



Speaking of Securitization

*Accounting, Tax, Regulatory and Other Developments
Affecting Transfers and Servicing of Financial Assets*

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ACCOUNTING FOR INVESTMENTS IN MBS AND ABS Sunil Gangwani, Allen S. Thomas and James Mountain

Abstract

The Financial Accounting Standards Board (the "FASB") is an independent organization which seeks to establish and improve standards of financial accounting and reporting for the guidance and education of the public, including issuers, auditors, and users of financial information. The Securities and Exchange Commission has empowered the Financial Accounting Standards Board to set these accounting standards for publicly held companies. The goal of these financial accounting standards is to foster uniform representation of financial statements of business organizations in the United States.

Background

This article provides a brief overview of certain U.S. generally accepted accounting principles ("GAAP") applicable to investments in mortgage loans, mortgage servicing assets and securitized debt instruments which are also known as mortgage-backed securities ("MBS") and asset-backed securities ("ABS"). It does not address income tax issues. It is not meant to provide professional advice but instead it is intended to merely state certain facts and, in some cases, the concepts behind the pronouncements of the FASB. The primary focus here will be on statements issued by the FASB. Specifically, this article addresses certain information set forth in the Statement of Financial Accounting Standards ("SFAS") No. 65, "Accounting for Certain Mortgage Banking Activities", SFAS No. 91, "Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases", SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities", SFAS No. 125, "Accounting for Transfers and Servicing of Financial Assets and Extinguishment of Liabilities" and SFAS No. 134 "Accounting for Mortgage-Backed

Securities Retained after the Securitization of Mortgage Loans Held for Sale by a Mortgage Banking Enterprise. Certain unique issues related to investments such as "residuals" and "interest-only" securities are addressed by Emerging Issues Task Force ("EITF") Issue No. 89-4, "Accounting for Purchased Investment in a Collateralized Mortgage Obligation Instrument or in a Mortgage-Backed Interest Only Certificate" and EITF Issue No. 93-18, "Recognition of Impairment for an Investment in a Collateralized Mortgage Obligation Instrument or in a Mortgage-Backed Interest Only Certificate."

MBS and ABS are generally considered "debt instruments" for accounting purposes irrespective of the form of such securities. For example, an MBS from one transaction may be issued as an undivided interest (often characterized as "Certificates") in a pool of mortgage loans while an MBS from another transaction may be issued as debt (often characterized as "Notes" or "Bonds") of a special purpose entity. For accounting purposes, both such investments are usually treated as "debt securities." Therefore, interest-only securities, floaters, inverse floaters, principal-only securities, senior classes, subordinate classes, certificated residual classes, etc. are considered debt securities despite the fact that some of these types of securities may be issued in "equity" form. (Please note however, that certain residual interests may in fact be treated as equity).

Classifications

SFAS No. 115 requires investors to classify each security they hold into one of three categories: (a) held-to-maturity, (b) trading or (c) available-for-sale. Each classification is based on the intent and ability of the investor at the date of acquisition.

Held-to-maturity ("HTM"): Debt securities that are acquired with the "positive intent and ability" to hold until maturity are classified as held-to-maturity. Equity securities are not eligible for the HTM category. HTM securities are reported at amortized historical-cost basis. Fluctuations in market value due to changing economic conditions have no impact on the carrying value of such debt securities. Any unrealized gain is not reported. Any unrealized losses are not recognized unless the asset is permanently impaired. The sale of HTM securities prior to maturity, might call into question the classification of current and future securities purchased on a HTM basis.

Trading: Debt securities that are acquired for the sole purpose of profiting from short term fluctuations in price are classified as trading securities. Most brokers/dealers, pension plans and investment companies have their assets classified into this category. It is expected that this account will be the most active account for purchases and sales of securities. While the holding period of securities would typically be short, investors may also elect at the acquisition date to classify a security as trading, even if the holding period is expected to be long-term. Such assets are always reported at fair value. Any unrealized gain or loss is reported in earnings. Transfers to and out of the trading classifications should be rare.

Available-for-sale ("AFS"): Debt securities that are not classified in either of the above two categories are placed in the available-for-sale category. Many regulated organizations may have assets in this category as a result of regulatory changes that may require disposing of certain securities within a certain time frame. Also, certain debt securities must be classified into

either the trading or AFS category if they can be contractually prepaid or otherwise settled in such a way that the holder would not recover substantially all of its investment. The assets are reported at fair value. Any unrealized gain or loss is reported in a separate component of shareholders' equity. If the investment is permanently impaired, the excess of amortized cost over fair value is recognized currently as a loss in the income statement.

