A Proposal For The Securitization Of SMEs’ Receivables And/Or Cash Flows By Combined Financing
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ABSTRACT

The expression “credit is the name of the game” is becoming more relevant as financing credit sales is increasingly becoming a challenge for small and medium-sized enterprises (SMEs) in Mexico. The securitization of receivables, also called monetization, helps to address the challenges of obtaining cash to finance new receivables. SMEs have to be able to offer credit and the securitizations allow them to do this by using the receivables they already have to obtain more cash to help them finance new sales.

This paper presents the literature that supports this proposition, as well as a model that allows for the restructuring of revolving and non-revolving financing tools for SMEs. The proposed model enables multiple SMEs to combine their receivables into one “master” trust and use their collective receivables as collateral for loans.

During an exhaustive literature review, theories and isolated arguments were found that support this proposal. The proposal intends to generate an all-round win-win scheme through which 1) the SMEs can obtain financing at a reasonable cost, 2) the investors can gain the opportunity to diversify their portfolios, and 3) the Mexican government can gain the opportunity to channel support to productive initiatives in the country.

On a theoretical level, the results of the proposed solution could make an innovative contribution to the cognitive area of structured finance. Further, the possibility of combining the securitizations of many different SMEs to finance new receivables with their actual receivables could be valuable for the development of companies on a practical level.

Keywords: Securitization; Monetization; SME; Financing; Mexico

1. INTRODUCTION

The ability to finance credit sales has become a very important competitive advantage that allows Mexican SMEs\(^1\) to continue conducting their business. One of the main problems of the Mexican SMEs is that they regularly experience shortages in financing and incur excessive costs. The SMEs usually weaken their capital structure by incurring debt that continually accumulates and is difficult to pay back. Hence, the SMEs must plan the timing of their activities and projects according to the availability of their cash flows.

Due to the financial crisis of 2008, and given the fact that this was brought on by the sub-prime mortgage securitizations in the United States, the structures for this kind of financing have been labeled as “high risk.” This occurred, in part, because these structures are not truly understood and some investors have been cushioned with an additional risk factor, decreasing the expected value of the securitization issuances.

\(^1\) SME: An acronym that refers to small and medium-sized enterprises/businesses. This term is specifically used in this paper to refer to the Mexican Spanish concept of PyMES (Pequenas y Medianas Empresas), which has the same meaning in Mexico as SME in the United States.
In securitization, credit receivables (or expected future cash flows) are assigned to a trust that issues debt certificates. These certificates are then sold to investors and are, finally, amortized with the interest accrued by the product on the collection of these receivables - or cash flows (Elektrafin, 2002). Through these structures, a company assumes to receive an advance of the income they expect to receive in the future through the collection of receivables.

Dionne (2009), Tymoigne (2009), Indiviglio (2009), and Cukierman (2009), among others, agree that the latest financial crisis was not due to securitization as such. Even though a perfect system does not exist, historically, the robust and standardized securitizations have consistently ensured financial stability. It was the pursuit of higher yields and the lack of caution, when evaluating and managing the risks, that drove the system to the liquidity crisis in 2008 (Levitin, Pavlov & Wachter, 2009).

Back then, it was argued that the credit risk was reduced due to the large number of credits that were combined (Ramos Francia, 2009). It is true that, first, the quality of a portfolio depends on the quality of each individual credit account and, second, on the fact that the inherent risks of each credit account are relatively exclusive (Ramos Francia, 2009). The problems resulted from people and companies defaulting on their debt. This was brought on by the following factors: 1) There were variable interest rates – a situation that generated a shared risk, 2) there were securitized credits – creditors bought presale in the hope that they would be able to make payments with the income of a short-term resale, and 3) the risk of the sub-prime credits was not correctly valued in order to establish the optimum collateral level.

Moreover, when securitizing, the risks were not eliminated but rather transferred (Tymiogne, 2009) and the banks overlooked the quality in the process of credit origination because they knew that they would eventually sell the receivables to a trust, thereby transferring any risks to the investors.

