

## I. INTRODUCTION

Asset securitization has been recognized by eminent academics as the most important engine of reform in our financial system to emerge in recent times (Greenbaum and Thakor 1995) and it is viewed as a revolution in the banking and financial services industry by industry practitioners. In its simplest form, it is a process where ill-liquid assets owned by a financial institution, are pooled and sold in the legal or economic sense, to a third party referred to as a Special Purpose Vehicle (SPV). The SPV in turn, issues securities backed by these asset pools in financial markets to the general public, usually after obtaining some form of credit quality enhancement to the securities. Securities marketed in this manner are referred to as asset backed securities (ABS).

Asset securitization was initially practiced by financial institutions who securitized home mortgage loans, transforming them to mortgage backed securities. In its traditional form asset securitization was adopted by financial institutions to achieve one or more of the following objectives:

- To reduce the regulatory capital requirements required to be maintained under the 1988 Basel accord,
- As a means of access to sources of financing under more favorable terms,
- To rectify mismatches in the maturity of their financial assets and liabilities and for liquidity management, and
- To balance the exposure of their Balance Sheet assets to different economic or geographical sectors.

The basic asset securitization process has now been extended in a variety of ways. Asset securitization techniques are now being applied to a wide range of different asset classes, and by a variety of institutions ranging from financial institutions to trading and manufacturing firms and infrastructure project operators. Non-financial institutions, adopt asset securitization techniques principally as a financing technique and as a means of enhancing corporate liquidity.

Structured financing is an extension of asset securitization, which adds a degree of complexity to the basic process. In structured financing the traded securities created by the securitization process are structured into several classes of derivative securities with different characteristics and sold to investors with investing needs matching those characteristics. Structured financing has added value to the basic asset securitization process and has served to further develop the growth of asset backed financial markets.

With the advent of credit derivative products, a further innovation in asset securitization processes has emerged in recent times in the form of synthetic securitization. In a synthetic securitization, a financial institution holding a pool of assets transfers the credit risk attached to the asset pool to a third party by means of credit derivatives, rather than by the direct transfer of ownership of the assets.

Asset securitization has made it possible for the traditional lending role of the banker to be unbundled into a number of sub-functions such as loan origination, guaranteeing, servicing and funding and contract them out separately to specialist agencies. Such unbundling makes it possible to derive the benefits of specialization of functions and economies of scale. Asset securitization has also enabled the risk of assets held in the Balance Sheet of financial institutions to be unbundled to its different elements, such as credit risk, interest rate risk and liquidity risk, enabling them to be managed more effectively.

#### **A. The Development of Emerging Financial Markets**

Asset securitization and the resulting growth of securitized debt markets have made a significant contribution towards the overall growth of global capital markets. However, the practice of asset securitization has until the most recent times, been largely confined to institutions and markets in developed countries, and consequently the benefits of this technique have been reaped by participants in the financial markets of developed countries, such as the United States, United Kingdom and those in Europe.

While the benefits of financial market globalization have been widely expressed and publicized, the critics of globalization allege the inequality in the share of the benefits of globalization between rich and poor countries. This is perhaps most evident in the area of financial market growth, where the market participants are by and large, the institutions based in developed countries. The unequal share of incomes and market power gained by the financial institutions of the developed countries compared to institutions in the less developed countries have provided concern to advocates of global equity and to the critics of globalization.

The importance of developing financial markets as an impetus to overall economic development has been well documented. For example, Harwood (2000) discusses the numerous benefits of developing local bond markets, in the context of developing countries within the South Asian region. She points out the risk avoidance benefits of local currency bond markets, where borrowers could avoid currency risk and refinancing risks and have greater cash flow certainty by borrowing in local bond markets rather than in international financial markets. The risks of borrowing in short term foreign currency markets was of course amply illustrated in the recent Asian financial crisis. Asset securitization techniques can play an important role not only in the development and broadening of local bond markets, but also as a means for institutions in developing countries to access long term funds in international capital markets. But the ingredients necessary for the implementation of this technique must first be put in place.

