



Speaking of Securitization

*Accounting, Tax, Regulatory and Other Developments
Affecting Transfers and Servicing of Financial Assets*

In This Issue

The Securitization Strategies Team is a premier service provider in many facets of the asset securitization process. S.O.S. contains general information only; it is not a substitute for consultation with a professional.

Securitization Strategies Team - helping you **from Concept ... to Wall Street ... and Beyond ...**

This article is intended to communicate only the basic concepts behind securitization.

You may want to pass it on to others in your organization interested in an introduction to securitization concepts.

SECURITIZATION

101

*by
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Securitization101

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Background

The earliest securitized transactions date back to the early 1970s and were the sales of pooled mortgage loans by the Government National Mortgage Association (Ginnie Mae). These transactions were followed by the Federal Home Loan Mortgage Corporation (Freddie Mac) and Federal National Mortgage Association (Fannie Mae) in the early 1980s. These new securities were backed by full faith and credit of the respective agencies which were either government agencies (Ginnie Mae) or quasi-government agencies (Fannie Mae and Freddie Mac). Because of such backing and guaranties, these securities (also known as single-class mortgage pass-throughs) carried an implied “AAA” credit rating. However, the capital markets were looking for more technological innovations to satisfy their investors. They were looking for diverse “maturity” mortgage product which gave rise to the concept of collateralized mortgage obligations (multiclass mortgage pass throughs, CMOs or MBS) soon to be followed by asset-backed securities (ABS). Some of these securities have managed to become among the most exotic securities on the street.

Today, the total outstanding issuance of CMOs, MBS and ABS has reached a staggering level of over two trillion dollars. The non-agency or private label multiclass mortgage-backed pass-through market originated in response to an increased demand for low credit risk mortgage-backed securities with diverse cashflow and maturity characteristics. The difference between agency and private label transactions is as follows: in the case of agency transactions, the underlying single-class mortgage pass-through pools are government or quasi-government obligations and, therefore, the credit risk of such pools is retained by these agencies and is negligible to the investors, and in the case of private label transactions, the risk of the underlying mortgage loans is fully transferred to the “willing” investors as described below.

Ginnie Mae

The primary purpose of establishing Ginnie Mae was to fund the government-sponsored residential mortgages originated by various lenders by creating an active secondary mortgage market. Unlike Fannie Mae and Freddie Mac, Ginnie Mae does not purchase mortgages from lenders.

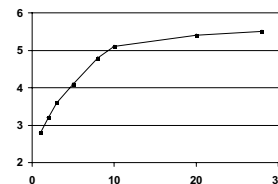
The credit risk is relatively higher in the private label market because the losses on the mortgage loans must be absorbed directly by the investors. Unlike agency transactions, there is no guarantee of timely or eventual payment of either principal or interest to such investors. For investors, analysis of relative

priority of cashflows as well as the credit risk of the underlying mortgage loans take a significant role in the private label market.

The success of securitization in the mortgage market and the acceptance of new securities by the investors has lent application of this concept to other assets such as credit cards, auto loans, leases and many others. The primary focus here is to deal with the concept of securitization in the context of some of the other commonly securitized assets. We will assess the needs of financial institutions and industrial firms to apply this technology to create a source of funding for themselves.

Fixed income or derivative?

MBS/ABS are considered “fixed-income” securities as well as “derivative” securities. “Fixed-income” pertains to the fact that MBS/ABS generate a coupon income (not necessarily a fixed dollar amount) periodically whereas “derivative” refers to MBS/ABS being “carved or derived” out of an underlying pool of assets. Unlike other fixed income securities such as corporate bonds, MBS/ABS are fairly complex instruments to analyze. As mentioned above, MBS/ABS are structured to satisfy the “risk,” “return” and “maturity” characteristics of different investors. Imagine an upward-sloping yield curve vertically cut out into small slices where each slice represents a “tranche” or a “class” in an MBS/ABS. Each “tranche” has a different priority of payment of interest and principal. This priority of payment is what makes MBS/ABS somewhat difficult to analyze.



All “agency” securitizations are implicitly “AAA” rated and therefore carry negligible credit risk, whereas, the private-label market has produced multiclass mortgage pass-throughs with ratings ranging from “AAA” to below investment grade.

