Securitisation – A Risk Management Tool in Indian Banking Industry

*Nibedita Roy**

Abstract

In India, there has been a steady growth in credit off take (i.e. loan disbursement) of banks over the past several years and at the same time there has been an increasing mismatch between growth of credit off take and growth in deposits. In other words, increasing credit demand had led to diminution in the liquidity of the banks and the financial institutions. This has eventually created a vacuum between the demand for finance and its consequent availability. In this respect, when several conventional methods of obtaining a business loan are either undesirable or not possible, there is the option of securitisation. The term securitisation may be referred to as creation of security in any financial transaction. In this respect, 'security' means a financial claim which is generally manifested in the form of a document and whose essential feature is marketability. The process thereby helps in improving various performance related measurements of the banking institutions by enhancing the loan portfolio of the banking institutions. This paper makes an endeavor to determine whether the process of securitisation is able to cast its beneficial impact on the Indian Banking Industry and its impact on the level of risk management of those institutions. Most previous literature in India is concentrated to the overall review of the securitisation instruments not specific to the banking industry. The results indicate that securitisation leads to growth in performance, asset quality improvement, enhancement of loan portfolio and ultimately better risk management.

***Keywords**: Securitisation, SPV, Originator, Structured Finance*

Introduction

The term *securitisation* may be referred to as creation of security in any financial transaction. In this respect, 'security' means a financial claim which is generally manifested in the form of a document and whose essential feature is marketability. Therefore, *securitisation*, or in other words, *asset/receivable securitisation* means creation of marketable/tradeable securities based on cash flows of an entity's assets or receivables. It is a device of structured financing (i.e. the financing that is tailored as per the risk-return and maturity needs of the investors) by way of which the 'originator' (i.e. the organization initiating the securitisation transaction and in whose balance sheet the assets appear) pools together its interest in identifiable cash flows on assets receivables over time, sell such interest to an entity known as 'Special Purpose Vehicle (SPV)', or 'Special Purpose Entity (SPE)' and thereby achieve the purpose of financing. Identifiable cash flows refer to the cash flows generated by separate pools of assets in the balance sheet of the originator viz. car receivables, truck receivables, receivables from Department of Telecommunications, housing loan receivables, credit card receivables, bank loan receivables, receivables from equipment lease and so on. The SPV, in turn, utilizes this stream of cash flows to issue marketable securities, to the investors so as to arrange for the funds required to pay to the originator the value of such assets. Securitisation reflects innovation in the financial markets at its best. Such kind of innovation has become necessary due to various factors viz. the need for access to different innovative sources of financing, improving the cash flow position of an entity (i.e. cash flow streams generated by assets like loans and receivables), obtaining better liquidity position and issuing newer securities to new groups of investors according to the preferences of specific investors. Also, securitised instruments have come into being because of the urge to create a secondary market in mortgage financing. Risk management is yet another catalyst for the emergence of securitisation. When any asset / receivable (i.e. a cash flow) is securitised, it is removed from the balance sheet of the originator without recourse (i.e. all the risks associated

Assistant Professor, Department of Commerce, J.D. Birla Institute (under Jadavpur University), email id:* ***nibedita_madhuri@yahoo.co.in*

with the asset are eliminated). By passing on these risks to the investors via SPV, originators are better able to manage their own risk exposures.

Securitisation in India has been in existence since early 1990s. The first securitisation deal took place in 1991 when Citibank raised Rs. 16 crore from GIC Mutual Fund by securitising some of its auto loans. Since then, a variety of deals have been undertaken. In 2002, *The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act* was enacted. The objective behind its enactment was the sale or securitisation of Non-Performing Loans (NPLs) by banks and financial institutions in favour of Assets Reconstruction Companies (ARCs) registered with the Reserve Bank of India (RBI) under SARFAESI. These guidelines are expected to have a far reaching impact on several issues and facilitate the development of a vibrant and robust securitisation market in India. In a capital-scarce economy like India, an opportunity that permits effective use of available capital hardly requires any major emphasis. Furthermore, the ability to diversify one's funding base by reaching out to new investor markets, without increasing the financial leverage and the cost of raising finance, is a significant benefit associated with securitisation.

The concept of securitisation has always drawn the attention of the analysts and the researchers since its initiation in India. Although this innovative mechanism has been applied in India in scattered items of assets in various organizations, but gradually, the tool became more restricted to the banking and financial institutions. Accordingly, this paper concentrates on the position of securitisation in the Indian banking industry and makes an attempt to determine whether securitisation is able to cast its beneficial impact on the Indian Banking Industry and its consequential impact on the level of risk management of those institutions. The beneficial impact is measured on the basis of certain parameters which will enable one to assess the future prospect of the mechanism in our country. But a conceptual understanding of the securitisation mechanism is necessary before turning to empirical analysis. So, the remainder of the paper is organized as follows: the conceptual overview of securitisation, the literature review, the objective of the study, the sample selection and research methodology, the analysis and findings and finally conclusion.

Conceptual Overview of Securitisation

The most common definition of securitisation is that it consists of pooling of assets and issuance of securities to finance the carrying of the pooled assets. It therefore, involves separation of the credit risk of one or more assets from the bankruptcy and credit risks of the owner of those assets i.e. *originator* and the issuance and sale of securities backed by the cash flow from those assets. Originator is the entity that securitises assets. Securitisation mechanism mainly generates from a company having receivables as one of its major assets in its balance sheet. This company is normally referred to as the *'originator'*. Once a suitably large portfolio of assets has been originated, the assets are analyzed as a portfolio, and then sold or assigned to a third party which is normally an *'SPV'*. The SPV is created by the originator for the sole purpose of holding the receivables and issuing tradeable securities to the investors. The performance of these securities is directly linked to the performance of the underlying assets i.e. loans and receivables. The way the investors have a right to share the cash flows arising out of the pool of receivables beneficially owned by them is referred to as *securitisation structure*. The nature of the investors' interest in the underlying assets can be of two types. *Pass-through* securitisation is a structure where the SPV makes payments, or rather, passes payments to the investors as and when the receivables are collected. In short, a pass-through structure transfers interest in the receivable in favour of the investors through the SPV. The other is the *pay-through securitisation* where the payments to the investors are routed through the SPV who does not strictly pay the investors only when the receivables are collected by it. The investors are paid on stipulated dates irrespective of the collection dates.

