



Securitization: information for MFIs

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1) Basic concept of securitization

a. Definition

Securitization involves pooling assets together and turning them into a tradable security. In the case of loans it is pooling the receivables from a loan and then selling them to a third party.

b. How it works

The originator of the securitized asset (in this case, the MFI) will pool its loans together and sell them to a bankruptcy remote special purpose vehicle (SPV). The SPV cannot be owned by the originator and can only have one board member from the originator. The SPV is legally separate from the originator, and if the originator goes bankrupt the originator's creditors have no claim to the securitized loans. This feature is what is meant by "bankruptcy remote."

The SPV then sells the securitized loans to investors. The loans can sell for a discount or premium to what the SPV paid for the loans, if interest rates change between the time the MFI sells the loans to the SPV and the time the SPV sells the loans to borrowers or if demand was not properly assessed. The loans may be divided into tranches with different risk exposures to fit the needs of investors and thereby maximize the proceeds from the sale. (See section on Risk Tranches below.) The MFI may also provide credit enhancement for the asset by providing a first loss default guarantee (FLDG). The servicer of the loan (also the MFI) collects the payments from the MFI's borrowers and transfers the money to the SPV who transfers the money to the investors. The servicer receives a fee for collecting the payments that is usually small but in the case of the MF industry will probably be relatively large due to high transaction costs.

c. Why Securitize?

In short, an MFI would securitize its loans to raise money at a cheaper interest rate than if it borrowed without collateral. Currently, according to Pranav Sharma from Grameen Capital India (GCI), even first tier MFIs have weighted average costs of capital between 10 and 11%. Furthermore, securitization removes loans from an MFI's balance sheet and permits it to issue more loans. If MFIs want to grow, it is necessary that they begin securitizing assets in order to access relatively cheap capital. However, in the first few securitizations, MFIs are unlikely to receive interest rates much better than this, but as the market gains more confidence in securitized loan portfolios, interest rates may fall.

Furthermore, it allows an MFI to convert loans into cash, which increases its equity and allows the MFI to leverage that new equity to achieve a higher return on assets. Furthermore, the loans can be repackaged through tranches

d. Why Buy Securitized MF Portfolios?

Some investors do want to buy short term securitized bonds that will deliver a higher return than government short term bonds but still have low duration. MF securitized loans will mature in 6 months to three years from their issuance. This will fill a hole in the market, since currently the shortest securitized assets are auto-loan backed securities which last 5 years. Furthermore, banks that purchase securitized MF portfolios may be able to count that towards their priority sector lending.

e. Challenges in microfinance Securitization

Although ICICI has conducted several portfolio purchases, there have been no securitizations. That is, loans have not been repackaged as a security and sold to investors. The question arises of why have there not been more securitizations?

The first is transparency. For investors to give an MFI a decent interest rate, they must be able to receive timely (weekly) accurate information on repayments, prepayments, delinquencies, and defaults. Few MFIs are equipped with the relevant systems allowing to provide such data.

The second is market liquidity. Currently, the Indian market for securitized assets is not particularly liquid, so investors are not keen on buying into an asset that they won't be able to sell. However, MFIs assets present that advantage of short maturity securities.

The third is the absence of back up servicer that can ensure the repayments collection in case an MFI faces operational issues. In the future MoU could be signed between MFIs.

2) Why should MFIs securitize?

MFIs can achieve several things through securitization:

- Receive cheaper financing
- Remove liabilities from their balance sheets
- Increase return on equity
- Access a wider range of investors

a. Receive cheaper financing

We will treat each of these in turn. MFIs normally take loans from banks without collateral and pay a cost of funds that range between 9 and 13%. Given the increasing competition in the past few months amongst banks, especially to finance largest Indian MFIs, the cost of commercial short term loans seem to have reached a floor. Some non commercial loans are however still available, mainly through SIDBI in the form of grants or soft loans.

