
FRBSF WEEKLY LETTER

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Mortgage Securitization & REMICs

Increasingly, the assets of traditional lenders such as banks and thrifts are being used to back traded securities — a process known as securitization. (See the *Weekly Letter* dated July 4, 1986.) Nowhere is this trend more evident than in the mortgage arena. Up until a decade ago, it was common practice for mortgage lenders to keep the mortgages they originated in their own portfolios. Increasingly, however, mortgages are being “securitized” — a process that involves creation of a security backed by mortgage loans. Holders of these securities receive interest and principal payments that are supported by the underlying mortgages and the securities often can be traded freely in the marketplace. Individual savers, pension funds, and other financial institutions invest in mortgage-backed securities.

With the passage of the 1986 Tax Act, the pace of mortgage securitization is likely to quicken still further. The new tax law permits creation of Real Estate Mortgage Investment Conduits (REMICs), legal devices that allow mortgage-backed securities to be better tailored to the needs of investors and issuers. This *Weekly Letter* discusses the major forms of mortgage securitization, and role of REMICs in this process.

Background: Mortgage-backed Securities

Securitization of mortgages is motivated by two forces. First, the banks and thrifts that originate mortgages can employ securitization to achieve desired changes in their balance sheet. For example, if mortgage assets can be “sold out of portfolio”, compliance with regulators’ capital/risk-asset ratio regulation can be facilitated. The simplest securitization process that achieves this goal involves creation of a Mortgage Pass-through Security (MPS). This process involves selling the mortgages into a trust (called a “grantor” trust) that then issues securities backed by the underlying mortgages. The payments made on the underlying mortgage are “passed through” unaltered to the security holder.

Second, mortgage securitization potentially permits transformation of mortgage debt into securities that satisfy the diverse tastes of inves-

tors for different patterns of cash-flow, risk and other investment features. A simple MPS can do little to transform the underlying mortgage into more attractive instruments. (Indeed, by its very nature it takes on precisely the features of the underlying mortgages, including an uncertain effective maturity because of the possibility of prepayment of the mortgages.) Two other devices, the Mortgage-Backed Bond and the Collateralized Mortgage Obligation, however, offer the means of transforming mortgage assets in a more radical way.

The Mortgage-Backed Bond

The Mortgage-Backed Bond (MBB) does not pass payments through untransformed; rather, the issuer of an MBB creates a fixed-term (“call protected”) instrument with fixed coupon payments. Unlike the case of the MPS, therefore, the payment flows generated by the underlying mortgages will not match precisely the timing of the coupon and principal payment obligations of the MBB. Thus the market requires that issuers of MBBs (the holders of the underlying mortgages) overcollateralize MBB issues so that a “buffer” of extra mortgage payments and principal is available to meet unanticipated deviations between the two payment streams. The difference between the value of the collateral and the value of the MBB liabilities issued represents, in effect, an equity investment on the part of the issuer.

Thus, although the mortgage-backed bond provides investors with a more-nearly “bond like” instrument than the MPS, it does not relieve the issuer of mortgage assets on his books; they remain there as collateral for the MBB liabilities sold by the issuer. In addition, some argue that the degree of overcollateralization required by security-rating agencies for the MBBs to achieve investment-grade ratings is more than the market itself would require. This limits the extent to which a given dollar value of mortgage assets can be securitized. These considerations likely are responsible for the trivial size of the MBB market in comparison to other mortgage-backed securities. (See chart.)

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Multi-class passthroughs: the CMO

To ideally serve both the portfolio-management goals of the originator of the mortgage and the needs of investors, mortgage securitization would both create an asset "sale" out of portfolio (as the MPS does) and permit transformation of the mortgage payment stream (as the MBB does). An obvious way to achieve both results would be to use mortgages to back *multi-class* passthrough securities; the mortgages would be "sold" into a trust which then would issue security classes with different priorities to the mortgage payment flows or different seniority of claims on the collateral of the mortgages. The transaction would generate the desired asset sale from the viewpoint of the issuer, while creating instruments with an attractive range of maturity and default characteristics.

