Applicability of Loan Securitization for Solving Non-Performing Loans' Problems in Bangladeshi Commercial Bank

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Abstract

Non-performing loan (NPL) is one of the most influential factors for lowering the overall performance of any bank or financial institution which immediately impacts on overall activities of a bank including liquidity, stability and profitability. The securitization is, an innovative financial product, being used in many developed and developing countries as a better solution for the NPL problem. This paper lays out a proposal of how asset securitization against the NPL of a bank can be introduced in Bangladesh. This securitization can introduce a new financial market in the economy where the writing off of bad loans just stops the NPL. The paper also shows the securitization model and the problems & the prospects of implementing NPL in Bangladesh.

Key words: NPL securitization, securitization, asset securitization in Bangladesh, ABS, default loan.

Introduction

A non-performing loan (NPL) is a loan that is in default or close to be default. It is argued that the NPL is one of the major causes of the economic stagnation problems. It is also viewed as an obverse mirror image of an ailing unprofitable enterprise (Muniappan, 2002). The NPL is being a major concern for bankers because if NPL are kept existing and continuously rolled over, the resources are locked up in unprofitable sectors; thus, hindering the economic growth and impairing the economic efficiency (Cargill et al., 2004). The writing off of NPL as a bad loan will not be a logical solution as it is just a way of removing the loan from the balance sheet. Securitization refers to conversion of cash flows into marketable securities. It is a process through which illiquid assets are packaged, converted into tradable securities and sold to third party investors.

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Securitization has arrived in a developing country like India much faster than expected. Securitization may help Indian Banks reduce their regulatory, and sometimes economic and capital requirements (Irala & Chaitanya, 2004).

Securitization was first introduced to U.S. mortgage markets in the 1970s. The market for mortgage-backed securities was boosted by the government agencies that endorsed these securities. In 1985, securitization techniques that had been developed in the mortgage market were initially applied to a class of non-mortgage assets - car loans (Vink & Thibeault, 2008).Since then, the securitization market has grown to become one of the most prominent fixed income sectors in the U.S. and in fact one of the fastest evolving sectors around the world. Securitization can be found both in developed and in emerging countries (Standard & Poor's, 2006).

Securitization is a structured finance process (Purker, 2004) which involves pooling and repackaging of cash flow producing financial assets into securities that are then sold to investors (Savarwal, 2005). All assets can be securitized as long as they are associated with cash flow which can called asset-backed securities (ABS). Securitization, in its most basic form, is a method of selling assets. Rather than selling those assets "whole", the assets are combined into a pool, and then that pool is split into shares, then these shares are sold to investors[1].

It was not until late 1999 that securitization of non-performing loans became a reality. On 25th November, 1999, Morgan Stanley Dean Witter (MSDW) launched and priced a JPY 21.0 billion issue of floating rate structured notes for an Special Purpose Vehicle (SPV) called International Credit Recovery - Japan One Ltd., a Cayman Islands-domiciled company. This was the first time a capital markets solution had been applied to the problem of non-and-sub-performing loans.[2]

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1 Published in http://www.indialawjournal.com/volume3/issue_2/article_by_-vrinda.html, retrieved on October 30, 2014.

2 Non-Performing Loans Securitization, http://vinodkothari.com/npls/ retrieved on January 4, 2016.

Process of Securitization:[3]

Firstly, assets are originated by a company, and funded on that company's balance sheet. This company is normally referred to as the "Originator".

Secondly, 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 a special purpose vehicle company (an " SPV") formed for the specific purpose of funding the assets. The SPV is sometimes owned by a trust, or even, on occasions, by the Originator.

Thirdly, administration of the assets is then sub-contracted back to the Originator by the SPV.

Fourthly, the SPV issues tradable "securities" to fund the purchase of the assets. The performance of these securities is directly linked to the performance of the assets - and there is no recourse (other than in the event of breach of contract) back to the Originator.

Fifthly, investors purchase the securities, because they are satisfied (normally by relying upon a rating) that the securities will be paid in full and on time from the cash flows available in the asset pool. A considerable amount of time is spent considering the different likely performances of the asset pool, and the implications of defaults by borrowers on the corresponding performance of the securities. The proceeds upon the sale of the securities are used to pay the Originator.

