Northern Rock, one of the top five mortgage lenders in the United Kingdom in terms of gross lending, had grown rich from the innovations of the previous years. The bank used wholesale market to fund its growth and at the same time, also used the same market to offload its loan books when they became unattractive. The very innovations on which the bank had however, flourished had destroyed its business. Although the bank had not operated its lending overseas, the recent subprime crisis in the United States of America had had a spill- over effect in its operation as the securities market and money market on which Northern Rock had depended for years, had dried up.

As a result, Northern Rock requested liquidity support from the Bank of England (BOE) in September 2007. The problems at Northern Rock had arisen from difficulties the bank faced which had been caused by the subprime crisis in the United States. The bank assets were sufficient to cover its liability, but it had a liquidity problem because institutional lenders had become worried about lending to mortgage banks, following the US subprime crisis.

E. Summary

The experience drawn from the administered survey in South Africa and Mauritius was that securitisation can be offered by both banking institutions and non-bank financial institutions. Securitisation has enabled South African banks to increase their excess liquidity, diversify credit risks and at the same time, also helped with reserves and capital management. The most profound experience is that securitising institutions in South Africa co-finance the securitisation transaction in form of guarantees; while in Mauritius the tendency is to securitise high quality loan book in order to guard against the issue of adverse selection and moral hazard. Furthermore, the study also established that the default rate on the securitised loan book was always equivalent to the underlying assets in those countries.

The key lessons which can be drawn from the case study countries i.e. the USA and the UK, are that securitisation could intensify the problem of asymmetric information and might thus lead to moral hazards, resulting in the lowering of lending standards. It can furthermore, be deducted that the relaxation of the lending requirements to benefit specific community might lead to a financial crisis in the end with adverse consequences for the entire financial sector and the economy. It was estimated that financial institutions around the world realized subprime related losses and write-down totaling around US$500 billion as at end of August 2008. The IMF however, estimated that the total subprime related losses could be as high as US$1.4 trillion at the end of the crisis.

VI. Conclusions and policy recommendations

A. Conclusions

The objective of this study was to investigate whether securitisation could increase the number of investment instruments in the economy and thus contribute to the development of the financial sector. In addition, the study was intended to investigate whether securitisation could increase funding to municipalities and towns for infrastructure development; and reduce the exposure risks of banking institutions to real estate risk.

The study found that, despite the high level of sophistication, the number of the instruments available in the Namibian financial market were limited. This could be attested by over-subscription whenever, there was an issuance of securities, particularly interest-bearing securities. The financial instruments of the country remain limited to interest-bearing securities, equities and financial derivative instruments. Tradable securities issued by parastatals are similarly limited.

The limited issuance by the state-owned enterprises could partially be ascribed to the fact that the Government always provides for their financing needs in the national budget. This practice had thus reduced the need for these institutions to issue tradable papers. Moreover, the low deficit by Government reduced the issuance of treasury bills and bonds, thus worsening the supply conditions of those instruments.

The private sector issuances of bonds were also insufficient. Likewise, equity trading was also swamped with constraints, such as the listing on the NSX which occurred rarely, with a delay of long periods before new listings were realized. In addition, the NSX was also dominated by dual-listed companies, while the portion of locally listed-companies remained very low.

The study found that the limitations on the housing and infrastructure financing were many- folded. The bulk of financing for housing was provided for by banking institutions. Consequently about 52.6 percent of the loans and advances of the banking institutions were home loans. This scenario tends to expose banking institutions to real estate risks, (credit, and liquidity and market risks). Moreover, other lending institutions such as the NHE, and municipalities were constrained by a lack of financing, to build low cost houses. With the exception of the City of Windhoek and the municipalities of Swakopmund and Walvis Bay, most municipalities did not have the funds for infrastructure financing. They relied on the annual budget of the Ministry of Regional and Local Government, Housing and Rural Development for their funding, which was always limited. In addition, their revenue collection seemed to be weak. This ultimately contributed to the low supply of low cost housing.