When loans are securitized, the loans are initially sold to a bankruptcy-remote special purpose vehicle (SPV) before being sold to investors. This ensures that an MFI's other creditors have no recourse to the securitized assets, if the MFI is not able to deliver on its other liabilities. Even if the MFI goes bankrupt, the securitized loans' repayments can still be collected and the investors can still receive their payments. Consequently, securitization allows investors to bet on the credit quality of the loan portfolio instead of credit quality of the MFI. And given that the loan to the MFI is collateralized by numerous microfinance loans, investors should be willing to provide cheaper financing to the MFI. However, given that securitized microfinance loans are uncharted territory, it is not unlikely that investors will initially demand an irrationally high return.

b. Remove liabilities from their balance sheets

When an MFI sells its loans to an SPV, the loans and thus the risk associated with these loans are removed from the MFI's balance sheet. The MFI sells the credit risk from its loans to investors who are better able to absorb the risk, allowing the MFI to scale up its lending, while still meeting capital adequacy norms.

c. Increase return on equity

Recall that

$$ROE = \frac{Net\ income}{Sales} \cdot \frac{Sales}{Total\ Assets} \cdot \frac{Total\ Assets}{Equity} = \frac{Net\ income}{Equity}$$

Initially, when a loan is securitized, the liabilities of loans are converted into cash. Equity increases, and thus leverage (Total assets / Equity) decreases leading to a decrease in return on equity. However, when the MFI leverages that increased equity by issuing new loans, it earns the income on new loans generated from the influx of capital while also charging a servicing fee for collecting payments from the underlying borrowers. This combined income increases the MFI's return on equity until the securitized loans mature and the servicing revenue from the securitized loans stops.

d. Access a wider range of investors

Securitization allows MFIs to diversify their investor base. When issued, the senior tranche of asset-backed securities is usually very highly rated due to various credit enhancements that are provided, making the securitized loan portfolio appealing to institutional investors. In many cases, these investors who are willing to purchase securitized assets will not be the same as the banks who lend MFIs money. Admittedly, in India, ICICI has both lent the most money to Indian MFIs and been the sole purchaser of microfinance portfolios. However, the appetite for Indian securitized microfinance loans is growing both domestically and abroad.

3) What are the minimum requirements?

a. Management Information Systems (MIS) and Transparency

When buying securitized assets, investors will require a more detailed account of an MFI's loan portfolio. Grameen Foundation USA spoke with ICICI in August 2003 to determine what information ICICI examines. ICICI provided the following information requirements:

- Elements of risk within the portfolio by segment (identifying diverse sources of risk, such as geographic focus, industry specific or MFI-management—specific issues, etc.).
- Determinants of that risk, including loan size, terms, and loan purpose.
- Current loan terms and loan repayment history.

Furthermore, the MFI must be able to report payment behavior accurately and often—weekly data would probably be sufficient. Many MFIs are not currently able to meet the MIS requirements to securitize loans. If an MFI does not, it must factor this cost into loan securitization. However, having a more effective MIS has numerous other benefits than simply setting the groundwork for securitization.

b. Minimum portfolio

Clearly, there is a substantial cost to securitize loans. MFIs must the costs of

- Being rated from a respectable rating agency
- Setting up an adequate MIS platform to ensure accurate and timely reporting
- Setting up an SPV
- Providing credit enhancement

Only MFIs that have a minimum portfolio outstanding should even consider securitizations if they are willing to do a sole deal. Another way is for MFIs to accept their portfolio to be bundled with those of other MFIs.

