ADVICE TO STRENGTHEN FINANCIAL INSTITUTIONS

Mortgage Banking Accounting – Part 3

Federal Home Loan Bank Des Moines

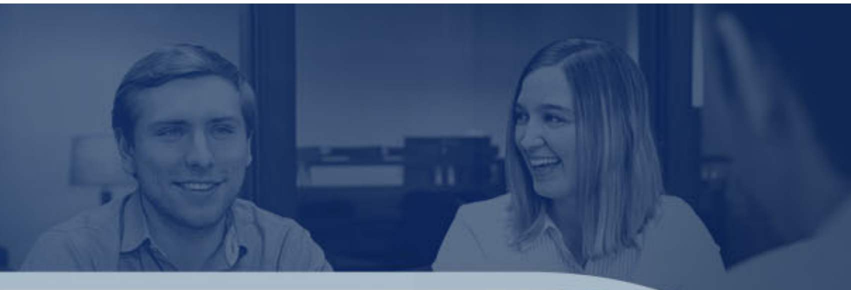
Eric Nokken, Director

Anneliese Ramin, Senior Manager

Wilary Winn LLC

August 23, 2022

MORTGAGE BANKING WEBINARS



1) Mortgage Lending Part I – Sell or Hold
2) Mortgage Lending Part II – Best Execution
3) **Mortgage Banking Accounting**

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TOPICS FOR TODAY'S SESSIONS

1) Valuation and accounting for Mortgage Pipeline Hedging
    1) Interest Rate Lock Commitments
    2) Forward Mortgage Loan Sales Commitments
    3) Closed Loans Held for Sale
2) Valuation and accounting for Retained Mortgage Servicing Rights
    1) Credit Enhancement Fee Receivable & Obligation Liability
3) Regulatory Capital & Reporting Requirements
    1) MPF® program

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TODAY’S PRESENTERS

Eric Nokken

Mr. Nokken has over twenty years of experience in the financial services industry and has been with Wilary Winn since 2004.

Mr. Nokken leads Wilary Winn’s mortgage banking activities line of business. Eric’s team provides mortgage servicing rights valuations on portfolios that range in size from $4 million to over $4 billion for more than 375 clients across the country. Eric is an expert in the accounting and regulatory reporting related to mortgage banking activities, including interest rate lock commitment and forward loan sale commitment derivatives, as well as mortgage servicing rights.

Mr. Nokken also values commercial servicing rights, SBA servicing rights and gain on sale calculations related to SBA loan sales as well as auto, home equity and HELOC servicing related to loan sale participations.

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TODAY'S PRESENTERS

Anneliese Ramin

In her role as a senior manager, Ms. Ramin leads analysts performing valuations of residential mortgage servicing rights portfolios, commercial servicing rights, Small Business Association (SBA) servicing rights, gain on sale calculations related to SBA loan sales, and trust preferred collateralized debt obligations. She also works to build these business lines, ensure the work is properly staffed, and mentor our team of financial analysts.

Anneliese joined Wilary Winn in 2015. She has a bachelor's degree in actuarial science from the University of Wisconsin-Eau Claire.

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MORTGAGE PIPELINE HEDGING

Mortgage Pipeline Hedging

Guidance

- Interagency advisory on mortgage banking – February 2003
- Interagency advisory on accounting and reporting for commitments to originate and sell mortgage loans – May 2005
- OCC Comptroller's Handbook Mortgage Banking – February 2014

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Mortgage Pipeline Hedging

Interagency Advisory on Accounting and Reporting for Commitments to Originate and Sell Mortgage Loans

Provides guidance on accounting and reporting for commitments to:

- Originate mortgage loans that will be held for resale; and
- Sell mortgage loans under mandatory and best-efforts sales contracts

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Mortgage Pipeline Hedging

Interest Rate Lock Commitments ("IRLCs")

- Interest rate lock in commitments on mortgage loans that will be held for resale are derivatives

- Commitments to originate mortgage loans to be held for investment and other types of loans are generally not derivatives

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Mortgage Pipeline Hedging

Types of IRLCs

- Lock ins for fixed rate loans
- Lock ins for adjustable-rate loans
- Commitments with floating rates

Mortgage Pipeline Hedging

IRLC Valuation Components

- Loan amount
- Interest rate
- Price of the loan at valuation date
- Value of servicing
- Discount points
- Direct origination fees and costs