Thus, from the above discussion it is clear that securitisation is a process of re-utilization of asset which facilitates the creation of fund and accordingly can bestow a number of advantages to the organizations introducing it and also to the related parties involved in the securitisation transaction. In India, the concept of securitisation is also prevalent and accordingly for the purpose of the study an effort has been made to identify the various types of work that has been done in the various countries relating to securitisation. Accordingly, the next section lays down the brief abstract of the works that has been done in different areas.

Literature Review

Over the years, various attempts have been made by the researchers to evaluate the different aspects of securitised instruments and examine the justifiability of its introduction in the financial markets. **Lipkin (1992)** stated that as real estate values continue to deteriorate and liquidity evaporates, the crisis in thrift institutions, banks, and insurance companies worsens. Consequently, there arises an unquestioned need for creative products to serve as non-traditional sources of financing, which has been very well solved by securitisation of real estates. **Frost (1997)** has specified that asset securitization is a financial innovation in which corporations sell financial assets to a specially formed entity that in turn taps financial markets for the purchase price. The device provides firms an alternative to raising capital through traditional debt and equity markets. Practitioners of the approach tout securitization as a means through which a firm can lower its overall cost of capital by limiting the risk facing investors in the securitized assets. Commentators have described asset securitization as "one of the most important financing vehicles in the United States." Interest in the device is increasing dramatically as more companies see it as a way to decrease their cost of capital. In his article he examined the reasons for which asset securitization has become such a popular financing device. He developed an analytical model that focuses on the market failures which explain the reasons firms use asset securitization. **Loutskina (2004)** conducted an extensive study to show that by allowing banks to substitute cash and securities for loans, securitisation reduces the sensitivity of bank lending to the availability of the external sources of funds and thus reduces the need for the monetary authority to affect bank lending through open market operations. **Ferguson (2008)** analyzed the position of securitisation of Non-Performing Loans in Russia. According to him asset securitization is a burgeoning trend in Russia as companies burdened by poor credit ratings seek access to capital at lower costs than they would be allowed in traditional equity or debt markets.

In Indian context, **Ketkar** and **Ratha (2001)** suggested that developing countries cannot obtain low-cost, long-term loans during financial crises. Thus, securitisation of future flow receivables can help investment-grade public and private sector entities in these countries obtain credit ratings higher than those of their governments and raise funds in international capital markets. **Kothari** and **Gupta (2004)** studied the development of mortgage-backed securities market in India and examined the relevance of securitisation, both agency-backed securitisation (i.e. MBSs issued by government sponsored agencies which promote mortgage secondary markets) and private label securitisation (i.e. mortgage backed issues securitised by non-agency financial institutions) over the development of housing refinance market in India. The research conducted till date in India has focused on theoretical aspects mostly with little emphasis on empirical research. Also, none of the empirical studies conducted so far focused on the impact of securitisation on the Indian Banking Industry, the sector affected most by securitisation. Hence, in view of this research gap the present study assumes significance in Indian context.

Objective of the Study

The study aims at examining different parameters that are influenced as a result of introduction of the securitisation mechanism and to understand the impact of this innovative financing mechanism on the performance as well as risk management factors of the institutions of the banking industry in India.

Sample Selection and Research Methodology

The redefinition of the term "securities" and the establishment of Securitisation and Reconstruction of Financial Assets and Enforcement of Security (SARFAESI) Act, 2002 subsequently have paved the way for full-fledged implementation and practice of securitisation in India, especially by the banks, financial institutions and NBFCs from 2000 onwards. Accordingly, a sample comprising those Indian banks and NBFCs (henceforth institutions), that have initiated and undertaken securitisation on a more or less continuous basis and at least for a period of 3 years over the period 1999-2000 to 2008-2009 [as per information available in Credit Rating Information Services of India Ltd. (CRISIL) website **(*www.crisil.com*)**] has been selected to determine the factors that are influenced by the initiation of the securitisation mechanism in the Indian banking sector. The sample and the collected securitisation information (i.e. volume of securitisation in Rs. million) are restricted by the availability of data in the *structured finance* list of commentaries under the main heading of *ratings* in CRISIL website. Accordingly, the sample comprises 12 institutions, of which 9 are banks viz. *HDFC Bank Ltd., Kotak Mahindra Bank Ltd., HSBC Ltd., Standard Chartered Bank, Axis Bank Ltd., Bank of America, Yes Bank Ltd., CitiBank N. A. and ICICI Bank Ltd.* (in the banking institutions category) and 3 are NBFCs viz. *Kotak Mahindra Prime Ltd., Shriram Transport Finance Co. and Magma FinCorp. Ltd.* The sample is then analyzed graphically by comparing securitisation volume vis-à-vis certain selected parameters. The analysis has been done keeping in mind the broad factors of *growth in performance, asset quality improvement, enhancement of loan portfolio and better risk management.*

First of all, in order to ascertain the impact of securitisation on performance, four parameters are taken into consideration. The purpose of this analysis is to draw a relation between the availability of the *loans and advances* and the volume of securitisation as the basic presumption is that securitisation, theoretically being an excellent source of funds, should improve the supply of loans and advances. This should eventually boost the growth in interest income. In order to highlight the change in interest income, two parameters are taken into consideration-*total interest income as percentage of total assets and net interest income (NII) as percentage of total assets*. The former represents the total income earned from the assets (i.e. loans and advances) of the institutions and the latter signifies the difference i.e. spread between revenues generated by interest-bearing assets and the cost of servicing (interest-burdened) liabilities. The assets typically include commercial and personal loans, mortgages, construction loans and investment securities. The liabilities consist primarily of customers' deposits. NII is the difference between (a) interest payments the bank receives on loans outstanding and (b) interest payments the bank makes to customers on their deposits. As securitisation not only helps in enhancing the gross interest income but also the net interest income, both total interest income and net interest income are taken as indicator variables and compared alongside securitisation volumes. As interest forms the basic component of profit for banking institutions, this boost in interest income as a result of securitisation should increase the profit of the banking institutions as well. In other words, the greater the supply of loans and advances due to securitisation, the greater the gross amount and the spread in interest income, and hence the higher is the profit i.e. *profit after tax (PAT)* of institutions. So, the PAT figures have also been considered vis-à-vis the securitisation volume to show the effect of securitisation on the profit of banks and NBFCs. For asset quality improvement, two parameters viz. *Net NPA as percentage of Total Assets and Investments/Total Assets* have been considered. The former implies the percentage of Net NPA in total assets of the institution. The lower the ratio the better is the asset quality of the institution. In India, though NPAs are simply sold out to ARCs without securities being issued against it, securitisation, in its true sense, of good receivables will effectively reduce NPA level as such in - balance sheet assets are churned off before they become NPA. As the risk level of an individual institution declines due to a decrease in the percentage of NPA in total assets, it gets reflected in the improved quality of asset composition of the institution. Further, for the latter parameter too, the lower the ratio, the better is the asset quality because the institutions instead of investing in securities, can concentrate more on loans and advances which usually generate more returns than investments. This is because the spread is higher if the bank provides loan than invest in securities [*as may be clear from the data on 31st March 2011, Benchmark Prime Lending Rate was around 7.60% to 8.50% and while interest rate on Government Bonds was around 7.75% to 8.30%* (*Source: www.rbi.org and www.tradingeconomics.com*)]. Accordingly, these two parameters are compared vis-à-vis the securitisation volume to examine this objective.