Minimum investment requirement varies but investors are very rarely willing to go below \$5M

c. Portfolio Sales: An Alternative to Securitization

Although India has not experienced a true microfinance securitization in which loans are sold as tradable securities, SHARE Microfin Ltd. has sold 12,500 of its microfinance loans to ICICI. Some of the same benefits of securitization were realized. SHARE received an 8.75% interest rate, 3 to 4% less than what it was paying on its other loans. SHARE removed much of the credit risk of these loans from its balance sheet. Furthermore, Grameen Foundation USA provided 93% of the guarantee required by ICICI for the portfolio sale. The guarantee amounted to \$344,000 or 8% of the \$4.3 million portfolio.¹

MFIs can pursue this option of selling loans to banks. More to the point, they can sell microfinance loans to those banks that have not met their priority sector lending requirement for a premium². Although the cost of a formal credit rating does not exist, the bank has to conduct due diligence, something which will at least implicitly need to be priced into the interest rate that the bank receives from the loans. Furthermore, an SPV does not need to be set up, so costs are mitigated.

This strategy is limited by the fact that so far, ICICI is the only bank that has purchased microfinance loans and as the monopoly player can demand a discount on the loans that it purchases both by demanding lower prices and demanding greater credit guarantees. Most banks evidently consider microfinance too risky. However, as the microfinance sector establishes itself more, this dynamic should change.

4) Securitized Loan Structure

Several things need to be considered when structuring a securitized loan

- Determining the service fee that the MFI should charge
- Providing credit enhancement (which is dealt with in the next section)
- Determining the tranche structure
- Choosing between open market and private deals.

Most securitized assets do not involve a high servicing fee since transaction costs make up such a small portion of interest collected. However, in microfinance, transaction costs make up a massive portion of the interest rates charged to clients. Consequently, much of the interest in a securitized loan must accrue to the servicer of the loan—most likely, the MFI itself—through the servicing fee.

a. Credit Enhancement

Some portion of the revenues of securitized assets is usually guaranteed by the originator or a third party to achieve a higher credit rating on the securities. In a paper titled “Securitization and the Challenges Faced in Micro Finance,” Sudipto Basu mentioned several types of guarantees that can be provided for securitized loans:

- An MFI can provide credit enhancement through a first loss default guarantee (FLDG). This ensures that the costs of the first defaults are borne by the MFI. MFIs will likely choose a level of FLDG high enough to secure a AAA rating from a credit rating agency. The FLDG can also be provided by a third party. In the case of the SHARE securitization deal, Grameen Foundation USA provided a guarantee.
- The MFI can also have an insurance company provide a loan guarantee.
- Credit tranching itself can be used to reduce risk (more detailed is provided bellow)

¹ Morduch, Jonathan. “Smart Subsidy for Sustainable Microfinance.” Finance for the Poor. Volume 6, Number 4. December 2005. Website: <http://www.adb.org/Documents/Periodicals/Microfinance/finance-200564.pdf>

² Note that ICICI has effectively met its priority sector lending requirement. (<http://indiabudget.nic.in/es2005-06/chapt2006/chapter3.pdf>)

- The securitized assets can be over collateralized by providing collateral in excess of that required to be assigned to the SPV, i.e. than necessary to pay investors in case there is a shortfall in payments. This will help secure a higher credit rating.
- Cash can be set aside to provide liquidity support in the case of delinquent payments or credit support in the case of defaults.
- An excess interest spread captures in the SPV the difference in yield between the interest rate charged on the underlying loans and the interest rate provided to investors. That spread is used to meet shortfalls in interest payments by the underlying borrowers. Any portion of that spread that is not used to meet shortfalls is returned to the originator after a specified period of time.
- Swaps and options can be used to hedge interest rate risk, or in the case of international securitization deals, currency risk.

b. Risk Tranches

Often, when an asset is securitized, it is also restructured into different tranches with different risk exposures, such that investors can expose themselves to risks that are most appropriate for their specific risk tolerances. By dividing a securitized asset into different risk tranches, the borrower hopes to maximize the proceeds of the issuance.

Because the subordinate tranches bear the losses before the senior tranche, investors who purchase senior tranche securities are willing to pay a premium in proportion to the size of the subordinate tranche. A subordinate tranche can be made large enough to bear the first losses such that the senior tranche receives an AAA rating. Of course, the subordinate tranche will receive a lower rating, since it bears more risk.

Tranches can be broken out in numerous ways. Following are a few possibilities.