The study found that securitisation is not developed in Namibia. This was despite the fact that the pre-conditions for securitisation were met. The literature review identified the following benefits and costs with regard to securitisation. Securitisation could provide banking institutions with cheaper source of funds and improve their liquidity. Securitisation could serve as a means of diversifying risks, (credit, liquidity and market risks). Securitisation allows investors to purchase securities which they would not have purchased from the originators. Banking institutions could securitise assets in order to lower reserves and capital requirements and thus reduce the costs of financing. Securitisation creates a new source of fee-income and thus increase the non-interest income for banking institutions. Securitisation could serve as a tool for managing interest rate risks and also for the reduction of balance sheet mismatches between assets and liabilities. Thus, it can be concluded that securitisation could broaden the investment choices in Namibia.

Despite the benefits, literature has also pointed to the fact that securitisation might aggravate the problems of asymmetric information which confer originators an information advantage over the mortgage securitisers. Securitisation might also lead to moral hazards, because banking institutions have fewer incentives to screen and monitor borrowers. The above observation could be supported by the USA sub-prime episode. In addition, the study found that securitisation was complicated, time-consuming and requires substantial preparation in computers and accounting areas. Securitisation also involves costs such as underwriting fees, fees to external auditors, credit rating agencies, the trustee fees, transfer fees and stamp duties. Moreover, there is a possibility that banking institutions might securitise only higher quality debts, thus leaving other debtors with inferior asset bases.

The study established that three of the four banking institutions were keen to securitise some of their assets and at the same time partake as investors; while the fourth banking institution was not eager to securitise. Two of the three banking institutions indicated however that despite their willingness to securitise it was not the best time to consider securitisation presently. This was due to the US subprime episode. Thus they would wait for the US situation to normalize before considering securitisation. The motives for them considering to participate included the need to deepen and widen the financial sector, risk diversification as well as creating a stable source of long term funding, which could reduce the balance sheet mismatch between assets and liabilities. In terms of the asset class, the three banking institutions indicated that they would consider securitising mortgage loan books.

Similarly, the four asset management companies visited, expressed interest to invest in securitised assets, based on the risk–return profile of such instruments. In terms of the asset class, asset managers stated that they would prefer investing in assets which were backed by fixed assets, i.e. those backed by mortgages as opposed to those backed by liquid assets. Thus securitisation could entail an introduction of a new investment instrument, and thus contribute to the development of the financial sector. This could partially address the issue of insufficient investment instruments in the domestic financial market.

On the question of why banking institutions had not considered securitisation previously, especially during times of low liquidity, the study found that the CMA arrangement made it easier and cheaper for the Namibian banking institutions to raise capital from the South African financial markets compared with securitisation. One banking institution indicated that it had considered securitisation before, but had felt that there were no potential investors at that time. The other three banking institutions stated that securitisation was costly, especially when compared with other sources of funding. Moreover, the banking institutions indicated that securitisation takes a long time to develop from the initiation process to completion. At this time, banking institutions considered the availability of high liquidity in the market as another constraint to securitisation. This was attributed to Regulations 28 and 15, which had impacted positively on the liquidity in the domestic market.

Two of the three large local authorities might not participate in securitisation, while one indicated it could consider it as an option in the medium term. Accordingly, two of the large local authorities cited that they might consider issuing bonds instead. Similarly, securitisation might not work for smaller local authorities in the short run, despite having abundant land and being financially constrained. This was due to the poor revenue collection mechanisms, as well as the directive from the MRLGRD, which tended to discourage them from selling abundant land to potential developers in large quantities. It could be concluded that although securitisation could improve the provision of infrastructure funding, it was not seen as an option at present. Thus its impact on low cost housing in Namibia could be very minimal at least in the short run. The NHE might consider securitisation. This option however, has to be considered together with the other options.

From case study countries, the study established that securitisation was well established in South Africa, the USA and the UK. Securitisation was predominantly offered by banking institutions, although non-banking financial institutions also offered it. The common assets which were securitised included residential mortgage loans, commercial mortgage loans, auto loans and corporate loan books as well as credit card receivables. The study revealed that securitisation was undertaken to serve as a source of liquidity (funding), to diversify risks, and to avoid interest rate mismatching in the case study countries. In South Africa stringent practices and regulation cushioned the industry from the risks posed by securitisation.