Exhibit 1			
Classification of Debt Securities			
Impact	HTM	Trading	AFS
Balance Sheet	Historical cost - adjusted for amortization of discount or premium in accordance with effective interest method.	Fair value.	Fair value.
Income Statement	Interest income reported in earnings based on the effective interest method; Losses arising from permanent impairment of assets reported in earnings.	Interest income reported in earnings based on the effective interest method; Unrealized gain or loss arising from changes in market value reported directly in earnings.	Interest income reported in earnings based on the effective interest method; Unrealized gain or loss arising from changes in market value reported as other comprehensive income and a separate component of shareholder's equity. Permanent impairment losses reported in earnings.

Since these classifications are made on an individual security basis and largely reflect ability and intent, the same type of debt security may be reported on a different basis in the same organization. This classification is determined at acquisition and should be reassessed on each reporting date. However, debt securities are generally not allowed to be freely moved from one category to another. The FASB has provided certain guidelines under which reclassification of a security is permitted.

The debt securities reported under the held-to-maturity category cause the least amount of fluctuation in earnings of an organization. Earnings are reported on an historical cost basis which is based on pricing factors at the time of acquisition. Factors such as current market value and current interest rates generally have no impact on earnings. However, prepayments and credit losses do impact earnings as described below. If an organization does not have the ability to hold the debt securities until maturity due to interest rate risk, prepayment risk, currency risk, liquidity risk or gap management, they should not be classified as HTM. For example, if a bank is expecting to sell certain securities to meet

liquidity demands in the future, these debt securities should be classified as AFS or trading from the acquisition date. Similarly, if an organization does not have the positive intent to hold the debt securities until maturity, they should not be classified as HTM. Another example would be an organization's desire to sell securities in order to offset taxable losses or gains. For instance, if there are taxable losses, an organization cannot sell any appreciated debt securities from HTM to offset the taxable losses. If the intent is to offset taxable gains or losses by selling certain debt securities, those debt securities should be classified in the AFS or trading category from the acquisition date. Also, it was concluded by the FASB that hedging price and interest rate risk will be considered to be inconsistent with the intent to hold a debt security to maturity. When an organization adopts SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," it will no longer be able to completely hedge price or interest rate risk of HTM securities. However, at the time of adopting SFAS No. 133, an organization has a one-time opportunity to reclassify any securities out of HTM into AFS or Trading.

Any movements via reclassification or direct sales from the HTM category are expected to be rare. If a debt security is reclassified, the FASB expects the existence of very compelling and unusual reasons for doing so. Reclassifications are permitted if: (a) there is permanent credit impairment of such securities, (b) regulatory requirements change the risk weighting significantly or otherwise cause business organizations to sell such securities, (c) tax law changes the tax exempt status of such securities, (d) a major business combination or disposition (such as a merger or an acquisition) causes the organization to dispose of certain securities to maintain existing interest rate or credit risk profiles and (e) other events that are isolated, non-recurring and unusual that could not have been reasonably anticipated. Transfer or sale of an HTM security for other than the specified reasons would call into question the original classification and "taint" all other HTM securities. Those other tainted HTM securities would need to be reclassified and no new securities could be classified as HTM for a certain period. Fortunately for securitization transactions, the sale of the "tail" portion of the debt securities is allowed without raising doubts about the initial classification of the entire portfolio. The "tail" portion is identified as the earlier to occur of (a) when 85% of the outstanding principal balance at the date of acquisition is paid down and (b) 90 days or less to the final maturity date of the debt security.

Exhibit 2**Historical Cost Method**

Period	Scheduled Balance	Principal	Expected Interest	Payment	Carrying Value	12.893% Income	Unamortized Discount
0	\$100,000			(98,000)	98,000		2,000
1	98,776	1,224	1,000	2,224	96,828	1,053	1,947
2	97,539	1,237	988	2,224	95,644	1,040	1,894
3	96,290	1,249	975	2,224	94,448	1,028	1,842
4	95,028	1,262	963	2,224	93,238	1,015	1,790
5	93,754	1,274	950	2,224	92,015	1,002	1,739
6	92,467	1,287	938	2,224	90,779	989	1,688
-	-	-	-	-	-	-	-
48	25,036	1,955	270	2,224	24,919	289	117
49	23,062	1,974	250	2,224	22,962	268	100
50	21,068	1,994	231	2,224	20,985	247	84
51	19,055	2,014	211	2,224	18,986	225	69
52	17,021	2,034	191	2,224	16,965	204	56
53	14,966	2,054	170	2,224	14,923	182	44
54	12,892	2,075	150	2,224	12,859	160	33
55	10,796	2,096	129	2,224	10,773	138	24
56	8,680	2,116	108	2,224	8,664	116	16
57	6,542	2,138	87	2,224	6,532	93	10
58	4,383	2,159	65	2,224	4,378	70	5
59	2,202	2,181	44	2,224	2,201	47	2
60	0	2,202	22	2,224	(0)	24	0