Basic Analysis

In view of the fact that securitization technology has grown tremendously not only domestically but also globally calls for a better understanding of this technology. The basic rule of thumb to understanding this innovative process is to stick to the “basics!” “Information overload” can prevent people from learning and understanding the benefits and attributes of such technology. We will study some of the

attributes from both an issuer's and investor's perspective. We will approach this process in two parts. First, we will determine why securitization may be beneficial to some issuers; and second, why investors may want to buy these securities.

- Why securitize? Issuer's perspective.
- Why buy? Investor's perspective.

Why Securitize? Issuer's perspective.

Securitization offers several benefits to an issuer. Instead of simply listing out the benefits, let's take a methodical approach to finding out the pros and cons of a securitization. For the purposes of this illustration, we will assume the following balance sheet for Company XYZ, which has "A" rated long-term unsecured debt.

**Company XYZ
Balance Sheet (amounts in millions)
as of 12/31/XX**

Assets	
Cash	100
Investment in mortgages	500
Other	400
Liabilities	
Senior notes due 2003	300
Senior notes due 2008	500
Equity	
Share capital	200

- Need cash?

The first and foremost aspect of this business is to assess the needs of the Company. Does the Company need cash to grow and expand its business, to pay off its maturing debt obligations, to buy back capital or for any other reason, whatsoever? If so, has the Company looked into any other forms of funding, such as issuance of more long-term unsecured debt, albeit "A" rated? Let's stop here and answer our previous question. Yes, Company XYZ needs cash. When the Company approached Banker ABC, after much negotiation, it was told that the all-in-cost for the Company to issue new ten-year unsecured debt in today's environment would be 6.70%. Too high, the Company thought. An alternative was to pledge the existing assets and borrow against those assets; ten-year secured debt at an all-in-cost of 6.66%, better than the first option. However, by doing so the Company's balance sheet will show more assets and more liabilities even though in the latter case proper footnotes regarding pledged assets would exist in the financials.

**Company XYZ
Balance Sheet (amounts in millions)
as of 12/31/XX**

Assets	
Cash	500
Investment in mortgages*	500
Other	400
Liabilities	
Senior notes due 2003	300
Senior notes due 2008	500
Senior secured Notes due 2008*	400
Equity	
Share capital	200

What is common in the above two funding techniques is that they are both "on-balance sheet" financing. The credit rating of the new securities may be capped at the credit rating of Company XYZ, which if low, will raise the cost of financing. A point to note is that the debt-to-equity

What is securitization?

Securitization is pooling of "homogeneous," "financial," "cash flow producing," "illiquid" assets and issuing claims on those assets in the form of marketable securities. Using securitization, financial institutions and industrial firms can make certain assets suitable for sale in the capital markets. The higher yield associated with these securities attracts investors who are willing to bear incremental credit, prepayment and liquidity risk.

ratio would also increase from 4.0 to 6.0 indicating a more leveraged company, which may not be very well accepted by the existing creditors and the rating agencies. While it is difficult to say if this is a desirable method of financing for the Company, albeit a general statement can be made that the balance sheet does look bloated.

- Off-balance sheet funding.

Banker ABC suggested the Company sell its existing assets via securitization. The desired alternative in most securitization transactions is to structure the transaction that will result in "off-balance sheet" treatment for the existing assets. If the securitization is a sale under FASB 125 - "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities," cash and proceeds are added to the assets and the transferred or sold assets are taken off balance sheet. Of course, certain conditions have to be met in order to get the off-balance sheet treatment. Failing to meet the required criteria can result in the transaction being construed as an on-balance sheet financing.

Company XYZ
Balance Sheet (amounts in millions)
as of 12/31/XX

	Assets	
Cash		590
Investment in securities		10
Other		400
	Liabilities	
Senior notes due 2003		300
Senior notes due 2008		500
	Equity	
Share capital		200

For a detailed analysis of FASB 125, please refer to "Securitization Accounting under FASB 125" by Marty Rosenblatt and Jim Johnson, both of Deloitte & Touche LLP, New York. You may also call the author to obtain a copy of the report.

