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Valuation of Excess Servicing Assets

RESCINDED

Summary: This Bulletin discusses the appropriate valuation methodology and assumptions to be used at origination and on a subsequent periodic basis for excess servicing assets.

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Thrift Bulletin 43

Introduction

The sale of one-to-four family mortgage loans is a common practice for many thrifts, particularly those with large mortgage banking operations. When mortgages are sold with servicing retained, an "excess servicing asset" may be recorded if the interest rate on the mortgages sold, after deducting a normal servicing fee rate, exceeds the rate paid to the purchaser of the mortgages. For example, if a mortgage pool with a weighted average coupon rate of 10.0 percent is sold at a face pass-through rate of 9.0 percent, the 100 basis points difference less an assumed normal servicing fee rate represents "excess" future servicing income retained by the seller. Recording the present value of this excess future servicing income as an asset results in an increase in the gain or a reduction of the loss on sale of the underlying mortgages.

The resulting asset is known by several names: deferred servicing premium, present value of retained yield, etc. It is referred to hereafter in this Bulletin as "excess servicing asset."

Generally Accepted Accounting Principles (GAAP)

Sale of mortgages with servicing retained:

The accounting for the sale of mortgage loans with servicing retained is addressed in Statement of Financial Accounting Standards (SFAS) No. 65 and in several Emerging Issues Task Force (EITF) consensuses. If mortgage loans are sold with servicing retained by the seller-servicer and the effective servicing fee rate differs from a current (normal) servicing fee rate, the sales price should be increased or decreased for purposes of determining the gain or loss on the sale of the loans. Therefore, if the effective servicing fee rate retained is greater than a normal servicing fee rate, an adjustment is made to increase the gain (or decrease the loss) on the sale of the loans and to record an excess servicing asset. This will provide for the recognition of a normal servicing fee in each subsequent year. The amount of the adjustment is the difference between the actual sales price and the estimated sales price that would have been obtained if a normal servicing fee rate had been specified. This amount will ordinarily approximate the present value of the difference between normal and effective servicing fees over the estimated life of the mortgage loans.

For example, assume a seller-servicer of a Ginnie Mae (GNMA) security receives a stated interest rate of 10.0 percent and the pass-through rate to the investor is 9.0 percent. In this example, the effective servicing fee rate is 100 basis points. The normal servicing fee rate for a GNMA security is 44 basis points. Excluding consideration of guarantee fees, the present value of the 56 basis points difference in the effective and normal servicing fee rates over the expected life of the security approximates the increase in the actual sales price for purposes of determining the gain or loss on the sale of the security. Conversely, assume in this example that the seller-servicer receives a stated interest rate of 9.2 percent and the pass-through rate is 9.0 percent. Since the effective servicing fee rate is 20 basis points, the present value of the negative 24 basis points difference (44-20) in the normal and effective servicing fee rates over the life of the security approximates the decrease in the actual sales price.

However, if normal servicing fees are expected to be less than estimated servicing costs over the estimated life of the mortgage loans, the expected loss on servicing the loans should be accrued at the date of sale. For example, if the seller-servicer's estimated servicing cost is 50 basis points for a GNMA security with a normal servicing fee rate of 44 basis points, a loss representing the present value of the 6 basis points difference over the life of the security would be accrued at the sale date.

Amortization of excess servicing

EITF Issue No. 86-38B — The excess servicing asset is an asset that should be amortized in future periods so that income in each period (cash flow less amortization) approximates a normal servicing fee plus interest earned on the excess servicing asset. Therefore, if unanticipated mortgage prepayment rates are experienced, both the unamortized balance and the future amortization must be adjusted. The EITF reached a consensus on Issue No. 86-38 that the excess servicing asset should be written down to the present value of the estimated remaining future excess service fee cash flow. The same discount rate used to calculate the original excess servicing asset should be applied to the current anticipated cash flow on a periodic basis to determine the present value. A cumulative adjustment should be made for any decline in the present value. The excess servicing asset, however, should not be increased as a result of favorable prepayment experience but instead, amortization should be adjusted prospectively.

There is one exception to these rules. The exception required the approval of the Chief Accountant, Office of Thrift Supervision in those cases when an insitution adopted a SFAS No. 91 approach for excess servicing assets when that statement was adopted for loan fee accounting and was reported in the Thrift Financial Report before April 1, 1989. In these cases, the institution may continue to use SFAS No. 91 for only those excess servicing assets recorded as of March 31, 1989.

Valuation methodology and assumptions:

The initial book value of the excess servicing asset is primarily dependent upon three assumptions: (1) the life of the loans based on estimated prepayment rate; (2) the discount rate; and (3) the normal servicing fee rate. The first and third assumptions also affect the subsequent amortization of the asset. As a general rule, a loan life that is too long, a normal servicing fee assumption that is too low, or a discount rate that is too low will overstate the present value of the excess servicing asset.

Following are guidelines for recording and evaluating the excess servicing asset. These guidelines describe acceptable and unacceptable assumptions. Institutions should obtain sufficient evidence to support assumptions and should document the appropriateness of methodologies used in the valuation of excess servicing assets.

1. *Life of Loan.* The average life of a pool of mortgage loans is a function of the rate at which scheduled and, more importantly, unscheduled principal payments occur. This, in turn, is a function of the interest rate on the loans, the current market interest rates, the current volatility of interest rates, the seasoning of the loan pool, the geographic location of the underlying collateral, prepayment penalties, assumability and other factors. All these factors combine to make the prepayment of the loan more or less likely.

a. *Prepayment Models.* Overestimating the expected life of the mortgage (i.e., underestimating prepayment rates) is one of the most common causes of overstating the value of an excess servicing asset. Increased interest rate volatility in recent years has decreased the expected life of fixed rate mortgage loans. The prepayment experience of 1985-1986 illustrated that a 12 year expected life assumption for 30 year mortgages was too long.