Regardless of the specific classification, interest income including amortization of purchased discount or premium is reported in earnings. Exhibit 2 shows the "effective interest" or "level yield" method of amortization for a hypothetical amortizing mortgage-like debt security with an outstanding principal balance of \$100,000, a coupon of 12.0% per annum, a term of 5 years and a gross purchase price of 98.0% (\$98,000). Based on these characteristics, the investor receives a contractual payment of \$2,224 per month for 60 months. The internal rate of return or yield to maturity of the debt security is 12.893% per annum. The reportable income is calculated as the product of the beginning carrying value of the debt security in a period and 12.893% per annum. The ending carrying value in that period is determined by adding the interest income to the previous carrying value and reducing the resulting amount by the total cash payment received. If this debt security were classified as held-to-maturity, the carrying value of the security will be reported as shown in Exhibit 2 in every reporting period. Exhibit 3 shows the impact of a decline in the fair value to 95.0% (representing an unrealized loss of \$2,972 and a fair value of \$91,475) at the end of the first quarter for the same security carried under the three different categories. Note that the change in the fair value does not change the carrying value of the assets held in the HTM category.

Exhibit 3		
Impact on Reported Earnings - Journal Entries		
Original Entry		
Investments in MBS	\$98,000	
Cash		\$98,000
Held-to-Maturity#		
Cash	\$6,673	
Interest income*		\$3,121
Investments in MBS**		\$3,552
<p># Requires disclosure of the fair value of this portfolio. * Earnings (includes \$158 amortization of discount). ** Principal amount received less amortization of discount.</p>		
Trading		
Cash	\$6,673	
Interest income*		\$3,121
Investments in MBS		\$3,552
Loss from MBS*	\$2,972	
Investments in MBS		\$2,972
<p>* Earnings will increase by a net of only \$149.</p>		
Available-for-Sale		
Cash	\$6,673	
Interest income		\$3,121
Investments in MBS		\$3,552
Other comprehensive income*	\$2,972	
Investments in MBS		\$2,972
<p>* Separate component of equity (amount should be net of tax).</p>		

Exhibit 4

Reclassification of Debt Securities

From\To	HTM	Trading	AFS
HTM	-	Recorded at fair value. Unrealized gain or loss recognized in earnings at the time of reclassification.	Recorded at fair value. Unrealized gain or loss reported in a separate component of shareholder's equity.
Trading	Recorded at fair value. Unrealized gain or loss already reported in earnings; no reversals.	-	Recorded at fair value. Unrealized gain or loss already reported in earnings; no reversals.
AFS	Recorded at fair value. Unrealized gain or loss recognized to be continued in a separate component of shareholder's equity. This amount is amortized in accordance with the effective interest method.	Recorded at fair value. Unrealized gain or loss recognized in earnings at the time of reclassification.	-

Exhibit 4 shows the recording of transfers in the event of a reclassification.

Somewhat similar to the rules for debt securities SFAS No. 65, accounting for certain mortgage banking activities, requires mortgage bankers to classify whole mortgage loans into one of two categories: held for sale or held for long-term investment. Mortgage loans classified as held for sale are carried at the lower of cost or market value ("LOCOM"). If market value is less than cost, a valuation allowance is recorded for the difference, resulting in a charge to income. Changes in the required valuation allowance due to changes in market value are reflected in income as they occur. This means that recovery of a previous LOCOM mark down can be recognized as a gain. However, the loans should not be carried at an amount above cost.

Mortgage loans held for long-term investment are those where there is an ability and intent to hold the loans for the foreseeable future, or until maturity. Loans held for long-term investment are carried at amortized cost and evaluated for other than temporary impairment. If ultimate recovery of the carrying amount of the loan is doubtful, the loans should be written down to the expected collectible amount, which becomes the new cost basis. The write down is recorded as a loss and any subsequent recovery is not recognized until the loans are sold or mature. Unlike SFAS No. 115, there is no specific list of circumstances under which loans may be transferred between classifications, although such transfers should be infrequent. Selling or transferring a loan out of the held for long-term investment category would not "taint" the similar classification of any other loan.

Accounting for Income

The generally accepted method of accounting for amortization of discount and premium for mortgage loans and debt securities, as described earlier, is called the "effective interest" or "level yield" method. The initial carrying value of the mortgage loans used to calculate the effective yield ("level yield" or "purchase yield") is the purchase price adjusted for (increased by) any direct costs and (decreased by) any nonrefundable origination fees associated with the mortgage loans. The initial carrying value of the debt securities is the purchase price plus accrued interest, if any, paid for such securities. The effective interest method determines the periodic income as either (a) the sum of coupon income and accretion of purchase discount, if any, or (b) the difference between coupon income and amortization of purchase premium, if any, in each case using the internal rate of return to determine the accretion of discount or amortization of purchase premium. In Exhibit 2 it was assumed that the investor will receive only contractual payments and that the debt security is neither callable nor puttable. However, in the case of mortgage loans and MBS, investors have implicitly written a call option to the mortgagors which makes them likely to prepay their loans at no additional cost (generally) to them in a declining interest rate environment. Prepayments are generally expected to rise in a declining interest rate environment because mortgagors can obtain other mortgage loans with lower prevailing interest rates. Prepaying the existing mortgage loans can therefore reduce their cost of borrowing. Since the borrowers in the underlying assets are long a call option, they have the right but not the obligation, to exercise the call. This arrangement makes it extremely difficult to predict the future cash flows to investors in mortgage loans and MBS and thus makes the yield to maturity only an estimate at any point in time. The FASB recognized the importance of the callable nature of mortgage-backed and asset-backed securities.