One of the major problems constraining the economic development of emerging economies is the high cost of capital faced by firms. A factor that contributes to the high cost of capital can be an inefficient banking sector, where the cost of financial intermediation is high. Securitization can be viewed as a form disintermediation, where institutions in need of funding can use the technique to directly access financial markets without the intermediation of the commercial banks. The establishment of asset backed debt markets will therefore serve as an alternative avenue of access to long term finance for firms. The development of such alternative

funding avenues for firms can also be an impetus for commercial banks to become more efficient, in order to compete for customers in need of funds.

Given the important role that asset securitization and structured financing techniques have played as an engine of growth in developed financial markets, it would be important to analyze and identify whether there are any specific reasons for institutions in the less developed countries to have so far failed, or been slow to adopt these practices, and reap similar benefits to those derived by their counterparts in the developed countries.

The purpose of this article is to examine the issues and challenges involved for institutions, policy makers and law makers in less developed countries in their efforts to implement asset securitization techniques in their financial markets, and to identify whether supportive measures could be taken by international development agencies to overcome some of the difficulties faced by these countries. In this review important new developments taking place in securitization techniques and in the regulatory sector are addressed, including the new initiatives taken by the Basel committee on banking supervision for capital adequacy of financial institutions, and the guidelines for asset securitization practices. Their implications on the financial institutions of the less developed countries are examined.

The rest of the paper is organized as follows. In Section II the economic motivations and the market conditions for securitization to be successful are discussed. Section III examines the different asset securitization structures and Asset categories favorable for securitization are discussed in Section IV. Section V examines the supporting legal framework required for their implementation. Section VI deals with the tax environment and Section VII addresses accounting implications. Section VIII discusses the regulatory framework for asset securitization. Section IX examines issues relating to credit ratings. Section X examines moral hazard issues relating to securitization and Section XI concludes.

## **II. THE ECONOMIC MOTIVATIONS AND THE MARKET CONDITIONS FOR SECURITIZATION**

The primary requirement for the success of any process or scheme is that the participants in the scheme must see some economic benefits for themselves by participating in it. Securitization will be initiated only if originators expect to derive benefits in terms of cost reductions or higher returns, and investors in securitized debt will only be motivated to take up these securities if they offer investment choices not available elsewhere. How do these benefits arise to each category of participants?

For the issuer, the bottom line is to create a set of new securities that are worth more in aggregate than the value of the underlying assets. If the securitization process is to be viable, the cash flows derived from the issue of securities must exceed the costs associated with creating and carrying out the securitization process, in present value terms. These costs will consist of the price paid for the underlying assets to the asset originator, the costs of setting up the trust or SPV structure, the cost of obtaining ratings for the debt and the costs of other services necessary to carry out the process.

Economists and market analysts have identified a number of sources from which the benefits of securitization arise. With respect to issuers, these arguments range from factors relating to the savings from the management of regulatory capital for financial institutions, to maturity matching benefits, efficiency arguments and diversification benefits. These arguments are well documented in the literature (see for example Oldfield 1997, Greenbaum and Thakor 1995, Hill 1997 and Alles 1998,1999). Investors in capital markets have also welcomed the emergence of a range of new investment vehicles in the form of asset backed securities, which have served to enlarge the investment choices available to them and make more complete markets.

In the case of emerging markets, the development of securitized debt markets must logically follow the establishment and development of primary and secondary markets for more basic financial instruments such as government bills and bonds. It is important that investors first become familiar with the risk return characteristics of such instruments before they are exposed to instruments with added risk characteristics such as corporate bonds and asset backed securities. The availability of a yield curve for relatively risk free securities can serve as a benchmark for pricing and determining the yields for more risky securities in the market.

An important factor to be addressed for the successful launch of securitization programs is the way of overcoming the psychological barrier that market participants may have towards new techniques such as securitizations. This often stems from its unfamiliarity and its seeming complexity. A program for educating and familiarizing market participants about such techniques is a necessary pre-requisite to its implementation.