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Mortgage Pipeline Hedging

IRLC Valuation Example

Loan Amount	$250,000
Price to the borrower at lock-in:	Par or 100
Locked Interest Rate	5.250%
Market Interest Rate	4.875%
Sales Price (locked with investor)	101.50
Value of Servicing	0.909% or $2,273
Projected Origination Costs	1.000% or $2,500

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Mortgage Pipeline Hedging

IRLC Valuation Example

		Inception	Rates Increase 50 bp	Loan Has Been Processed	Rates Drop 100 bp	Loan Has Been Approved	Loan at Close
Loan Amount	(A)	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000
Lock In Interest Rate		5.250%	5.250%	5.250%	5.250%	5.250%	5.250%
Market Interest Rate		4.875%	5.375%	5.375%	4.375%	4.375%	4.375%
Market Value	(B)	101.500%	99.500%	99.500%	103.500%	103.500%	103.500%
Servicing Value	(C)	0.909%	0.909%	0.909%	0.909%	0.909%	0.909%
Origination Costs	(D)	1.000%	1.000%	0.500%	0.500%	0.250%	0.000%
Borrower Price	(E)	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%
Value as a Percent of Loan (B) + (C) - (D) - (E)	(F)	1.409%	-0.591%	-0.091%	3.909%	4.159%	4.409%
Dollar Value (A) * (F)	(G)	$ 3,523	$ (1,477)	$ (227)	$ 9,773	$ 10,398	$ 11,023
Pull-through Percentage	(H)	30.00%	30.00%	60.00%	60.00%	80.00%	100.00%
Net Value (G) * (H)	(I)	$ 1,057	$ (443)	$ (136)	$ 5,864	$ 8,319	$ 11,023
Value Recorded		$ 1,057	$ (1,500)	$ 307	$ 6,000	$ 2,455	$ 2,705

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Mortgage Pipeline Hedging

Other Valuation Considerations

- Changes in interest rates can also affect the value of the servicing asset
- Pull-through assumptions in the marketplace are more complex than the simplified example

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Mortgage Pipeline Hedging

Factors Affecting Pull-through and the Hedge

- Market interest rates
- Type of origination – retail or wholesale
- Length of lock
- Purpose of loan – purchase or refinance
- Type of loan – fixed or variable
- Processing status of loan

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Mortgage Pipeline Hedging

Types of Sales Commitments

- Mandatory delivery
- Best efforts delivery
- Master agreements

Polling Question #1

Mortgage Pipeline Hedging

Mandatory Delivery Commitment

An institution commits to deliver a certain amount of loans to an investor at a specified price on or before a specified date

Requires a pair-off fee based on then current market prices to compensate investor for any shortfall

Examples:

- FHLB/FNMA/FHLMC cash window
- MBS TBAs
- MBS Assignment of Trade (AOTs)

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Mortgage Pipeline Hedging

Cash Versus MBS Pricing Components

Cash Price Components

- Commitment price
- Interest rate
- Type of loan
- Loan term
- Loan level price adjustors
- Servicing

MBS Pricing Components

- Market price
- Guarantee fee
- Buyups and buydowns
- Pooling considerations

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Mortgage Pipeline Hedging

Mandatory Delivery Contracts are Derivatives

- Has a “specified underlying” – the specified price
- Requires little or no initial net investment
- Has a “notional amount” – the principal amount of the loan
- Requires or permits net settlement by paying a pair-off fee based on then current market prices
- Is a derivative

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Mortgage Pipeline Hedging

Best Efforts Delivery Commitments

- An institution commits to deliver an individual loan of a specified principal amount and quality to an investor if the loan to the underlying borrower closes
- Generally not considered a derivative until the loan closes because it does not meet the net settlement criteria
- The result is that the change in the value of best-efforts contracts will not offset the change in the value of the IRLCs for accounting purposes unless fair value is elected
- An institution will want to elect fair value if they want a “hedge” against the fluctuation in the value of the IRLC