The Company can also resort to the traditional method of selling mortgages in the secondary market. The traditional method is generally very cumbersome because the sellers have to find buyers who want to invest in the pool of assets with the characteristics matching those of the seller's pool. For such buyers, there is no credit protection in the pool which calls for detailed due diligence of the pool hence making it more difficult to consummate. However, more often than not a seller can create "value" by tranching a pool of assets into different marketable securities while retaining the right to receive any excess cash flow out of the transaction. This excess cash flow, in the form of a security called the "residual," can be booked as an asset based on its worth in the market. Also due to the fact that these tranches are rated and have some credit protection, they may be sold at tighter spreads or higher prices maximizing the proceeds for the seller.

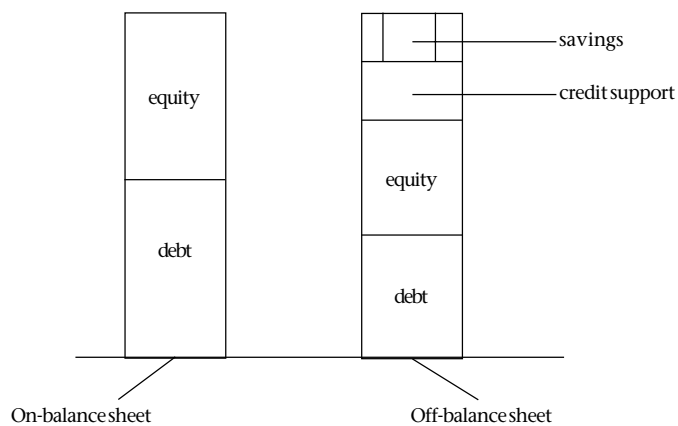
- Improved rating.

One of the conditions of a properly structured securitization is the isolation of assets from the creditors of the company. Separation of good credit quality assets from a company's core risky business will likely result in an enhanced rating for the securities backed by those assets alone; a rating better than that of its owner at the time. The improvement comes from two sources: one, the new securities are supported by the cash flows from isolated assets without any intervention from the Company itself which means that the ratings of the new securities will not be hampered by any extrinsic factors related to the Company and will be solely dependent of the quality of the sold assets and, two, this transfer is generally a legal true sale by the company to the special purpose vehicle potentially disabling any stay orders on the cash flows from the assets to the investors. If Company XYZ had a "AAA" rated unsecured debt, this process will be rendered useless because it might be cheaper for the Company to raise additional unsecured debt at

"AAA" rating.

- Lower all-in-cost.

In the capital markets, higher rated debt commands lower costs associated with issuing such debt. In our example, Company XYZ can issue "A" rated unsecured debt at 6.70%. Alternatively, the Company can securitize its investment in mortgages (outstanding balance of \$500 million), sell a "AAA" rated security (93% of the pool balance), "BBB" rated security (5% of the pool balance), retain an unrated first loss security (2% of the pool balance) and retain the rights to any excess cash flows. To the extent the proceeds obtained from such a transaction, after adjusting for the underwriting fee, credit enhancement costs, legal and marketing costs, exceed the proceeds obtained by any other forms of funding, the Company has achieved a lower all-in-cost. A point to note is that as issuers' ratings improve the advantages of securitization diminish because such issuers can have access to cheaper funding via other means.



- Diversified funding sources.

An issuer can attract investors willing to lend at lower rates for highly rated securities which are backed by the cash flows from the separated assets; even those investors who would otherwise not lend money to such issuers. The income on assets and return of principal of those assets can be passed through to the investors making the process "self-financing," which means there is no reliance on the income of the company to meet the debt service. Securitization can create a variety of instruments ranging from short term securities to long term securities, low coupon or high coupon, positive and negative duration, different prepayment risk, etc, which is appealing to many new investors.

- Lower capital requirement (banks, thrifts, depository institutions and insurance companies).

The above analysis can be looked at in two parts, assuming that the Company XYZ is a (a) non-banking (or non-

insurance) institution and (b) banking (or insurance) institution. The differences resulting from the above relate to the “release of capital” and “bankruptcy considerations,” the details of which are out of the scope of this article.

The theme of risk based capital stems from the regulatory requirements of capital reserves pari passu with the credit risk of the assets a financial institution is holding. Assets are classified into various risk categories and a risk weight is assigned to each asset in each category. Generally, loans carry a higher risk weighting - for example, commercial loans are 100% risk-weighted and residential loans are only 50% risk-weighted. Highly rated securities may receive smaller weights - for example, FNMA and FHLMC securities carry a 20% weight and GNMA securities carry 0% weight. Institutions that hold risky assets on their balance sheet have a higher capital reserve requirement.