Also necessary for the development of securitized debt markets is the will and willingness of the governments to develop their debt markets. In many developing countries there are built in barriers to such development. The demand for private debt may be clamped because large institutional investors such as provident funds and insurance companies with government sponsorship are directed to invest predominantly in debt instruments issued by the government Treasury. This is often the case in countries where the government borrows heavily in the domestic debt markets to fund fiscal deficits, crowding out private debt. But such policies only help stifle competition and market growth, increasing market inefficiencies. This hurts both investors and borrowers in the long run.

### **III. SECURITIZATION STRUCTURES**

The asset securitization structures adopted by institutions can have a number of variations. The more common structures are described as the pass through structure, asset backed bonds (ABB), pay through structure and asset backed commercial paper. The particular form of the structure chosen may be dictated by several factors such as market conditions, the permissible legal framework, tax incentives, regulatory framework etc. In the pass through structure the ownership of the pool of assets is transferred from the originator to a bankruptcy-remote trust or SPV which in turn issues certificates of beneficial interest in the trust in the form of securities. Cash flows in the form of interest and principal repayments from the underlying pool of assets are 'passed through' to the security holders. The characteristics of the pass

through certificates therefore mirror those of the underlying assets. One disadvantage faced by the certificate holders in this arrangement is that predictability of the cash flows is poor, since any prepayment of capital by the asset holders will flow through to the security holders.

Asset backed bonds, seek to overcome this weakness by structuring the issued bonds as debt obligations of the originating institution. Usually the ownership is transferred to a subsidiary company created for the purpose, so that ownership is retained within the corporate group. The bonds are usually over-collateralized to ensure full repayment of principal and interest in the event of default by the debtors in the original asset pool. A disadvantage to the originator with this arrangement is that the benefit of a 'clean sale' of assets and a removal of the assets from the originator's consolidated Balance Sheet may not be achieved.

In the pay through structure the originator sets up a subsidiary or a SPV conduit to which the asset pool is transferred, similar to the ABB structure. However, unlike the ABB arrangement, but similar to the pass through arrangement, the cashflows from the asset pool is dedicated to the payment of interest and principal on the pay-through debt instruments issued by the SPV. The pay-through securities are secured by the assets purchased by the SPV from the originator. Collateralized Mortgage Obligations (CMO) popular in the United States have a pay through structure.

Asset Backed Commercial Paper (ABCP) is another variant to the above structures. In an ABCP program, an SPV is set up under the sponsorship of a financial institution such as a bank. The vehicle will purchase assets such as receivables or mortgages from institutions that require financing. The purchase will be financed by the issue of commercial paper that are secured by the assets. To enable the commercial paper to attract a high credit rating the sponsoring financial institution will add its backing to the commercial paper by providing a standby liquidity facility. The extent of which may depend on the quality of the assets and the rating of other liquidity providers.

#### **IV. ASSET CATEGORIES FAVORABLE FOR SECURITIZATION**

For the purpose of securitization a large pool of assets with homogeneous characteristics is favored. The larger the pool of assets the greater will be the economies of scale and more profitable the securitization scheme will be. The resulting security issuance will also be larger and have greater liquidity. When the asset pool is homogeneous and the underlying loan documentation is standardized, the risks attached to the assets are easier to assess for rating agencies. To assess the future risks attached to a particular pool of receivables it is important for the loan originators to gather historical information relating to the performance of the assets. Such information, help the prediction of future cash flows from the assets and the evaluation of their credit quality. Typically, rating agencies use such information to define a benchmark pool of assets considered appropriate for a rating category. When an asset pool is considered for securitization, rating agencies will examine whether the characteristics of the asset pool deviated from the benchmark pool. If they do, adjustments to the credit rating will be made on the basis of the probability of default frequency of the asset pool and the expected losses upon liquidation of the assets, also known as their loss severity.

Residential mortgages have been the most favored category of assets for securitization purposes due to these characteristics. Other popular categories have been motor vehicle loans and credit card receivables. However, recent developments in securitization techniques have encompassed a range of low volume asset categories. Popular among them are commercial property, infrastructure projects, aircraft leases etc.