Effect of Prepayments: If a securitized instrument is purchased at par, changing prepayments does not impact the interest income based on the effective interest method. The interest income received over time is the same as the cash received based on the coupon and the then-outstanding face amount. However, if such an instrument is purchased at a discount from par, an increase in interest rates can adversely affect income because mortgagors are less likely to prepay their mortgages and the accretion of discount will occur over a longer period of time. Of course, the reverse is true as well (i.e. purchases at a premium can be adversely affected by a decrease in interest rates).

SFAS No. 91 allows two basic methods of accounting for interest income for mortgage loans and debt securities that are prepayable. The first method is based on the contractual cash flows determined at the time of purchase without regard to any prepayments that may arise in the future. As prepayments are experienced, the discount or premium related to such prepayments is adjusted in the interest income for that period.

The second method is based on the cash flows with estimated prepayments embedded in those cash flows. The FASB does not require estimation of prepayments under SFAS No. 91. The method may be used if a pool of underlying mortgage loans consists of a large number of mortgage loans or similar assets with substantially similar characteristics such that prepayments can be reasonably estimated. In every reporting period, investors are required to make adjustments to the effective yield to maturity and hence the future interest income based on the actual prepayment experience to date and the expected future prepayment experience of the underlying mortgage loans. Using the actual prepayments from the date

of acquisition to the reporting date and the expected future prepayments from the reporting date onward, a new effective yield is calculated from the date of acquisition. The carrying value is adjusted to the amount that would have existed had the new effective yield been applied since acquisition. The difference between the new carrying value and the actual carrying value is charged or credited to interest income. This results in a "catch up" of effective yield in every reporting period. If a debt security were purchased at a discount and if the prepayments were to accelerate, the new effective yield would be higher than the one calculated at acquisition. Consequently, the interest income in the future reporting periods would be higher than initially projected. If prepayments were to decelerate, the new effective yield would be lower than the one calculated at acquisition resulting in lower interest income for the subsequent reporting periods. This method is also known as the "retrospective method." All fixed rate MBSs and adjustable rate MBSs are required to follow the retrospective method (other than high-risk IO and certain other classes for which the return of substantially all of the initial investment is not guaranteed). Exhibit 5 depicts the impact of "catch up" for a hypothetical mortgage-like debt security. In the first and second quarter, the income on the security is \$3,119 (interest income of \$3,146 (@13.266%) and a write-down of \$27) and \$2,955 (interest income of \$2,841 (@13.154%) and a write-up of \$94), respectively. This method will have the most impact on period-to-period earnings in the middle of the life of the investment. Because the effective yield to maturity is adjusted, a portion of the total change in cash flows is amortized over the remaining life at a higher or lower yield. Shortly after acquisition, very little income has been recognized so the yield adjustment recognized most of the cash flow change over future periods. Near the end of the investment's life, a change in prepayments will have less impact on cash flows.

Exhibit 5
Retrospective Method

Period	Prepayments	Effective Yield	Carrying Value	Cash	Income	Discount Amortization	Unamortized Discount
0			98,000				2,000
1	22%	13.266%	94,835	4,249	1,083	83	1,917
2	22%	13.266%	91,746	4,137	1,048	81	1,836
3	22%	13.266%	88,733	4,027	1,014	78	1,757
0			98,000				2,000
1	22%	13.154%	94,826	4,249	1,074	74	1,926
2	22%	13.154%	91,728	4,137	1,039	72	1,854
3	22%	13.154%	88,707	4,027	1,006	70	1,784
4	15%	13.154%	86,387	3,292	972	67	1,717
5	15%	13.154%	84,103	3,232	947	66	1,651
6	15%	13.154%	81,852	3,172	922	64	1,586
0			98,000				2,000
1	22%	13.356%	94,842	4,249	1,091	91	1,909
2	22%	13.356%	91,761	4,137	1,056	88	1,821
3	22%	13.356%	88,755	4,027	1,021	85	1,736
4	15%	13.356%	86,451	3,292	988	83	1,653
5	15%	13.356%	84,182	3,232	962	81	1,572
6	15%	13.356%	81,946	3,172	937	79	1,492
7	30%	13.356%	78,442	4,416	912	78	1,415
8	30%	13.356%	75,061	4,253	873	74	1,340
9	30%	13.356%	71,801	4,096	835	71	1,269

