Colombia's Secondary Mortgage Market

By Camilo Zea G.*

Mortgage banks have suffered shocks in recent years as no other segment of the financial system has. This has prompted them to gradually revise their funding schemes for mortgage lending. In particular, they have begun to reduce their reliance on short-term funding, in favor of long-term resources with the same rate of return as assets. The result has been a partial, though heterogeneous, reduction of exposure to interest-rate movements across mortgage banks.

Accordingly, a new section is included in these Reports to review and analyze the transition in the banks' system of mortgage funding. Specifically, the market is described in terms of loan securitizations and mortgage-backed bond offers, regulated by Decree 1719 of 2001 and Securities Superintendency Resolutions 775/2001 and 223/2002.

I. Mortgage-Loan Securitization

Between January and November 2003, the securitization firm of Titularizadora Colombiana carried out two mortgage-loan securitization processes for a total of 780,000 m pesos, with portfolios bought from the banks of Granahorrar, Davivienda, Colmena and Bancafé. With the second issue, the Titularizadora's total purchase of loans from the primary market rose to 1.8 tr pesos, or 13.7% of the country's total mortgage loans.[1]

In the last securitization (November 20, 2003), securities worth 328,000 m pesos were sold on the market, backed by mortgage loans purchased from Granahorrar, Davivienda and Bancafé, of which 33% were for low-cost housing and the remaining 67% for other property.

The senior/subordinated structure[2] of the securities issued by the Titularizadora is divided into three tranches, of which Tranche A is rated AAA by Duff and Phelps of Colombia, while Tranches B and C are subordinated and respectively rated A and CCC. Tranche C has to be bought by the banks selling the loans, to discourage the moral hazard implicit in their selection of loans to be securitized,

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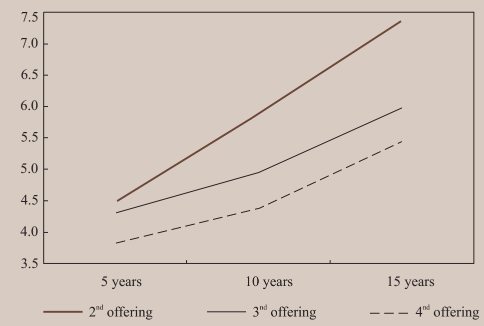
1 The country's total mortgage-loan portfolio comprises the portfolios of banks, cooperatives, the National Savings Fund and the State Financial Institutions Guarantee Fund (Fogafín).

2 In this type of securitization structure, the subordinated part offers a safety cushion that absorbs a substantial percentage of credit and prepayment risks, so that the major tranche of the issue consists of very low risk securities.

given the asymmetric nature of information about debtors between the banks and the securitizing conduit. This scheme also checks moral hazard in the administration of securitized loans.

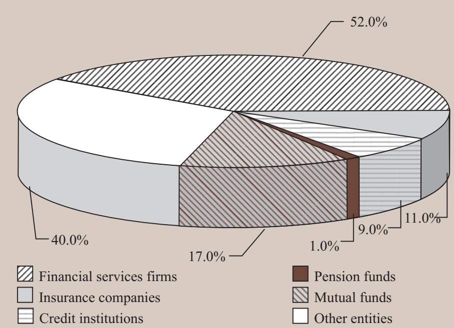
The securities resulting from these securitization processes have been issued with maturities of 5, 10 or 15 years, at falling rates of return across all maturities relative to the preceding offerings. The rate fall is evident not only at the lower level of the maturity structure of each offering, but also in the slope of each offering (Figure 1).[3] This steady fall in the Titularizadora's offering rates suggests a gradual increase in institutional investors' confidence in this type of paper, which has whetted the market's appetite for absorbing them. Similarly, the liquidity of these securities has increased considerably, thanks to various factors, such as the system of liquidity provided by the Mortgage-Loan Stabilization Reserve Fund and the securitized portfolio's satisfactory credit-risk behavior.

Figure 1
Auction Rates for Mortgage-Backed Securities: Margin of Variation in The "Real Value Unit"
(January to Date)



Source: Titularizadora Colombiana.