If a bank were holding “A” rated loans worth \$4 billion, the required presecitized capital would be 8% (100% risk-weighted) or \$320 million. If such bank securitizes 97% of its portfolio and holds 3% of the unrated first loss security (equity) as credit enhancement for the securitization, the required new capital is 100% of the equity or \$120 million. This amounts to a freed up capital of \$200 million. While increased capital implies a safe institution, it also has an opportunity cost associated with it. This cost results from restricting the entity from leveraging its equity. By isolating the “securitizable” assets and removing such assets from an institution’s balance sheet one can further lower the “effective” cost of financing. This newly released capital can be deployed for other purposes or can be bought back by the institution.

- Miscellaneous.

There are a few more benefits that are appealing to many issuers. One is that of a gain-on-sale of assets (under FASB 125) that flows through the income at the time a securitization is done. An example in the box below shows how pre-tax gain can affect the financials. The key here is to calculate the fair market value for the residual class that is generally retained by the issuer which often tends to drive a transaction. The assumptions and methodology for the residual class has been very hotly debated topics in the securitization industry. The higher the fair market value of the residual class, the more the stockholder’s wealth at the end of the day. Signs of warning have appeared in the marketplace for those aggressive issuers who have marked the residual class to higher levels than necessary. Lately, those issuers have had to adjust (write down) earnings primarily because of unreasonably liberal assumptions that were used to value the residual classes at the time transactions were done.

Class	Balance	Price	FMV	Basis	Sold
AAA	96,000	100	96,000	94,731	Y
BB	4,000	96	3,840	3,789	Y
R			1,500	1,480	N
	100,000		101,340	100,000	

Net Proceeds	99,840
Allocated Carrying Value	(98,520)
Pre-tax Gain	1,320

In our example above, if the value of the residual class was 10% more than the original, the pre-tax gain rises approximately 11%. The expected rate of return on the residual class depends on the historical loss experience on such assets and the prevailing discount rates for such securities. Fluctuations in the earnings stream may result if the valuations were done incorrectly at the beginning of the process!

Another advantage that issuers have is generation of servicing fee income. Generally, the issuers will retain the servicing feature of the assets that pays a fee on an on-going basis.

Why buy? Investor’s Perspective

From an investor’s point of view, a securitization has to be supported by strong credit quality assets i.e. the pool of underlying assets must be able to withstand economic ups and down.

If an investor simply purchases a pool of assets, he carries all the credit risk! A dollar in losses on the pool is a dollar lost out of his pocket. How does one mitigate such effects? The securitization structure must also ensure continuous disbursements of the collected amounts. Is there any possibility of blockage in the flow from borrowers to investors? What about surprises from Uncle Sam? Are there any hidden taxes waiting to be discovered after investors buy these securities? All these concerns make securitizations somewhat more complicated to analyze. The focus of this section is not to deal with these issues. Instead, we will assume that the infrastructure for a securitization has been already set up; assets are isolated into a bankruptcy remote entity, separate accounts have been set up for collection so cash is not commingled for an unreasonable period of time with other funds of the issuer, there is no double taxation of the vehicle and there is no withholding requirement for cross border deals. Now, the success of a securitization is largely dependent on the investment characteristics of the securities.

- Credit risk.

How do we mitigate the risk of credit losses to investors? Before we proceed with the analysis, we need to understand the role of rating agencies in this process. Most of the new securities carry a credit rating from one of the rating agencies. A rating of “AAA” implies timely payment of interest and principal on the securities. If one has a pool of

assets, it is very unlikely that such a pool of assets will be “AAA” rated! How can one be creative enough to carve out a piece from this pool of assets to make it very likely to receive interest and principal due on a timely basis? Both, rating agencies and issuers work towards the goal of carving out maximum number of such pieces by analyzing historical losses in similar pools. The result is creation of many securities with ratings ranging from “AAA,” “AA” to unrated first loss piece. In this way, “AAA” security is credit enhanced by “AA” and “AA” is credit enhanced by “A” and so on. Any losses are first allocated to the unrated or lowest rated piece. Therefore, the credit rating of a security determines the protection investors in such securities can have from probable losses on the underlying assets.

In the context of mortgage loan securitizations, this protection was usually enhanced by providing third party guarantees to the investors. Some of the common forms of credit enhancement are described in the following paragraphs.