Adjustable rate MBS ("ARM") are complicated not just by prepayments but also by the fact that their coupons are tied to specific indices. If the index moves the coupon income of the ARM becomes subject to increase or decrease. Also, most ARMs are created with "teaser" rates which rates may be significantly below the current interest rates at the time of issuance (resulting from a desire to attract new borrowers in the underlying mortgage loans who cannot afford a higher initial payment that would have resulted from a fixed rate mortgage). The teaser rates are fixed for a short period of time (the teaser period) after origination of mortgages. However, after the lapse of the teaser period, the coupon rate is pegged to an index implying that the coupon equals the applicable index plus the specified margin (subject to certain caps and floors). How does one compute the effective yield for an ARM with changing interest rates? For the purposes of amortizing the discount or premium, the FASB allows both (a) using an index rate at acquisition for the life of the ARM to project cash flows and (b) adjusting the coupon to the correctly indexed rate at the end of the teaser period and projecting the cash flows accordingly. The second strategy results in most of the original discount from discounted ARMs to be recognized in the teaser period. Floaters and Inverse Floaters coupons are tied to an index. In the case of Floaters, the coupon moves in the same direction as the related index, whereas in the case of Inverse Floaters, the coupon moves in the opposite direction. Note that both can be leveraged in relation to the underlying index making a significant impact on the coupon income. Both are accounted for using the retrospective method.

The FASB has defined "high risk" securities as those securities where there is a potential for loss of substantially all of the original investment due to changes in (a) market interest rates, (b) prepayment rates or (c) temporary reinvestment earnings. For a debt security to not be considered a high risk security, the generally accepted threshold is recovery of 90% or more of the initial investment. Under this definition, both interest-only ("IO") and most residual securities are considered high risk securities and the accounting for such securities is therefore based on the "prospective method" as described under EITF Issue No. 89-4, "Accounting for Purchased Investment in a Collateralized Mortgage Obligation Instrument or in a Mortgage-Backed Interest Only Certificate." In the initial accrual period, interest income is accrued based on the initial carrying value and effective yield. Any cash received is first used to apply towards accrued interest and then to reduce the carrying value to zero. At each reporting date, the effective yield is adjusted prospectively from the reporting period based on the new estimate of prepayments. If the new effective yield is less than the then-current risk-free interest rate, the investment is considered impaired and written down to fair value, which becomes the new cost basis. The new effective yield is calculated based on the carrying value at the end of the previous reporting period, the new prepayment estimates and the contractual terms of the debt security. This procedure continues until all cash has been received. Note that this does not result in a write-up or a write-down of the carrying value in the reporting period. Only the future interest income is affected. Exhibit 6 depicts the impact of the prospective method for a hypothetical mortgage-like debt security. In the second first and second quarters, the income from the debt security is \$3,146 and \$2,838, respectively. Also, as amended by SFAS No. 125, these types of debt securities may not be classified in the HTM category. Because of the high-risk and volatile nature of these debt securities, they are marked to market and classified in either the trading or AFS category.

Exhibit 6							
Prospective Method							
Period	Prepayments	Effective Yield	Carrying Value	Cash	Income	Discount Amortization	Unamortized Discount
0			98,000				2,000
1	22%	13.266%	94,835	4,249	1,083	83	1,917
2	22%	13.266%	91,746	4,137	1,048	81	1,836
3	22%	13.266%	88,733	4,027	1,014	78	1,757
4	15%	13.137%	86,413	3,292	971	66	1,691
5	15%	13.137%	84,127	3,232	946	65	1,626
6	15%	13.137%	81,876	3,172	921	63	1,562
7	30%	13.421%	78,375	4,416	916	81	1,481
8	30%	13.421%	74,998	4,253	877	78	1,403
9	30%	13.421%	71,741	4,096	839	75	1,328

Despite the fact that principal-only ("PO") securities are very sensitive to changes in market interest rates and prepayments, they are not considered high-risk securities under the definition described above. Aside from the permanent credit impairment that may potentially result in a loss of some portion of the original investment, investors in these securities generally receive back their entire investment. The adverse changes in market interest rates or the prepayment rates may only affect the effective yield or the total return of such debt securities. Of course, the market value of the security will be affected by changing interest rates and prepayments. Any changes in the fair value may be carried over to earnings or to a separate component of the equity based on the classification of the security as trading, AFS or HTM.

In certain situations, increasing prepayments that result in reduced cash flows to the security holder can cause the effective yield to equal or fall below 0%. Prior to the release of EITF Issue No. 93-18 such debt securities were written down to the undiscounted cash flows (equivalent to 0% effective yield) of the debt securities, however, now such debt securities are tested against the comparable duration risk-free yield and consequently written down to fair value in such a way as to yield the market rate in the future.