In respect of enhancement of loan portfolio, *loans and advances and investments* are considered together and compared with the securitisation volume. Liquid securities, also known as marketable securities, refer to those securities that can be converted into cash quickly at a reasonable price. The institutions invest a portion of their deposits in such securities after setting aside an amount for CRR. Securitisation increases the supply of funds and therefore the institutions are encouraged to lend more than invest as lending is more profitable than investing. Last, but not the least, the risk management aspect is measured in terms of *net worth*. Risk management refers to identification of risks in order to control and minimize the impact of unfortunate events. This controlled risk undertaken by the institution is ultimately reflected in an increase in their net worth. Net worth (sometimes called net liabilities) refers to the total assets minus total outside liabilities of an institution. Though the risk management issue has not been directly addressed, but an attempt has been made to make an indirect assessment of the level of risk management. Annual accounts data of the above-mentioned variables for the sample institutions over the period for which information on securitisation volumes are available have been extracted from the CMIE Prowess database and the RBI website (*www.rbi.org.in*). The selected broad issues are then framed into three null hypotheses *(as shown in table-I)* and are analyzed on the basis of simultaneous comparison of the securitisation volumes vis-à-vis the various chosen financial performance indicators through graphs and charts. A satisfaction index is also constructed hypothesis-wise across sample units after compiling results. The null hypotheses are rejected (i.e. theory accepted) based on total satisfaction count across all sample banks and NBFCs (henceforth institutions) being greater than 50%. In other words, the hypotheses whose satisfaction count is 50% or less than 50%, in those cases the null hypotheses are accepted.

Table-I List of Null Hypotheses

Sl. No.	*Null Hypotheses*	*Selected Parameters*
Hypothesis 1	Securitisation does not help the banking industry to maintain a steady performance.	Loans and Advances, Interest Income as %-age of Total assets, Net Interest Income as %-age of Total Assets, Profit after Tax
Hypothesis 2	Securitisation does not improve the asset quality of the banking institutions.	Net NPA as %-age of Total Assets, Investments/Total Assets
Hypothesis 3	Securitisation does not enhance the institutions' loan portfolios more than their holdings of liquid securities i.e. investments.	Loans and Advances, Investments
Hypothesis 4	Securitisation does not help the institutions in better risk management.	Net Worth

A summary of the findings conducted on the basis of methodology, as discussed above, is presented in the next section.

Analysis and Findings

The analysis results of all the sample institutions to examine each of the 4 hypotheses are given in *table-II*. The sample graphs and charts leading to the following results are given in *Annexure-A*.

Table-II: Overall Hypotheses Satisfaction Index

Hypo thesis	***Private Sector Banks***					***Foreign Banks***				***NBFCs***			***Total Count (%)***
	HDFC Bank Ltd.	*Kotak Mahindra Bank Ltd.*	*Axis Bank Ltd.*	*Yes Bank Ltd.*	*ICICI Bank Ltd.*	*HSBC Ltd.*	*Standard Chartered Bank*	*Bank of America*	*Citibank N.A.*	*Kotak M. Prime*	*Shriram Trans.*	*Magma*	
1.	√	√	√	√	√	√	X	√	X	√	X	√	**75**
2.	√	√	√	√	√	√	√	√	√	X	√	√	**91.67**
3.	√	√	√	√	√	√	√	√	√	√	X	√	**91.67**
4.	√	√	√	√	√	√	√	√	√	√	√	√	**100**
Result	100	100	100	100	100	100	75	100	75	75	50	100	

Note: (√) => Rejection of null hypothesis and acceptance of theory

(X)=> Acceptance of null hypothesis and rejection of theory

It may be observed from the summary analysis that *hypothesis 2* (securitisation does not improve the asset quality of the banking institutions.) and *hypothesis 3* (securitisation does not enhance the institutions' loan portfolios more than their holdings of liquid securities i.e. investments) are the hypotheses which reflect a 91.67% satisfactory index. Three institutions out of the total sample have accepted the null *hypothesis 1* (securitisation does not help the banking industry to maintain a steady performance) which ultimately leads to a 75% overall satisfaction index. *Hypothesis 4* (securitisation does not help the institutions in better risk management) shows a 100% satisfaction index. Thus, all the null hypotheses are rejected as the satisfaction count is more than 50%. Accordingly, what appears from the above findings is that the introduction of securitisation in the various sample institutions from the Indian banking industry had a positive impact on their financial performance, asset quality ratios, enhancement of loan portfolio and risk management when these institutions are compared with the respective chosen parameters for each of the hypothesis individually.

I. Conclusion

Securitization is an important tool used in finance. Finance studies and addresses the ways in which individuals, businesses, and organizations raise, allocate, and use monetary resources over time, taking into account the risks entailed in their projects. The activity of finance is the application of a set of techniques that individuals and organizations (entities) use to manage their financial affairs, particularly the differences between income and expenditure and the risks of their investments. Structured finance encompasses all advanced private and public financial arrangements that serve to efficiently refinance and hedge any profitable economic activity beyond the scope of conventional forms of on-balance sheet securities (debt, bonds, equity) in the effort to lower cost of capital and to mitigate agency costs of market impediments on liquidity. *Securitization provides the method utilized by the participants of structured finance to create the pools of assets that are used in the creation of the end product financial instruments.* The resulting financial instruments not only increase the supply of funds but also enable the institutions in better performance and risk management.