Additionally, Cukierman (2009) denounces the credit rating agencies’ conflict of interest. These agencies - arguing that some companies are “too big to fail” - gave in to the pressure of companies who paid them to receive high ratings that would enable them to decrease their cost of financing by selling bonds (Tymiogne, 2009).

This was accompanied by what Tymiogne (2009) calls a “regulation directed at the interests of Wall Street and Main Street”. This implies poor regulation of financial innovation, which resulted in riskier financial decisions. Hence, Tymiogne (2009) proposes a regulation directed at protecting the interests of the entire economic system.

All of the above can be viewed to have increased the risk factors that some portfolio managers have not visualized, since they were blinded by the high credit rates. The excessive return generated by the yields of the securitizations resulted in short-sighted risk valuations, even though there were multiple warnings against the potential financial collapse (Benner, 2009).

This paper is in response to the stigmas that formed regarding securitization structures after the financial crisis. A foundation is laid to argue the possibility of issuing a securitization by which a number of SMEs can receive their expected cash flows in advance, by using the account receivables they already have, as a warranty.

2. THEORETICAL FOUNDATION

In order to better understand the basis on which a securitization of SMEs’ receivables/cash flows can be issued, by making use of combined financing, it is important to first determine how this structure evolved and to realize that the concept is not as new as many might think. Second, it is important to understand the structure itself and how it works.

2.1 The Rise of Securitizations

Asset-backed financing is not a new concept. The concept of mortgage financing has already been established in the 19th century. These financial structures were implemented in the decade starting in 1880, disappeared after the Panic of 1893, reappeared in the 1920s, and became less popular during the great depression after the financial crisis of 1929 in the United States (Mendales, 2010).
Structured financing was associated with derivative products for many years and it was considered insignificant in the financial and economic markets. During the 1990s, it gained popularity by improving the liquidity of transactions and making the administration of credit risk more efficient. Following the recent financial crisis, it has been a relevant subject of discussion all over the world (Dionne, 2009).

2.2 Non-Revolving Securitization Structures

A non-revolving securitization structure entails creating a trust for the management of receivables and the payment of cash flows, to which the SME assigns its receivables, acting as a sponsor of the trust. This trust receives the collateral and issues debt certificates, based on this collateral, which are then sold to one or more investors who buy the certificates from the trust, whereby they become trustees, and the trust deposits the product of the issuance into the SME’s account.

Eventually, the SME collects the assigned portfolio and deposits the money in the trust’s bank account. The trust receives the resources, pays the interest, and amortizes the certificates - the capital (Elektrafin, 1998a).

It is important to note that the assigned receivables must have a greater nominal value than that of the certificates for the purpose of covering 1) the interests and expenses, 2) possible cancellations, 3) the past due and the possible delays. The difference in these two values is referred to as over-collateral (Elektrafin, 1998b).

2.3 Revolving Securitization Structures

In the case where the SME generates the receivables in a constant manner and on a permanent basis, revolving structures can be set in place. In this kind of structure, the concept of “allowed investment” is defined, allowing the trust to invest all the available cash in additional receivables instead of using it for the amortization of capital (Elektrafin, 2002a). This means that the trust uses the available cash in its bank account, accumulated by collecting the assigned receivables, to buy more receivables, instead of using it to amortize the certificates. This takes place during a predefined period, which generates a grace period in which the SME can get the collections back from the trust as long as it still has receivables to assign. This means that whereas the trustee still has receivables to assign, and until the period of amortization of capital is initiated, the effect on the SME, regarding its cash flow, is only its obligation to pay interest and expenses.

With both revolving and non-revolving issuances, the destination of the funds is significant since it is vital that the SME uses them to generate new receivables in order to eventually assign them to the trust in exchange for more money. This will instigate a virtuous circle that will result in the growth of the SME. Otherwise, the resources would only serve as a palliative for the current financial problems of the company.