Sixthly, the SPV agrees to pay any surpluses which arise during its funding of the assets back to the Originator - which means that the Originator, for all practical purposes, retains its existing relationships with the borrowers and all of the economics of funding the assets (ie: the Originator continues to administer the portfolio, and continues to receive the economic benefits (profits) of owning the assets).

Finally, as cash flows arise on the assets, these are used by the SPV to repay funds to the investors in the securities.

Moreover, Cowan (2003) described the securitization process in American Securitization Forum (ASF). He said that to initiate a securitization, a company must first create what is called a special purpose vehicle (SPV) in

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3 The *process of securitization* is adopted from: http://vinodkothari.com/nicolle/ retrieved on January 4, 2016.

the parlance of securitization. The SPV is legally separate from the company, or the holder of the assets. Typically a company sells its assets to the SPV. The payment streams generated by the assets can then be repackaged to back an issue of bonds. Or, the SPV can transfer the assets to a trust, which becomes the nominal issuer. In both cases, the bonds are exchanged with an underwriter for cash. The underwriter then sells the securities to investors. Unlike other bonds, securities backed by mortgages usually pay both interest and a portion of the investor's principal on a monthly basis.

A special purpose vehicle or special purpose entity is a legal entity which has been set up for a specific, limited purpose by another entity, the sponsoring firm. An SPV can take the form of a corporation, trust, partnership, or a limited liability company. The SPV may be a subsidiary of the sponsoring firm, or it may be an "orphan" SPV, one that is not consolidated with the sponsoring firm for tax, accounting, or legal purposes (or may be consolidated for some purposes but not others). Most commonly in securitization, the SPV takes the legal form of a trust Gorton & Souleles (2005).

The Role of Securitization is illustrated by Cowan (2003):

1. *Less Expensive, More Broadly Available Credit:* Financial institutions that realize the full value of their loans immediately can turn around and re-deploy that capital in the form of a new loan. This is often the most efficient way to raise new funds in the capital markets and the savings are passed on to the borrowers.
2. *More Options for Investors:* Higher-rated securitized instruments generally offer higher yields than similar sovereign government issues.
3. *Flexibility for the Originator:* Without securitization, a bank making a home loan usually would hold that loan on its books, recognizing that revenues as payments are made over time. The more efficient option is to pool similar loans together, as discussed above, and enter into a securitization transaction.
4. *Improve ROA:* Originators realize another benefit from securitization as the transfer of the asset to an SPV removes it from the firm's balance sheet.This can help the originator improve certain measures of financial performance such as return-on-assets (ROA).

5. *Lower the firm's financing costs:* The segregation of assets that takes place in a securitization can also effectively lower the firm's financing costs. This occurs when the securities issued by the SPV carry a lower overall interest rate than the originating firm pays on its debt.

6. *Maintaining the stability of the financial system:* The securitization market can, as noted, increase competition in the capital market and the supply of credit, but there are risks implicit in securitization that need to be addressed. Every investment involves risk and like every other investment a balance must be found between the risk and reward.

Furthermore, securitization transfers the risk of catastrophic loss from the originator to the investors, limiting the potential loss of the originator to the retained interest or credit enhancements.

Irala & Chaitanya (2004) illustrated securitization as a tools for increasing liquidity, transferring risk, generating revenue, increasing firm's ROA and ROE, reducing intermediation costs and promoting the savings.

Securitization has evolved from its tentative beginning in the late 1970s to a vital funding source with an estimated outstanding amount of $10.24 trillion in the United States and $2.25 trillion in Europe as of the 2nd quarter of 2008. In 2007, ABS issuance amounted to $3.455 trillion in the US and $652 billion in Europe[4].

In Bangladesh, NPL was not securitized before by any commercial banks, only some financial institutions issued security on receivables. Even none of the commercial banks was motivated on securitization of NPL as the integrated initiatives were not taken by banks, financial institutions and governments. But this can give a better solution to the NPL problems (Pennacchi, 1988) as well as introduction of new financial market in the economy rather than writing off the NPL from balance sheet. Securitization reflects innovation in the financial markets at its best. Pooling assets and using the cash flows to back securities allows originators to unlock the value of illiquid assets and provide consumers lower borrowing costs at the same time (Cowan, 2003). This research paper suggests the securitization as a

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4 Compiled from http://en.wikipedia.org/wiki/Securitization, retrieved on October 30, 2014.

solution for NPL problems which is widely used in some of the developed and developing countries (IFC, 2004) like USA, China, Japan, Korea, UK, India, Pakistan, Brazil, Singapore, etc. The main theme is issuing the securities against the loan where different entities will be involved in supporting the securitization process. The process of NPL securitization is illustrated in this paper by the help of a conceptual or hypothetical model. This report shows the process of securitization and suggests some factors to be considered for the securitization. The report also shows the applicability of securitization process in Bangladeshi commercial banks as a solution of NPL problems.