- **Credit risk:** The simplest structure involves distributing the degree of credit risk among different tranches. That is, a senior tranche that has the shortest life and lowest risk receives payments first. After the senior tranche receives payments, the subordinate tranche receives payments. Thus, any defaults in the underlying loans are met first by the subordinate tranche and only then by the senior tranche. Note that there can be several subordinate tranches.
- **Geography:** Different tranches can reflect loans from different states in which the MFI has given loans.
- **Industry:** Different tranches can reflect the different industries that its borrowers work in, like rice farming, arts and crafts, or owning and managing a store.
- **Principal vs. Interest:** One tranche can receive principal payments only while another receives only interest payments. This separates out different expectations of prepayment between the two tranches. That is, those receiving only principal hope for fast repayments because they will receive all of their money faster. Those receiving only interest payments, hope for no prepayment, since prepayment of principal reduces future interest payments.

c. Open market or private deals

MFIs should also consider whether they want to privately place the securitized loan or sell it on the open market.

The advantage to an open market deal is that the security can be easily traded on a listed exchange. Presumably, investors would be willing to pay a premium on such a security if it is liquid. However, listing on an exchange is costly. Furthermore, listing does not guarantee liquidity—there must be a demand to trade the assets. The maturity of most microfinance loans

is one year. Securitizing these loans will result in assets that have short maturities relative to other securitized assets. With less time to trade, many investors are likely to hold these assets until maturity.

Another clear advantage of accessing open market is the much larger amount that can be tapped by complying with different mainstream investors risk appetite. At the time of this writing, it is probably better to privately place a deal. As MFIs notice greater over-the-counter trading of securitized microfinance loans, they should consider listing the securities to reduce the transaction costs of trading, allowing the MFI to demand a premium on securitized loans.

5) Information on a few past transactions

a. The First Securitization of Cross-Border Loans to Microfinance Institutions: Blue Orchard Microfinance Securities

In the largest transaction in the US capital markets to fund microfinance, in July 2004, Blue Orchard Securities I, a special purpose company, issued a US\$40 million bond to support MFIs in nine developing countries. The seven-year deal has four tranches, one senior and three subordinated; the senior note is secured by a \$30 million guarantee from the Overseas Private 43 Citigroup Inc. JP Morgan Securities placed the notes and JP Morgan Chase is the paying agent. Details of each tranche appear below:

- Tranche 1 – US\$30 million senior notes guaranteed by OPIC at US Treasury + .25-.5%
- Tranche 2 – US\$3-4 million subordinated A notes at US Treasury + 1%
- Tranche 3 – US\$3-4 million subordinated B notes at US Treasury + 2%
- Tranche 4 – US\$3-3.5 million subordinated C notes at US Treasury + 4%

There were 66 total investors: 12 foundations, 15 MFI practitioners/investors, 11 Social Responsible Investment (SRI) SRI Asset Managers, 3 SRI Funds, 22 private investors and 3 institutional investors. Critical to completing the deal was bringing together different investors through multiple tranches to appeal to different risk-return appetites. Equity investors in Blue Orchard Securities I include Blue Orchard Finance and Developing World Markets, Sponsors and Co-Structuring Agents on the bond issue, and GF-USA, Omidyar Network, and Skoll Foundation. A second closing is scheduled for year end 2004.

This transaction allowed 9 MFIs - 7 in Latin America, 1 in Cambodia and 1 in Russia – to tap the US capital markets for lower cost, longer term financing, ultimately providing approximately 40,000 new loans to micro-entrepreneurs.

The main criticism of the blue orchard model is that it is not replicable. The issue is denominated in US dollars and only dollar economies participated. Financing of Asian and African economies will involve a significant level of foreign exchange risk which is the risk arising out of variation in exchange rates of various currencies. Also, the amount raised per MFI is small and averages below \$ 5 million. The subsequent issues are expected to be larger.

b. SHARE Microfin Limited (SHARE) Microfinance Securitization – India

ICICI paid US\$4.3 million for 25% of SHARE's (a leading, poverty-focused MFI based in Andhra Pradesh state) loan portfolio. Share's cost of funds was approximately 8.75%; below the 12 to 13% it has traditionally paid borrowing from commercial banks, including ICICI.