In an important Internal Revenue Service ruling in the early 1980's, however, several impediments against the issuance of such multiclass passthroughs were posed. The IRS ruled that trusts set up to hold mortgages and issue such securities would not be given the favorable tax treatment afforded grantor trusts, namely, insulation from corporate income tax liability. Accordingly, the only way that a pool of mortgages could be securitized effectively into multiple class securities was by issuing a variety of debt obligations collateralized by mortgages although this, of course, did not achieve the goal of effecting "sale" of the mortgage assets out of portfolio.

Such multiclass debt obligations are referred to as Collateralized Mortgage Obligations (CMOs). The CMO works by using the interest and principal payments flowing from the mortgage loans to service several classes or "tranches" of debt securities. Specifically, interest and principal payments are used first to service and retire the first CMO security class (typically, Class A). No retirement of the next class (Class B) occurs until all Class A securities are retired and so on through the various classes of CMOs, implicitly endowing each successive class with increasing call protection. The last CMO security class (sometimes called a "Z-bond") is an instrument that receives no interest coupons and is only retired ("reaches maturity") after all other classes have been retired.

Limitations on CMOs

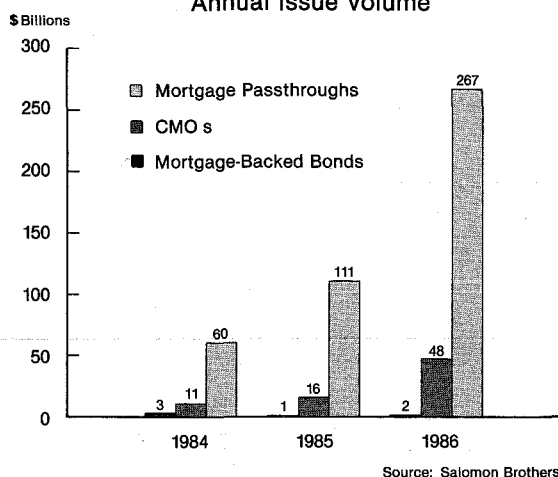
CMOs have been attractive alternatives to MPs and MBBs for both issuers and investors. Like the MBB, the multi-class nature of the CMO permits those buyers of CMOs who wish it to obtain some call protection. The CMO has an advantage over the MBB, however, in that its coupon and principal payments are linked to the underlying mortgage payments. This permits the issuer to hold relatively little equity in the CMO, so that funds more nearly equal to the full amount of the underlying mortgage collateral can be raised by selling the CMOs.

The main disadvantage of CMOs is that, as debt obligations, they remain on the balance sheet of the issuer as liabilities (and the mortgages remain as assets). This makes it harder for the issuer to achieve standards of capital adequacy employed by regulators or rating agencies. In addition, in order not to violate the IRS definition of collateralized debt (and thus be classified as a taxable multiclass trust), other criteria had to be met by CMOs that had the effect of limiting their application. Specifically, issuers could not issue tranches with high default risk potential (that is, with a junior claim on the underlying mortgages in the event of default). Also, in order to qualify as true "debt", the mortgage-backed instruments had to use a semi-annual payment convention. These and other restrictions limited the usefulness and flexibility of CMOs.

Enter REMICs

Subtitle H of the Tax Reform Act of 1986 dramatically alters these circumstances by creating a new legal device called a Real Estate Mortgage Conduit (REMIC). The REMIC is a separate legal entity for tax purposes into which issuers can "sell" mortgage assets and which can issue mortgage-backed securities. It is not a taxable entity if it is used as a conduit for passing mortgage payments to holders of mortgage-backed securities even if those securities are multi-class securities. Indeed, the securities can be very complex, with diverse claims on the interest, principal and real estate collateral of the underlying mortgages. The REMIC thus offers all of the opportunity to effect a "sale" of mortgage assets out of the issuer's portfolio as well as the ability to issue multi-class securities in whatever form is

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attractive to the marketplace — all without the previous constraints imposed by tax law.