Literature Review

Sivakumar (2001) opines, "Asset securitization has some fundamental advantages for banks. They would help under capitalized banks to restore partially or fully their ratios without having to access the financial markets, either for Tier-I or Tier-II capital or, for that matter, even budgetary funds. Internationally, insurance companies have been the biggest buyers of securitized instruments.

Fabozzi & Kothari (2007) studied that securitization as a financial instrument has had an extremely significant impact on the world's financial system. First, by integrating capital markets and the uses of resources - such as mortgage originators, finance companies, governments, etc. - it has strengthened the trend towards disintermediation. Having been able to mitigate agency costs, it has made lending more efficient; evidence of this can be observed in the mortgage markets. By permitting firms to originate and hold assets off the balance sheet, it has generated much higher levels of leverage and, though arguably, greater economies of scale. Combination of securitization techniques with credit derivatives and risk transfer devices continues to develop innovative methods of transforming risk into a commodity and allow various market participants to tap into sectors which were otherwise not open to them.

Pennacchi (1988) suggests a plan to resolve the banks' NPLs; securitization can be the good solution to improve the health condition of the banks' financial statement. He also proposes that mixing the performing and NPL to issue the securities can achieve a desirable risk profile of bundled loans to be sold to the investors as ABS. Herr and Miyazaki (1999) shows a solution of NPL of Japan by transferring the distressed debt into securities and therefore achieve a positive balance sheet effect. A link between the Japanese government's reluctance to solve the bad loan problem and the economic slowdown were identified.

Purker (2004) found that securitization is a method by which the predictable cash flows are drawn from receivables as the basis for issuing debt; it is also a process of producing securities or investment instruments for the investors, which are supported by specific assets. Chen (2004) did a study on securitization of NPL of China where examination of the legal and economic framework concerning securitization of NPL results in a call for government participation via policy adjustments and debt restructuring plans, which are crucial for successful large scale securitization. Securitization also has a direct positive impact on the quantity of loans supplied by banks. Loutskina (2010), Loutskina & Strahan (2009) find that securitization reduces banks' holdings of liquid securities and increases their lending ability.

Very little studies have been done in Bangladesh about asset securitization. Siddiqueeet al, (2006) studied on asset securitization in a limited way, they emphasized more theoretical framework of asset securitization and although they raised so many practical issues in their study, they didn't study the impact of securitization on commercial banks in Bangladesh even though they did not focus on NPL or provide any model for the securitization of NPL.

Khan & Uddin, (n.d.) said that Asset securitization is an alternative in handling NPLs. They also presents a brief picture of the link between sources of funding and end uses of funding, the problem of NPLs in the banking sector of Bangladesh, a proposal of how asset securitization can be introduced in Bangladesh is also given and the benefits of introducing asset securitization, especially for banks and non-bank finance companies is discussed.