Cross-border securitizations have also become increasingly popular among developing countries. A common problem faced by institutions in developing countries is the inability to access international or cross border capital markets for financing due to the low sovereign credit rating attached to their country of domicile and consequently to themselves. A way to overcome this is to securitise assets that can be distanced from the credit quality of the sovereign and which can thereby have the potential to attract a higher credit quality.

An attractive proposition for developing countries would be the securitization of future cash flow receivables derived from offshore sources. Ketkar and Ratha (2001) discuss recent examples of such securitizations carried out in Latin American countries. Examples of future cash flow categories securitized are receivables from the export of primary commodities, telephone receivables, credit card receivables and inward remittances from workers employed abroad.

In this type of securitization the originator in the developing country assigns the rights to the future cash flow receivables to an SPV which is set up offshore. The SPV issues debt securities in international capital markets on the backing of the receivables. International customers of the originator are directed to pay their dues directly to the trustees of the SPV who services the debt interest and capital repayments. The bankruptcy risks and other sovereign risks associated with the originator are now disassociated from the SPV, enabling the security issuance to attract a more favorable credit rating.

One potential obstacle to this type of scheme can be posed by government authorities, who may object to the creation of a prior claim by offshore lenders on the future export receivables of the country. A concern for them might be the danger of a deterioration of the overall sovereign credit rating as a consequence of creating priority claims on its export proceeds.

A recent innovation in securitization techniques in the United States is the securitization of risk insurance. A perennial concern in the insurance industry is the potential threat to the financial viability of the industry posed by the occurrence of a major catastrophe, such as a natural disaster of major proportions. The industry has recognized that the burden of this risk to insurers and re-insurers can be mitigated if a part of the risk can be shifted to capital markets and to its investors. Recent developments in securitization techniques have paved the way for achieving this result. Shifting the risk of insurance to capital markets can be achieved by the issuance of 'catastrophe linked securities' or financial products whose payoffs are linked to the occurrence of catastrophes. An example is a 'catastrophe bond' which offers high yields to investors but whose principal or interest payments may be curtailed or deferred in the event of catastrophic losses exceeding some threshold levels. The threshold levels are computed through

catastrophe indexes that are linked to losses from natural disasters such as earthquakes or weather related disasters such as hurricanes in defined geographical regions.

## V. THE LEGAL ENVIRONMENT

In order to make the asset securitization process work it is necessary for an appropriate judicial framework and a suitable legal environment to be set in place. The necessary legal provisions must exist for carrying out the essential elements of a typical securitization process. One of the biggest obstacles to securitization in developing countries is that the legal framework within the jurisdiction of the country is not capable of accommodating the numerous legal relationships that need to be established in order to make the securitization process successful. This section examines the nature of the problems encountered in this regard. Each country will have a unique set of problems to be addressed. Rather than detailing a laundry list of problems specific to each jurisdiction, the objective here is to highlight some of the main issues common to many developing countries.

The first issue to be considered is the law under which a legally separate entity in the form of a trust, or special purpose vehicle can be created. The objective is the establishment of the necessary legal relationship of the securitization vehicle to the sponsoring institution, such as the bankruptcy remoteness of the SPV from the originator. To achieve bankruptcy remoteness the SPV limits its permitted range of activities to its stated securitization purpose. The purpose of this is to prevent creditors, other than holders of the SPV's securities, to have any claims against the SPV that might force it into insolvency. The jurisdiction of some countries may permit the creation of the bankruptcy remote entities, for example under trust laws, but in other countries the creation of the entities may be made under corporate laws. Whatever the means of achieving it, legal clarity with regard to the bankruptcy issues are important.