Exhibit 7	
Recognition of Interest Income	
Debt security	Accounting Income
Planned Amortization Classes, Targeted Amortization Classes, Support Classes and other Fixed Rate Certificates	Retrospective method
Principal-Only Certificates	Retrospective method
Interest-Only Certificates	Prospective method
Residual Certificates	Prospective method
Adjustable Rate, Floater and Inverse Floater Certificates	Retrospective method
Originated Fixed Rate Loans	Retrospective method

Nuances: 1) Most MBS investors accrue income during a specified accrual period, however, the accrued income is paid out to the investors only after certain number of days (often called delay days in the MBS community). SFAS No. 91 does not provide guidance on the computational techniques to account for such delay days. Economically, it reduces the effective yield on the debt security; 2) SFAS No. 91 also does not provide guidance on computational techniques to take into account purchased accrued interest. A typical fixed rate MBS accrues interest for the entire calendar month prior to the month of actual payment. If such MBS settles on the 28th of the month, an investor will purchase twenty-seven days of accrued interest from the seller; and 3) Due to variations in prepayment speeds and index rates, it is possible for discount and premium ARMs to accrete their cost basis to more than the outstanding principal balance or the initial basis at acquisition, respectively. In such cases, the cost basis is capped at the outstanding principal balance (for discount ARMs) or the market value (%) at acquisition (for premium ARMs). For simplicity, all examples shown in this article are based on (a) no delay days and (b) no accrued interest.

Investments by Securitizers in Retained Interests - Residuals

Many organizations securitize their assets periodically. There are many reasons to access the capital markets via securitization. The most important reason being the availability of funds at lower costs.

However, there has been a lot of press talk about certain accounting procedures followed by lending institutions which primarily depend on securitization to access the capital markets. Many lenders have had to change their accounting resulting in a write down of their assets, in particular, the residual interests in securitizations held by them. When high yielding mortgage loans such as B&C/subprime quality loans are securitized, a residual security is created by virtue of the fact that the underlying assets generate higher coupon income than that needed for any on-going expenses and the interest on newly formed debt securities. The difference between the income on the assets and the expense on the liabilities represents "excess interest" needed for credit enhancement and is given the form of "residual security" or "residual interest." These residual interests are akin to interest-only strips and generally have no principal balance. If prepayment rates were to increase, the residual interests would be left with declining cash flow possibly causing a significant loss of the original investment. Per SFAS No. 125, these securities must be classified into trading or AFS category and marked to market in every reporting period.

Ideally, the "market" or fair value of the residual security used for accounting purposes should be the price at which it can be traded. Quoted market prices in active markets are the best indicators of fair value. However, residual securities trading is scarce and very specialized making the market for such debt securities very inactive and illiquid. If quoted market prices are unavailable, the FASB allows estimation of fair value based on reasonable assumptions about future cash flows. The process of projecting the future cash flows for residual securities is driven mainly by the following assumptions: the (a) prepayment rate and (b) expected credit loss rate in a pool of mortgage loans. Future cash flows using the above assumptions are then discounted back to the date of securitization at the prevailing discount rates. These discounted cash flows provide an estimate of the fair value of the residual security.

If a securitization is to be treated as a sale for accounting purposes, the recognition of "gain" or "loss" is not an election of the seller. A seller must recognize gain or loss immediately based on the allocation of the carrying value of the mortgage loans to the debt securities sold. A hypothetical securitization shown in the box below depicts how pre-tax gain (loss) is calculated for a securitization assuming that the net carrying value of the mortgage loans is at par. The key factor here is to estimate the fair value of the residual class which often tends to drive a transaction. If the fair value is not available and if it cannot be estimated for a retained security, it should be recorded at zero.

Exhibit 8

Pre-tax Gain for Securitization

Class	Balance	Coupon	Price	FMV	Allocation	Basis	Sold
Loans	\$100,000	9.0%	-	-		\$100,000	Y
Class AAA	96,000	7.5	100%	\$96,000	94.27%	94,266	Y
Class BB	4,000	7.5	96	3,840	3.77	3,771	Y
Residual		-		1,500	1.47	1,473	N
Servicing		0.5		500	0.49	490	N
	\$100,000			\$101,840	100.00%	\$100,000	

Proceeds	\$99,840
Allocated Carrying Value	(98,037)
Pre-tax Gain	\$1,803

Journal Entries after a Securitization

Journal Entries	Debit	Credit
Cash	\$99,840	
Class R certificates	1,473	
Servicing asset	490	
Mortgage loans		\$100,000
Gain-on-sale		1,803
Class R certificates*	27	
Other comprehensive income		27

*Adjusting entries to mark the retained interest to fair value. Servicing asset (is not a security and) remains at carrying value.

The expected rate of return on the residual depends primarily on the expected credit loss experience and the expected prepayment experience of the underlying mortgage loans. Significant fluctuations in the earnings stream can result if the valuations are done incorrectly at the beginning of the process.