- External credit enhancement.

Pool and bond insurance was taken to cover the losses on mortgage loans or guarantee scheduled principal and interest on the securities; Three of the top pool insurance providers were General Electric Mortgage Insurance Company (GEMICO), Mortgage Guaranty Insurance Company (MGIC) and Private Mortgage Insurance Company (PMI); Two of the top bond insurance providers are Financial Surety Association (FSA) and Municipal Bond Insurance Company (MBIA); Letters of credit (LOCs) from banks were also used to cover losses on mortgage loans up to a certain amount.

However, the credit rating of the securities were subject to downgrading if the rating of the credit enhancement provider was lowered. This adds risk for the investors. So, while FSA and MBIA still insure bonds, some investors still prefer protection coming from a combination of internal and external provisions.

- Internal credit enhancement.

In order to prevent the downgrading of the securities associated with the external credit enhancement providers, a self-enhanced structure to prioritize cash flows was developed. It was appropriately named “Senior-Subordinate” (Sr-Sub) structure. In a Sr-Sub structure at least two classes of securities are created based on the priority of payment to each class. The senior class, which is generally “AAA” or “AA” rated, has the priority of payment for interest and principal over the subordinate class. The subordinate class is also referred to as the “first loss” piece because any losses arising from defaults are first allocated to the subordinate class. Because of the priority of distributions over the subordinate class and the loss protection provided by the subordinate class, the senior class receives a high credit rating. It is important to note that the level of subordination alone does not determine the credit rating of the senior class. Primarily, it is the quality of the underlying mortgage loans that sets the precedence for a credit rating. For example, for a good quality pool of mortgage loans, one can obtain 93% “AAA” senior class whereas from

a lesser quality pool, one may be able to obtain only 85% “AAA” senior class. The higher the senior class percentage the better is the overall execution of the securitization. The subordination provides protection in addition to the “natural” protection against losses provided by the good quality of the mortgage loans.

The Sr-Sub structure with certain twists such as shifting interest or over-collateralization allocates disproportionate amounts of principal to the senior and the subordinate classes. In such structures the principal cash flows are shifted from the subordinate class to the senior class to provide increasing protection to the senior class for a period of time. Why is there a shift devised in mortgage securitizations? This is best explained by the fact that most of the “good” mortgage loans in a pool prepay in the early part of their life whereas the “bad” mortgage loans continue to pay only the scheduled payments. Therefore, this accelerated reduction in the pool balance does not actually reduce the “credit” risk in the outstanding pool. If it does, it is very minimal represented by the scheduled amortization of “bad” loans. In order to compensate for the increased percentage of “bad” mortgage loans in the pool, principal cash flows are shifted away from the subordinate class. All mortgage loans in a well-seasoned pool are considered to be “good” mortgage loans because the borrowers have already made a series of regular monthly payments and they have significant equity in the property (and therefore less incentive to default). The effect of this type of credit enhancement is to increase the subordinate class’ percentage in the pool and provide more protection to the senior class. The same analogy of subordination is applied to other types of assets as well.

- Call and extension risk.

The cash flow related risks in these securities are called “call and extension” risks. Call/extension risks of a security are a result of borrower’s ability to prepay the underlying assets in a transaction. These prepayments are then passed through to the investors (essentially, exercising a call on the securities). The investors are said to have written a call option on the assets. Of course, investors get compensated for this option with higher spreads than comparable securities. During pricing of these securities an expected prepayment rate is assumed to analyze the cash flows and, in the future, if the prepayment rate falls below such expected rate, extension risk arises! Prepayment risk is more prominent and applicable in longer term, prepayable and high balance assets such as mortgage loans. For example, automobile loans are short term - 3-5 year maturity, and borrowers don’t have much incentive to prepay other than when they sell the automobile. An automobile loan for \$15,000 at 12% per annum for 5 years will have a monthly payment of \$334. The same loan at 10% per annum will result in a monthly payment of \$319, a difference of only \$15 per month, not enough to cause a borrower to refinance (or prepay). Thus, these types of loans are not sensitive to interest rates.

ABS

The first non-mortgage securitization was consummated in 1985 by Sperry. The securities were backed by cash flows from computer leases.

- Negative convexity.