Securitisation is as necessary to the economy as any organized markets are. Securitisation in India has been in existence since early 1990s, though essentially as a device of bilateral acquisition of portfolios of finance companies. The first securitisation deal took place in 1991 when Citibank raised Rs. 16 crore from GIC Mutual Fund by securitising some of its auto loans. Since then, a variety of deals have been undertaken. Moreover, it is needless to mention that securitisation of loans, advances and receivables is mostly applicable to banks, financial institutions and non-banking financial companies (NBFCs), where such assets form a major component in the balance sheets, and as such in order to facilitate such organizations to allocate capital more efficiently, access diverse and cost effective funding sources and better manage business risks in an efficient manner, the concept of securitisation of loans and receivables has emerged. The analysis results point to the fact that securitisation improves the liquidity position, the risk management ability and the performance parameters of the sampled institutions. In other words, it may be said that the institutions and organizations which want to improve its liquidity, performance and risk management should opt for securitisation mechanism. However, the significance of securitisation may have been captured better if the analysis were done for a longer time period. Hence, a long run analysis of the effect of securitisation is necessary to realize the full potential of this innovative financing mechanism in India.

References

<u>*Articles, Notifications etc.*</u>

- Ferguson, Thomas P., (2008), "Observations on the Securitization of Non-Performing Loans in Russia", *Posted at papers.ssrn.com/sol3,* p.7
- Frankel, Tamar, (1997), "Cross-Border Securitization: Without Law, But Not Lawless," *8 Duke Journal of Comparative and International Law 255*
- Frost, C. W. (1997). "Asset Securitization and Corporate Risk Allocation", *Tulane University, Tulane Law Review*, November, pp.6-7
- Henzler, Filip, (2004), "Pine Street I LLC: a case study in securitisation" *Posted at www. capital dynamics website*
- Hugh, Thomas, (1999), "A Preliminary look at gains from Asset Securitization", *Journal of International Financial markets, Institutions and Money, Volume 9 Issue 3*
- Kettering C. Kenneth, (2008), "Securitisation and its Discontents: The dynamics of Financial Product Development", *Cardozo Law Review, Volume 29*
- Ketkar, Suhas and Ratha, Dilip, (2001), "Securitisation of Future Flow Receivables: A Useful Tool for Developing Countries", *Finance & Development, IMF,* p.7
- Kothari, Vinod and Gupta, Abhishek, (2004), "Development of RMBS markets in India: Issues and Concerns", *Project work at the Indian Institute of Management Bangalore*, available at www.vinodkothari.com/vk_rmbs_article.doc, pp.7-8
- Lipkin, Pamela, (1992), "Real estate securitisation", *Appraisal Journal*, High Beam Research, p.6
- Loutskina, Elena, (2004), "Does securitisation affect bank lending Lending? Evidence from Bank Responses to Funding Shocks", *The Quarterly Journal of Economics, MIT Press,* p.7
- Reserve Bank of India, (2002), "*The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Bill*", available at www.rbi.org.in
- ___________________, (2003), "*The Securitisation Companies and Reconstruction Companies (Reserve Bank) Guidelines and Directions*", available at www.rbi.org.in
- Schwarcz, Steven L**.**, **(**1995), **"**The Alchemy of Asset Securitization" *Article published at Duke University Global Capital Markets Center*, available at www.law.duke.edu/fac/cv/schwarcz.pdf
- Sridhar, V., (2002), "Securitization in India – Opportunities & Obstacles", *A Discussion paper PGP 2002, IIM Calcutta,* available at www.vinodkothari.com/india_article

<u>*Books*</u>

- Fabozzi, Frank J. (1998), *Handbook of Structured Financial Products,* John Wiley and Sons, New Delhi
- Kothari, Vinod. (2000), Securitisation, Academy of Financial Services

<u>*URLs visited*</u>

- www.arcil.co.in
- www.crisil.com
- www.rbidocs.rbi.org.in/rdocs/PublicationReport
- www.rbi.org.in

Annexure-A

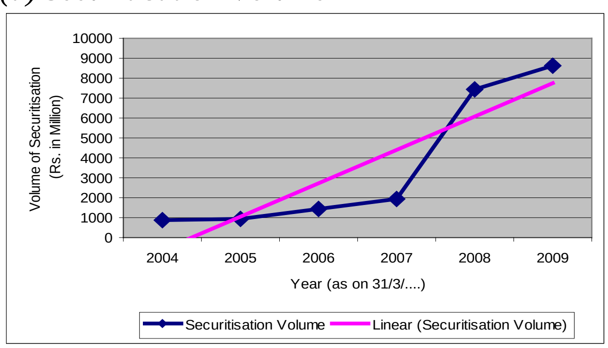
Hypothesis 1: Securitisation does not help the banking industry to maintain a steady performance.

Out of all the sample institutions, only two have been reflected in the annexure to support the overall summary analysis.

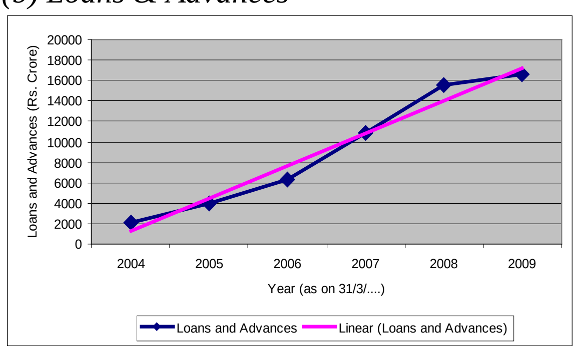
Kotak Mahindra Bank

Figure-1: Line Charts (with linear trend) showing Performance Parameters vis-à-vis Securitisation Volume