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Mortgage Pipeline Hedging

Value of Forward Loan Sale Commitment

		Inception	Rates Increase 50 bp	Loan Has Been Processed	Rates Drop 100 bp	Loan Has Been Approved	Loan at Close
Loan Amount	(A)	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000
Lock In Interest Rate		5.250%	5.250%	5.250%	5.250%	5.250%	5.250%
Market Interest Rate		4.875%	5.375%	5.375%	4.375%	4.375%	4.375%
Market Value	(B)	101.500%	99.500%	99.500%	103.500%	103.500%	103.500%
Servicing Value	(C)	0.909%	0.909%	0.909%	0.909%	0.909%	0.909%
Sales Price including SRP	(D)	102.409%	102.409%	102.409%	102.409%	102.409%	102.409%
Value as a Percent of Loan (D) - (B) - (C)	(E)	0.000%	2.000%	2.000%	-2.000%	-2.000%	-2.000%
Dollar Value (A) * (E)	(F)	$ -	$ 5,000	$ 5,000	$ (5,000)	$ (5,000)	$ (5,000)
Pull-through Percentage	(G)	30.00%	30.00%	60.00%	60.00%	80.00%	100.00%
Net Value (F) * (G)	(H)	$ -	$ 1,500	$ 3,000	$ (3,000)	$ (4,000)	$ (5,000)
Value Recorded		$ -	$ 1,500	$ 1,500	$ (6,000)	$ (1,000)	$ (1,000)

Mortgage Pipeline Hedging

Netting of Derivatives for Reporting Purposes

- May net gains and losses of individual derivative commitments only under certain conditions, generally only under the legal right of offset

- The value of sales commitments covering the pipeline may not be netted against the value of the IRLCs, they must be reported separately

- The value of sales commitments covering the warehouse may not be netted against the value of the warehouse loans, they must be reported separately

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Mortgage Pipeline Hedging

Closed Loans Held for Sale

- Loans Held for Sale ("LHFS") are reported at lower of cost or market unless fair value is elected

- An institution will want to elect fair value if they want a "hedge" against the fluctuation in the value of the mandatory commitment

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MORTGAGE SERVICING RIGHTS

MSR – Valuation Considerations

Retained Mortgage Servicing Rights

- MSRs are a modified interest only strip
- Many types of underlying loans
- Value varies significantly by type of MSR

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MSR Valuation

Interagency Advisory on MSRs

- Requires comprehensive documentation of valuation process
- Valuation must be based on reasonable and supportable assumptions and major changes to assumptions must be approved
- Compare assumptions to actual results
- Use appropriate amortization and recognize impairment timely

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MSR – Valuation Considerations

Valuation Inputs & Loan Performance

- Loan amount
- Servicing fee percentage – varies by investor and type of loan
- Costs to service – market costs
- Expected loan life
  - Loan term
  - Prepayment
- Delinquency rates
- Foreclosure losses – recourse versus non-recourse
- Ancillary income
- Float Income on P&I payments and escrow payments
- Discount rate

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MSR Valuation Inputs

Input Considerations

- Servicing fees are earned monthly based on remaining principal balance
- Servicing costs should be based on the market and calculated in dollars per loan not in basis points
- Ancillary income includes late fees, insurance income and other fees earned
- Float and escrows (impounds) add value

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Polling Question #2

MSR Valuation Inputs

Range of Valuation Inputs

Ancillary Income	Low	High	Average	Median
FNMA / FHLMC				
Fixed	3.71	41.22	26.01	25.84
ARM	9.06	42.79	27.45	29.42
GNMA				
Fixed	6.41	55.00	34.42	36.21
ARM		Data Not Received		
Discount Rate				
FNMA / FHLMC				
Fixed	7.70%	9.63%	8.93%	9.13%
ARM	7.70%	13.00%	9.96%	9.50%
GNMA				
Fixed	9.10%	12.50%	10.49%	10.10%
ARM		Data Not Received		
Servicing Costs				
FNMA / FHLMC				
Fixed	38.83	137.41	66.21	64.53
ARM	35.79	137.50	69.23	67.72
GNMA				
Fixed	50.80	137.45	77.49	75.29
ARM		Data Not Received		