REMICs will facilitate the securitization of the traditional mortgage into instruments with various degrees of call protection and cash flow characteristics. They obviously will facilitate the issuance of the traditional CMO-like securities backed by conventional mortgages, since they remove the previous impediments to multiclass passthroughs. By removing the restrictions on the nature of the securities that can be issued without adverse tax consequences, however, a wider variety of mortgages should be able to be securitized. Adjustable rate mortgages, for example, have been difficult to securitize as single-class passthroughs because of the uncertainty in payment flows created by the interest rate caps, payment caps and negative amortization features associated with these mortgages. Although there currently is legal debate over the applicability of the new law in this area, with

REMICs, adjustable rate mortgages potentially could be “unbundled” into component securities attractive to the investor marketplace.

REMICs and Government Mortgage Policy

REMICs also may present an opportunity to reduce the level of government involvement in the secondary mortgage markets. At the present time, various Federal credit agencies and government-sponsored intermediaries are involved in the business of guaranteeing mortgages or securities backed by qualifying mortgages. One rationale for this involvement is that, without such guarantees, the default risk potential of certain types of mortgages would deter the average investor from investing in mortgage-backed securities. This, in turn, would restrain development of a liquid secondary market for mortgage assets and, indirectly, the mortgage market generally.

Securitization offers an alternative means of dealing with risk in the mortgage market. A pool of mortgages could be transformed into a family of securities which differ in the seniority of their claim to the underlying mortgages and, hence, their default potential. This would effectively “unbundle” the mortgage debt into low- and high-risk securities better tailored to the diversity of risk/return preferences that exist among investors. Under previous tax law, the issuance of “junior” claims exposed issuers to adverse tax treatment (although a limited number of uninsured mortgage pools were securitized in this way nonetheless). With REMICs, these barriers can be removed, facilitating this type of securitization. In such an environment, the role of government as guarantor may not be as necessary to stimulate liquid markets for mortgage assets.

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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT (Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 4/15/87	Change from 4/8/87	Change from 4/16/86 Dollar	Percent ⁷
Loans, Leases and Investments ^{1 2}	205,160	707	— 271	— 0.1
Loans and Leases ^{1 6}	183,517	561	— 3,394	— 1.8
Commercial and Industrial	54,052	340	— 140	— 0.2
Real estate	68,143	219	1,665	2.5
Loans to Individuals	36,969	98	— 3,807	— 9.3
Leases	5,440	1	— 209	— 3.6
U.S. Treasury and Agency Securities ²	14,417	92	3,806	35.8
Other Securities ²	7,225	53	— 684	— 8.6
Total Deposits	216,280	5,126	8,912	4.2
Demand Deposits	59,534	4,965	6,628	12.5
Demand Deposits Adjusted ³	38,053	— 178	3,438	9.9
Other Transaction Balances ⁴	21,437	795	4,535	26.8
Total Non-Transaction Balances ⁶	135,309	— 634	— 2,251	— 1.6
Money Market Deposit Accounts—Total	46,479	51	187	0.4
Time Deposits in Amounts of \$100,000 or more	31,910	— 507	— 5,166	— 13.9
Other Liabilities for Borrowed Money ⁵	22,662	814	— 5,019	— 18.1
Two Week Averages of Daily Figures	Period ended 4/6/87	Period ended 3/23/87		
Reserve Position, All Reporting Banks				
Excess Reserves (+)/Deficiency (—)	9	87		
Borrowings	9	11		
Net free reserves (+)/Net borrowed(—)	1	77		

¹ Includes loss reserves, unearned income, excludes interbank loans

² Excludes trading account securities

³ Excludes U.S. government and depository institution deposits and cash items

⁴ ATS, NOW, Super NOW and savings accounts with telephone transfers

⁵ Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

⁶ Includes items not shown separately

⁷ Annualized percent change