ASSET SECURITIZATION

By Mr Vajira Kulatilaka

1. BACKGROUND

1.1 INTRODUCTION

Securitization is the process of transforming illiquid assets into a security, i.e. an instrument that is issued and can be traded in a capital market. Assets that have been transformed in this manner include residential mortgages, auto loans, credit card receivables, leases and utility payments. Securities involving housing mortgages are referred to as mortgage-backed securities (MBS). The term asset-backed security (ABS) is generally applied to any securitized instrument other than MBS. Asset securitization techniques were pioneered in the U.S.A and are being embraced by a number of Asian countries seeking to promote home ownership, finance infrastructure growth, and develop their domestic capital markets.

In case of a typical Asset Securitization financial claims are assigned or sold to a Special Purpose Vehicle (SPV). The objective is to legally separate asset from the issuer. The SPV in turn issues one or more debt instruments, whose interest and principal payments are serviced from the cash flows arising out of the underlying assets. The figure below depicts the process of Securitization.

Figure 1. Diagrammatic Representation of the Securitization Process

This paper discusses the evolution of the global securitization market, process of securitization, key decisions and the constraints for securitization in Sri Lanka.

1.2 THE STRUCTURE AND ADVANTAGES

The central element of securitization is the separation of "good" assets from a company or financial institution, and the use of these assets as backing for high-quality securities that appeal to investors. Such separation can make the quality of an asset-backed security independent of the creditworthiness of the originator.

Most ABS investors are not willing to take significant credit risk. Hence, even when the assets being securitized are of good quality, many deals entail some form of credit enhancement (please refer Section 3.3 for more details). For this reason, asset-backed securities tend to have excellent credit ratings.

The originator of the underlying assets will normally continue to process or service the assets i.e. communicating with borrowers and collecting their payments. The originator normally

values this feature as the relationship with the client can be maintained subsequent to the securitization. The originator may offer to sell the servicing rights to a third party. This is often done in the US mortgage-backed securities market. In fact there are instances where the stream of servicing fees themselves were securitized as a separate transaction!

For corporations, asset securitization provides a new and potentially cheaper form of financing. In the case of financial institutions (such as banks and finance companies) which have successful loan programs but face capital constraints, securitization is a means of removing assets from the balance sheet and of freeing up capital to support further lending (please refer Section 4.0 for Collaterized Loan Obligations). Asset securitization enables an originator to achieve a match between assets and liabilities.

For investors, the securities offer higher yields and provide diversification into a different form of investment. In the case of large deals with high credit ratings, the securities tend to be liquid and may be actively traded in secondary markets.

1.3 SOME ASSETS THAT CAN BE SECURITISED

While residential mortgage loans provide the core of the global asset-backed securities market, a wide range of other financial claims can be and have been securitized. Virtually any income-producing asset with an adequate performance record and some diversification of credit risk can be securitized.

Consumer finance receivables, in particular vehicle leases and credit card receivables, constitute the most important segments of the non-mortgage ABS market. Other assets commonly securitized globally include student loans, utility receivables, heavy equipment and loans.

In Sri Lanka, securitizations are mainly limited to lease receivables. There are also instances of securitization of hire purchase receivables, housing loans and capacity charges on power generation projects. The suitability of assets for securitization lies not so much in what they are, but in whether following two criteria can be met by them i.e.

- Can they be subject to rigorous credit and statistical analysis?
  For example, does the originator have acceptable statistics on the composition of receivables, agings, defaults, losses, and consistent trends in payments?

- Are the assets unencumbered and transferable?

If the above criteria can be satisfied, there seems to be no limit to the range of assets and cash flows that may be securitized: examples include revenues from the singer David Bowie's performances. There are also instances of securitization of future revenues such as those generated from exports and subscriptions for golf course memberships.