The next issue to be considered is the manner in which the transfer of assets from the originator to the securitization vehicle can be carried out. Even within one jurisdiction, a transfer of assets or receivables can be done in many ways, for example: novation, assignment, subrogation etc. Each method will have a distinct legal definition and its own set of legal requirements attached to it. From a securitization point of view, the objective is to affect a transfer that is cost effective, not overly onerous and yet constitutes a 'clean sale' and provides the necessary legal protection to the SPV for the securitization to be successful. Legal aspects to be considered in these decisions are the nature of the asset, the formalities that need to be followed for the transfer, the notices that need to be given to the debtor that the debt has been transferred and the consequences of not giving those notices. A situation where the debtor has the right to extinguish the debt due to non-receipt of notice would indeed be catastrophic. A related issue is the liability of the SPV to claims on the assets by third parties once the assets are transferred or assigned from the originator to the trust or SPV. Special laws may be required to protect the assets held by the trust or SPV against claims on the assets by third parties.

A third set of legal requirements relates to the registration of the issue of securities and providing for information disclosure. Since debt securities are usually negotiable instruments,

they may end up in the possession of retail investors, even if they are initially placed privately. Governments therefore consider it necessary, in the public interest, to place certain conditions on the type of entity that is permitted to issue such securities. These conditions may take the form of a minimum capital and restrictions on the type of activities permitted. To safeguard the interests of retail investors, the issue of securities to the public in most countries will require the disclosure of a certain minimum level of information to be conveyed by way of a prospectus. The issue of a prospectus will also have other accounting, auditing and legal compliance requirements.

Many countries are taking steps to enact the necessary legislation or provide the administrative guidelines to implement securitization processes. Some examples of recent developments taking place in this regard are given below.

“An expert committee appointed by the Government of India is examining changes to the legal framework relating to banking. This includes a draft Securitization Bill designed to expedite asset securitization processes (Sinha 2000).”

“Japan has recently taken steps to set in place the legal structure to facilitate securitization. Among the changes intended is a Bill that deals with removing obstacles to securitization such as the incidence of registration and license tax on property acquisition (International Financial Law Review 2000)”.

“Securitization takes off in Canada”—this article looks at how issuers are using Canada’s legislative framework and reform to exploit new asset classes and increase issuance” (International Financial Law Review 2000)”.

## VI. TAXATION ISSUES

In a securitization process the impact of taxation could be a key factor that determines whether the securitization is profitable or not, and hence may determine its viability. The incidence of taxation could impact at several points along the securitization process. If the securitization is carried out within national borders, it is the domestic tax laws that would govern the process. But in a cross border securitization the impact of the tax jurisdiction of several countries would need to be examined, along with double taxation provisions that may be applicable to the countries concerned.

The first issue to be considered is whether the trust or SPV is subject to taxation as an entity or not. This will depend on the manner in which the SPV or the trust is set up. Generally the trust set up under a ‘pass through’ structure could qualify as a non-taxable entity as long as it remains passive and does not modify cash flows. But pay-through structures will be taxable entities since they are retained within the corporate umbrella. Some countries have specifically legislated for the setting up of tax-exempt securitization vehicles. For example, in the United States a special trust can be created under the U.S. Tax Reform Act of 1986 called a REMIC (Real Estate Mortgage Investment Conduit) to carry out securitizations and issue multiple classes of securities while enjoying a tax-free status. Again in 1996 legislation was enacted in



the United States for the creation of Financial Asset Securitization Investment Trusts (FASITs), which were more flexible securitization vehicles than REMICs with tax-free status. In these situations the beneficiaries of the trust may be taxed at the individual level.

A second issue to be considered is the implication of tax on the transfer of assets between the asset originator and the SPV. This may depend on whether the asset transfer is interpreted as a 'sale' or a 'loan'. The interpretation would be based on whether the benefits and the risks associated with the ownership of assets have been effectively transferred or not by the asset originator to the SPV for taxation purposes.

Incidence of taxation may impact on securitization costs in the form of stamp duties and taxes on the transfer of assets and taxes and other levies on the issue of securities.

As regards taxation policy, it is important that asset securitization techniques as a financing technique is not given either a tax advantages or a tax disadvantage over other financing techniques, such as bank financing or equity financing. If not, financing techniques such as securitization can become merely 'tax driven'. A tax neutral policy would probably be viewed as fair by all market participants.