PWC Summary as of May 31, 2022

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MSR Valuation

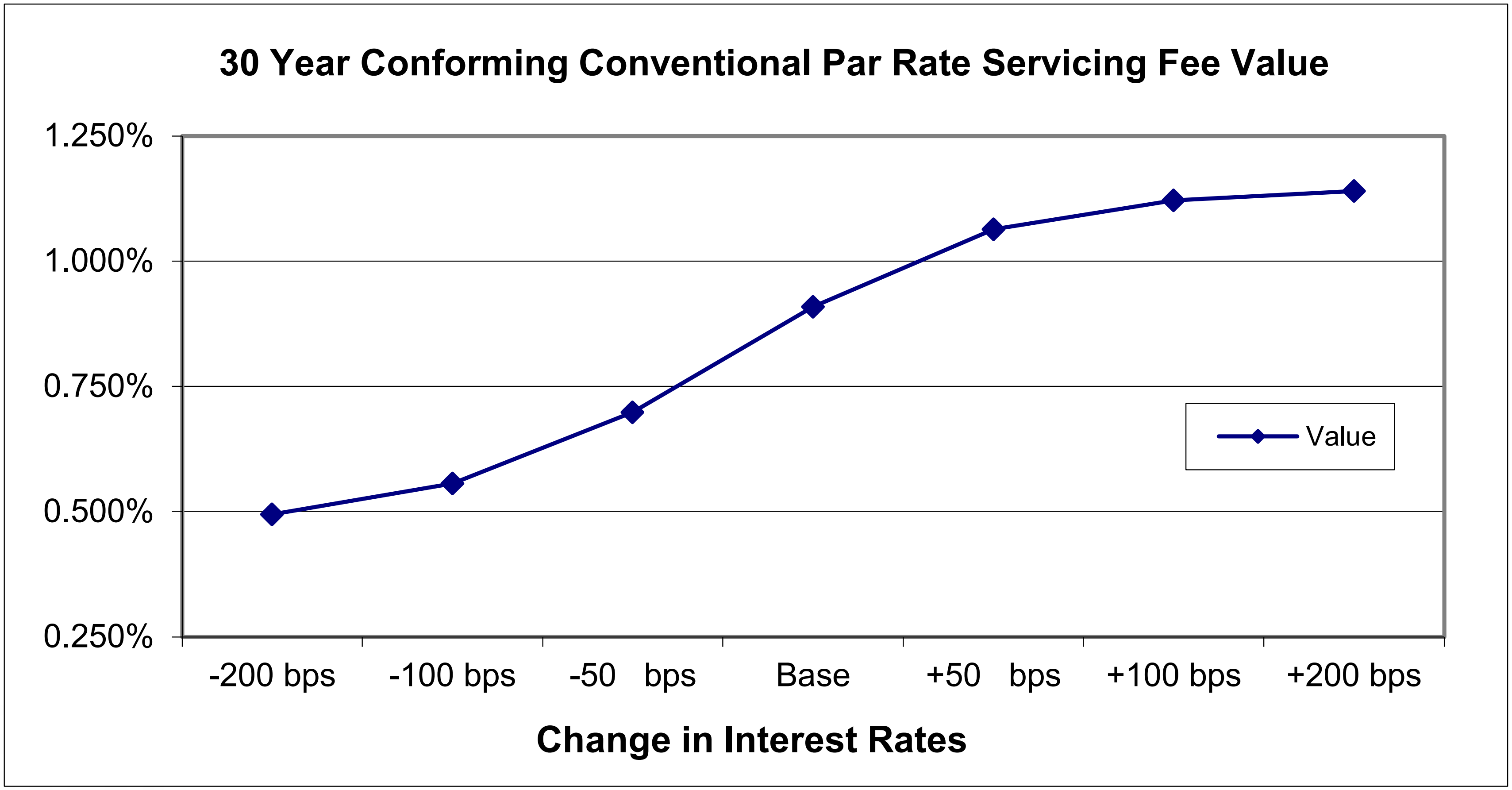
Input Sensitivity

	Value	Change	% Change
Base	0.909%		
Prepayments increase 30%	0.794%	-0.115%	-12.7%
Servicing costs increase 30%	0.874%	-0.035%	-3.9%
Delinquencies increase 30%	0.908%	-0.002%	-0.2%
Discount rate increases 30%	0.836%	-0.073%	-8.0%