Apart from the USA subprime market, all other securitisation deals in USA and South Africa were insured by the originating institutions to prevent moral hazards. It was found that the securitisation process took a period of between six months to one year from origination to the final stage of securitising the assets. In the USA, securitisation had led to an increase in the supply of credit to the mortgage sector, thus resulting in a huge appreciation in the price of housing. This had subsequently led to high defaults on mortgage loans, in the event of increase in interest rates. This eventually resulted in a credit crunch which affected Northern Rock in the UK; the credit crunch developed into global financial crisis.

B. Policy Recommendations

- Securitisation could serve as a source of funding for banking institutions, municipalities and retail shops. It could also serve as a tool to diversify risks and reduce the balance sheet mismatches between assets and liabilities.

- Potential initiators and investors are advised to draw lessons from the South African experience before embarking on securitisation. Moreover, there is a need to exercise caution when dealing with securitisation given the fact that it led to a financial crisis.

- The Development Bank of Namibia should consider providing finance to institutions such as small municipalities, the NHE, and other corporate clients which were in dire need of finance rather than to securitise.

- Smaller municipalities should strengthen their revenue collection and consider issuing bonds in order to increase funding for infrastructure development in the short run.

- Parastatals should be encouraged to issue more bonds rather than relying on the Fiscus for their financial needs. This would contribute to the increase of the number of investment instruments available in the market.

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Appendix 1: Survey to determine demand and supply conditions for securitisation in Namibia

PART A: NAMIBIAN BANKING INSTITUTIONS

A. What do you understand by the term securitisation?

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B. What is the rate of delinquencies on mortgage loans in your banking institution for the period 2003 to 2007?

Year	**2003**	**2004**	**2005**	**2004**	**2006**	**2007**
Value of the home loan book						

C. How do you feel about your level of exposure into mortgage loans?

(a) Over-exposed	
(b) Under-exposed	
(c) Fairly-exposed	

D. How do you feel about the level of exposure of your institution into vehicle financing loans?

(a) Over-exposed	
(b) Under-exposed	
(c) Fairly-exposed	

E. What terms and conditions does your institution offer on home and vehicles financing loans?

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F. Does your institution offer fixed term interest rate on home loans and why?

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G. Would your institution consider, securitising its mortgage loan book?

Yes	No

H. If yes in G, Why would your institution consider securitising its home loan book? e.g. risk diversification, liquidity purpose, etc.?

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I. If no in G, state reasons (costs, complications, skills, etc).

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J. What types of assets would your institution consider to be securitised?

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K. Would your institution need a mandate from a parent company in South Africa before considering securitisation?

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L. What conditions (economic, institutional, legal and regulatory) are necessary for mortgage securitisation to be developed in Namibia?

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PART B: NAMIBIA STOCK EXCHANGE (NSX)

A. What do you understand by term securitisation?

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B. Do you think the level of exposure by Namibian banking institutions present an opportunity for mortgage securitisation?

Yes	No

C. If yes in question B, what would securitisation achieve?

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D. If no to question B, (please state your reasons)

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E. Securitisation could lead to adverse selection and moral hazards. What measures would need to be put in place to guard against this tendency?

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F. Do you think securitisation would improve the provision of infrastructure financing in Namibia? (Motivate your answer)?

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G. What conditions (economic, institutional, legal and regulatory) are necessary for mortgage securitisation to be developed in Namibia?

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H. Do you think securitisation could enhance liquidity on the stock exchange and therefore promote secondary trading?

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I. Which of the following institutions, do you consider to be suitable for rating securitised instruments?

1. Audit/Accounting firms
2. Rating agency
3. Stock brokers
4. Banking institutions
5. Others

J. If securitisation was implemented in Namibia, on what platform would securities be traded?

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PART C: NATIONAL HOUSING ENTERPRISE (NHE)

A. What do you understand by the term securitisation?

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B. What is the rate of delinquencies on mortgage loans at NHE for the period 2003 to 2007?

Year	**2003**	**2004**	**2005**	**2004**	**2006**	**2007**
Value of the home loan book						

C. What is the level of exposure of the NHE into mortgage loans?

(a) Over-exposed	
(b) Under-exposed	
(c) Fairly-exposed	

D. What terms and conditions does the NHE offer on home loans?

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E. Does the NHE offer fixed term interest rate on home loans and why?