Figure 2
Investors' Shares of Mortgage-Backed Securities Auctioned In 2003



Source: Titularizadora Colombiana.

In terms of distribution of awards in the two auctions carried out in 2003, 70% of each offering was placed by means of firm underwriting among the financial institutions originators of the securitized loans, such originators being obliged in any case to purchase the C Tranche, as stated above. The remaining 30% of each offering went to institutional investors, with financial-services firms accounting for the largest share (52%), followed by mutual funds (17%) and insurance companies (11%) (Figure 2).

The pension fund managers' low share (1.0%) may seem surprising at first, for they are long-term savers and these securities naturally fit their coverage needs. But a detailed analysis of their environment shows that a tax-regime distortion is responsible for their tentative participation.

In effect, the funds administered by these institutions are exempt by law from any taxes normally imposed on funds managed by other financial intermediaries and collective portfolios. Moreover, mortgage-backed securities and bonds issued before December 2005 are exempt from income tax, under Decree 1719 of 2001 and Securities Superintendency Resolutions 775/2001 and 223/2002.

[3] Thus, for example, the cost of placing 15-year securities fell by 193 basis points between the second and fourth offerings.

For pension fund managers, which as stated above pay no tax on the purchase or sale of securities, it is more profitable to hold, for example, TES-B government securities denominated in Real Value Units than mortgage-backed paper, since in both cases they are exempt from paying tax, but the mortgage-backed paper has a lower return because of its implicit legal exemption.

In future, pension fund managers are expected to increase holdings of mortgage-backed paper on their balance sheets once tax-exempt issues come to be offered after January 2006. Unfortunately, the coexistence of tax-exempt and non-exempt securities will create the possibility of regulatory arbitrage. The regulatory authorities should therefore analyze this possibility so as to frame suitable policies to counteract it.

Lastly, though mortgage banks have purchased a little over 70% of the total securities issued, worth about 1.3 tr pesos, this amount has been falling not only through prepayments and scheduled payments of the securitized loans, but also through the sale of the securities in the secondary market. As a result, the mortgage banks' holdings of mortgage-backed securities now stand at 1.1 tr pesos. This falling trend is significant in that it reduces the mortgage banks' exposure to the interest-rate risk incurred in buying securities backed by their own loans or other banks' loans. Although it is natural for portfolio-selling mortgage banks to buy part of the securities issued, so as to give the securitization process an initial impetus, it is not the best arrangement, because buyers of the securities' should in fact be other institutional investors such as pension funds or insurance companies. The banks' purchasing share in future securities offerings is likely to decrease, making way for other buyers, particularly after the tax exemption lapses in January 2006. As suggested above, the secondary mortgage market needs to initiate a process of transformation as of now, in line with other markets of this type in the world.

A. Securitized loans' credit risk and prepayment

In general, the securitizations carried out so far have been mainly characterized by improvement in the quality of the securitized loans, and high levels of prepayment by mortgagors. A review of the behavior of the securitized loans underlying the securities issued in 2002 shows their delinquency rates to have proved considerably lower than was expected in the structuring process (Figure 3).

This is explained not only by an upturn in economic activity and satisfactory inflation behavior, but also by the efforts of most mortgage intermediaries to improve their collection systems and the careful monitoring of outstanding loans, thanks to better supervision and risk-measuring mechanisms.[4] This curbing of credit risk partly accounts for the fall in auction rates for mortgage-backed securities.

High rates of prepayment by mortgagors have caused investors in mortgage-backed securities to see prepayments of principal exceeding repayments scheduled in the mortgage-security contracts. For instance, in the case of the securities issued in May 2002 (the first offering), which mature in May 2007, actual monthly repayment

4 Tougher provisioning schemes, new capital requirements for market risks (VAR) and the SARC credit-risk model, put in place by the Banking Superintendency in the past two years, have been responsible in good measure for positive developments in those indicators.

rates have fluctuated between 3% and 4%, compared with the scheduled rate of 1.5% (Figure 4).