Source: Wilary Winn, July 31, 2022

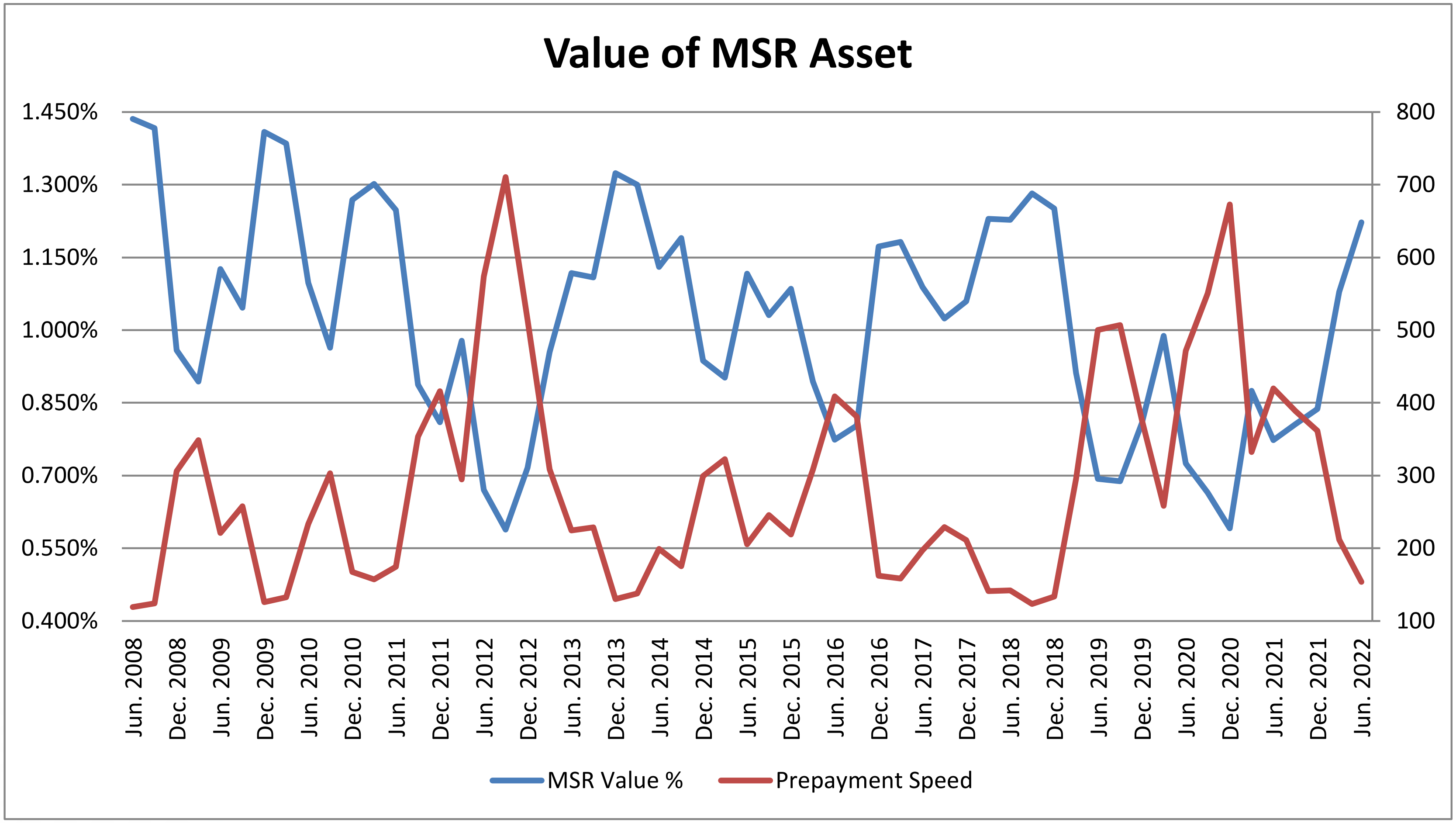
LOAN SERVICING

Value of Servicing



LOAN SERVICING

Value of Servicing



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MSR Valuation

Stochastic Modeling

- Supply prices to solve for option adjusted spread ("OAS") with a Monte Carlo Simulation
- Works best with residential mortgage loans and securities
- Interest rate movement is random
- Multiple simulations (thousands) of interest rate movements are performed for estimating probability distributions