In a cross border securitization, taxation issues can become more complicated because the tax regimes of more than one country have to be considered. Issues in relation to the residency and non-residency status of the SPV and other institutions involved, and of the security holders need to be considered, with implications for possible withholding taxes on interest payments.

## VII. ACCOUNTING ISSUES

Asset securitization invariably entails the transfer of assets from the asset originator to a trust or SPV, created for the purpose. The transfers are at times made without recourse, but sometimes with recourse, and with the retention of some residual interest in the assets. Accounting principles require that, when the ownership of an asset is transferred to another entity, that it be considered as 'sold' for purposes of accounting and removed from the Balance Sheet of the transferring entity. Gains or losses from the transfer could then be recognized in its accounting statements. But in asset securitization, a clean sale may not always exist. That may depend on the status of the transferee entity and whether that entity is sufficiently distinct from the originating entity and free from its control. The degree of residual interest in the asset remaining with the transferor is a further factor to be considered. The extent of control exercised over the Special Purpose Entity within the securitization structure may also determine whether the entity should be included in the consolidated financial statements of the originator. Therefore a range of issues needs to be considered before the accounting treatment for asset securitization can be decided. Current accounting guidelines prescribe that 'substance over form' should prevail in making a decision on whether a sale has taken place. Therefore, if the commercial risk and the reward associated with an asset or receivable has been shed by the originator, it would be appropriate to view the transfer as a 'true sale', and grant the asset off

Balance Sheet status. But the difficulty is that a clear decision may not always emerge in some situations.

International accounting bodies have responded to these developments with new recommendations for the accounting policies and principles to be applied. The International Accounting Standards Committee (IASC) has issued the International Accounting Standard (IAS) 39, 'Financial Instruments: Recognition and Measurement'; a standard that applies to financial years beginning on or after January 1, 2001 (International Tax Review 2000). This standard provides guidelines for the accounting principles that should be adopted in securitization processes. In particular it provides guidelines for determining the extent of control retained in asset transfers and for the recognition of an asset sale for accounting purposes. The U.S. accounting profession has also come out with an amendment to its existing Financial Accounting Standards Board (FASB) Statement No. 125 on securitization. This amendment is Statement No. 140, titled: 'Accounting for Transfers and Servicing of Financial Assets and Extinguishment of Liabilities' (Cheney 2000). The objective of this Statement is also to provide guidelines for uniformity in the accounting treatment of asset sales, revenue recognition and information disclosure relating to securitizations.

Given the uncertainties and the 'gray areas' surrounding these issues, and the absence of specific guidelines by the accounting bodies to deal with them, companies will invariably need to apply some subjective judgement to make their decisions on a case-by-case basis. This may well lead to non-uniformity and inconsistencies in the accounting treatment adopted by different firms. To avoid possible confusion and misrepresentation in the financial statements of these entities, the accounting body in each country needs to develop standards that directly address securitization issues, taking into account the recommendations of the international accounting bodies, as well as the domestic accounting practices.

### **VIII. REGULATORY ISSUES**

Financial institutions are governed by prudential regulations that are set in place to ensure that bank depositors as well as other bank creditors are not exposed to undue risks. Regulations are designed to ensure that banks do not run into situations of illiquidity or insolvency, situations that can potentially trigger a banking sector collapse and a consequent paralysis of the economy.

While prudential regulations may be imposed on financial institutions in a variety of forms, many developed countries around the world have adopted the guidelines of the 1988 Basel capital accord as a framework for maintaining banks' capital adequacy. Capital changes arising from asset securitization practices are encompassed in these guidelines. One of the motivations of asset securitization programs undertaken by banks in developed countries was the reduction of regulatory capital and achieving regulatory capital arbitrage.

Some countries in emerging markets are however, only beginning to adopt the Basel capital adequacy guidelines. The adoption of capital adequacy requirements in these countries is likely to motivate financial institutions in these countries to adopt asset securitization programs

to reduce their regulatory capital levels, on patterns similar to those observed in developed countries in the recent past. One could expect to see a new wave of securitization programs in developing countries as financial institutions attempt to offload their asset levels and adjust their regulatory risk based capital levels in line with capital adequacy guidelines.