1.4 THE GLOBAL MARKET

The earliest securitization transaction dates back to the early 1970s when the Government National Mortgage Association (Ginnie Mae) sold a pool of mortgage loans. Around the world,

asset-backed securities markets have also been growing rapidly. The first mortgage securitization in Europe, an UK mortgage-backed issue, was completed in 1987. Public or private asset-backed issues have since been consummated in France, Germany, Spain, Italy, Belgium, the Netherlands and Sweden, among other countries. A number of other countries in Asia, including Japan, Hong Kong, Thailand, Indonesia, India and the Philippines have all seen the introduction of asset-backed securities. In addition, almost every day, significant new asset-backed bonds are issued in the Eurobond market. The instrument has become a standard component of conservative, yield-seeking international investment portfolios.

Let us look at some leading global markets.

United States of America

The United States of America is the largest securitization market in the World. In terms of depth, it may be the only market in the world where securitizations draws participation from both institutional as well as individual investors. In terms of width, the US market has far more applications of securitization than any other market. The securization market in the U.S.A. has grown to a massive U.S $ 5.5 trillion.

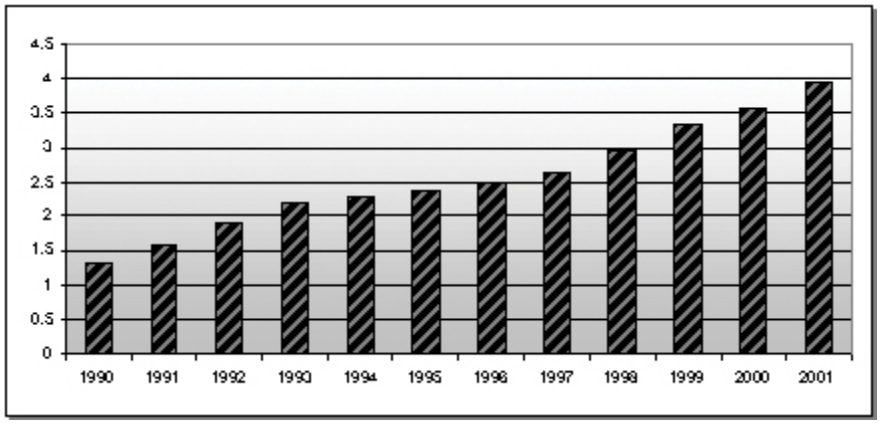

Figure 2. Outstanding volume of Mortgage-backed Securities (US $ trillions)
Source: The Bond Market Association (30 September 2001)

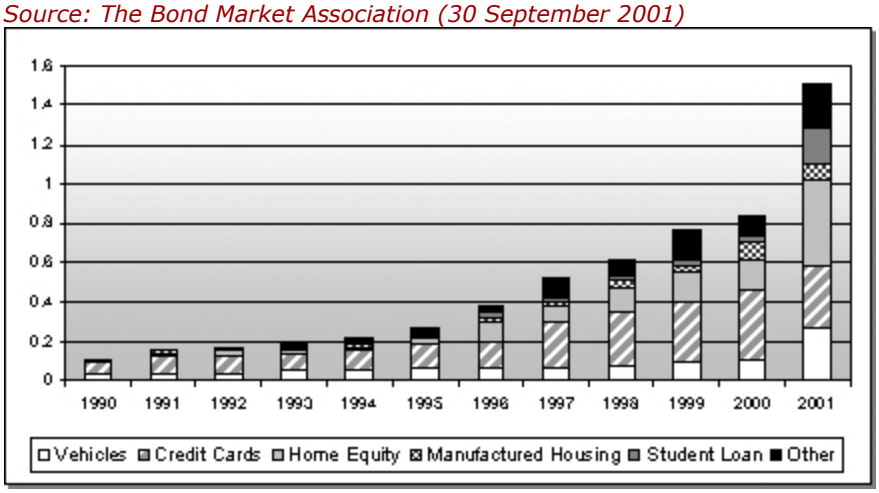

Figure 3. Outstanding volume of Asset-backed Securities (US $ trillions)
Source: The Bond Market Association (30 September 2001)

United Kingdom

The United Kingdom can well be regarded as the securitization laboratory of Europe, as securitization is increasingly being used in the UK as a financing mechanism. UK contributed transactions worth about US $ 26 billion in 1999 and by the end of 2001, was the top player in Europe - in fact, UK's contribution was about 35% of total European securitization in 2001.