The estimation of the expected life of a pool of mortgage loans has increased in sophistication in recent years. Initially, for purposes of estimating the expected life, most analysts assumed that all principal prepaid in a balloon payment at the end of year 12.

Later, the FHA/VA model incorporated the effect of aging on prepayment rates. This model estimated constant prepayment rates (CPRs) to approximate a stream of prepayments that reduced a pool of mortgages at a constant rate. Also, the Public Securities Association (PSA) developed its model which takes seasoning into account by increasing the CPR by 20 basis points per month for 30 months (to account for historical experience), until a 6.0 percent annual rate is reached, and then holding that rate constant for the contractual life of the loan. This is an example of a 100 percent PSA. Prepayment estimates are often expressed as "percent PSA."

Many sophisticated investors now calculate the value of the "prepayment option" held by the borrower using option pricing models, which take into account the stated interest rate on the loan, current market interest rates, and the volatility of interest rates, among other factors.

b. *Prepayment rates.* After choosing the appropriate methodology, the appropriate prepayment rate must be selected. The rate selected should reflect the market's average estimate of prepayments for similar loans on a long-term basis. For valuation purposes, the best estimate is generally a long term consensus prepayment projection obtained by taking the median of estimates made by major players in

the mortgage market. Various market monitoring sources and the mortgage research departments of many investment banking firms publish estimates of historical and anticipated prepayment rates.

CPRs for adjustable rate mortgages (ARMs) are more difficult because less historical data is available. Historical experience with Fannie Mae and Freddie Mac ARM securities has evidenced exceptionally fast prepayment speeds (300 to 400 percent PSA in some cases), and many institutions now assume a four year life for ARMs. With a significant increase in interest rates, one must assume a higher level of defaults due to "payment shock," while with a sharp decrease in rates, prepayments on both ARMs and fixed rate loans tend to accelerate. ARMs may also disproportionately attract borrowers who intend to refinance in a short time period.

As a general rule, the institution will avoid errors due to overly aggressive assumptions by not recording the excess servicing asset on a loan pool at an amount in excess of its market value. GAAP requires that the gain recognized on a sale of loans with servicing retained should not exceed the gain that would be recognized if the loans were sold outright [i.e., servicing released] because any higher gain recognition would be evidence of unrealistic assumptions. This check will help to avoid assuming a CPR or PSA rate which is too low, whether it be for ARMs or fixed rate loans. For example, assume a loan pool with a book value of $1,000,000 can be sold with servicing released for $1,020,000. If the loan pool is sold at book value with servicing retained, the gain on the sale of the loan pool is limited to $20,000, which equals the maximum amount of excess servicing asset that will be booked on this transaction.

c. *Summary.* Institutions should use a CPR or PSA method or other methodologies that estimate prepayments over the contractual life of a loan pool sold, to calculate excess servicing asset. The CPR or PSA assumption should incorporate current market expectations for similar loans (anticipated prepayment rates over the remaining life with limited consideration of historical experience), and should be adjusted at least on a quarterly basis. Use of an assumption that all principal prepays at the end of a certain year (balloon payment or prepaid life method) is unacceptable. In any case, the excess servicing asset should not be recorded in an amount that exceeds its market value.

2. *Discount Rate.* The discount rate selected to calculate the present value of the servicing spread has a material impact on the amount recorded as the excess servicing asset. A lower discount rate will result in a higher present value, while a higher discount rate will result in a lower present value. Therefore, to avoid the risks of overstating the asset, institutions must not choose a discount rate that is too low.

Some institutions have used discount rates [i.e. Treasury rates] that implicitly assumed that the cash flows from excess servicing were risk free. This is neither realistic nor acceptable. Unacceptable rates include the teaser rate on an ARM, the institution's cost of funds, or what is sometimes called the "weighted average of new production" (weighted average of teaser rates on ARMs). These rates are currently below Treasury Bills, and do not reflect the risk of the cash flows associated with excess servicing.

When discounting cash flows, the discount rate used should reflect the inherent risk of those cash flows. Before June 29, 1989 as a general practice, institutions used the effective yield to the investor as the discount rate.

On June 29, 1989 the EITF reached a consensus on Issue No. 88-11 that the discount rate should be a "market rate." The EITF concluded that "the difference between normal servicing fees and stated servicing fees, if any, over the estimated life of the loan should be calculated using prepayment, default and interest rate assumptions that market participants would use for similar financial instruments subject to prepayment, default, and interest rate risks and should be discounted using an interest rate that a purchaser unrelated to the seller of such a financial instrument would demand."

3. *Normal Servicing Fee Rate.* The Financial Accounting Standards Board ruled in Technical Bulletin 87-3 (TB 87-3) that in sales to Freddie Mac, Fannie Mae and Ginnie Mae, the contract normal servicing fee rate must be the cost assumption used by such agencies, generally 25, 37.5 or 44 basis points, respectively. For other sales of mortgage loans, a market rate fee for servicing must be used. A servicing fee rate is considered to approximate a normal servicing fee rate for purposes of TB 87-3 when it is representative of servicing fee rates most commonly used in comparable servicing agreements covering similar types of mortgages. The normal servicing fee rate for

one-to-four family lo[illegible]ly should not be lower than [illegible] basis points.

Other Issues:

Using conservative assumptions does not remove the risks associated with this asset. Capitalized excess servicing related to fixed rate loans exhibits a sensitivity to interest rate movements that is similar to that of interest-only strips — its value falls when interest rates fall. Therefore, excess servicing assets that represent a significant percentage of capital [illegible] assets may have material impact on [illegible] institution's interest rate sensitivity.

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— John F. Robinson
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