

Credit Enhancement for Mortgage Securitization and Related Capital Adequacy Issues in Mexico

This article is based on a larger study of legal and regulatory issues related to securitization in Mexico. It is the work of a group comprised of representatives of the Ministry of Finance and Public Credit (Hacienda), the National Banking and Securities Commission (CNBV) and the Banco de Mexico, as well as outside advisers. It is part of a collaborative Mexico/United States effort led in the U.S. by the Office of Federal Housing Enterprise Oversight, and in Mexico by the Secretariat of Social Development (SEDESOL) and the Institute of the National Housing Foundation for Workers (INFONAVIT). The legal and regulatory issues related to securitization were discussed in the June 1996 issue of *Housing Finance International*.

INTRODUCTION

A mortgage securitization transaction typically requires some form of credit enhancement in order to achieve an investment grade rating. Without an investment grade rating, it is very difficult to market the transaction to institutional investors, many of which are only permitted to purchase securities with an investment grade rating. This is particularly important if the securities are to be effectively marketed to foreign investors. The treatment of credit enhancement in capital regulation of financial institutions that accept or retain a portion of the credit risk can significantly affect the choice of the type of credit enhancement employed, as well as the overall attractiveness of securiti-

zation as an alternative to whole loan portfolio investment.

TYPES OF CREDIT ENHANCEMENT

Credit enhancement refers to measures that are taken in connection with a securitization to ensure that securities have an investment grade rating. In most mortgage securitization transactions, the senior or credit enhanced securities must be rated in the highest rating category by at least one of the major US rating agencies (Standard & Poor's, AAA; Moody's, Aaa). Therefore, the credit enhancement process is closely tied in with the rating process.

Credit enhancement can be classified either as internal or external. Internal refers to measures that are taken inside the structure of the transaction in order to receive the desired rating on at least a portion of the securities. External credit enhancement refers to things that are done outside of the transaction to improve the credit. External credit enhancement usually consists of some sort of fill or partial credit guarantee provided by a third party. [See the article by Mahesh Kotecha in this issue of the journal].

The process of determining the appropriate credit enhancement involves an analysis typically performed by the investment bank that

is structuring the transaction and negotiations with the rating agencies as well as the third party credit enhancers. This involves a determination of the most efficient way to achieve the desired rating.

Typically, the rating agencies will evaluate the structure of a transaction and determine the appropriate "credit enhancement level." The credit enhancement level is a percentage of the assets that represents the amount of required credit enhancement to achieve the desired rating. The credit enhancement could come in any form so long as the securities being issued are protected against credit losses in an amount equal to that percentage of the collateral backing the transaction.

Often a similar negotiation process will occur with third-party credit enhancers. Aside from government agency guarantors, third-party credit enhancers are usually credit insurance companies with high ratings that will put their guarantee on a transaction for a fee, although it could also be a bank or other institution that provides partial credit enhancement in the form of a letter of credit or a loan to fund a reserve account.¹ The negotiation process with the third party credit enhancers is very similar to the process with the rating agencies. In many cases, credit insurance companies require some form of internal credit enhancement in order to achieve the equivalent of at least a low invest-

ment grade rating, at which point they will put their triple A rating on the transaction.

The following sections discuss in more detail the types of credit enhancement that are typically used in securitization transactions that raise capital adequacy issues when banks are involved.

Subordinated Securities

One of the most common forms of internal credit enhancement in the U.S. and other countries consists of subordinated classes of securities that are intended to absorb the risk of loss so that a senior class of securities can achieve an investment grade rating.

The following is a simple example of how subordination works. Assume a pool of 100 mortgages of one dollar each. Assume the goal is to create a senior security with an investment grade rating. Assume the rating agencies assess the risk of loss on the portfolio and determine that 10% credit enhancement is required to achieve an investment grade rating. The easiest way to achieve this would be to create a subordinated security in the amount of 10 and a senior security in the amount of 90. Subsequently, if a loan were to default, the amount of the loan would be deducted from the balance of the subordinated security. Therefore, 10 loans could go bad before the subordinated security would be completely depleted. The senior security would only bear the risk of loss after the 10th loan defaulted.

The use of subordinated securities is one of the most common forms of credit enhancement in securitization transactions. While a single subordinated class of securities is often used, it is possible to have multiple classes of subordinated securities as well. An example would be the creation of a mezzanine (or second loss) class that bears the risk of loss after the junior (or first loss) class is depleted. The reason that mezzanine securities are typically created is because it is possible to

receive a rating on the mezzanine securities that will make them more marketable.