It is mandatory to consider two fundamental principles regarding receivable securitizations in Mexico:

1. When securitizing receivables, it is considered a true sale and there is no recourse. Therefore, the securitization is considered an off-balance-sheet operation that does not affect the leverage of the company. Only asset accounts are moved in the balance sheet - receivables versus banks and versus a particular asset account created under the description “over-collateral”. This allows the SME that securitizes to maintain a healthy capital structure.

2. The SME (which yields the receivables and/or cash flows) is seen as a trustee in a subordinate role. This means that the SME maintains the right to reacquire the receivables only when the capital and the interest are already paid out to the investors (principal trustees), which means that the yield is only considered as a guarantee and assets are not sold for fiscal proposes.

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2 This is an additional guarantee for the SME that applies in case of a default on the receivables.
3 Only asset accounts are affected in the balance sheet.
2.4 Available Information on Securitization Structures

Although most studies concentrate specifically on the securitization of mortgages, there exists little literature that makes reference to a generalized concept of securitization. Most of the available literature refers to non-revolving securitizations of mortgages.

In the major literature on the topic, no evidence was found that public issuances with revolving structures are currently being issued, other than some prospectuses of these kinds of issuances in the past. The information on these specific structures can be found mainly in the experience of executives since the formal theoretical frame is limited, as mentioned.

In addition, no evidence was found of issuances that combine receivables of various issuers. At this moment, credit accounts originated by the same issuer are combined, but there are no issuances found that combine credit receivables that were originated by multiple organizations.

The starting point for this research was the available information on the securitization structures, and this paper presents a generalized model to help SMEs structure their securitization issuances by using their receivable portfolios as collateral and combining them with the securitizations of other SMEs within one common master trust. It is proposed that both types of securitization structures discussed above; namely, the revolving and the non-revolving structures, should be included in this model.

3. PROPOSAL

3.1 Proposed Financial Structure

This research attempts to address one of the main problems the SMEs experience. Mexican SMEs experience shortages in financing and incur excessive costs. The SMEs usually weaken their capital structure by incurring debt that continually accumulates and is difficult to pay back because these SMEs do not have solid schemes of guarantees. In addition, when trying to sell assets to pay off these debts, the SMEs generate additional fiscal cost. Hence, the SMEs must plan the timing of their activities and projects according to the availability of their cash flows – a situation that affects their negotiation capacity, slows down their own operations, and subsequently diminishes their opportunities for growth.

This paper proposes the possibility of creating a model for securitization that allows for generalizing the concept in order to adapt the securitization structures of the SMEs to allow them to be financed by collateralizing their receivables.

Such a model would be able to generalize the concept of securitization in a way that any SME, following certain rules, could obtain financing by using its receivables as a guarantee.

Following Kothari’s (2006) propositions, many securitization processes could be combined within a master trust (special purpose entity). This would ensure that every set of assets is assigned to a specific issuance and therefore to a specific group of beneficiaries (Tymoigne, 2009). An example of such a securitization system that works is the case of Grupo Elektra, a Mexican company, whose issuances of receivables were all backed by securitization, issued under a common master trust - number 5028-1 at Nafin4 (Elektrafín, 1998a, 1998b, 1999, 2000, 2001a, 2001b, 2002a & 2002b). Based on this, and on the arguments made by Tymoigne (2009) and Kothari (2006), this paper proposes a process for the securitization of receivables and/or cash flows for SMEs, as presented in Table 1.

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4 An acronym that refers to the Nacional Financiera, Banca de Desarrollo.
Table 1: Proposal for Securitization of SMEs’ Receivables and/or Cash Flows

Regarding the sale of the certificates, it is proposed to combine several SMEs (containing different receivables and posing diverse risks) into the same trust that manages individual funds, whereby the non-payment risk in a common issuance of certificates is reduced (Lemmon, Liu & Mao, 2009). Each SME will have its own securitization structure in its own individual fund. With the sum of the combined receivables and cash flows in one common fund in the same trust, a single issuance of certificates will be guaranteed.