Securitizations, in the UK, have taken place with credit card receivables, auto loans, equipment leases and receivables from pubs. Sections of the media and entertainment industry are seeking to securitize royalty streams from completed films and TV programming and from music publishing and recording.

Singapore

The major securitization transactions in Singapore have involved commercial real estate, residential sales progress payment, credit card receivables, bonds and loans.

One of the notable deals in Singapore market has been the issuance of an asset backed short-term notes programme by DBS Bank. In 1999, DBS Land, a property company, raised Singapore $ 1.3 billion by securitizing three office buildings.

2. DEFINITIONS

2.1 THE ORIGINATOR

The provider of assets to be securitized. The cash raised through the securitization will be utilised to generate further assets.

2.2 THE BORROWERS

The borrowers are instrumental in creating assets (for example, borrower of a housing loan or a lessee).

2.3 THE INVESTORS

Investors are the subscribers to the securitized debt instruments.

2.4 BANKRUPTCY REMOTENESS

The concept of Bankruptcy Remoteness applies to the SPV created to hold the assets. An SPV, which satisfies certain legal criteria, can isolate assets so that they are beyond the reach of the

creditors of the originator. Bankruptcy remoteness is a critical feature that protects the investors who purchase the securities issued by the SPV in case of bankruptcy of the originator.

3. THE SECURITIZATION PROCESS

A typical securitization structure works as follows:

1) A lender, such as a bank, finance company or corporation, originates loans. Typically, the institution wishes to expand, but finds available capital and the term financing are insufficient to support the planned expansion.

2) The securitization structure is developed. The originator will sell or assign certain assets to the SPV. The nature of the transfer and the legal status of the SPV vary from issue to issue and require careful structuring.

3) The assets are chosen and the structure designed to obtain a high credit quality/rating. This can be accomplished in one or more of the following ways:

- Preparing the pool for securitization, for example, by employing prudent criteria in screening assets for inclusion. Please refer Section 3.2 for the due diligence exercise.
- Credit enhancements, which are more fully described in Section 3.3.
- The SPV issues one or more classes of securities paying defined interest rates to investors, and pays the funds it receives from investors to the seller of the assets.
- Over time, the payments from borrowers to the originator are processed by a servicer (typically the originating institution itself). The servicer passes the interest, principal and fee payments from the borrowers, less servicing fees, to the SPV. The SPV in turn pays a pre-defined interest rate to the investors, plus any principal repayments, according to the terms of the ABS.
- When all principal payments have been made and the securities have accordingly matured, the SPV is extinguished and any remaining assets (including cash) are returned to the originator.

Given below are the key decisions in carrying out a securitization.

3.1 SETTING UP THE SPECIAL PURPOSE VEHICLE (SPV)

- In securitization SPVs are legal entities such as corporations, trusts, or partnerships established for a specific and limited purpose. A SPV essentially acts as a depository for a specific group of assets in a securitization, and in turn, issues securities to the marketplace for purchase by investors. In Sri Lanka a trust is being used as the SPV
- SPVs do not have the right or ability to engage in any activities other than those rights granted to them in the legal documents creating and governing the securitization transaction and the SPV. Once the SPV is created, it must operate as a wholly independent

entity. This generally includes appointing its own directors/ a trustee, paying all of its own expenses, not paying the expenses of the selling entity and not commingling its assets with those of any other entity, including those of the originator.

- Once assets are assigned to an SPV, they are "legally isolated" and consequently are no longer available to the originator or its creditors. The deposited assets can be used only to make payments on the securities issued to investors and may not be reclaimed by the originator.