Banking industry observers contend that the minimum risk based capital requirements set by the 1988 Basle Capital Accord, which are based on arbitrary definitions of asset categories, do not necessarily correspond to their true credit risks, and therefore, are not determined in accordance with any meaningful goals of prudential regulation. For example, Mingo (2000) contends that the clamor for regulatory capital arbitrage engaged by banks is the natural reaction of banks to exploit a set of weak and ineffective regulatory rules.

Presently, the Bank for International Settlements (BIS) is proposing changes to the capital adequacy requirements of banks. Under these proposals, the risk weightings applied to different categories of loans could be linked to independent external credit ratings obtained for the loans or could be based on internal risk rating systems, provided the systems are shown to be reliable. For example, the 50 percent risk weighting attached to housing loans under the 1988 accord may change to 20 percent if the loans are rated between AAA to AA- but may be risk weighted 50 percent if they are rated between A+ to A-, and to progressively higher weightings for still lower quality loans. The level of capital adequacy required for institutions holding higher quality loans will then become lower. The expectation is that, as a consequence of the new Guidelines, the motivation for banks to engage in regulatory capital arbitrage (RCA) may become less intense. However, Ferri, Liu and Majnoni (2001) argue that a changeover to a capital adequacy computation system based on private sector ratings assessments would disadvantage banks in Non-High Income Countries (NHIC) relative to their counterparts in High Income Countries (HIC). This is because ratings are far less widespread among banks and corporations in NHICs than in HICs. Therefore bank capital adequacy levels would be insensitive to improvements in the quality of the assets. This would lead to a widening of the cost of capital between banks of equal strength in NHICs and HICs. Honohan (2000) contends that a ratings related capital adequacy system will not necessarily reduce the risk of systemic failure, even though the exposure of a bank to individual risks may be less.

The Basel Committee on Banking Supervision of the BIS has also issued a 'Consultative Document on Asset Securitization', which lays out guidelines for calculating regulatory risk based capital ratios for banks that are associated with asset securitization programs in different ways. As originators, loan servicers, credit enhancers, sponsors of conduit programs or investors in asset backed securities. These guidelines serve to clarify and standardize the criteria for the computation of risk based capital requirements in relation to asset securitization practices adopted by banks.

The new guidelines are intended to impose stricter safety standards and higher capital requirements in overall terms on the financial institutions in developed financial markets, compared to the previous standards. Even if developing countries do not adopt these guidelines immediately, they will serve as a valuable guide for developing country banking institutions to aim at and gradually move towards.

The increasing popularity of synthetic securitizations among financial institutions has given rise to concerns about the regulatory aspects of treating the risks associated with synthetic securitization. In a synthetic securitization a bank uses credit derivatives such as credit default swaps, or total return swaps to transfer the credit risk attached to an asset pool to a third party, rather than by selling the assets. Synthetic securitization has advantages over conventional securitization because the legal costs associated with the transfer of asset ownership, is avoided. Determining the capital requirements relating to synthetic securitizations can be complicated due to uncertainties regarding the degree of risk transference and the extent of risk retained by the originator. Work by the Basel Committee on Bank Supervision is reportedly, ongoing on this issue.

### **IX. OBTAINING A SATISFACTORY CREDIT RATING**

One of the critical factors determining the success or otherwise of an asset securitization process is the credit rating obtained for the securitized debt sold to the market. The credit quality of the security is directly related to the yield of the issue. The higher the credit quality the lower will be the yield and the more successful will be the issue. The credit rating must also achieve at least the threshold investment grade. A lower than investment-grade quality rating will not be favorably viewed by investment funds and other institutional investors, resulting in an unsuccessful security issue.