MBS/ABS suffer from what is called “price compression” or “negative convexity.” If one were to invest in corporates, the impact of changes in the price with changing discount rates or market yields would be somewhat predictable. As yields decline, prices rise; more so than anticipated by one of the standard financial measures called “modified duration.” This added positive effect in corporates is caused by “positive convexity.” However, most MBSs and to some extent some ABS exhibit a slightly different behavior. Let’s say an MBS backed by loans with approximately 7.5% of prevailing coupon was priced (101 @ 7.4%) at a 10% prepayment assumption. If the prevailing interest rates were to fall in the economy, prepayments would rise. Rising prepayments result in early retirement thereby reducing the yield on an MBS. Consider the opposite scenario in which interest rates are rising and prepayments are falling. Since MBS are priced off average life (not final maturity), in a positively sloped yield curve, longer average life caused by slower prepayments can severely affect the price of MBS. The investor is left with smaller cash flow to reinvest in a rising interest rate environment. Therefore, in a declining yield environment the price of an MBS appreciates at a decreasing rate and in a rising yield environment average life and duration lengthen; not very desirable features of a security.

Some ABS are created to look like corporates with practically no “negative convexity.” The best example would be some of the credit card receivable backed securities. Generally, they pay interest semi-annually with return of principal (controlled amortization or bullet) on a specified maturity date. And most CBOs/CLOs pay interest (not principal payments) quarterly during the revolving period when all of the principal from the underlying assets is reinvested in similar securities. The risk of early redemptions exists in these transactions only when losses increase beyond a threshold.

- Liquidity risk.

MBS/ABS demand a premium for prepayment risk. What if the prepayment risk is minimal as in most ABS? Many investors are not aware of many new types of securities. If one were to convince them to buy such securities, one would still have to pay them to cover the liquidity risk; the risk that they will not be able to sell these securities to any other investor like they would if they were holding corporates. As certain assets become popular and well understood, this risk tends to be minimal.

Securitizable Assets

There have been a number of different types of assets that

have been securitized. The most common types of securitized assets are residential mortgages, commercial and multifamily mortgages, home equity loans, manufactured housing loans, automobile loans, student loans, credit card receivables, equipment leases, high yield bonds, bank loans, boat loans, recreational vehicles, export receivables and other receivables; And some of the exotic new assets are tax liens, stranded costs, small business loans, insurance premiums, franchise loans, film receivables, health-care receivables, music royalties, lottery winnings and structured settlements. The creativity in structured finance is limited by anyone’s imagination.

The fundamental principle in a securitization is to be able to provide the flexibility with which issuers can match the needs of the investors without compromising their own wealth. Some investors seek short-term securities while others want long-term securities. Some don’t want any negative convexity in a security and some may accept this risk if they receive a yield premium. The tenor and certain key characteristics of the assets can dictate the types of securities that can be issued. It is simply not possible to go into depth of each of the asset types to understand their characteristics. We will very briefly describe securitizations of mortgage loans and bank loans.

- Mortgage loans.

Single class mortgage pass-throughs sold by the agencies were the harbinger of securitizations. CMOs and MBSs came about when investors sought a wide range of technologically advanced mortgage products with high returns. The building blocks of this technology are the mortgage loans. The types of mortgage loans run the gamut from fixed rate to adjustable rate. Fixed rate loans can be balloons or fully amortizing, 15 year, 30 year, step, etc. Adjustable rate loans can be indexed to Treasury, 11th district COFI, LIBOR, Prime, etc. Each of these types can be given to a prime or a sub-prime borrower. The supply is constantly changing, as lenders become more innovative to keep pace with each other in this competitive industry.

A mortgage loan is given to a borrower after examining the credit worthiness of the borrower. Generally, it is a large amount long-term loan ranging from 7 years to 30 years given to individual borrowers. All mortgage loans are secured by mortgaged properties. The interest rate on a loan can be fixed for life or it can be made adjustable based on a particular index plus a margin. Similar balance, terms and coupons don’t necessarily make a pool of mortgage loans securitizable. Many other factors such as loan-to-value (LTV) ratio, purpose of a loan, type of property securing a loan and the size of loan play a significant role in assessing the risk of a pool. High LTV implies more risk because if a borrower defaults there isn’t much that can be recovered from disposition of the property. If a loan is taken out on an investment property and not a primary home, a borrower may not have any incentive to protect his loan in an economic downturn. The types of properties are single-family Attached/Detached, condominiums, co-operatives and multi-family, in the order of increasing risk. And of course, the higher the loan amount the riskier it is for the