3.2 SELECTION OF ASSETS

Assets for the securitization are selected through a detailed due diligence exercise to ascertain the following:

- The quality of assets to be securitized - as stated previously the assets selected for securitization should be of higher quality than the aggregate pool of assets of the originator. Some factors that would be analysed/evaluated are given below:

:: Repayment history

:: Legal documentation

:: Ownership structure

:: Valuation of assets

:: Re-saleability of underlying assets

An attempt would also be made to construct a diversified portfolio of assets for the securitization exercise. The diversification in this instance can be achieved through factors such as geographical dispersion, industry-wise distribution, etc.

Sensitivity analysis (Stress Test) would be carried out to ascertain the ability of the portfolio (after credit enhancements) to withstand adverse changes in the economic environment.

- **Evaluation of the Organisation – The originator should be ready to raise funds through a securitization. It must possess systems and resources to administer a securitization. The originator should have procedures in place to continuously maintain the quality of the assets selected for securitization. In this regard the management information systems play a vital role**

The due diligence on the originator is vital in case it is to act as the servicer. In this particular instance, the originator must be capable of collecting principal and interest, following up on delinquents, maintaining statistics on performance, passing on payments in a timely fashion, and performing numerous other administrative tasks.

3.3 CREDIT ENHANCEMENT

Given below is a selected list of risks associated with a securitized instrument. Some of these risks are also associated with any fixed income instrument.

Credit risk : arises from the possibility that the issuer of a securitization instrument, usually a SPV, may default on its liabilities. Since the SPV is normally structured to have no assets or business other than holding the securitized assets, the principal focus is on the cash flow from the assets themselves and the credit enhancements. Therefore, the major factor that would contribute to credit risk is the possibility of default by the borrowers.
Servicer performance risk arises from the possibility that the servicer will fail to carry out its tasks as expected during structuring of the securitization. This risk can be reduced through proper screening and monitoring of the servicer. The ability to choose an alternate servicer can play an important role in mitigating this risk.

Interest rate risk : This risk may be mitigated through the structuring of securities to be issued by the SPV to carry a variety of maturities – thus giving an investor the ability to match needs.

Prepayment risk : Payments made in excess of the scheduled principal payments on a loan are called prepayments. Individuals and businesses normally pay early either because of a change in their circumstances or because they can refinance on better terms. When borrowers can refinance at cheaper cost, it generally means that investors must reinvest at lower rates. That is why prepayment risk often implies interest-rate risk. Although prepayments are a factor in many securitizations, they have the greatest impact on securities backed by long-term, fixed-rate home loans because it is here that they may produce the largest change in the present value of foregone cash flows, due to reduction in interest rates. Prepayments also take place when the borrower is graduating to a better house. In Sri Lanka this risk is not high due to exorbitant prepayment damages imposed by financial institutions.

Sovereign risk takes many forms, but is most evident when the underlying assets are in one country and investors are in another. Sovereign nations may interfere with cross-border cash flows through taxes, exchange controls or other measures.

Investment Banks have come up with a structure using an offshore SPV to mitigate this risk. This structure would enable cash flows from foreign sources such as telecom receivables from the international operators to be directly remitted to the off shore SPV.

Currency risk (the risk of devaluation) arises when the assets underlying an issue are denominated in a currency that investors do not wish to hold. Some securitizations contracts provide for an increase in the local currency payments to offset any decrease in the currency's value. Alternatively, a currency swap can be employed to transform the local currency cash flows into known payments in, say, US dollars or Japanese yen.

Legal Risk : Devising a watertight legal structure in a securitization is a great challenge, particularly in countries where the legal/regulatory framework is evolving with regard to securitizations. Sri Lanka is no exception. The major issue is "bankruptcy-remoteness": the

SPV must be insulated against bankruptcy of the originator. In case the originator experiences financial difficulties, the SPV must still be able to retain interest on the assets and obtain full control over cash collections. Other legal issues include the legal, accounting and fiscal status of the asset transfer and the form of the SPV.

Liquidity risk is the difficulty in converting a security to cash equivalent close to its true value. This is also known as the marketability risk. The creation of a mechanism for an active secondary market would reduce this risk.

