

Accounting for Mortgage Servicing Rights

FHLBank Topeka

Fair Value Accounting – too good to be true?

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Accounting for Mortgage Servicing Rights

An institution (PFI) has two choices when selling a loan:

Sell the loan servicing-released or

Sell the loan servicing-retained

This presentation focuses on loans sold servicing-retained
and the required accounting under FAS 140 & FAS 156



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How to determine if an MSR Asset or Liability exists?

“servicing is inherent in all financial assets; it becomes a distinct asset or liability for accounting purposes only under the following circumstances:”

- 1) Transfer of loan that meets “sale accounting” requirements – MPF original and 125
- 2) Transfer of loan to a QSPE in a securitization in which the loans are classified as available for sale or trading securities in accordance with FAS 115
- 3) Purchase or assumption of a servicing obligation that does not relate to the financial assets of the servicer – MPF 100



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MSR Asset vs MSR Liability

Benefits of servicing are expected to exceed “adequate compensation” as determined by the marketplace – if they do not then a “servicing liability” exists

Adequate compensation is based on the specified servicing fees and other benefits demanded in the marketplace to perform the servicing

Servicing assets and liabilities are initially recorded at their fair value

Servicing assets and liabilities must be reported separately

An servicing asset can become a servicing liability over its life and vice versa

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How is “MSR fair value” determined?

According to GAAP –

best determined in the marketplace or

if no market quotes are available then the value can be estimated using a discounted cashflow model



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What variables are used to determine fair value in a discounted cashflow model?

Contractual servicing fee and marketplace assumptions regarding the:

Expected life of the loan – prepayments

Expected ancillary income

Expected servicing costs

Expected delinquency rate and incremental servicing costs

Interest rate used to discount the future cashflows

Remittance methodology to the investor – float

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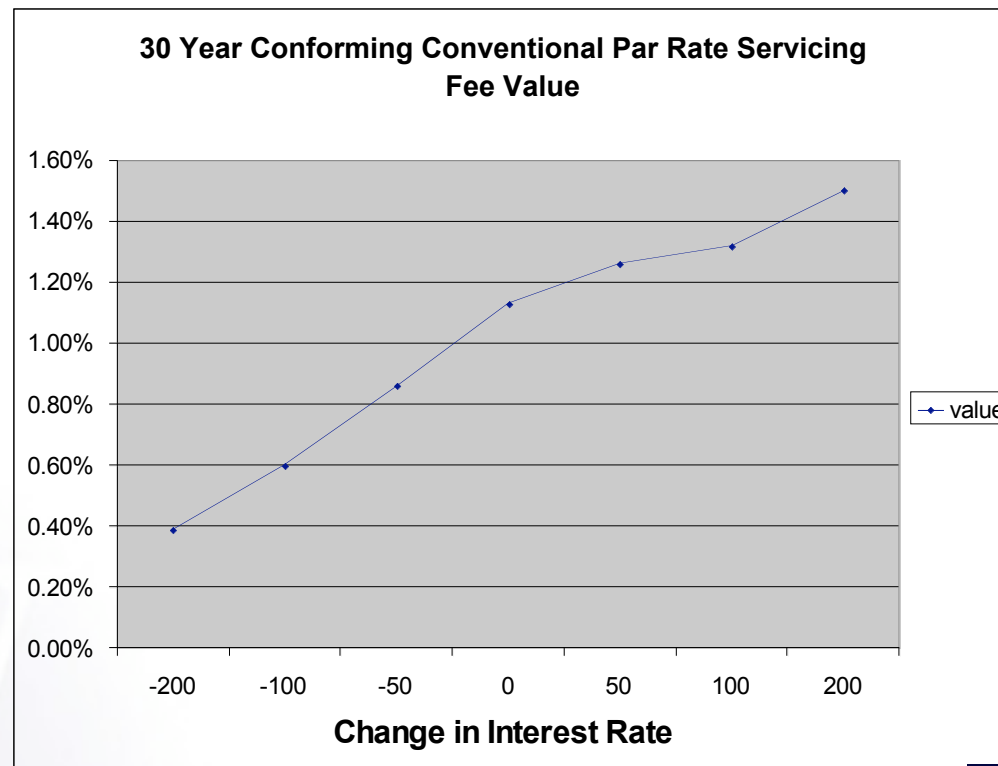
Servicing Fee Values by Interest Rate Shock

30 Year Conforming Conventional Par Rate Servicing Fee Value

Interest Rate Shock (bps)	Servicing Value
-200	0.39%
-100	0.60%
-50	0.86%
0	1.13%
50	1.26%
100	1.32%
200	1.50%

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Valuation of Mortgage Servicing Rights (MSRs) Negative Convexity Graph



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How is the fair value journal entry under FAS #156 different than the initial entry under FAS #140 which required relative fair value?