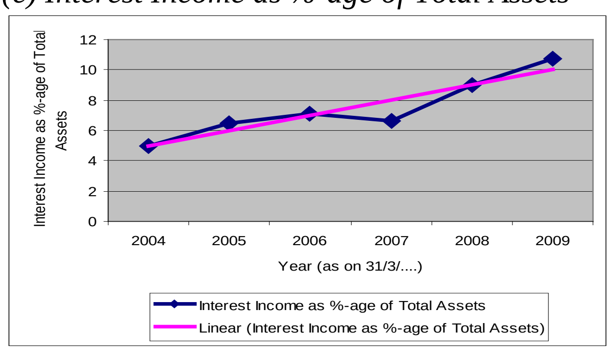
(a) Securitisation Volume



(b) Loans & Advances

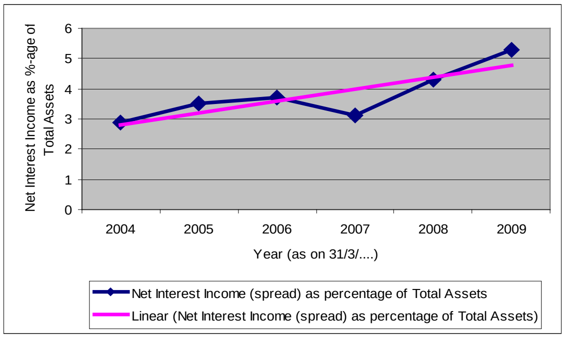


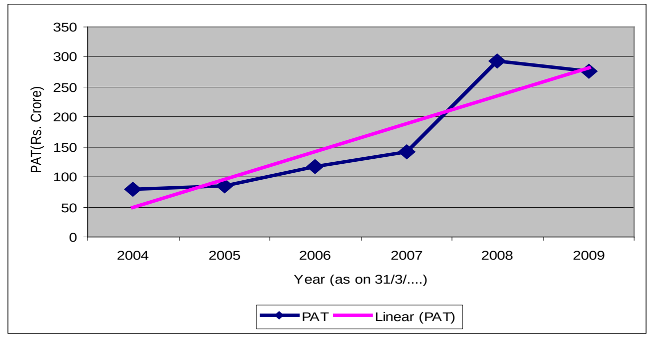
(c) Interest Income as %-age of Total Assets



(d) Net Interest Income (Spread) as %-age of Total Assets

(e) PAT



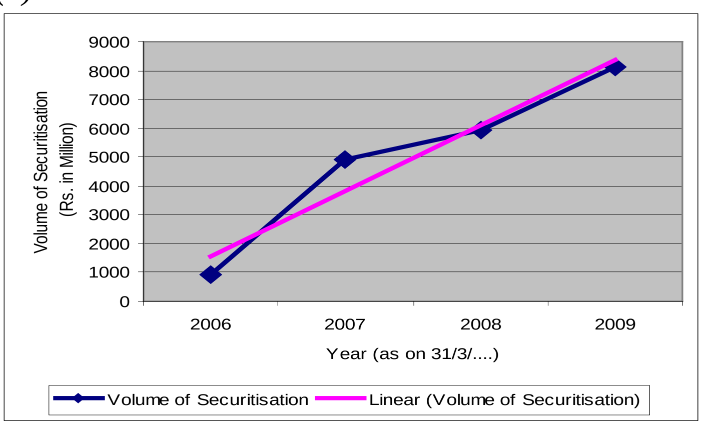


The loans and advances had increased over the various years as a result of increase in securitisation volume. In respect of the interest income parameters, viz. interest income and spread, both had increased over the years with a big upward leap in 2008 and 2009 in tune with securitisation volume. Such movements had its positive impact on PAT which also depicted an upward moving slope.

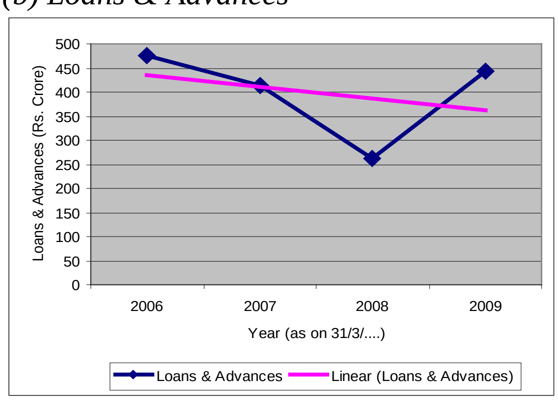
Shriram Transport Finance Co. Ltd.

Figure-2: Line Charts (with linear trend) showing Performance Parameters vis-à-vis Securitisation Volume

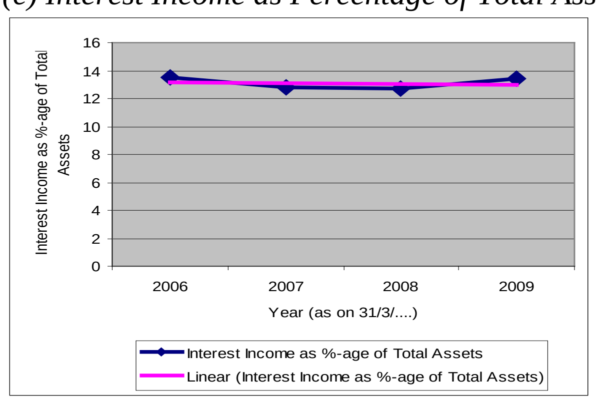
(a) Securitisation Volume



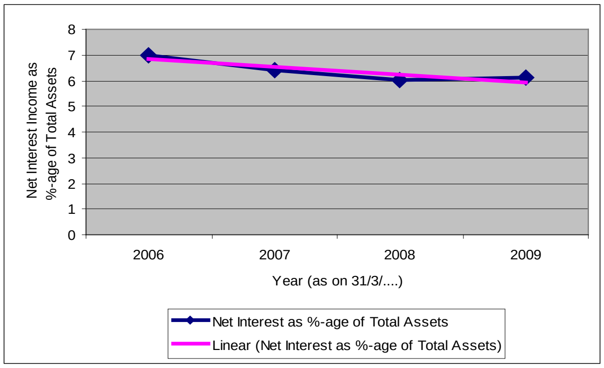
(b) Loans & Advances



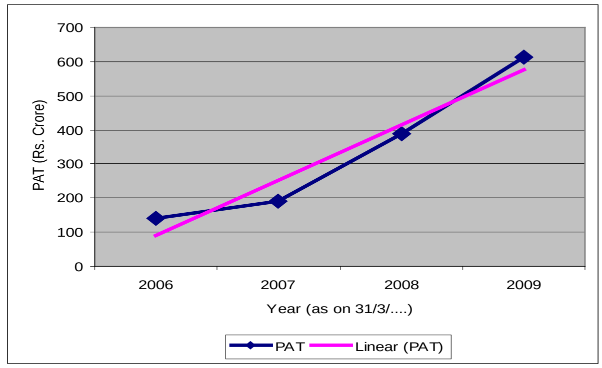
(c) Interest Income as Percentage of Total Assets



(d) Net Interest Income (Spread) as %-age of Total Assets



(e) PAT



Loans and advances, after decreasing in 2007 and 2008, increased in 2009. Even the interest income parameter also remained at a constant level over the various years. In fact, the net interest parameter showed a decreasing trend. PAT has increased gradually since 2007 as probably the income from other services provided by the institutions were high which maintained the growth rate of PAT. Thereby, taking into consideration the movement of the various parameters the null hypothesis is accepted.