Swap counterpart risk : A swap is required when ever the underlying assets pay interest on a floating rate basis and the investors are serviced on a fixed rate basis or vice a versa. As described above, a swap may also be employed to eliminate currency risk. Swap counterparty risk is the risk faced by a participant when entering into a swap, that its counterparty may renege on the future obligations to which it has committed. This risk is highest at the time it is most disadvantageous to the counterparty to fulfil its obligations.

Credit enhancements are the techniques employed to eliminate or mitigate the above risks.

Credit enhancements in isolation could be viewed as contributing to higher cost of funds to the originator. However, the selected investors should be willing to settle for lower return from credit enhanced instruments vis a vis return from straight debts instruments issued by the originator. Considering the above two off setting factors, credit enhancements can be incorporated into securitization provided that:

Marginal increase in funds due to a credit enhancement	$\leq$	Increase in acceptability of the instrument and the resultant marginal decrease in return offered by the investors

Hence, the sufficiency of credit enhancement is a commercial decision between the originator and the arranger of securitization. Further, credit enhancements can also be used to improve the credit rating of the instrument.

3.4 TYPES OF CREDIT ENHANCEMENT

Broadly, there are four sources of credit enhancements.

1. Excess asset value or cash flows from the underlying pool

2. Enhancements provided by the originator

3. Third party enhancements provided by banks insurance companies etc.

4. Subordinated debt structure

1. Excess asset value or cash flows from the underlying pool

There are two ways of viewing excess asset value (asset in this case is the present value of the future cash flows). Firstly, the concept of loan-to-value (LTV) ratio, where only a portion of the value of the asset at the inception is used for the securitization. The excess portion can be considered as an over collaterization. The originator provides excess assets over and above those being financed through securitization with a view to having excess assets to cover losses and or repayment delays. Secondly, this excess asset value would become a cash cover as and when the cash flow is generated.

2. Enhancements provided by the originator

The Originator may itself provide support for the securitization. The degree of support offered by the originator may affect the degree to which the securitization transaction can be considered to be off the originator's balance sheet. In fact, Sri Lanka this credit enhancement has been used to prevent lease assets being considered to be transferred from the balance sheet of the originator. The reason is that, in case the lease assets are moved out of the balance sheet, the accelerated depreciation allowances will be lost to the originator. The major support provided by the originator is the agreement to replace assets, which have deteriorated in quality with performing high quality assets.

3. Third party enhancements provided by banks insurance companies etc.

Third party enhancements would include letters of credit or guarantees provided by banks or insurance companies. Partial guarantees can also be used as credit enhancement.

4. Subordinated debt structure

The subordinated debt structure or prioritised distribution process is as follows:

- Several classes of securities (these are referred to as tranches) are issued against a pool of assets to be securized. As an example, let us assume an ABS issue with four classes (tranches) of bonds. In such a case, the first three (eg. Classes A, B, C) would pay interest at the stated rates, commencing at the issue date and the fourth class would be an accrual bond (popularly known as a Z bond).

- The cash flows received from the underlying assets are applied first to pay the interest on the first three classes of bonds, and then to retire these bonds.

- The classes of bonds are retired sequentially. All principal payments are directed first to the shortest-maturity class A bonds until they are completely retired. Then all principal payments are directed to the next shortest-maturity bonds (ie. the class B bonds). The process continues until all the classes have been paid off.

- During the early periods, the accrual bonds (the class Z bonds) are paid with no interest, but the interest accrues as additional principal, and the cash flow from the assets that collateralize these bonds is used to pay interest on and retire the bonds in

the other classes. Subsequently, all remaining cash flows are used to pay off accrued interest, pay any current interest, and then to retire the Z bonds.

The prioritised sequential pattern means that the A-class bonds are fairly short-term and each subsequent class is a little longer term until the Z-class bond, which is a long-term bond. The Z-class bond would also function like a zero coupon during the initial years. The objective is to provide credit enhancements to A, B, and C bond at the expense of Z bond.