Calculation of relative fair value under FAS #140:

	Fair Value	Percentage of Total Fair Value	Allocated Carrying Amount
Loans Sold	100,000	99.0%	99,010
Servicing Asset	1,000	1.0%	990
Total	101,000	100.0%	100,000

Example is based on a \$100,000 loan with a 1% MSR

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FAS #140 - Original Journal Entry to Record Loan Sale and MSR

Cash	100,000	
Loans		99,010
Gain on Sale		990
Servicing Asset	990	
Loans		990

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FAS #156 - Revised Journal Entry to Record Loan Sale and MSR

Cash	100,000	
Loans		100,000
Servicing Asset	1,000	
Gain on Sale		1,000

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How to account for the MSR after initial recording?

The ongoing accounting depends on the methodology selected to measure the asset.

FAS 156 allows the asset to be measured in one of two ways:

- 1) Amortization Method
- 2) Fair Value Method

A PFI may select either method, but cannot switch methodologies unless it moves to the Fair Value method at the beginning of the fiscal year. It cannot go back to the Amortization method after it has elected Fair Value.



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Amortization Method

Servicing asset is amortized over the life of the loan – level yield

The MSR's are stratified into predominant risk characteristics

The amortized value, “book value” of each stratum is compared against the fair value at each reporting period

“Impairment” results if the book value is greater than the fair value – the book value is reduced to the fair value and gains in one stratum cannot be used to offset losses in another stratum

The asset value is not increased if the fair value is greater than the book value, except for draw downs of the temporary impairment reserve

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Amortization Method

Level-Yield Amortization Example

Month	Net Servicing Fees	Remaining Balance of Net Servicing Fees	Level-Yield Amort Factor	Amort Amount	Book Value (Basis)
0		1,547.37			1,000.00
1	21.34	1,526.02	1.38%	13.79	986.21
2	21.33	1,504.69	1.40%	13.79	972.42
3	21.32	1,483.37	1.42%	13.78	958.64
4	21.27	1,462.10	1.43%	13.74	944.90
5	21.20	1,440.90	1.45%	13.70	931.20
6	21.13	1,419.77	1.47%	13.66	917.54
7	21.04	1,398.73	1.48%	13.60	903.94
8	20.92	1,377.81	1.50%	13.52	890.43
9	20.81	1,357.01	1.51%	13.45	876.98
10	20.68	1,336.33	1.52%	13.36	863.62
11	20.54	1,315.79	1.54%	13.28	850.34
12	20.39	1,295.39	1.55%	13.18	837.16
13	20.23	1,275.17	1.56%	13.07	824.09
14	20.05	1,255.11	1.57%	12.96	811.13
15-360	1,255.11	-		811.13	-
Total	1,547.37			1,000.00	



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Amortization Method

Sum of the Years Digits Calculation

Year	Net Servicing Fees	% of Total Fees	Amort Years	SYD Annual Factor	SYD Monthly Factor
1	251.97	16.3%	11	16.7%	1.39%
2	229.15	14.8%	10	15.2%	1.26%
3	193.39	12.5%	9	13.6%	1.14%
4	159.08	10.3%	8	12.1%	1.01%
5	130.94	8.5%	7	10.6%	0.88%
6	107.69	7.0%	6	9.1%	0.76%
7	88.45	5.7%	5	7.6%	0.63%
8	72.53	4.7%	4	6.1%	0.51%
9	59.38	3.8%	3	4.5%	0.38%
10	48.53	3.1%	2	3.0%	0.25%
11	39.56	2.6%	1	1.5%	0.13%
12 - 30	166.68	10.8%	-	-	-
Total CF	1,547.37	100.0%	66	100.0%	