Issuers in developing countries face a challenging task in obtaining a favorable quality rating from international debt rating agencies. But this difficulty may not always be purely attributed to the economic risks associated with the particular situation. International debt rating agencies have been criticized for inconsistencies in the debt ratings issued by them on several counts. Ferri, Liu and Stiglitz (1999) and Monfort and Mulder (2000) have shown that the sovereign ratings issued by them are procyclical. That is, when the business climate is favorable, the ratings assigned are consistently higher than the economic fundamentals would warrant, and when the business climate is unfavorable the rating downgrades are also excessive in relation to economic fundamentals. Ferri, Liu and Majnoni (2001) contend that the excessive downgrading of ratings are observed mainly in the case of Non-High income Countries but not in the case of High-Income Countries. Ferri, Liu and Stiglitz (1999) suggest that the 1997 Asian financial crisis may have been exacerbated as a result of the downgrading of the sovereign ratings of the affected countries too much, too late. Ferri, Liu and Majnoni (2001) also show that the correlation between the credit ratings of private institutions in Non-High Income Countries and the sovereign ratings of their governments is higher than in the case of High-Income Countries. In other words, in the case of Non-High Income Countries, the debt rating is biased towards the sovereign rating, more so than in the case of High Income Countries.

Some likely reasons for these inconsistencies are suggested by Ferri, Liu and Majnoni (2001). They argue that international rating agencies are primarily based in developed countries and therefore their working experience is less extensive in developing countries than in developed countries. Less familiarity with the environment in developing countries could result in the incur of higher fixed and marginal costs in gathering information, analyzing and interpreting information relating to institutions based in developing countries. This would lead

to a tendency for rating agencies to align the ratings of private institutions of developing countries more closely with the sovereign rating of their country of domicile. The consequence of this ratings bias is that private institutions in developing countries have to battle against a seeming glass ceiling in the form of the sovereign rating assigned to their country.

International agencies such as the Multilateral Investment Guarantee Agency (MIGA) and the International Finance Corporation (IFC) of the World Bank Group or the U.S. based Overseas Private Investment Corporation (OPIC) could play an important role to alleviate this situation. By providing risk insurance or credit enhancement against specific forms of risk, they could help raise the credit rating of the debt issuance to levels acceptable to international institutional investors.

## **X. SECURITIZATION AND THE MORAL HAZARD ISSUE**

The traditional role of financial intermediaries and one of their main roles is that of monitoring the loans advanced to customers. Monitoring of loans play a key role in reducing the problem of moral hazard, where borrowers may be tempted to take excessive risks with the borrowed capital or sub-optimize their stated efforts. Asset securitization separates the functions of loan origination and loan funding. If a loan originator securitises loan assets, the loan originator has a reduced incentive to monitor the loan. This is because firstly, monitoring is costly, and secondly the improvement to cash flows that may result from better monitoring accrues to the investors in securitized debt and not to the loan originator. In other words, once the assets are securitized the credit risk is shifted to the securitized debt investors. The disincentive to monitor the asset pool by the originator is seen as a negative aspect of asset securitization and one of the reasons why asset securitization may be seen as less advantageous over traditional bank lending as a method of financing.

Asset securitisers need to come up with methods to alleviate the moral hazard problem. A way of achieving this is by shifting part of the of the credit risk back to the loan originator. This can be achieved by designing securitization schemes with partial recourse to the loan originator. But recourse to the originator for the risks of the asset pool can nullify other advantages of asset securitization such as achieving greater risk based capital ratios for regulatory compliance purposes. Future developments of securitization structures should seek to optimize the trade-off between the advantages of asset securitization versus the disadvantages of partial recourse to the loan originator.

## **XI. CONCLUSION**

The purpose of this paper was to identify and examine the range of issues that need to be addressed in the implementation of asset securitization programs, from the standpoint of a country in an emerging market. Legal, regulatory, taxation, accounting and market development aspects were considered. Typically, the responsibility for policy formulation and decision making in respect of these areas will rest with separate institutions in any country. Therefore it is very important that sufficient dialogue and co-ordination be established among these

institutions to ensure that there are no inconsistencies or contradictions in the rules, regulations and guidelines that are formulated with respect to each of the areas within the securitization framework. If not, the institutions that wish to embark on asset securitization programs will be needlessly confused and also frustrated in their efforts to implement these techniques.