4. COLLATERALIZED LOAN OBLIGATIONS (CLO)

This is a product that is most appropriate for the banking sector. As the banking industry becomes more competitive and focuses on capital efficiency, it has started to evaluate alternatives to improve returns on assets and equity. CLOs offer capital advantages that improve a bank's ability to face competition. Using CLOs banks securitize their loan portfolios. This enables banks to use the capital markets to efficiently finance low yielding assets and free a significant amount of regulatory capital. This freed up capital can be a part of an institution's capital management plan to expand the loan portfolio, pay dividends or making strategic acquisitions. A bank can still retain the client and the contacts, as the portfolio is sold to a SPV and not to a competitor bank.

5. RATING OF SECURITIZED INSTRUMENTS

The rating agency addresses the likelihood that an originator will repay the principal and interest in full and on time in accordance with the terms of the debt instrument. A rating can offer access to investors otherwise unavailable to the originator, thereby enabling the diversification of sources of financing. There are large institutional investors in Sri Lanka who insist on acceptable credit rating for debt instruments. This aspect may be more important for originators whose name and reputation are unknown to investors. On the other hand rating enables investors to gauge the risk of securities accurately and expeditiously without tying up their own valuable resources. As the capital markets become more globalized, ratings will become more important, particularly for issuers seeking to borrow from new markets and in new ways.

In effect, rating becomes a checking mechanism. The rating agency will carry out an independent due diligence on the originator, the portfolio and the legal structure. Credit enhancements would also affect the credit rating. In fact, credit enhancements can be used to upgrade a rating to the required levels. The rating agency would also carry out a stress test on the securitized instrument to ascertain its ability to meet the terms and conditions to investors in case of adverse variations in the economic environment.

The credit rating agency will maintain surveillance on all its rated issues by monitoring both the asset's performance and the parties providing support to the transaction. Periodic monitoring of the assets ensures a continuous and consistent review of actual and projected performance. Deterioration in the performance of the underlying assets and the accompanying credit enhancements may lead to a downgrade of the rating. Conversely, an upgrade of a rating may be possible if the assets are performing exceptionally well and all other aspects of the issue such as supporting party ratings and other enhancements warrant a higher rating.

6. THE CONSTRAINTS FOR SECURITIZATION IN SRI LANKA

As stated earlier, the majority of securitization in Sri Lanka has been backed by lease receivables. However hire purchase receivables, housing loans, operational leases and capacity charges on power projects have also being used for securitizations. The constraints for structuring of such deals can be broadly categorized into following:

1) Legal factors

2) Taxation related factors

3) Administrative factors

6.1 LEGAL FACTORS

There are some Acts that preclude assignment of receivables to a SPV (for instance, The Finance Leasing Act of 2000). Further, the Consumer Credit Act of 1995 permits assignment provided prior notice is given. As a consequence in case of most securitizations, the future cashflows and the underlying asset are mortgaged to the SPV.

6.2 TAXATION RELATED FACTORS

The originator especially in case of lease assets requires to benefit from the accelerated depreciation allowances. A sale of the underlying asset would prevent the originator from claiming the future tax benefits. There is no mechanism to pass on this tax benefit to the investors through the SPV, so that cost of funds to the originator can be reduced. Hence in most of the structures in Sri Lanka, credit enhancements such as replacement of non performing assets in the portfolio with those which are performing have been used to argue out that a sale has not taken place and therefore the tax benefits would still accrue to the originator subsequent to the securitization exercise.

6.3 ADMINISTRATIVE FACTORS

The borrowers in Sri Lanka are not accustomed to selling/transferring of credit facilities. Hence, individuals/borrowers would resist participating in the process of securitization in such ways as signing of the letter of consent, or other transfer documents related to the Registrar of Motor Vehicles (RMV). In fact RMV procedures are presently very cumbersome for a securitization.

The above constraints should change for securitization to become a major source of financing in Sri Lanka.