3.2 A Model for the Securitization of SMEs’ Receivables

Incorporating the specific characteristics in the portfolio of each SME (independent variables), the model for securitization would consider the following dependent variables: 1) issuance value, 2) collateral level, 3) grace period for financing, 4) total term of financing, 5) timing of the yields of receivables/cash flows into the trust, and 6) timing of the cash flows from and into the trust.

Based on the analysis of a set of 17 cases of securitization of receivables in Mexico, 13 of which are successfully amortized, it was concluded that there is a relationship between each independent and dependent securitization variable. These relationships are presented graphically in Table 2.

Table 2: SECURITIZATION VARIABLES RELATIONSHIP SCHEME

| | DEPENDENT |
|---|---|---|---|---|---|
| | Value of the issuance | Level of collateral | Grace period | Total term of financing | Timing of the receivables’ flows | Timing of the cash flows |
| INDEPENDENT | ▲ | - | - | - | ▲ / ▼ |
| ▲ Expected collection value | - | - | - | ▲ | ▲ / ▼ |
| ▲ Expected collection timing | ▲ | ▲ | ▲ | ▲ | ▲ / ▼ |
| ▲ Expected value for the new generation | ▲ | ▲ | ▲ | ▲ | ▲ / ▼ |
| ▲ Expected timing for the new generation | ▲ | ▲ | ▲ | ▲ | ▲ / ▼ |
| ▲ Degree of certainty: How much? | ▲ | ▲ | ▲ | ▲ | ▲ / ▼ |
| ▲ Degree of certainty: When? | ▲ | ▲ | ▲ | ▲ | ▲ / ▼ |

In future research on this topic, the theories on structured equation models could be used in order to fully understand and explain the relationships among all the variables in a securitization, to relate the dependent variables to one another, the independent variables to one another, and the dependent and the independent variables to one another (Lattin, Carroll & Green, 2003).
3.3 Handling and Rating Risk

The combination of SMEs is, per se, a way to decrease risk (Rösch & Scheule, 2009). Rösch and Scheule (2009) assure, based on studies done by Gordy (2000), McNeil and Wendin (2007), Gupton, Finger and Bhatia (1997) and Merton (1974), that individual credit risk can be modeled with a Gaussian model for the return of individual assets. This is under the assumption that receivables combined into companies’ portfolios share a common systemic risk factor.

Additionally, with regression and parametric risk analysis, the structured products that combine independent risks could be allocated a higher risk rating (Colmenares, Orlandoni, Borges, Guillén, Melo, Ayala, Durán, Martínez, Paredes, & Valera, 2009). Herrera (2010) points out that in securitizations of receivables, the real risk is that of the individual receivables (the clients of the SME) and not that of the SME itself.

It is desirable that SMEs make use of securitization and therefore they should develop a strategy to obtain approval to join a securitization program. Dr Rubén Martín Mosqueda Almanza (2008) carried out a study based, in part, on discriminant analysis models to establish the indicators of failure of SMEs in Mexico. He proposes a methodology for a model of a dynamic index called the Average Ratio of Valuation to determine the risk of bankruptcy for SMEs. Almanza (2008) also proposes a rating model to evaluate SMEs according to the Basel II standards.

Therefore, all SMEs pursuing to join a securitization program should be evaluated to ensure that they fulfill all the necessary requirements. This evaluation should be combined with a discriminant analysis to select the SMEs that will be accepted into the program.

Consequently, the control of the financial information should be kept permanently while the securitization issuance is in effect in order to establish timely alerts that drive acting in consequence. There are companies in Mexico that are dedicated to selling information technology (IT) systems that are specifically developed to carry out these controls for SMEs. These systems are divided into modules that are developed and sold separately, depending on the specific needs of each company. These systems make it possible to develop a specific module that generates the needed standardized reports to achieve the correct control of the receivables and of the securitization programs.