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F. Would the NHE consider, securitising its mortgage loan book?

Yes	No

G. If yes in F, Why would the NHE consider securitising its home loan book? e.g. risk diversification, liquidity purpose, etc.?

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H. If no in F, state the reasons (costs, complications, skills, etc).

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I. What types of assets would the NHE consider to securitise?

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J. What conditions (economic, institutional, legal and regulatory) are necessary for mortgage securitisation to be developed in Namibia?

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PART D: LOCAL AUTHORITIES/MUNICIPALITIES

A. What is the major obstacle against the provision of housing in your town?

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B. Indicate on a scale of 1 t o 5: where 5 is very critical and 1 is less critical), the extent to which the availability of finance is an impediment to the provision of housing in your town.

1 2 3 4 5

C. How does your municipality finance the development of serviced land in your town?

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D. What is your major source of income for financing infrastructure development, (Please specify). i.e Government subsidy, rents or taxes from properties?

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E. What alternative sources of funding do you think could improve the funding of infrastructure in your town?

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F. How much income does the municipality raise annually from the sale of serviced land?

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G. What is the potential income could the municipality raise annually from the sale of serviced land?

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H. What do you understand by the term securitisation?

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I. Would the municipality consider raising funds through securitisation if such instruments were available in Namibia?

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J. What conditions (economic, institutional, legal and regulatory) are necessary for mortgage securitisation to be developed in Namibia?

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Appendix 2: Survey on experience of mortgage and infrastructure securitisation in South Africa and Mauritius

A. What do you understand by the term securitisation?

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B. For how long has your bank been securitising its assets?

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C. What assets does your bank securitise?

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D. Why did your bank consider securitisation?

1. Income factors
2. Risk diversification considerations
3. To increase the loan portfolio
4. To reduce the impact of interest rates to consumers
5. To improve liquidity position
Other reasons

E. Did your bank achieve the intended benefits from securitisation?

Yes	No

F. Briefly substantiate on your answer in E.

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G. What impact did securitisation had on the following aspects in your bank?

1. Risk diversification

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2. Interest rate to consumer

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3. Size of the loan book

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4. Quality of loans

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5. Delinquencies

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H. What factors are necessary: (economic, institutional, legal and regulatory) before securitisation can take place.

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I. Securitisation could lead to an adverse selection and moral hazards. What measures did your bank put in place to guard against this tendency?

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Appendix 3: List of people interviewed

Name of Person	Position	Institution
1.Mr. J. Mandy	CEO	Namibia Stock Exchange
2. Mr. C. Matthee	Executive: Specialist Finance	Bank Windhoek
3. Mr. P. Shiimi	Treasurer	First National Bank
4.Mr. J.N Labuschagne	Manager: Assets & Liability	First National Bank
5. Mr. S. Von Blottnitz	Head: Global Trading	Standard Bank Namibia
6. Mr. O. Bastipe	Manager: Treasury	Standard Chartered Bank: Mauritius
7.Mr. N. Hardy	Manager: Treasury	Investec Bank: Mauritius
8. Mrs. M. Rickerts	Manager: Finance & Admin	National Housing Enterprise
9. Mr. G. Esterhuizen	Manager: Costing & Budgeting	City of Windhoek
10. Mr. M. Haingura	General Manager: Finance	Municipality of Walvis Bay
11. Mr. H. !Naruseb	Manager: Finance	Municipality of Swakopmund
12. Mrs. U. Kamboua	Director: Housing	MRLGHRD
13. Mr. J. Hatuikulipi	Managing Director	Investec Namibia
14. Mr. L. Shigwedha	Analyst	Investec Namibia
15. Mr. T.S. Shiimi	Chief Executive Officer	Sanlam Investment
16. Mr. M. Hengari	Managing Director	Allan Gray Namibia
17. Mrs. E. Motinga	Investment Analyst	Allan Gray Namibia
18. Mrs. G. Rukoro	Portfolio Manager	Allan Gray Namibia
19. Mr. J. Le Roux	Manager: Securitisation	Standard Bank South Africa
20. Mr. H. Ackermann	Senior Transactor: Securitisation	NedBank South Africa
21. Mr. B. Grobler	Debt Capital Market: Origination	RMB South Africa