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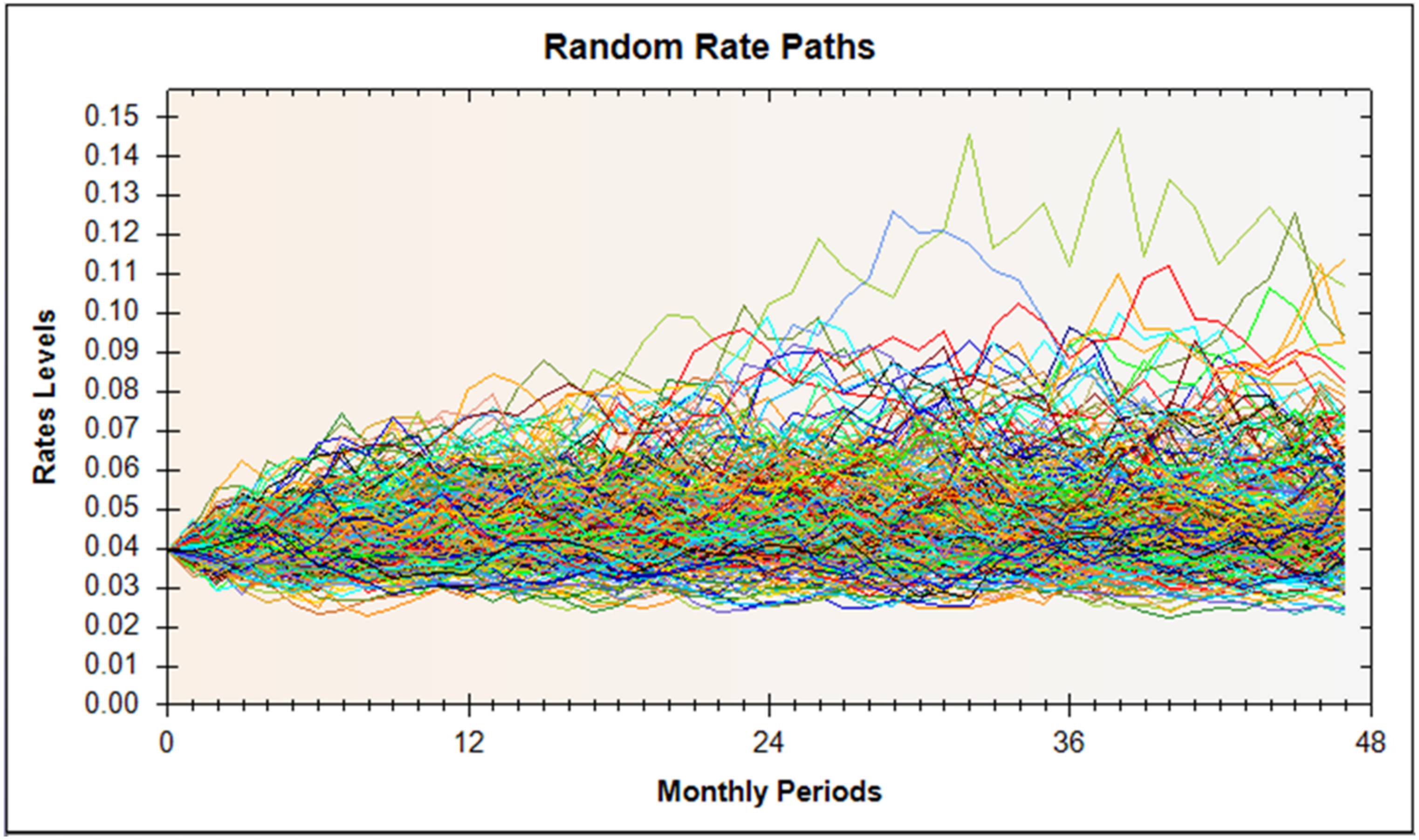
MSR Valuation

Random Paths Assuming a 4% Starting Rate and a Mean Reversion Method

OAS Example



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MSR Valuation

OAS Advantages

- Use of a probabilistic model consistent with the current term structure of interest rates and the assumed level of volatility
- Development of explicit pricing and valuation for embedded options, such as the prepayment option
- Use of simulation methodology that is more theoretically sound, approximating the methodologies used to value hedge instruments and mortgage securities

MSR Valuation

OAS Disadvantages

- Lack of precise market prices for specific MSAs. The OAS used in the model, like the discount rate used in static analysis, is arbitrary

- Requirement of more resources than static analysis in terms of computing power, software, and model sophistication

- Lack of set standards for OAS computation. OAS model results are highly dependent on input assumptions such as volatility, prepayment speed, default rates, inflation, the appropriate risk-free rate (Treasury or SOFR), and the setting of model parameters, all of which can result in different OAS and MSA values

- Lack of consistency in OAS model methodology that may result in asset valuation differences