Upon acquisition, an effective yield is calculated for the residual security based on the reasonable assumptions about prepayment and credit loss rates. This effective yield is equal to the discount rate used at acquisition. In the above example, the prepayment rate was 25% per annum, the loss rate was 0.75% per annum taken as a haircut from interest income, and the discount rate for the residual security was 19.5% per annum. The effect of changing one of the assumptions (while keeping the others constant) from the base case is shown in Exhibit 9.

Exhibit 9

Impact of Varying Assumptions on the Hypothetical Retained Interest

Loss Rate	0.00%	0.25%	0.50%	1.00%
Fair Value	\$3,078	\$2,548	\$2,021	\$981
% Change from Base Case	105%	70%	35%	-35%
Prepayment Rate	20.00%	22.50%	27.50%	30.00%
Fair Value	\$1,717	\$1,602	\$1,405	\$1,320
% Change from Base Case	14%	7%	-6%	-12%
Discount Rate	10.00%	12.50%	15.00%	17.50%
Fair Value	\$1,853	\$1,745	\$1,648	\$1,562
% Change from Base Case	24%	16%	10%	4%

These securities are carried at fair value in either the trading or AFS category. Any unrealized gains or losses because of changes in the fair value of a trading security is recognized in earnings. For AFS securities, these changes are recognized in a separate component of equity called "comprehensive income." These debt securities are tested for other-than-temporary impairment by comparing the discounted present value of the expected cash flows at a comparable risk-free rate to the current carrying value of such debt security. The debt security is considered impaired if such difference is negative in which case the debt security should be written down to fair value. The write-down is a charge against earnings. The debt securities which are classified into the trading category need not be assessed for such impairment because any difference in fair value is already included in earnings.

At the time of this writing, the EITF has added to its agenda, EITF Issue No. 99-20, (*Recognition of Interest Income and Impairment on Certain Investments*.) Initially, the scope of the project will be limited to retained interests classified as either held-to-maturity or available-for-sale. Existing GAAP does not provide robust guidance for the ongoing measurement of interest income and other adjustments for securitized debt instruments whose cash flows may change as a result of prepayments, credit losses, changes in an interest rate index and other reasons. Multiple interest income accounting models have been developed and applied for particular types of securities to deal with changes in their estimated future cash flows.

Servicing by Securitizers

Servicing is inherent in all financial assets. The servicing function includes, but is not limited to, collections of principal, interest and taxes from borrowers, disbursement of such funds to investors and related taxing authorities, monitoring delinquencies and performing foreclosures on behalf of investors. Servicing becomes a distinct asset only when it is contractually separated from the underlying financial assets or if it is purchased separately.

Per SFAS No. 125, if the seller retains the servicing function of the securitized mortgage loans and the contractual servicing fee is more than "adequate," a servicing asset must be recorded on the balance sheet. Conversely, if the servicing compensation is not adequate, a servicing liability must be recorded. How does one determine the "adequate compensation" for any

portfolio? In general, it includes the cost of servicing plus some profit demanded by the marketplace. Note that the adequate compensation is not determined by the individual servicing operations. It is set by the marketplace. As a rule of thumb, larger balance mortgage loans demand smaller servicing fee and vice versa. For example, the servicing fee for non-conforming jumbo mortgage loans is generally 20 basis points whereas for conforming mortgage loans serviced by agency-approved servicers is expected to be higher than 20 basis points. In our example the contractual servicing fee is assumed to be 50 basis points. In most securitizations the servicers are entitled to late fees and any reinvestment earnings of the funds held. On the other hand, these servicers are also contractually obligated to advance certain payments for delinquent borrowers and, in some cases, for interest shortfalls caused by unexpected prepayments of principal. For simplicity, it is assumed in our example that the extra income from late fees and reinvestment earnings will offset these expenses (and that the time value of the difference is zero). Let us further assume that there is an average bid (solicited or unsolicited) of 40 basis points to service the portfolio. If the seller retains the servicing function of the portfolio, the 10 basis points over and above the average bid indicates that a servicing asset must be booked after securitization. If the contractual servicing fee were only 25 basis points, the 15 basis points below the representative bid would indicate a servicing liability.

A servicing asset or liability is not amortized using any of the contractual, retrospective or prospective methods discussed earlier. In fact, both servicing assets and liabilities are amortized in proportion to and over the period of net estimated servicing income (excess of servicing revenues over the servicing costs) or net servicing loss (excess of servicing costs over the servicing revenues). In addition, the servicing asset or liability should be reassessed each period for impairment by comparing the carrying value against the fair value of the asset or liability. If the fair value is lower than the carrying value, the servicing assets are adjusted downward to the lower-of-cost-or-market and the difference is carried via valuation allowance into earnings. Subsequent writeups through earnings are allowed only to the extent of previous writedowns.