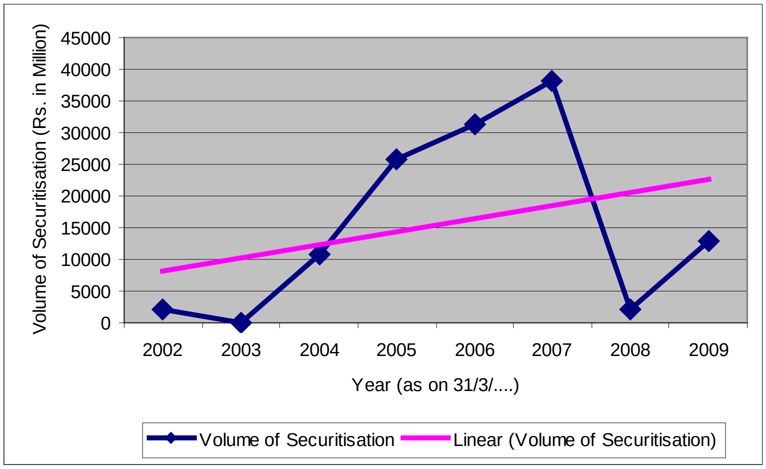
In the similar way the two selected parameter and the securitisation volume have been compared in respect to other sample institutions. The overall results indicate that in respect of 75% of the sample institutions the performance ratios have followed the movement trail of the securitisation volume. The overall analysis shows only 75% satisfaction of theory in case of both banks and NBFCs respectively. In other words, introduction of securitisation has showcased a positive effect on the performance parameters in majority of the sample institutions, considering other controlling variables constant.

Hypothesis 2: Securitisation does not improve the asset quality of the banking institutions.

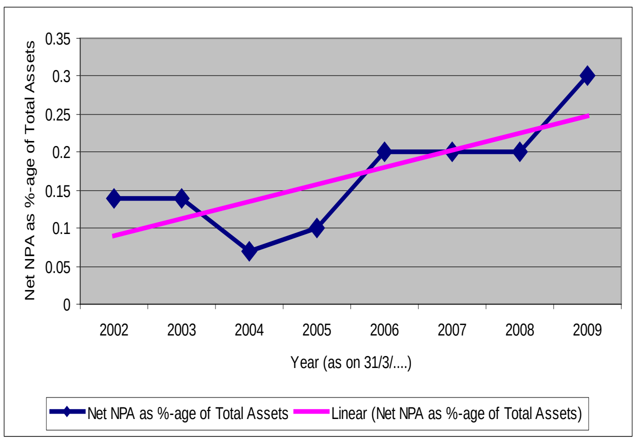
HDFC Bank Ltd.

Figure-3: Line charts (with linear trend) showing Asset Quality Ratios vis-à-vis Securitisation Volume

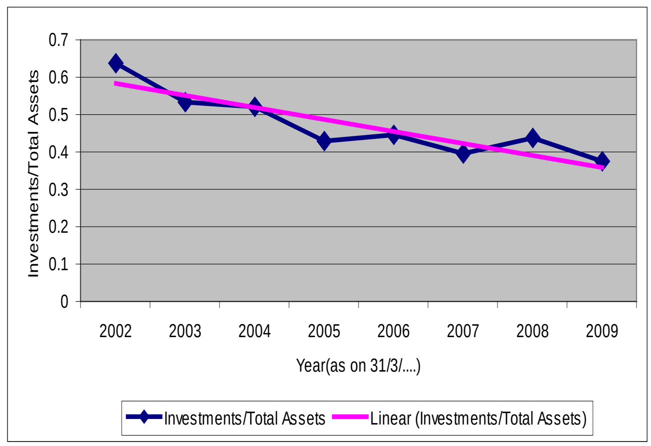
(a) Securitisation Volume



(b) Net NPA as %-age of Total Assets



(c) Investments/Total Assets

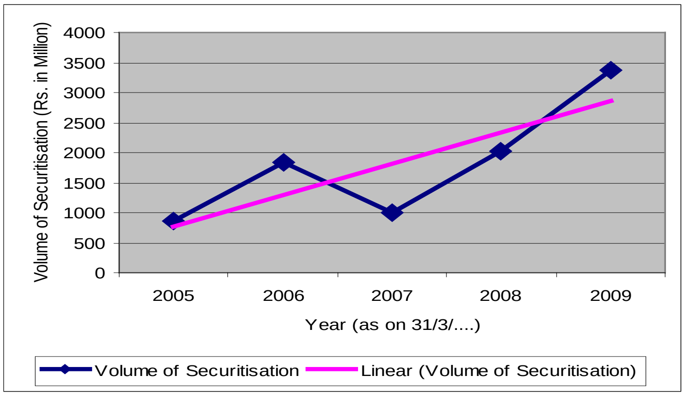


The net NPA as percentage of Total Assets had shown a random trend in *figure-3*. First of all, as the securitisation level increased in 2004 and 2005, the NPA level decreased substantially, though a marginal rise in NPA in 2005 from 2004 was observed. However, again when the bank reduced the rate of securitisation slightly in 2006, the NPA level increased. It remained constant for a few years and then when the securitisation level decreased sharply in 2008, it had its effect on the NPA level as it rose substantially in 2009. The other parameter, investments/total assets decreased over the various years. Thus, it can be stated that securitisation has a favourable impact on the asset quality of HDFC Bank Ltd. as it helped in reducing both the level of NPA and Investments in the entire composition of assets, given that other influencing variables have remained constant.