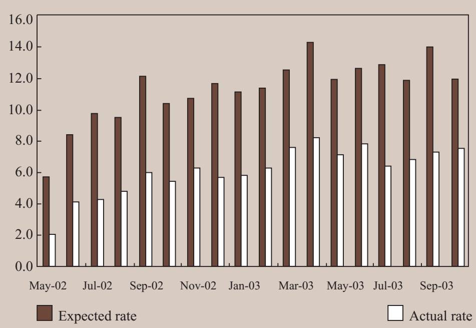
This prepayment behavior is widespread across the system and not just limited to securitized loans, as evidenced by the steady fall in mortgage-loan balances despite strong growth in construction and high levels of loan disbursements. Construction GDP registered real annual growths of 16%, 5.4% and 11.31% respectively in the first three quarters of 2003.

Mortgage-loan disbursements grew, on average, by 17% a month from January to November, and disbursements to constructors by 29% (Figure 5), though in both cases the number of disbursements fell in 2003 (Figure 6).

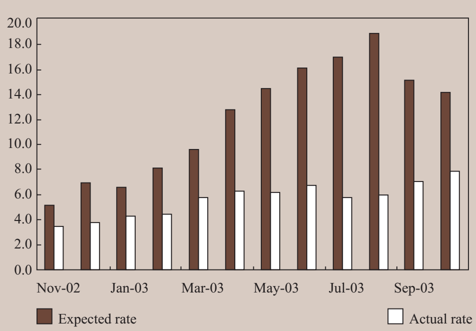
Nevertheless, construction loans have fallen steeply since January 2000, except for a short pick-up between September 2002 and May 2003, while mortgage loans have declined at a gradually increasing pace (Figures 7 and 8).

FIGURE 3
DELINQUENCY RATES OF TIRULARIZADORA'S LOAN POOLS
(TO OCTOBER 2003)

(A)
1ST OFFERING

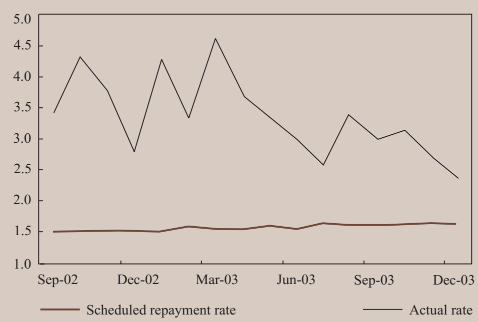


(B)
2SD OFFERING



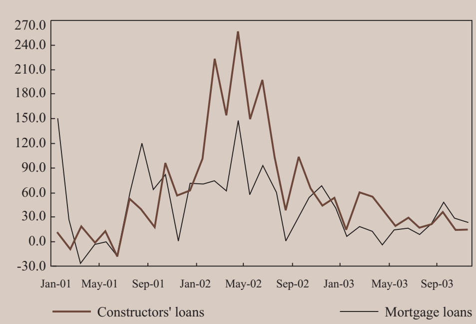
Source: Titularizadora Colombiana.

FIGURE 4
PREPAYMENTS: 1ST OFFERING OF MORTGAGE-BACKED SECURITIES, MATURING IN 2007



Source: Titularizadora Colombiana.

FIGURE 5
DISBURSEMENT RATES OF MORTGAGE AND CONSTRUCTORS' LOANS
(REAL GROWTH, CPI)



Source: Institute of Savings and Loans Corporations (ICAV).

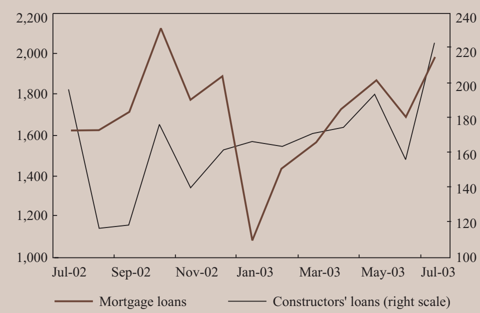
The foregoing suggests that loan turnover is occurring faster than expected, which is consistent with the high rates of prepayment of securitized loans.