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Amortization Method

Sum of the Years Digits Amortization Example

Month	SYD Amort Factor	Amort Amount	Book Value (Basis)
0			1,000.00
1	1.39%	13.89	986.11
2	1.39%	13.89	972.22
3	1.39%	13.89	958.33
4	1.39%	13.89	944.44
5	1.39%	13.89	930.56
6	1.39%	13.89	916.67
7	1.39%	13.89	902.78
8	1.39%	13.89	888.89
9	1.39%	13.89	875.00
10	1.39%	13.89	861.11
11	1.39%	13.89	847.22
12	1.39%	13.89	833.33
13	1.26%	12.63	820.71
14	1.26%	12.63	808.08
15-360		808.08	-
Total		1,000.00	



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Amortization Method

Sum of the Years Digit Amortization \$ Compared to Level-Yield Amortization \$

Month	SYD Amort \$	Level-Yield Amort \$	Variance \$
0			
1	13.89	13.79	0.10
2	13.89	13.79	0.10
3	13.89	13.78	0.11
4	13.89	13.74	0.15
5	13.89	13.70	0.19
6	13.89	13.66	0.23
7	13.89	13.60	0.29
8	13.89	13.52	0.37
9	13.89	13.45	0.44
10	13.89	13.36	0.53
11	13.89	13.28	0.61
12	13.89	13.18	0.71
13	12.63	13.07	(0.45)
14	12.63	12.96	(0.33)
15-360	808.08	811.13	(3.05)
Total	1,000.00	1,000.00	(0.00)



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Ongoing Journal Entries – Amortization Method

Amortize MSR asset into income and record monthly servicing fee

Servicing Fee Income	13.89	(amortization)
Cash	20.83	(fee income)
Servicing Asset	13.89	(amortization)
Servicing Fee Income	20.83	(fee income)

Assumes a \$100,000 loan with .25% servicing fee and 16.7% annual SYD factor

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Stratification of MSR Asset

FAS 140 requires that the MSR asset must be stratified and reported by one or more predominant risk characteristics which include:

- Loan interest rate
- Loan type
- Loan size
- Loan origination date
- Loan term
- Loan geographical location

Impairment is best measured at the loan level and reported at the FAS 140 stratum level. Gains in one stratum level cannot offset impairment in another

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Amortization Method

Example FAS #140 Impairment by Stratum

Loan Term	Loan Coupon	Loan Balance	Fair		Book Value \$	Fair Value - Book Value	Balance Sheet
			Value %	Fair Value \$			Impact (Impairment)
30 year	less than 5.125%	5,000,000	1.250%	62,500	61,500	1,000	-
	5.125% - 7.125%	80,000,000	1.150%	920,000	918,500	1,500	-
	greater than 7.125%	8,000,000	1.000%	80,000	79,500	500	-
	Total 30 year	93,000,000	1.142%	1,062,500	1,059,500	3,000	-
20 year	less than 5.00%	5,000,000	1.150%	57,500	56,500	1,000	-
	5.00% - 7.00%	60,000,000	1.000%	600,000	598,500	1,500	-
	greater than 7.00%	5,000,000	0.800%	40,000	40,500	(500)	(500)
	Total 20 year	70,000,000	0.996%	697,500	695,500	2,000	(500)
15 year	less than 4.50%	2,000,000	0.900%	18,000	17,000	1,000	-
	4.50% - 6.50%	75,000,000	0.750%	562,500	561,000	1,500	-
	greater than 6.50%	3,000,000	0.600%	18,000	17,500	500	-
	Total 15 year	80,000,000	0.748%	598,500	595,500	3,000	-
10 year	less than 4.125%	3,000,000	0.600%	18,000	18,500	(500)	(500)
	4.125% - 6.125%	50,000,000	0.500%	250,000	248,500	1,500	-
	greater than 6.125%	4,000,000	0.400%	16,000	16,300	(300)	(300)
	Total 10 year	57,000,000	0.498%	284,000	283,300	700	(800)
Grand Total		300,000,000	0.881%	2,642,500	2,633,800	8,700	(1,300)



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Ongoing Journal Entries – Amortization Method

Impairment – Temporary vs Permanent

Temporary write-down of MSR asset

Servicing Income	\$1,300	
Temporary Impairment Reserve		\$1,300

Permanent write-down of MSR asset

Servicing Income	\$1,300	
Mortgage Servicing Right Asset		\$1,300

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Fair Value Method

The fair value is determined at each reporting period

The asset is adjusted to equal its fair value

The difference is taken into income or expense for that reporting period

Wilary Winn does not recommend this methodology unless the PFI has a hedge in place to reduce earnings volatility or the change in the fair value would not be material to the PFI's overall financial results

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When can the Fair Value Method be adopted?