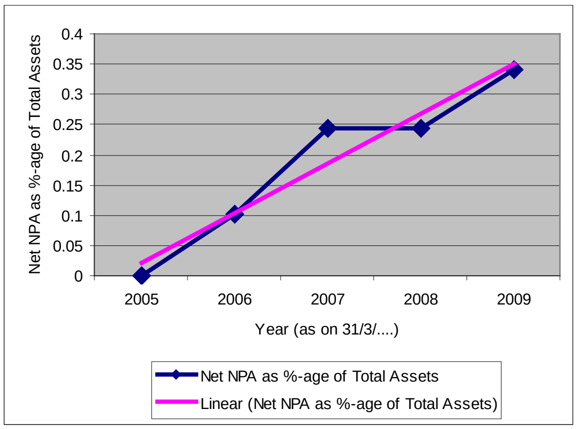
Kotak Mahindra Prime Ltd.

Figure-4: Line charts (with linear trend) showing Asset Quality Ratios vis-à-vis Securitisation Volume

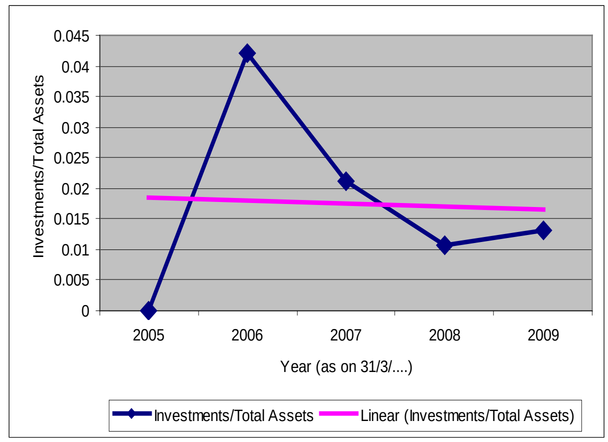
(a) Securitisation Volume



(b) Net NPA as %-age of Total Assets



(c) Investments/Total Assets



The above figure depicts that NPA percentage is zero in the beginning and then it gradually increased over the various years even though securitisation volume increased during the same period. The investments ratio to total assets however, decreased over the years after 2006. Again in 2009 the ratio increased. When compared with the graphical representation of loans it can be seen that the loans decreased over the various years except in 2009. Thus, though loans have decreased, but at the same time investments have also decreased. Thus, taking into consideration both the parameters, it may be concluded that securitisation in case of this institution has not been able to cast a positive impact on the asset quality. So, this is a case of acceptance of the null hypothesis.

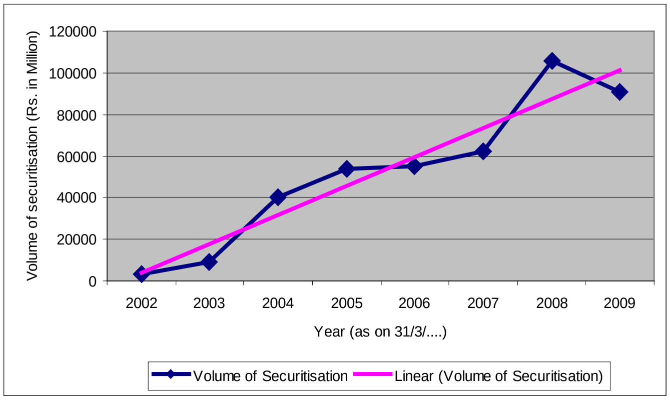
Similarly, the other sample institutions have also been tested in relation to the hypothesis and the selected parameter. An overall analysis of all the other sample institutions indicates that all the institutions have depicted a 91.67% satisfaction with respect to the impact of securitisation volume. Thus, it can be inferred that the more the securitisation, the better is the asset quality of the banks and NBFCs, when all other changing variables are assumed to be constant.

Hypothesis 3: Securitisation does not enhance the institutions' loan portfolios more than their holdings of liquid securities i.e. investments.

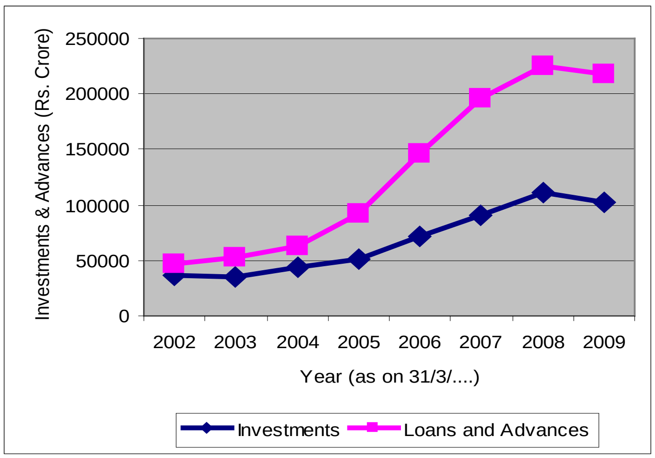
ICICI Bank Ltd.

Figure-5: Line charts (with linear trend) showing Investments & Loans vis-à-vis Securitisation Volume

(a) Securitisation Volume



(b) Investments & Loans

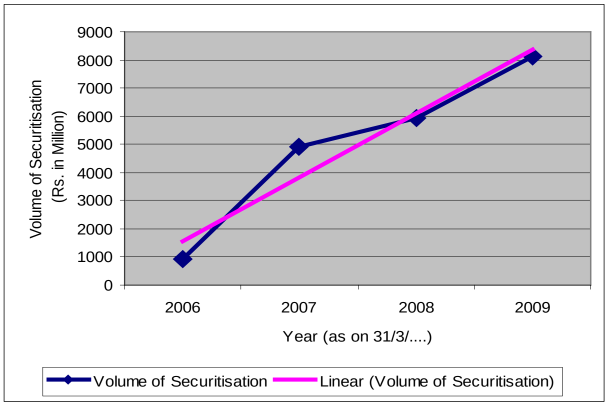


Loans and advances steadily increased at a higher rate than investments with the increase in securitisation volume, with a slight dip in both the parameters in 2009, together with a decrease in securitisation volume.