Various factors account for the high prepayment levels observed. In the first place, the construction shortage of 1999-2002 caused many households to delay their decision to buy property, in favor of making other investments. With the reactivation of construction in mid-2002, financing for homebuying covered only a small percentage of the purchase price, making it possible for loans to be repaid faster. In the second place, the introduction of building-development savings accounts, which provide a tax incentive of up to 30% off taxable income in respect of mortgage repayments, has given a stimulus to prepayments. This exemption subsidizes prepayments of principal, generating an effective mortgage financing rate lower than the contract rate.

Lastly, another factor that has hampered a better approximation of expected prepayments has been the industry's inexperience in managing the models designed for the purpose. Given that the value of a mortgage security depends crucially on future prepayments (besides, of course, credit and market risks), sophisticated statistical methods are indispensable for forecasting them. In countries with developed secondary mortgage markets, considerable investment is made in such models. Hence, as Colombia's secondary mortgage market matures, the industry and the securitizing conduits are expected to make greater efforts to finance research for improving the predictive power of available models, in line with international experience.

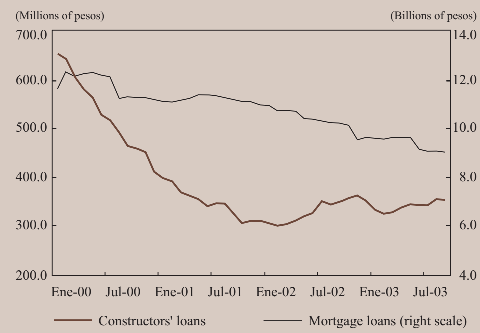
It may be inferred that high levels of prepayment have prevented the mortgage securities' auction

Figure 6
Number of Mortgage and Constructors's Loans Disbursed



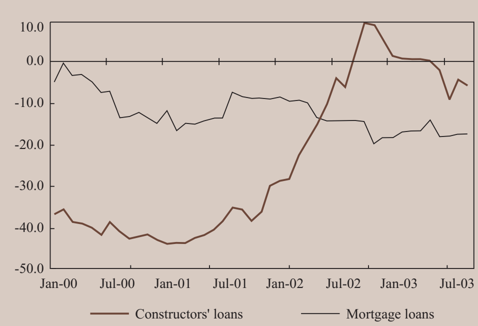
Source: ICAV.

Figure 7
Amount of Mortgage and Constructors's Loans



Source: Banking Superintendency.

Figure 8
Real Growth (CPI) In Mortgage And Constructors's Loans (Percentage)



Source: Banking Superintendency.

rates from dropping even lower, given the increase in prepayment premiums.

B. Liquidity of mortgage-backed securities

Though the secondary market for mortgage-backed securities is still in its infancy, the volume of trading in these securities was higher in 2003 than in 2002. The monthly average transacted through the Colombian Electronic Market, the trading system, was about 200,000 m pesos in 2003, compared with 100,000 m pesos in the last months of 2002. (Figure 9). This substantial rise in the mortgage securities' liquidity partly accounts for the fall in their auctions rates.

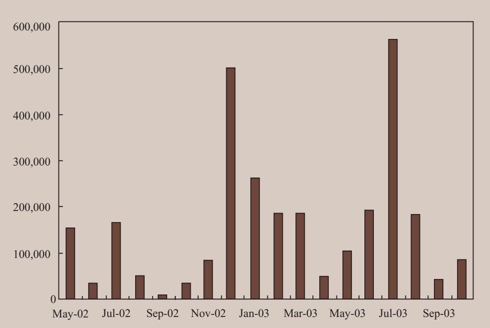
Moreover, as mentioned above, the Mortgage-Loan Stabilization Reserve Fund, created by Mortgage Law 546 of 1999, has recently structured a temporary securities transfer operation to increase the liquidity of the mortgage-backed securities, through swaps of these for TES-B paper for short spaces of time (up to a week). The purpose of such operations would be to give mortgage-security holders the possibility of undertaking Repo transactions with the Banco de la República. Though the mechanism has not yet been put in place, it is ready to be, so that the next offerings of mortgage-backed securities will include this possibility in their pricing.