lender. With all this in mind, how does one determine if a pool of mortgage loans is securitizable? As described earlier, the idea is to maximize the credit rating of a pool. Issuers and rating agencies work together to carve out pieces out of the pools by assessing the likelihood of defaults of borrowers in a pool of mortgage loans. The process is somewhat scientific based on each rating agency's research as to historical defaults. For a reasonably diversified pool of prime mortgages, it is not difficult to carve out about 92%-96% as investment grade. Once the size of an investment grade portion is known, that portion can be further broken out to create short-term, medium-term and long-term securities with the investment characteristics buyers are looking for.

The characteristics of mortgage loans are indicators of credit risk in such loans. The current trend in the industry is to capture the higher risk sub-prime market of borrowers. These are the individuals who are unable to get a prime loan at a lower interest rate because of their poor or inadequate past credit histories. Sub-prime loans are likely to incur higher losses as compared to prime loans. The newest product that can be seen in this industry is the 125 LTV loan. The idea is for the borrowers to consolidate their high interest debt into one loan. This is how it works. If one is a prime borrower, he can obtain a fixed rate loan for about 80-90% of the appraised value of a home at 7.5% to 9.0% per annum. In the case of a 125 LTV loan, one can obtain up to 125% of the appraised value of a home at 12.0% to 15.0% per annum. A part of the interest paid (interest amount that related to the balance in excess of 100% may not be tax deductible) on a mortgage loan is also tax deductible making this strategy an efficient one for someone with high debt. The biggest risk factor for such loans is that if the borrower sells the house for any reason, there will be an immediate loss to the mortgage lender because there is negative equity in the house.

Type	Balance	Rate	After-tax Rate (28% bracket)
Home	\$80,000	9.0%	6.5%
Credit card	23,000	21.0	21.0
Car	10,000	16.0	16.0
Other	12,000	18.0	18.0
Total vs.	125,000	12.6	10.9
125 Loan	\$125,000	13.0%	9.4%

Lenders contend that they are helping borrowers save money by bringing the average cost of their debt down. While others claim that lenders are developing morally incorrect strategies for the future of the economy because these same borrowers will likely take on more high cost debt in the future thereby leaving them in a worse off situation.

Different types of Sr-Sub structures have been used for high risk mortgage products such as 125 LTV loans. Regardless of what type of financial structure has been put together, the theme of rating a securitization and thereby making it an effective and feasible transaction revolves around protecting the higher rated securities from any credit risk in the pool. Once issuers achieve reasonable sizes (maximized higher

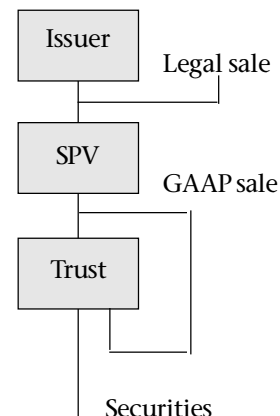
rated securities) for rated securities, the transaction is priced to determine the actual all-in-cost.

- Bank loans.

Bank loan securitization transactions (CLOs) have recently gained wide spread acceptance in the recent past. Approximately \$30 billion was securitized worldwide in 1997. The primary motivation for banks to do these securitizations is to get relief from regulatory capital and to enhance ROE, although other factors may play a role as well. The assets backing a CLO are bank loans extended to high creditworthy borrowers. In this case, the borrowers are not individuals but are often corporations. The bank maintains a relationship with such borrowers more so than it would with a borrower of a mortgage loan. Something to bear in mind is that a mortgage loan has become a commodity in the financial markets. Mortgage originators rarely maintain a one-to-one relationship with their borrowers. Because of banks' close relationship with the borrowers bank loans are generally customized to suit the borrowers needs and therefore do not have any standard terms and documentation. The disadvantage of such a relationship is that it is difficult to gather and pool similar bank loans for a securitization while the biggest advantage is that the defaults on these loans are generally low compared to corporate bonds. And while the defaults are low, it takes more time to recover a loan because banks tend to work out the loans to keep their customers rather than liquidate in a quick sale. After all is said and done, there have been a number of CLOs in the market recently. Most of the securitizations are driven by regulatory relief for banks while there have been few other deals that have been done for arbitrage purposes. The average quality of securitized loan portfolios has been investment grade rated (above "BBB") indicating potentially low losses. Rating agencies' research indicates average cumulative defaults for "AAA" rated corporate borrowers to be 1% in 10 years and for "BBB" to be 4% for 10 years.