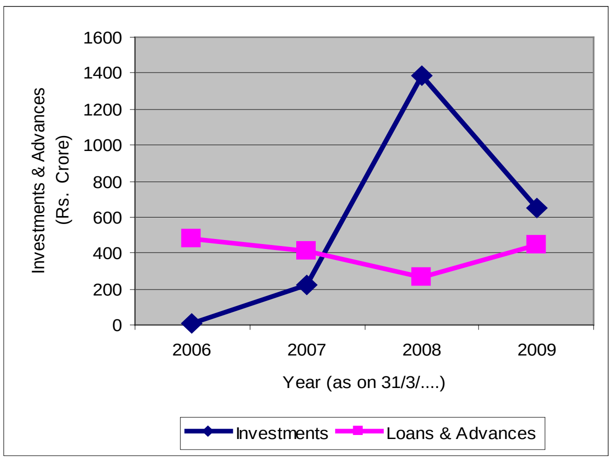
<u>Shriram Transport Finance Co. Ltd.</u>

Figure-6: Line charts (with linear trend) showing Investments & Loans vis-à-vis Securitisation Volume

(a) Securitisation Volume



(b) Investments & Loans



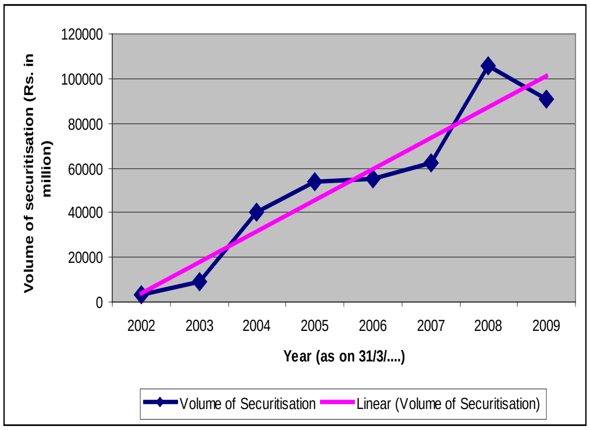
The above figure shows that the loans and advances were higher than investments till 2007, and in the last two years the institution invested more than lent out. In 2007 and 2008 with increase in securitisation volume, loans decreased while investments increased and in 2009 only, investments decreased while loans increased with further increase in securitisation volume, though total amount of investments being still larger than loans. The reason behind increase in investments over loans in the last two years could be the massive downturn in the global financial market which led the institution to invest more in order to maintain a steady performance trend. Thus, the hypothesis in this case is accepted and hence theory gets rejected. Similarly, the results of the other sample institutions indicate that in all the sample institutions, the overall satisfaction index is 91.67%.

Hypothesis 4: Securitisation does not help the institutions in better risk management.

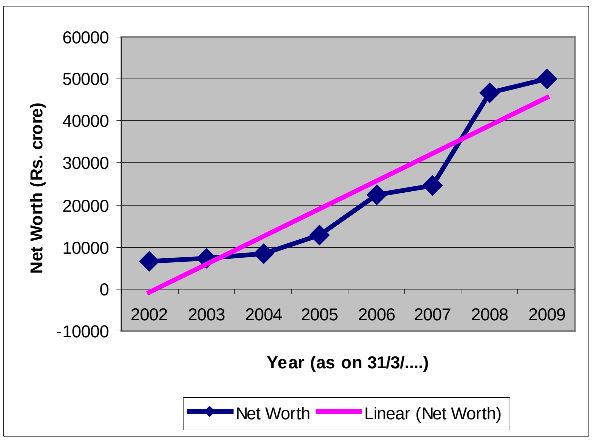
ICICI Bank Ltd.

Figure-7: Line Charts (With Linear Trend) Showing Net Worth vis-à-vis Securitisation Volume

(a) Securitisation Volume



(b) Net Worth

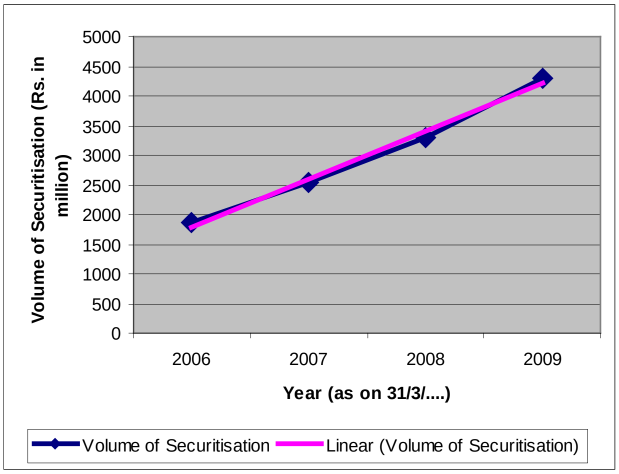


Both securitisation volume and net worth depicted a similar movement over the years thereby indicating that securitisation has helped in better risk management and an improved net worth of the bank.

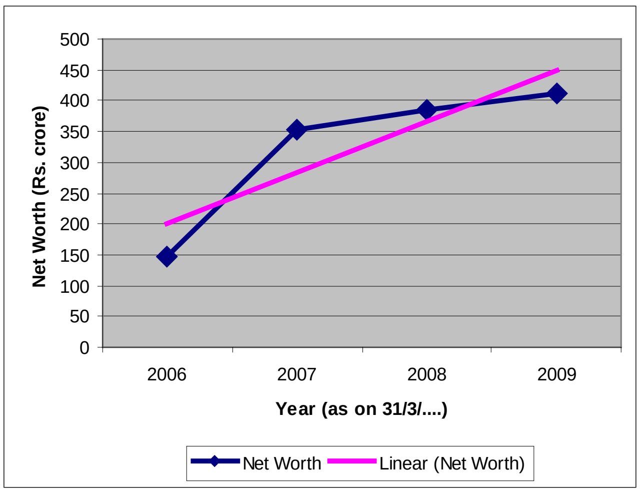
<u>Magma Fincorp Ltd.</u>

Figure-8: Line Charts (With Linear Trend) Showing Net Worth vis-à-vis Securitisation Volume

(a) Securitisation Volume



(b) Net Worth



In this case too, the net worth increased along with increase in securitisation volume over the various years thereby rejecting the null hypothesis. Similarly, the results of the other sample institutions indicate that in all the sample institutions, net worth has increased in response to the securitisation trend and the overall satisfaction index is 100%.

*****