II. Mortgage-Backed Bonds

Mortgage-backed bonds have been little used compared with the other mortgage-loan securities, for only one offering–worth 140,000 m pesos–has been made. These bonds, issued by Banco Colpatria, were divided into two series: the "A" series having a five-year maturity and the "B" series an eight-year maturity. Both series are rated AAA by Duff & Phelps.

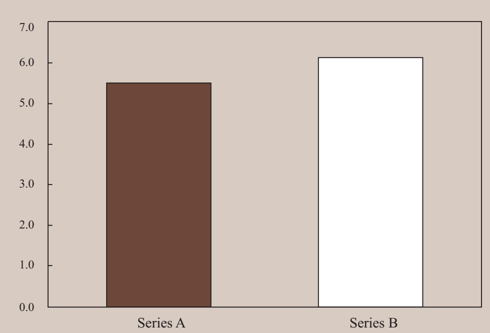
As in the case of the Titularizadora's mortgage-loan securities, the cut-off auction rates for both series have been moderate (Figure 10) and the buyers have come from various sectors. Here too, the pension fund managers' share of purchases is low because of the tax distortion described above with regard to the mortgage-backed securities.

FIGURE 9
MONTHLY ELECTRONIC-MARKET TRADING VOLUMES OF MORTGAGE-BACKED SECURITIES
MAY 2, 2002 – OCTOBER 31, 2003
(MILLIONS OF PESOS)



Source: Titularizadora Colombiana.

FIGURE 10
CUT-OFF RATES FOR AUCTIONS OF COLPATRIA'S MORTGAGE-BACKED BONDS



Source: Banco Colpatria.

Over 60% of the offering was absorbed by stockbroking firms (Figure 11).

A. Credit risk of mortgage bonds' underlying loans

As in the case of the mortgage-backed securities, the credit-risk behavior of bonds' underlying loans has been favorable, and prepayments have exceeded initial expectations. Figure 12 shows changes in the delinquency indicator of the loans backing Colpatria's mortgage bonds. Though the indicator rose from the first quarter of 2003 to the second, it then remained steady at around 5%, lower than expected in the scenarios envisaged before the offering.

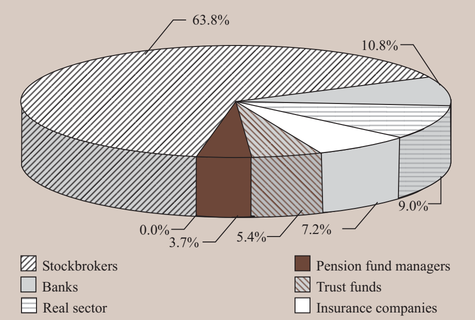
Figure 13 presents changes in the excess of actual prepayments over the expected scenario. Despite its declining trend, the excess averaged around 1.5% in 2003.

The factors responsible for such behavior in prepayments and credit risk seem to have been the same as described above for mortgage-backed securities and will not therefore be discussed again here.

B. Liquidity of mortgage-backed bonds

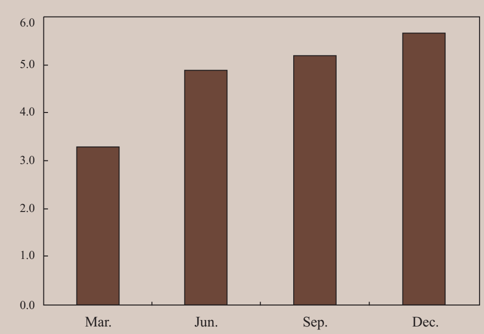
The mortgage bonds' liquidity has been relatively low because only the one offering was made. Figure 14 presents the average monthly volumes of the series-A bonds traded on the Colombian Electronic Market. Though these volumes are low, a large proportion of trading may have been done over the counter rather than on the Electronic Market.