Reserve Accounts and Excess Spread

Reserve accounts are accounts that are funded at the beginning of a transaction (usually by the originator or seller of the assets) and used to absorb losses. The party that deposits into the reserve account will hold a residual interest in the reserve account to the extent it is not depleted to cover losses. The difference between a reserve account and a spread account (described below) is that a reserve account is not funded or refunded from excess spread. Reserve accounts can be used alone or in conjunction with other types of credit enhancement.

The way the reserve account works in a securitization of mortgages is as follows. If a loan is declared a loss the unpaid principal balance of the loan is deducted from the reserve account and paid to the holders of the securities. Therefore, the result of the loss to the security holder is a prepayment. If amounts are subsequently recovered in foreclosure or otherwise, these amounts are either used to replenish the reserve account or are paid over to the holder of the residual interest in the reserve account.

The major drawback of reserve accounts is what is called "negative carry." This refers to the negative spread between the yield on the securities being issued and the yield on the reserve account. Typically, the reserve account may only be invested in highly liquid investment grade securities that yield lower than the securities being issued. If the transaction has a long maturity and the reserve account is expected to be in place for a long period of time, the present value of the difference can be substantial.

Spread accounts are a form of reserve account (described above) that can be used to absorb losses. The term "spread" refers to the dif-

ference between the interest that is earned on the assets and the interest that is paid on the securities that are created (net of any servicing fees or other ongoing transaction expenses). This amount of income is typically referred to as "excess spread" or "excess servicing." In practice, spread accounts are often funded in part up front for a minimum amount from the proceeds of the sale of the securities. Subsequently, the excess spread is used to increase the size of the spread account to some pre-specified level. Typically, when a loss is charged against the spread account, the excess spread is used to refund the spread account up to some required level. Often, as a securitization transaction amortizes, the required spread account amount is allowed to step down, which allows the cash in the spread account to be released. The terms of the spread account are typically dictated by the rating agencies as the basis for obtaining an investment grade rating.

Even without a spread account, excess spread can be used as a form of credit enhancement for a securitization. In this case the excess spread is not trapped in a spread account but can be used on a period-to-period basis to cover losses. Any amounts not used in any given month would be released.

Letters of Credit

Another way of providing the credit enhancement that the rating agencies require is through a standby letter of credit issued by a bank. The bank essentially grants a line of credit to the transaction that can be drawn in order to cover losses or shortfalls. The bank receives a fee for issuing the letter of credit and will receive interest if the letter of credit is in fact drawn. Generally speaking, letter-of-credit providers never expect to have to fund the letter of credit. Letters of credit are usually just a back up or a form of insurance, and some other internal credit enhancement is used to fund shortfalls or losses up to a certain level.

ISSUES REGARDING CAPITAL ADEQUACY

Capital adequacy is one of the most important issues for securitization. This is because a large portion of securitization transactions are done by deposit-taking institutions, like banks, that are subject to capital adequacy rules. In many instances, capital adequacy issues are a key factor in the decision whether to securitize or not. Because securitization usually moves assets off the balance sheet of the bank, it generally has a positive impact on capital treatment.

Regulators require that banks maintain adequate capital to cover the risks that the bank has assumed in making a loan or extending credit. The issues regarding capital adequacy in the context of securitization are primarily related to determining when banks have effectively transferred or disposed of the risks inherent in the assets to be securitized. If a bank sells assets without any form of recourse or guarantee, it is clear that they have transferred the risks and should therefore no longer have to hold any capital against the assets. However, when the bank transfers the assets with an implied or explicit guarantee, a repurchase obligation, or makes representations and warranties with regard to the assets, it may still effectively bear the risk of the assets and therefore should be required to hold capital against the assets as if it had not sold them.

Because securitization is not yet widely developed in Mexico, most of the capital adequacy issues relevant to securitization have not been resolved. Mexican financial authorities have expressed concerns in the context of proposed securitization transactions that bank issues could be perceived by investors as having the credit risk of the bank and that banks will feel an implicit obligation to repurchase non-performing assets in order to protect the performance of the transaction and the reputation of the bank.

The position of financial authorities has been that a transfer of assets by a bank will only be considered a sale if the bank transfers without recourse of any kind. In addition, in the context of other transactions, the Banco de Mexico position has been that subordinated securities must be capitalized in an amount equal to 100% of the face amount of such securities. At present, these restrictions make several types of credit enhancement commonly used in other countries impractical or difficult for Mexican banks. Moreover, because of the generality of these provisions, they leave unclear the capital adequacy treatment of a variety of potential securitization transactions.