Finally, to handle and rate risk and to provide an additional incentive for investors (public or private), SMEs can pursue, and hopefully gain, support from a development bank - for example, Nafin - that will share their risk, to a certain percentage, when defaulting on the payment of loans.

4. PROPOSED RESEARCH METHODOLOGY AND DESIGN FOR TESTING THIS MODEL

A mixed method is proposed to test the model above. In a follow-up study, a quantitative approach will be followed to perform a statistical analysis of the data in order to test the design of the financial model and the proposal for combining various individual securitizations.

In order to do this, statistical proof must be obtained to reach five goals: 1) To forecast the collection of each SME, 2) to forecast the generation of new receivables or new cash flows, 3) to understand and define the chain relationships among the variables in securitization, 4) to evaluate the risk of bankruptcy for each individual SME, and 5) to calculate the parametric risk of the issuances (already combined).

A qualitative approach will be used to evaluate the sale of the certificates that back the issuances (development banking, independent investors, public investors, philanthropic investors, etc.) and to obtain the opinions and perceptions of the actors involved in the SMEs’ operations (the trust, trustees, legal experts, rating agencies, technical experts, the SMEs themselves, and other organizations oriented toward supporting the SMEs).

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5 The executives of Alendum Systems (http://www.alendum.com.mx/) support this proposal wholeheartedly.
5. RELEVANCE AND CONCLUSIONS

The expression “credit is the name of the game” has become increasingly relevant due to the fact that credit is a very important tool for the economic growth of companies operating both individually and collectively.

Nowadays, for a company to remain competitive, regardless of its size, it must offer credit to its clients. This is particularly true for Mexican companies where the suppliers are the most important source of financing for SMEs. This is the reason why, especially in Mexico, it is important for SMEs to obtain liquidity to finance credit sales. Securitization could become a powerful means to monetize the receivables or future expected cash flows of SMEs and to finance their growth.

Before the 2008 financial crisis, some banks used asset-backed securitization structures to transfer their credit risks that required smaller capitalization. The proposal made in this paper does not propose that credit risks should be transferred to the financial markets, but that receivables (productive operations) should rather be financed with the guarantee of such receivables.

The proposal presented in this paper intends to offer a way to finance SMEs with high development expectancies that, historically, have had a poor or no access to financing at a reasonable cost. This proposal intends to generate an all-round win-win scheme through which 1) SMEs can obtain financing at a reasonable cost, 2) investors can obtain a viable way in which they can diversify their portfolios, and 3) the Mexican government can obtain a way to channel support to the country’s productive initiatives.

Without subordinating the mathematical models to common sense, the model for securitizations would work to suitably structure issuances collateralized by receivables. Hereby, the model would estimate the following for each securitization: 1) the maximum issuance level, 2) the suitable collateral level, 3) the suitable terms, and 4) the correct structure (timing of the receivables and cash flows).

As a result, this model could present essential guidelines that will enable SMEs to establish suitable securitization structures in order to monetize their receivables and/or cash flows with these as collateral.

Further, it is proposed that the securitizations of many SMEs should be combined to receive a common issuance of certificates for all of these companies, which will limit the risk for investors.

This all-round win-win proposal could make an innovative contribution to the cognitive area of structured finance as well as in practice: When combining receivables and/or cash flow securitizations of a number of SMEs, the resulting structured product could contribute to the development of these SMEs by providing financing at a reasonable cost.

It can be concluded that it is important to acknowledge the value of securitization and to establish mechanisms to implement securitization as simply, practically, and transparently as possible. Hence, securitization structures could be a powerful means to finance the operations of private and public SMEs in Mexico as well as all around the world.

ACKNOWLEDGEMENT

I would like to thank Editage for providing editorial assistance.

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