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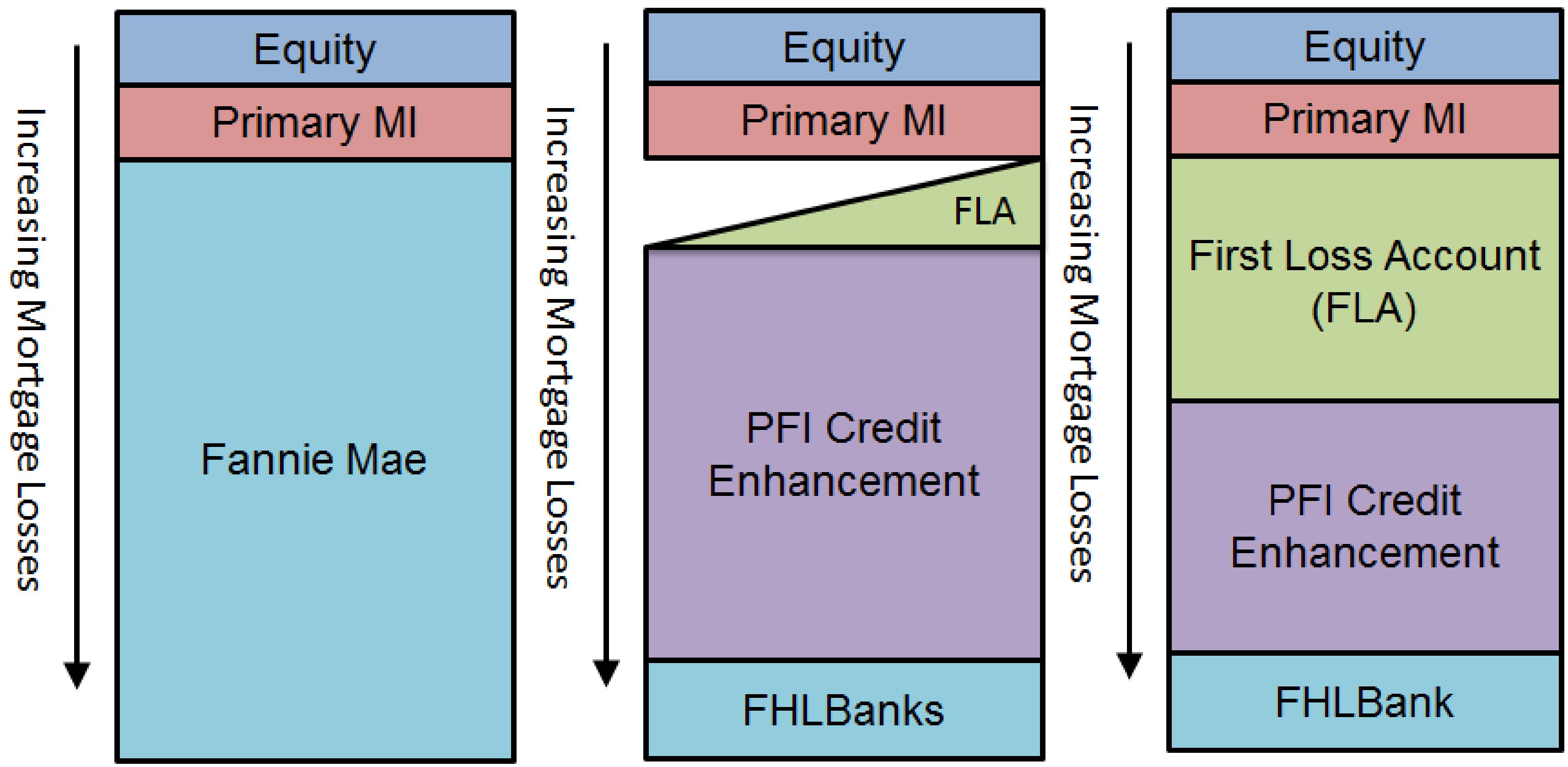
Credit Enhancement Fees Receivable & Credit Enhancement Obligation Liabilities

MORTGAGE PARTNERSHIP FINANCE PROGRAM

Structure Detail

MPF Xtra	MPF Original	MPF 125
Loss Absorption Profile	**Loss Absorption Profile**	**Loss Absorption Profile**