This deal is particularly exciting in that it recognizes, and adapts for, microfinance as an asset class. In other words, there was not an attempt to force a cookie-cutter securitization formula on the transaction. Two unique aspects should be highlighted. First, the securitization is not “asset backed”, as many securitizations in the housing, credit card, and car markets usually are; ICICI will not have recourse to the assets the poor purchased with the proceeds of the loans they originally received from SHARE. Instead, ICICI has cash collateral in the form of a “first loss guarantee” equal to 8% of the securitization value, of which GF-USA provided \$325,000.

Second, SHARE will act as the servicer in the transaction, collecting repayments from the underlying borrowers. While the servicer role is often outsourced to third parties in securitizations, appointing SHARE in the role recognizes that lending to the poor is a niche market.

ICICI undertook this transaction despite the lack of secondary markets for such paper. Part of the reason goes back to the lending targets the Reserve Bank of India imposes on private banks. ICICI could have placed SHARE's assets on its books to meet the requirement. Instead, ICICI sold the entire portfolio to another bank just prior to fiscal year end, likely because the other bank need to meet its priority sector lending requirements. ICICI sold the assets at a premium, netting over 400 basis points on approximately US\$4million.

From SHARE's perspective, this transaction was important not only because it resulted in an injection of a large amount of capital at lower cost. An asset securitization provides a unique “capital sparing” opportunity. By moving these assets off-balance sheet, SHARE was able to raise new debt without having to increase its capital base. And going forward, future loans originated in the 26 branches from which SHARE sold its portfolio will be financed using the Strategic Partnership Model pioneered by ICICI and CASHPOR. In terms of achieving its mission, the deal allowed SHARE and its Founder and Managing Director, Udaia Kumar, to “...meet his aim of increasing his number of borrowers from under 300,000 now to 1 million, a target that will, he reckons, require \$62.5 million in new funds.”

c. Compartamos Bond Issue – Mexico

In 2002, Compartamos – a regulated Mexican microfinance institution – issued a 100 million MXP (approximately US\$10 million), 3-year, 13.1% coupon bond; this was the first tranche of a \$15 million bond. The bond was rated mxA+ with no credit enhancement. The initial \$10 million bond was privately placed by Grupo Financiero Banamex, a local Citibank affiliate, to institutional investors (20%) and individuals (80%). In the second tranche, institutional investors purchased 50%, while the remainder was taken up by individuals.

Key financial covenants include: maintenance of debt to tangible net worth of no more than 5 to 1; maintenances of reserves greater than or equal to the larger of 2% of loans outstanding or 60% of past due loans (>30 days); current assets to total assets of no less than 5%; cash and cash equivalents, free of liens, no less than 3% of total assets; and maintain tangible net worth of at least US\$4,000,000.

As proof there is investor interest in such transactions, the Compartamos transaction was over subscribed, even without any external support or guarantee. In other words, there were more investors (institutional investors like pension funds and individuals) seeking to purchase the bonds than there were bonds available. Management at Compartamos believes that the bond issue was successful primarily due to strong financial and operational performance, which led to a solid rating. Particularly critical and unique to this deal was Compartamos's strong and longstanding relationship with Banamex through its shareholders and Board of Directors. The Compartamos issue was small, even by local standards. The participation of Banamex, and affiliate Acciones Valores who underwrote the issue, in a deal of this size is a reflection of the strength of the underlying relationship between the institutions. The small size of the deal ensured that it would not offer secondary market liquidity to investors. This had significant implications for selling the issue. The two primary investor groups for such issues are institutional investors and

individual investors. Institutional investors, such as pension funds, insurance companies and mutual funds, tend to look for liquidity, while individual investors (retail investors or private bank clients) tend to have longer investment horizons and thus may require less liquidity. In the case of the Compartamos issue, more than 80% of the paper was sold to individual investors. This reflected Banamex's strong retail market network as well as Compartamos's strong reputation. The relationship with Banamex was critical in getting this deal completed.