Capital Treatment of Different Types of Credit Enhancement

Capital adequacy issues arise when the securitization is done by a bank and the credit enhancement is in some way provided by the issuing bank or some other bank. The issue also comes up when banks hold securities. This section looks more specifically at the capital treatment of different forms of credit enhancement under Mexican capital adequacy regulations and compares that with the treatment under U.S. regulatory capital rules.

Under current Mexican law, the capital adequacy treatment of a bank holding mortgages or other consumer loan assets would be to hold 8% in capital against the assets. Theoretically, the maximum potential loss to the bank at this point could be 100%.

Now let us examine the capital treatment for a bank in Mexico that does a hypothetical securitization transaction. Assume a loan pool of 100. Assume that 10% credit enhancement is required. Assume in the first instance that the bank provides the required credit enhancement by creating a subordinated security in the amount of 10, which it keeps on its balance sheet. Subsequent to the securitization, the reserve requirement would be 10 (i.e., 100% of the subordinated security)

as compared to 8 before the transaction, even though the maximum potential loss to the bank at this point is 10 (i.e., the amount of the subordinated security) compared to 100% before the transaction. The effect of the securitization is to increase the amount of capital that the bank is required to hold despite the fact that the risk to the bank is arguably less. If on the other hand, the required credit enhancement is only 5% and the subordinated security is therefore 5, the required capital would only be 5.

The issue of subordinated securities retained by banks has been the subject of a great deal of debate in the United States and is still not fully resolved. The problems have had to do primarily with inconsistencies between the treatment of banks providing credit enhancement on their own transactions and banks providing credit enhancement on other transactions.

Prior to recent reforms, if a bank in the U.S. were to retain a subordinated interest in a securitization of its own assets, the capital charge would be 8% on the theory that the bank has really retained the risk of the loan pool and should therefore have to hold capital as if it had not been transferred.² However, this leads to illogical results in cases where the amount of the subordinated security is less than 8%. In this circumstance, the bank is required to hold capital in an amount in excess of the face amount (i.e., the maximum loss) on the security. As a practical matter, banks would merely write the entire subordinated interest off as a loss, thereby limiting the capital charge to the amount of the subordinated interest.

An incongruous result is obtained when a subordinated security is purchased by another bank or when a bank provides credit enhancement to another bank's transaction in the form of a letter of credit or loan. Under U.S. regulatory accounting rules, the bank would only be required to hold 8% of the face amount of the subordinated security. Assuming credit

enhancement of 10 and an asset pool of 100, this would mean that the third party bank would only have to hold reserves of 0.8, as opposed to 8 if a bank did the same thing in connection with a securitization of its own assets.

An additional complication occurs when there are multiple classes of subordinated securities, such as a junior and a mezzanine security. Current Mexican practice would give a mezzanine security a capital charge of 100% of the face amount of the mezzanine security. Under U.S. Regulatory Accounting Principles (RAP), a bank that retains a mezzanine security in connection with a securitization of its own assets would continue to have to hold reserves as if it had not securitized the assets, even though the mezzanine is in a second loss position.

There have been a number of proposals in the United States to rationalize the capital treatment of subordinated securities for banks.

In order to address this inconsistency, the U.S. regulators responsible for establishing capital adequacy rules have adopted certain changes and proposed others that will substantially change the regulatory, accounting and capital treatment of different forms of credit enhancement.

CONCLUSION

The issue of credit enhancement is critical for development of a mortgage-backed securities market in Mexico. If the government chooses not to follow the U.S. in providing government explicit or implicit guarantees on such securities, issuers will have to use one or more of the techniques described in this paper to satisfy the credit risk concerns of investors. The capital treatment of different forms of credit enhancement will be a major factor in the design of individual security transactions.

NOTES

¹ In the U.S., the vast majority of mortgage-backed securities are guaranteed by either the Government National Mortgage Association (Ginnie Mae), which is a government agency, or Fannie Mae and Freddie Mac, which are government-sponsored enterprises. The latter are private, shareholder-owned corporations, chartered by the U.S. Congress. Their corporate guarantees are viewed by the market as implicitly backed by the government. The forms of credit enhancement discussed in this paper are used with securities not guaranteed or issued by these three entities.

² In the U.S. and other developed countries, residential mortgages are accorded a 50% risk weight (4% capital) because of their lower perceived risk. However, in Mexico and many developing countries banking regulators have maintained a full 100% risk weight on residential mortgages.