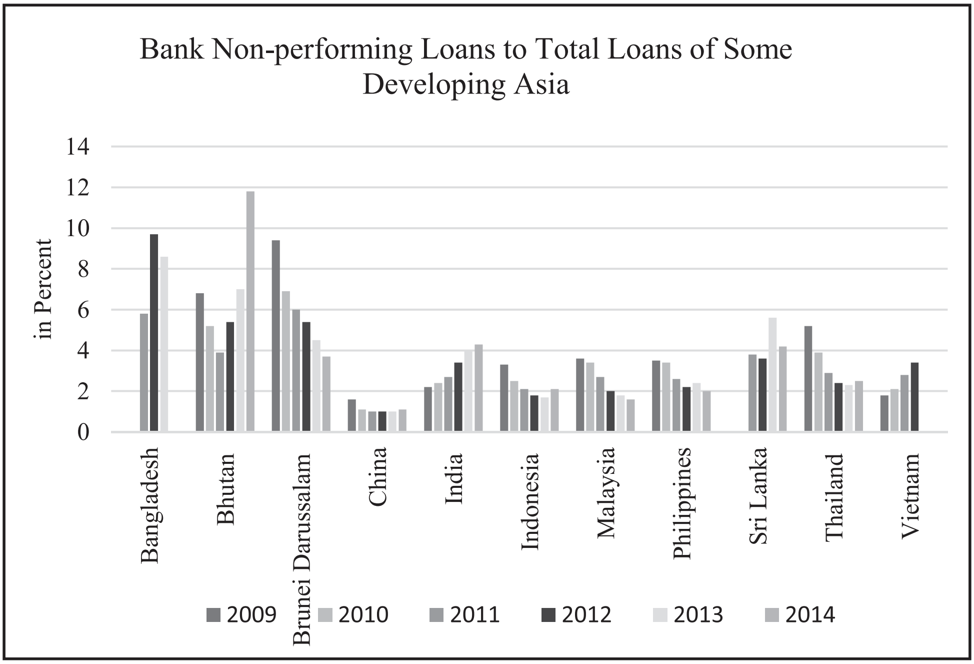
Methodology

The paper proposes a securitization model by analyzing the feasibility of NPL securitization with the help of recent NPL data. The status of NPL in Bangladesh is shown with the help different ratios. This research paper is an exploratory research with an objective to explore the applicability of NPL securitization in commercial banks where the findings are non-statistical and descriptive with prudent analysis. This paper theoretically proposes a model of securitization and the parties involved with it. It also describes applicability of securitization and its benefits for Bangladesh. The paper concentrates on the review of scholar research papers to propose a NPL securitization model in the context of Bangladesh economy.

The study also points out the role of different bodies, such as government, banks, financial institutions, rating agencies, intermediaries, insurance companies, underwriters, trustee, and investors in the securitization process This research paper is based on the secondary data which is collected from the Bangladesh Banks, Schedule Bank Statistics, Bank Performance 2010, IMF Global Stability Report 2015, some articles, journals and publications.

Status of NPL

Figure 1: NPL in some developing asian countries



Source: Global Financial Stability Report, April 2015, International Monetary Fund (IMF)

Table 1: NPL ratios by type of banks operating in Bangladesh (in percent)

Bank types	2006	2007	2008	2009	2010	2011	2012	2013	2014 (June)
State Owned Commercial banks (SCBs)	22.9	29.9	25.4	21.4	15.7	11.3	23.9	19.8	23.2
Development Financial Institutions (DFIs)	33.7	28.6	25.5	25.9	24.2	24.6	26.8	26.8	33.1
Private Commercial banks (PCBs)	5.5	5	4.4	3.9	3.2	2.9	4.6	4.5	5.7
Foreign Commercial banks (FCBs)	0.8	1.4	1.9	2.3	3	3	3.5	5.5	6.2
Total	13.2	13.2	10.8	9.2	7.3	6.1	10	8.9	10.8

Source: Bangladesh Bank Annual Report 2013-14, Chapter-5, Banking Sector Performance

Securitization of NPL

Securitization in Bangladesh

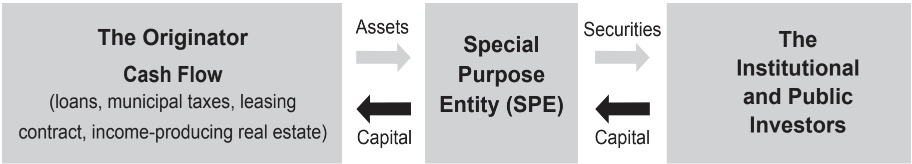
In Bangladesh, Industrial Promotion and Development Company (IPDC), United Leasing Company (ULC), Industrial Development and Leasing Company (IDLC), and Bangladesh Rural Advancement Committee (BRAC) issued asset backed securitization. This was the inauguration of new era in the financial sectors of Bangladesh by launching new ideas, products and market opportunities in the financial market. In November 2004, IPDC launched the first asset backed securitization in Bangladesh, where Investment Corporation of Bangladesh (ICB) was a trustee for the special purpose entity (SPE).