Given below is a typical securitization structure in Sri Lanka

Issue of Trust Certificates

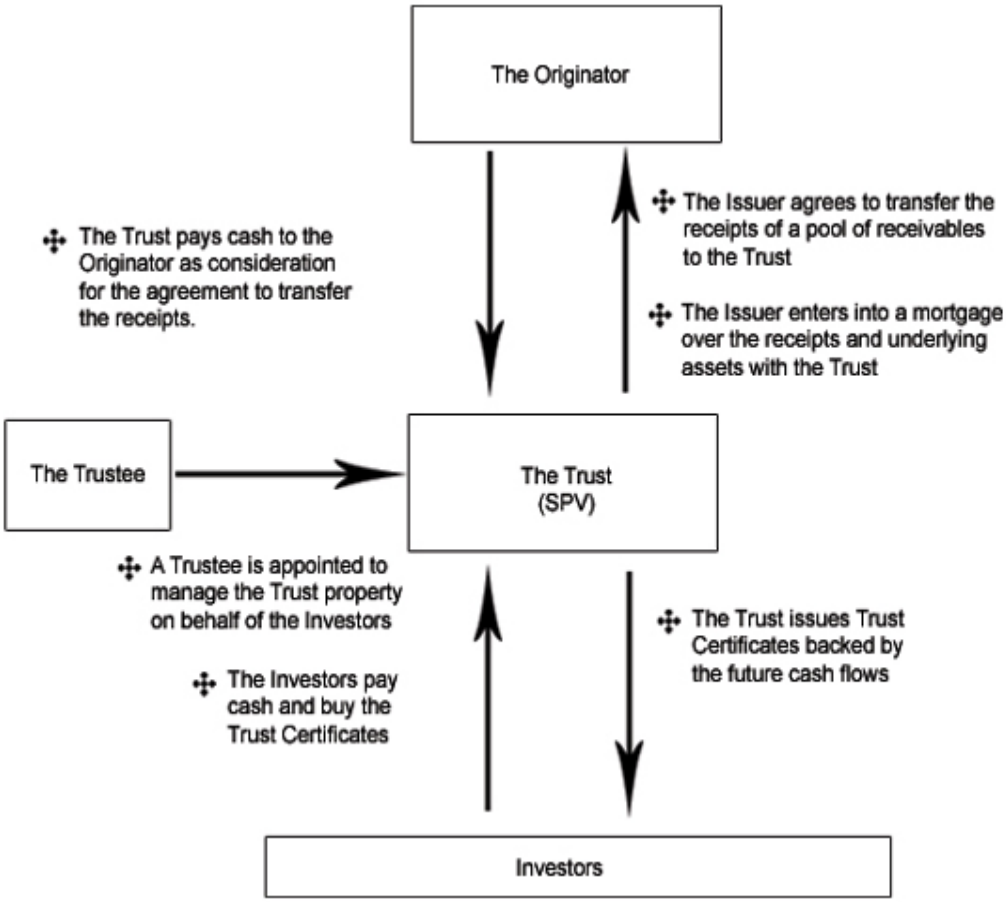

Figure 4. A diagrammatic representation of the steps involved in the issuing of the Trust Certificates