Following the success of its first bond in 2002, in 2004 Compartamos, again supported by Banamex and Acciones Valores de Mexico, issued the first MXN 190 million tranche (US\$16.8 million) of a larger MXN 500 million (US\$44 million) bond issue targeting local institutional investors. As institutional investors have been exclusively targeted, this bond offers a 34% guarantee from the International Finance Corporation (IFC), enabling the deal to be rated AA by the local affiliates of Standard & Poor's and Fitch Ratings. This new issue has helped "... Compartamos diversify funding sources as [it] focuses on achieving its growth plans, which include growing its customer base to one million clients by 2008." From an industry perspective, this second and larger issue illustrates the promise of the financial markets for MFIs in reaching their goal of expanding outreach to the poor.

d. BRAC - Bangladesh

The world's first micro credit securitization deal was closed by BRAC in September 2006. BRAC is one of the largest MFI's in the world with over five million borrowers, primarily women. Average loan size is approximately \$ 162 and the rate of repayment is 99.27 %.

This novel securitization deal has been structured by RSA Capital, Citigroup, FMO and KfW. The investors have agreed to provide an aggregate of Bangladesh Taka - BDT 12.6 billion (USD 180 M) for BRAC over a period of six years. RSA Capital, a fully owned subsidiary of RSA Security is the lead arranger. The Netherlands Development Finance Company (FMO), KfW and Citibank are the co-arrangers of this transaction. BRAC's micro-credit receivables are in Bangladeshi Taka (BDT). A local currency transaction cuts out any currency mismatch and associated exchange risk to the local client. BRAC will also replenish all non-performing loans in the trust and there is a 150 % collateralization of receivables.

The securitization structure involves the creation of a special purpose trust which purchases the loans from BRAC and issues certificates to investors representing beneficial interest in such receivables. The transaction consists of 12 tranches and each tranche matures in 12 months. An amount equivalent to \$ 15 million is disbursed each six months and the tranches are credit-enhanced through 50% over-collateralization. BRAC will be the originator as well as the service provider for the transaction. A special purpose vehicle (SPV) is set up to purchase the receivables from BRAC and issue Pay Through Certificates (PTC) to investors. Eastern Bank Limited of Bangladesh is the trustee for the transaction. Citibank, N.A. Bangladesh is the Account Bank for the trust. Financing cost of this deal is approximately 12%, about 200 basis points lower than BRAC's traditional source – bank loans. The transaction required the creation of software to track a dynamic pool of receivables, which is created by MF Analytics. Clifford Chance, and Lee Khan and Partners are acting as legal advisors.

The bonds will be in the class of 'asset backed' by the high quality assets of the BRAC micro-credit program. Absence of a secondary bond market may be an impediment to develop a healthy market for ABS. Despite the constraints, the banks and insurance companies, investment companies, government agencies, corporations, high net-worth individuals as well as the general public are expected to be potential investors of this security. The security would be designed as transferable and tradable with two years or more maturity.

The transaction is advantageous to BRAC in several ways – diversification of its funding sources, reduction of on-balance assets and disbursement of more loans to a larger number of micro entrepreneurs. Three factors were crucial for the deal to ensue. Firstly, BRAC's portfolio size is large and diverse - \$ 348 million in disbursed loans are outstanding and spread over 4.48 million poor entrepreneurs. Secondly, the organization's skilled and qualified work-force at the head and the field offices ensures a repayment rate of nearly 99 percent. The organization also employed qualified personnel in the MIS department thereby guaranteeing effective data management. Finally, the strength and the credibility of the dependent parties – RSA Capital, FMO, KfW, and Citibank played a key role in the success of the deal.