Figure 11
Auction Awards of Colpatria's Mortgage-Backed Bonds



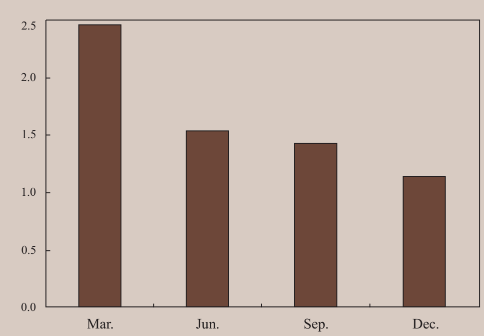
Source: Banco Colpatria.

Figure 12
Delinquency Rate of Loans Underlying Colpatria's Mortgage-Backed Bonds, 2003



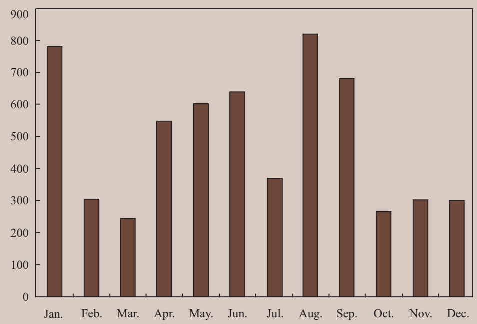
Source: Banco Colpatria.

Figure 13
Excess of Prepayments Over Expected Scenario (Percentage)



Source: Banco Colpatria.

Figure 14
Average Volumes of Series-A Bonds Traded On The Electronic Market, 2003
(Millions of Pesos)



Source: Banco Colpatria.

III. Conclusions

This annex to the December 2003 Financial Stability Report provides information on the secondary mortgage market and briefly reviews market developments over recent months.

Last year saw a large increase in mortgage-backed securities issued by the securitization firm of Titularizadora Colombiana, whose third and fourth offerings (in July and November) amounted to 780,000 m pesos. These offerings raised the total of mortgage loans bought in the primary market to 1.8 tr pesos, or 13.7% of the country's overall mortgage portfolio.

In 2003, monthly trading volumes of the Titularizadora's securities on the Colombian Electronic Market averaged 200,000 m pesos, twice the monthly average in 2002. This greater liquidity together with the underlying loans' satisfactory credit-risk behavior had a positive impact on the placement auctions' cut-off rates. Thus, for example, the placement rate for 15-year securities fell by 193 basis points between the second and fourth offerings.

Yet, repayments have appreciably exceeded expected levels (partly also because of flaws in forecasting models), knocking the profitability of the subordinated tranches of the offerings. The possible causes behind this adverse prepayment behavior include pent-up demand in the years when construction was at a stop, which resulted in savings that later financed a large part of building projects, leaving a small remnant, easily repayable in the climate of uncertainty still generated by the new system of indexation to the Real Value Unit. Moreover, the so-called "construction-development savings accounts" have become a subsidy mechanism for prepayments of principal.

Developments in mortgaged-backed bonds have been similar to those exhibited by the Titularizador's loan securitizations. The credit risk posed by their underlying loans has been lower than expected, while prepayment of such loans have exceeded expected levels.

The mortgage bonds' liquidity has been relatively low because there was only one offering, though it is likely that a good many of the bonds are traded over the counter.

Lastly, the liquidity of both the Titularizadora's mortgage-loan securities and Colpatria's mortgage-backed bonds has been increased to some extent by the possibility offered by the Mortgage-Loan Stabilization Reserve Fund of making temporary security transfers through swaps of mortgage-backed paper for government securities.

Colombia's secondary mortgage market has a promising future. Investors' appetite has increased gradually. And, once the tax exemption for mortgaged-backed securities and bonds lapses in 2006, these are expected to attract strong demand from their natural buyers, ie pension fund managers. Similarly, improvements in measuring house prices, a tightening of laws on liquidating mortgage assets because of default, and sophisticated models for forecasting credit-risk and prepayment are all factors that will help to promote mortgage funding through the capital market.