The IPDC issued Tk. 359 million worth zero coupon bonds against debt receivables of IPDC. Dhaka Bank, Jamuna Bank, Mutual Trust Bank, Southeast Bank and International Leasing and Financial Services Limited invested in the asset-backed securitized bonds of IPDC in private placement arrangement. The some others financial institutions were motivated to issue securities against assets, like in 2005 IDLC issued Tk. 190 million worth asset backed securities which were zero coupon bonds and ULC issued Tk. 400 million worth asset backed zero coupon bonds in 2005 through private placement. BRAC, only NGO and world's first micro-credit securitization, issued securities against micro-credits and that was extended to low income individuals. But any commercial banks or foreign banks did issue neither any asset backed securities nor securitization of NPL in Bangladesh. At present Tk. 1500 million asset backed securities are issued in Bangladesh which are privately placed among financial institutions. The credit rating agencies were not involvement in these processes as the securities were floated through only private placement arrangement among the financial institutions.

Different entities involved with loan securitization process

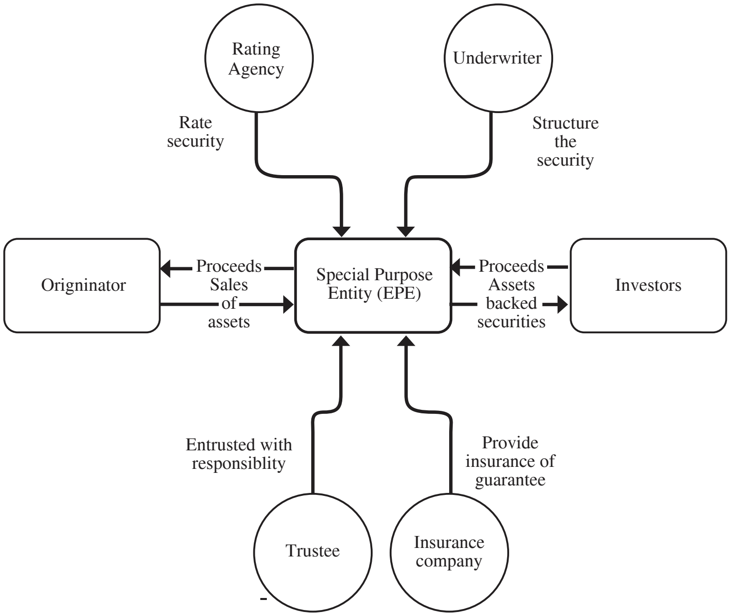
Following organized bodies will facilitate the securitization process:

Figure 2: The structure of a securitization transaction



Source: Khan and Uddin (2012) and Khan, Hassan and Islam (2009)

Figure 3: Components of loan securitization process



Source: Comptroller's Handbook November 1997, Asset Securitization

Originator, an entity who provides loans and the origin party of the securitization process, will sell the loan to ***Special Purpose Entity (SPE)*** which is legally separated from the holder of the assets. The SPE serves to collect the assets which are then repackaged into securities, but the originator is still considered as the sponsor of the pool. ***Trustee*** is entrusted with responsibility for reaching certain key decisions that may arise during the life of the transaction, holding security over the securitized assets and control over cash flows. ***Credit Enhancement,*** a method of protecting investors in the event that cash flows from the underlying assets are insufficient to pay the interest and principal due for the security in a timely manner, is used to improve the credit rating, pricing and marketability of the security. ***Rating Agencies*** evaluate the credit quality of the transactions or NPL where ***Underwriter*** is responsible for advising about the structure of the security, pricing strategy and marketing it to investors. ***Investors*** of securitization are insurance companies, mutual funds, money managers, banks, pension funds and individuals. ***Insurance Company*** provides the insurance or guarantee the investors about the credibility of the SPE that ensure the ability of repayment of the investment.

Proposed NPL securitization model

This paper proposes that the commercial banks sell their NPL to a SPE, here the bank could mix any proportion of performing and non-performing loans based on the market demand and sell it to the SPE, then the SPE will issue ABS against the loans. A group of banks can also establish SPE with a small amount of money. Sometimes bank may realize some losses, as a result of selling the loans less than the value or loaned amount and the loss would create a tax-shield, which is backed by collaterals.