Servicing of Trust Certificates

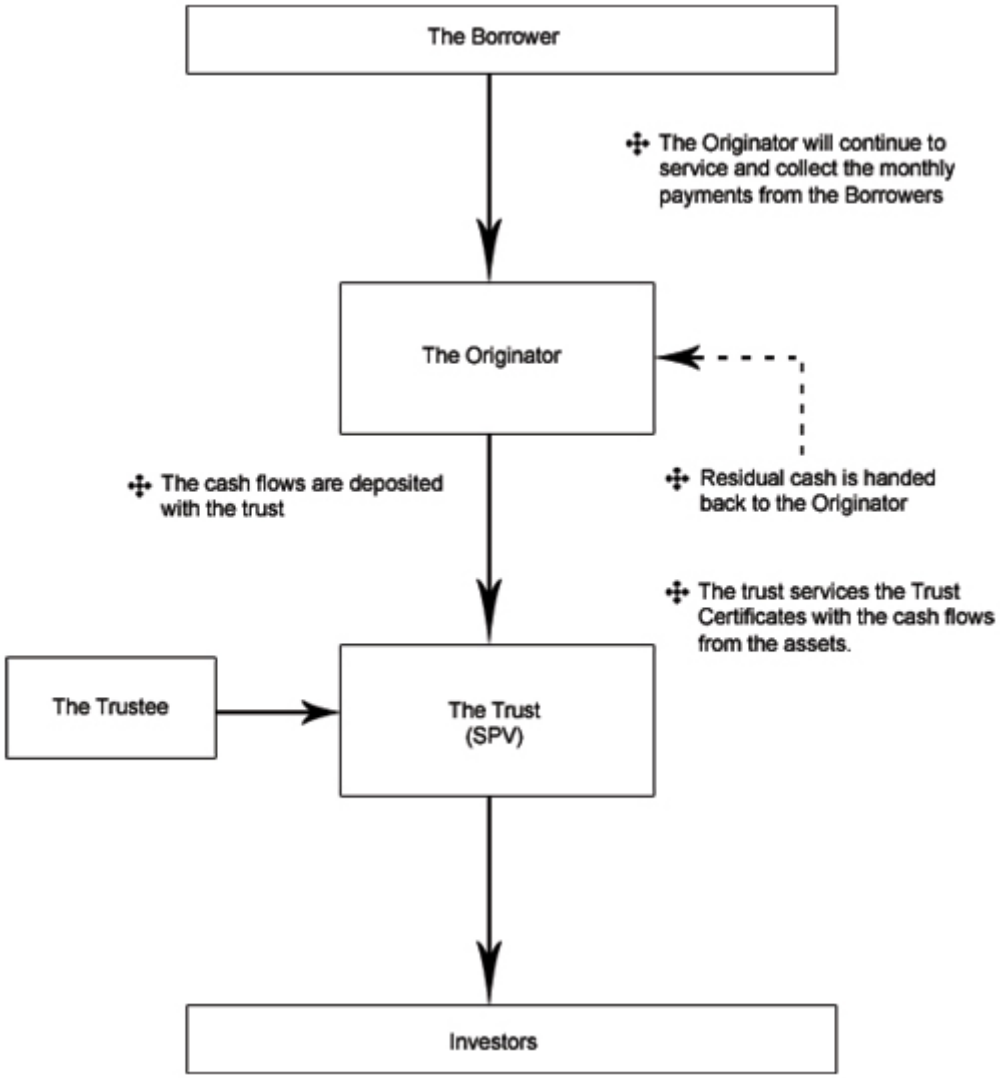

Figure 5. The diagram depicts the flow of funds in servicing the Trust Certificates.

7.0 CONCLUSIONS

The securitization structures were first invented in U.S.A. in 1970s. Today it is a major source of financing in a number of countries.

In a typical securitization the future cashflow is assigned or sold to a Special Purpose Vehicle (SPV). The SPV in turn issues one or more debt instruments, whose interest and principal payments are serviced from the cashflows arising from the underlying assets. Any cashflow with a predictable future stream can be used for securitizations

Bankruptcy remoteness is an important concept in a securitization. The legal structure of a securitization should enable the assets of the SPV to be isolated from the creditors of the originator.

Credit enhancements are incorporated in the structure to enhance the acceptability of the securitized debt instruments to the investors and thereby reduce cost of funds to the originator. Credit enhancements would also enable the improvement of the credit rating of the instruments.

The first securitization deal in Sri Lanka was carried out in 1995. However securitization have become a popular source of financing since 1999. It is gradually developing into an alternative source of financing for the leasing and hire purchase sectors in the country. There are a number of legal taxation and administrative impediments in Sri Lanka that presently hinder the potential growth in securitization market

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