For fiscal years beginning after September 15, 2006 – thus
for most organizations January 1, 2007

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Ongoing Journal Entries – Fair Value Method

Write-up of asset

Servicing Asset	\$ 8,700	
	Servicing Income	\$ 8,700

or Write-down of asset

Servicing Income	\$255,550	
	Servicing Asset	\$255,550

Write-down of asset assumes a 50bps decrease in interest rates. Servicing value in a 50bps down scenario is assumed to be 90% of the base value ($.881\% * 90\% * \$300\text{mm} = \$255,550$).

Please note that the initial adjustment to bring the existing portfolio to fair value must run through retained earnings.

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Required disclosures under FAS 156

- 1) Management's basis for determining classes of servicing assets and liabilities
- 2) Description of risks inherent in the servicing asset and liabilities and instruments used to mitigate this risk in the income statement
- 3) The amount of servicing fees, late fees, and ancillary fees earned, including a description of where each item is reported on the income statement

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Additional disclosures for Amortization Methodology

- 1) The change in the carrying amount of the asset including:
 - a) Beginning and ending balances
 - b) Additions to the asset
 - c) Disposals
 - d) Amortization
 - e) Valuation allowance
 - f) Other than temporary impairment
 - g) Other changes that impact the balance
- 2) The fair value at the beginning and end of the period
- 3) A description of the method used to estimate the fair value – including assumptions used in a cashflow model (i.e. prepayment speeds, etc.)

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Additional disclosures for Amortization Methodology – continued

- 4) Risk characteristics of the loans used to stratify servicing assets for purposes of measuring impairment
- 5) The activity in any valuation allowance, including:
 - a) beginning and ending balances
 - b) aggregate additions charged and recoveries credited to operations
 - c) aggregate write-downs charged against the allowance

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Additional disclosures for Fair Value Methodology

- 1) The change in the carry amount of the asset including:
 - a) Beginning and ending balances
 - b) Additions to the asset
 - c) Disposals
 - d) Changes in fair value resulting from:
 - i. Changes in valuation inputs or assumptions used in the model
 - ii. Other changes in fair value and a description of those changes
 - e) Other changes that impact the balance and a description of those changes

- 2) A description of the valuation techniques used to estimate the fair value

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Regulatory Reporting Requirements

FFIEC – Federal Financial Institutions Examination Council

TFR – Thrift Financial Reports

NCUA - National Credit Union Association

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FFIEC Call Report Reporting Requirements

- 1) Total volume of loans sold - Schedule RC-S, item 11A and RC-S, Memoranda, item 2a
- 2) Book value of retained servicing – RC-M, Memoranda, item 2a
- 3) Estimated fair value of retained servicing – RC-M, Memoranda, item 2a(1)

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TFR Reporting Requirements

- 1) MSR asset amount is reported on SC 642
- 2) MSR liability amount is included on SC 642 and also SC 791-792, 794-795, or 797-798 – item 15
- 3) Custodial accounts for loan servicing are reported on SC 712
- 4) Loan servicing fees are reported on SO 410
- 5) Loan servicing impairments are reported on SO 410
- 6) Amortization of the MSR asset is reported on SO 410
- 7) Additional information regarding the loans serviced is reported on CMR 401 through CMR 450

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NCUA Call Report Reporting Requirements

- 1) Servicing fees are included in Non-Interest Income – page 5, line 12
- 2) Loan servicing expenses are included in Non-Interest Expense – page 5, line 23
- 3) Items 7c and 7h on page 6 must be checked (in addition, determine if 7e, 7g need to be checked)
- 4) Total amount of 1st mortgage loans sold into secondary market ytd is reported on Schedule A – line 16
- 5) Amount of real estate loans sold but serviced by the credit union (dollar amount of servicing) is reported on Schedule A – line 18
- 6) The MSR book value is reported on Schedule A – line 19

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Background on Wilary Winn LLC

Wilary Winn provides independent, fee-based advice to financial intermediaries, including banks, credit unions, finance companies, and mortgage bankers.

Our services include assessments and valuation of complex financial assets, including mortgage servicing rights and credit enhancement fees receivable, as well as the development and implementation of interest rate risk management programs.

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