Figure 4: Sell of Loan to SPE

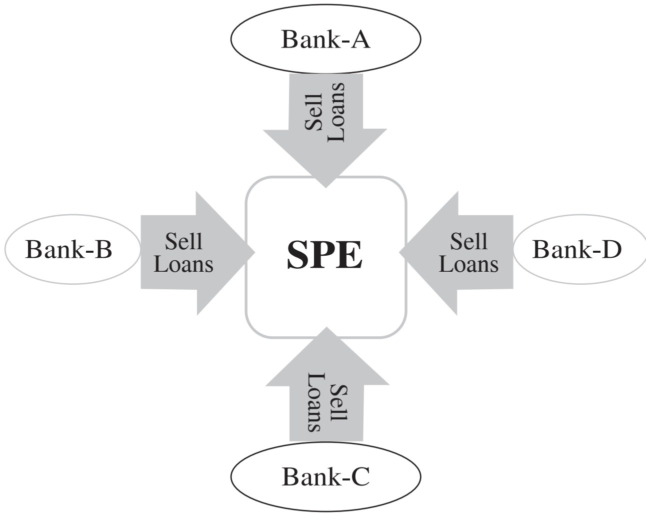


Figure 5: Loan Securitization Process

Source: Khan and Uddin (2012)

An easy example, the book value of the loans of *"Future Bank Limited"* is Tk. 1000 but the probability of recovery of loan is very low. But the loan has collaterals of estimated fair market value (FMV) of Tk. 600, now the bank sells the loans at fair value to SPE. The bank will recognize a tax-deductible loss of Tk. 400 when the bank will sell the loans and the loans (Tk. 1000) will be removed from the balance sheet of the bank. By this process the SPE will purchase the loan from bank A, B, C, and D, then combining all of the loans SPE will issue the securities backed by asset/collateral which can generate cash.

As the securities are backed by assets or collaterals so the investors will be interested to invest in the securities. The underwriters will design the securities, set the number of securities and price the securities as per the market value.

Prospects and Problems of NPL Securitization

Prospects of NPL securitization in Bangladesh

The above visual graph and the discussion about the status of NPL in Bangladesh gives the idea about the current situation of NPL, though some improved policy and writing off of NPL has improved the health of balance sheet but the banks should focus on the alternative methods of their investment. Securitization of NPLs is one of the widely used methods for NPLs to improve the bad condition of the banks. In 2009 there were Tk. 224.8 billion non-performing loans (NPLs) in Bangladesh combining all types of banks where the State Owned Commercial Banks (SCB) has the highest amount of NPL comparing with others types of banks. Now the securitization can be a solution to reduce the amount of NPLs of banks. The banks can sell their NPLs to SPE to recover the amount of money and remove the amount of NPLs from the balance sheet so that the banks can improve the health of balance sheet. The SPE can issue the zero coupon bonds against the NPL and the collaterals of the NPL. The use of zero-coupon bonds would compensate for the questionable timing of the cash flow obtained from the sale of the properties or loans. Here the government could support the ABS program as it is essential through providing insurance to the ABS program as a contingent credit enhancement and the SPE can meet the credit requirements of the investors.

The securitization of NPL can be an opportunity to solve the NPL problems of banks as well as to improve the financial market of Bangladesh as securitization will collect the investment and the loan will be recovered later. Some of the business organization can be improved and the investors can have the access to invest, credit rating agencies will rate the securities, underwriters will design the securities, the others banks or the government can facilitate in credit enhancement etc. So the securitization of NPL can be the best solution of reducing the NPL of the banks and creating some business opportunities in the financial market. As the securitization of NPL is new in Bangladesh so the inauguration of banks and the support of the government can provide the new dimension in the financial market of the Bangladesh. So this study shows the prospect of securitization in Bangladesh and some of the success and failure factors of securitization that should be critically handled to make a successful securitization market for NPLs in Bangladesh. There should be an integrated policy among the SEC, government, banks, financial institutions rating agencies, intermediaries and investors, etc to make a successful NPL securitization in Bangladesh.

The legal framework should be made and that should be flexible to issue the securities; then the prospects of NPL securitization can be achieved by maximizing the goals of securitization.

Problems of securitization in Bangladesh

There are some identical problems of NPL securitization in Bangladesh. They are as under:

Loan classification system is very complex in Bangladesh(Bangladesh Bank, 2006) as there are different classifications for different types of loans so sometimes it makes problems for following the rules to classify the NPL. Therefore, it is a problem to make policy for securitization.