The Future

Countries around the world are changing laws to facilitate securitization. There is an abundance of different types of assets in different countries, the biggest challenges lie in developing legal and regulatory frameworks.



Legal, Accounting & Tax Aspects

Securitizations are structured to separate the legal ownership of the assets from the issuer to a special purpose vehicle (SPV). There is a general concern that if the issuer does not perfectly segregate the assets and if the issuer becomes bankrupt, the sale of such assets may be recharacterized as a pledge and thus cash flow would be subjected to a stay order of a bankruptcy court. Banks, thrifts, depository institutions and insurance companies are not subject to the US Bankruptcy Code but are subject to receivership by their regulators.

The SPV can be a corporation (owners are shareholders), a partnership (owners are partners) or a business trust (owners are beneficiaries). It is quite common for an SPV to take the form of a business trust because the formation of a trust is a relatively simple process. For legal purposes, a corporation requires directors, articles and some form of equity making corporations cumbersome to setup. Shareholders are also subject to a double level of taxation which can make a transaction uneconomical. If one can mitigate the risk and avoid some of the drawbacks mentioned above, corporations can offer high flexibility in structuring multiple issuances of debt without incurring many unnecessary transaction costs.

The structure shown above is a two-tier structure. In the first tier, the SPV is consolidated with the issuer. However, for legal purposes, the SPV is a separate bankruptcy-remote entity. The issuer generally secures a legal opinion that the sale of assets to the SPV represents a "true sale" and that the assets of the SPV will likely not be consolidated with that of the issuer to make it a single entity for bankruptcy purposes. One of the prime determinants of a "true sale" is whether or not the seller has retained all of the credit risk. If the investors are completely shielded from default risk and if the seller is completely burdened by such risk, the securitization may be deemed to be a secured financing for bankruptcy purposes. For both accounting and tax purposes, the first sale of assets to the SPV does not hold much ground because the SPV is generally a wholly-owned subsidiary of the issuer and is consolidated with the issuer. The second tier is for the sale of assets from the SPV to the trust so that the trust can issue securities. GAAP sale under FASB 125 occurs at this stage.

Whether or not a securitization transaction is a tax-sale or debt-for-tax depends on whether substantially all benefits and burdens of ownership have been transferred. A tax sale generates an immediate tax liability if there is any gain in the securitization. A tax sale is characterized by transfer of ownership of the assets. A point to note is which the tax laws are written such that substance usually prevails over the form. So, when issuers issue debt that substantially has characteristics of equity - debt can be recharacterized as equity which can jeopardize the entire transaction. Characterization of debt as equity can subject the income for the equityholders to double taxation.

There are many factors to be considered in making a determination of equity vs. debt issuance. First, the debt should not have equity like characteristics in that the expenses on the securities should not match the revenues on the assets. For most securitizations, interest income from assets such as mortgages is received monthly, and interest expense on securities is paid out monthly, thus causing the securities to not look like debt. One way to get around it is to break the chain of income and expense. Some automobile securitizations are structured to pay out quarterly. Most CBOs/CLOs securitizations have debt-like characteristics. Income from assets is received sporadically at uneven intervals while expense on securities is paid out quarterly or semi-annually like corporate debt. Another example would be securitizations of credit card receivables and trade receivables which lend themselves to debt like features because of short average lives of the assets and relatively longer average lives of the securities. Second, if issued securities have interest rates substantially differing from the interest rate on the assets such as floating rate securities backed by fixed rate assets, it is held positively in favor of debt treatment. Third, if the issuer keeps a substantial call right on the assets, generally, in excess of 20%, the structure might be favored as debt. It is important to note that there are many other factors that affect the characterization of the structure and it is beyond the scope of this article to iterate each one of them. These transactions are complex and do not easily lend themselves to a mechanical analysis.

Most issuers would like to have the best of both worlds; sale for accounting and debt for tax. The best of the worlds may not give the most optimal execution for the transaction. The art of structuring a securitization is to optimize all the parameters relevant to the issuers as well as the investors.