The determination of impairment in servicing assets requires stratification of underlying assets being serviced. The underlying assets must be broken down into categories representing significant risk in the portfolio such as fixed rate vs. adjustable rate mortgage loans, coupon, remaining term, geographic location, etc. The fair value in each individual category is compared to the carrying value of the corresponding category. The writedown is taken through a valuation allowance in each individual category. A writedown in one category must not be offset by an increase in the fair value (over the carrying value) in another category. For servicing liabilities, an increase in fair value implies an increase in the liability via a basis adjustment (no valuation allowance) with the loss carried through earnings. Servicing assets and liabilities must be accounted for separately.

The income on IO securities is recognized either based on changes in fair value and the effective yield method (if classified as trading) or simply based on the effective yield method (if classified as available-for-sale). Because there are differences in the subsequent accounting for servicing and IO securities, sellers may structure contracts for the retained interests to provide smaller servicing assets and larger IO securities or vice versa. Exhibit 10 depicts the differences in accounting for income from servicing assets and IO securities for the same expected cash flows. The different methods of accounting for servicing and IO securities in this above example result in the same aggregate amount of accounting income to be recognized over the life of the investment, however the timing of such income varies.

The servicing assets are adjusted for the difference between fair value and the carrying value as described above under the LOCOM method, but only if the fair value were less than the carrying value of the assets. Thus, in subsequent periods, gains are recognized only to the extent of previously recorded losses. On the other hand, in each reporting period, the IO securities are adjusted to fair value, for both gains and losses, in earnings (if classified as trading) or equity (if classified as available-for-sale).

Exhibit 10

Accounting for Servicing Asset by Sellers (portfolio \$100M, 9.0% coupon, 30 years, 25% CPR)

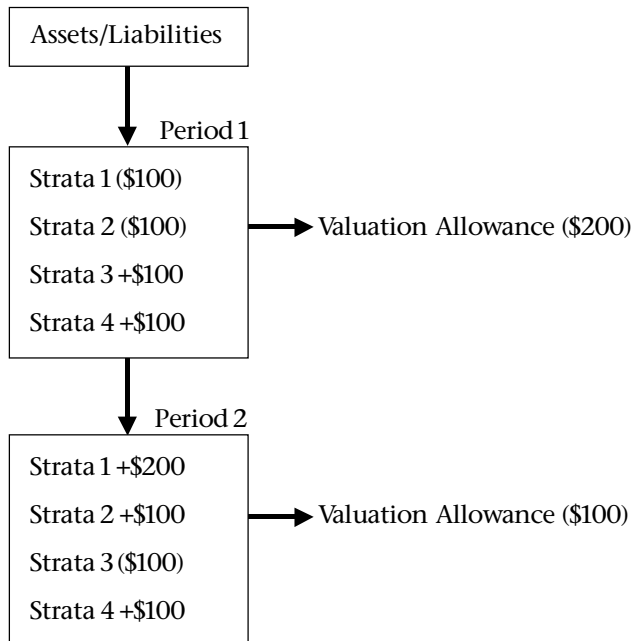
Period	Servicing Fee (.5%)	Servicing Fee less Servicing Costs	% of Total Income	Carrying Value at 12%	Amortization of Servicing Asset	Income (Fee less Amortization)
0				\$1,211,810		
1	\$41,667	\$16,667	2.45%	1,182,140	\$29,670	\$11,997
2	40,657	16,263	2.39%	1,153,188	28,951	11,706
3	39,672	15,869	2.33%	1,124,938	28,250	11,422
4	38,711	15,484	2.27%	1,097,373	27,566	11,146
5	37,773	15,109	2.22%	1,070,475	26,898	10,875
6	36,857	14,743	2.17%	1,044,230	26,246	10,612
7	35,964	14,386	2.11%	1,018,620	25,609	10,355
8	35,092	14,037	2.06%	993,632	24,988	10,104
9	34,241	13,696	2.01%	969,250	24,382	9,859
10	33,410	13,364	1.96%	945,459	23,791	9,619
11	32,600	13,040	1.92%	922,245	23,214	9,386
12	31,809	12,723	1.87%	899,595	22,650	9,158

Accounting for IO security with same expected cash flows as above

Period	Carrying Value	Interest-Only Amortization	Income
0	\$1,211,810		
1	1,182,261	\$29,549	\$12,118
2	1,153,427	28,835	11,823
3	1,125,288	28,138	11,534
4	1,097,830	27,458	11,253
5	1,071,035	26,795	10,978
6	1,044,888	26,147	10,710
7	1,019,373	25,515	10,449
8	994,475	24,898	10,194
9	970,179	24,296	9,945
10	946,471	23,708	9,702
11	923,336	23,135	9,465
12	900,761	22,575	9,233

Exhibit 11

Servicing Assets and Liabilities



Acknowledgements

The information set forth herein has been gathered from various publications from the Financial Accounting Standards Board. The rules and regulations are subject to change from time to time. The authors strongly encourage readers to refer to the original information published by the FASB or to contact their accountants for appropriate advice. The authors would also like to thank Marty Rosenblatt of Deloitte & Touche LLP.

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