In Bangladesh, as NPL securitization was not done before, so there is an ambiguity about the process and possible return from the securitization. Sometimes this new financial product may not be suitable on the basis of country's financial position and economic policy. The government financial policy can be contradictory with the securitization.

As sometimes the collaterals of a loan have some complexity with the ownership, so sale of collateral to the SPE may not be such an easy job, even the value of the collateral is a major factor. If all banks sell the NPLs to the SPE then the NPLs may be undervalued because of more supply of NPL or assets, similarly the more supply of NPL securities can lower the value of the securities if the demand does not rise with the supply.

In Bangladesh only a few rating agencies are operating which are insufficient to support the NPL securitization, so the government should take the initiatives to increase number of rating agencies, and the standard rating system should be introduced, like S&P and Moody, and the rating should be transparent.

Conclusion

The banks are carrying high amount of NPL for the many years of the banking history of Bangladesh and writing off of NPL from the balance sheet is going to be a traditional way of solving the NPL problems. But writing off the balance sheet is not the good solution of the NPL problems for the banks because this will not recover the loan. Despite the attractiveness of the securitization in Bangladesh, no banks are adopting securitization for solving the NPL problems. The securitization can give the best solution to the NPLs as it can give a new financial market, improve growth of the investment and growth of the financial market.

To make a successful securitization the banks have to take the initiative and the government has to give full support to introduce the NPL securitization in Bangladesh. While doing the securitization the entity involved with the securitization process should be careful about concentrating on the success factors and avoiding the failure factors of the securitization process. In order to promote future securitization in Bangladesh, it is necessary to improve the current intermediary services of securitization, to update the legal framework for the securitization and to disclose the information of securitization to the investors.

There is a potential market for the NPL securitization in Bangladesh, even the government can take some initiatives to introduce the securitization in some different sectors to promote the securitization in Bangladesh. For example, like housing finance companies can issue mortgage based securitization, credit card companies can securitize credit card receivables, micro finance companies (BRAC, ASA) can securitize micro credits, ministry of communication can securitize toll receivables of different infrastructures, the remittance receiving financial institutions can issue the securities of future cash flows from remittances. All these securitization will definitely promote the securitization market in Bangladesh and ensure the progress in financial sector reforms and a higher growth of the economy.

The existing old Act should be updated with the current market situations and the attractive policy can encourage the banks to go for the securitization. Bangladesh Bank should give a policy guideline for issuance of ABS so that commercial banks can issue NPL securitization. A stable bond market should be created to give a platform for the better securitization market in Bangladesh. New international standard credit rating agencies should be established for the development of a successful securitization market.

After the detailed analysis this paper concludes that the securitization of NPLs in Bangladesh is feasible and the Bangladeshi commercial banks can go for the NPL securitization process as it gives different benefits for the banks like sale of NPL, removing NPL from balance sheet, tax benefits, and introducing new financial market. At least some of the private commercial banks can test a small amount of NPL securitization as they have strong reputation and human expertise. If the institutions are fully developed and legal system can quickly attract the banks to adopt the NPL securitization then it will be true that the securitization of NPLs will be an initiative tool for solving NPL problems of Bangladeshi Commercial Banks.

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Appendix

Appendix A: NPL in Some Developing Asian Countries (in %)

Table 3. Bank Nonperforming Loans to Total Loans in Some Developing Asia

Developing Asia	2009	2010	2011	2012	2013	2014
Bangladesh	-	-	5.8	9.7	8.6	-
Bhutan	6.8	5.2	3.9	5.4	7	11.8
Brunei Darussalam	9.4	6.9	6	5.4	4.5	3.7
China	1.6	1.1	1	1	1	1.1
India	2.2	2.4	2.7	3.4	4	4.3
Indonesia	3.3	2.5	2.1	1.8	1.7	2.1
Malaysia	3.6	3.4	2.7	2	1.8	1.6
Philippines	3.5	3.4	2.6	2.2	2.4	2
Sri Lanka	-	-	3.8	3.6	5.6	4.2
Thailand	5.2	3.9	2.9	2.4	2.3	2.5
Vietnam	1.8	2.1	2.8	3.4	-	-

Source: Global Financial Stability Report, April 2015, International Monetary Fund (IMF)