MORTGAGE PARTNERSHIP FINANCE PROGRAM

MPF Program Structure Detail

- Provides equal access to secondary market opportunities
- MPF Xtra – access secondary market liquidity, minimize interest rate and prepayment risk, transfer loan credit risk to the investor.
- MPF Traditional – be rewarded for originating quality conventional loans that perform over time
    - MPF Government – sell fixed-rate mortgage loans insured or guaranteed by government agencies including FHA, VA, RHS Sec. 502, HUD Sec. 184

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MORTGAGE PARTNERSHIP FINANCE PROGRAM

CE Recourse Liability VS. CE Recourse Obligation Amount

- The CE Recourse Obligation amount is related to the amount of risk based capital that a PFI must hold for regulatory purposes for loans delivered under the program

- The CE Recourse Liability is related to properly accounting for the loans delivered under the program per Generally Accepted Accounting Principles

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ACCOUNTING FOR RETAINED SERVICING

MORTGAGE SERVICING RIGHTS

Accounting Implications

- Accounting and reporting for MSRs is set for in FAS ASC 860-50

Existence of Servicing – FAS ASC 860-50-25-1

- A servicing asset or liability arises each time an institution undertakes an obligation to service a financial asset by entering into a servicing contract in connection with –
  1. a transfer that meets the requirements for true sale or
  2. the acquisition or assumption of a servicing obligation not related to the financial assets of the servicer

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MORTGAGE SERVICING RIGHTS

MSR Asset or Liability – FAS ASC 860-50-30

The benefits of the servicing, including the servicing fees, ancillary income, float, etc. must exceed “adequate compensation” in order to have a servicing asset. If not, the servicer has a liability.

Adequate compensation includes a profit and is determined by the marketplace. It is based on marketplace costs, not the servicer’s internal costs.

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MORTGAGE SERVICING RIGHTS

Initial Recording

- Servicing assets and liabilities must be reported separately
- A servicing asset can become a servicing liability over its life and vice versa

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MORTGAGE SERVICING RIGHTS

Initial Recording

- Record MSR at fair value – quoted price for exact or similar asset would be best – discounted cash flow can be used in the absence of trade information

- Industry believes MSRs are Level 2 or Level 3 assets based on a discounted cash flow model

- Value excess servicing separately - true IO
  - Creation of the IO does not violate true sale, if part of overall consideration for the 100% sale of the loan

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MORTGAGE SERVICING RIGHTS

How to Account for the MSR After the Initial Recording

- FAS ASC paragraph 860-50-35-1 allows the asset to be measured and reported in one of two ways:
    1. Fair Value Method
    2. Amortization Method

- A servicer can select either method but cannot switch methodologies unless it moves to the Fair Value method at the beginning of the fiscal year before interim financial statements have been released. A servicer cannot go back to the amortization method after it has elected Fair Value.

Polling Question #3

MSR Accounting

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
- Institutions that hedge their servicing rights portfolios can benefit from the fair value method because the accounting is less complex than under FAS ASC Topic 815 – Derivatives and Hedging. Institutions that do not hedge their portfolios and that elect the fair value method could experience earnings volatility.

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MSR Accounting

Amortization Method

Amortize the MSR in proportion and over the period of estimated net servicing income (level yield method) and assess servicing assets for impairment based on fair value at each reporting date.

MSR Impairment

Impairment Considerations

- Impairment is best measured at the loan level and is reported at the predominant risk characteristic stratum
- There is a difference between temporary impairment, which is accounted for through an allowance and permanent impairment, which requires a direct write-off

MSR Impairment

ABC Bank Servicing Portfolio as of June 30, 2022

		Principal Balance	# of Loans	Avg. Loan Size	WAC	WAM	Age	Avg Life	Service Fee	T&I Total	Prepayment PSA	Lifetime CRR%	Servicing Multiple	Fair Value %	Fair Value $	Book Value $	Fair Value - Book Value	Bal. Sheet Impact
40 & 30 year	less than 4.000%	143,008,629	495	288,906	3.152%	339	21	8.01	0.250%	180,762	137	7.953%	4.9	1.215%	1,737,334	1,399,386	337,949	-
	4.000% - 6.000%	18,146,576	76	238,771	4.545%	330	30	7.06	0.250%	26,764	184	10.122%	4.5	1.116%	202,464	151,803	50,661	-
	greater than 6.000%	372,000	1	372,000	6.375%	360	-	4.63	0.250%	-	395	17.872%	3.3	0.833%	3,099	3,906	(807)	(807)
	Total 40 & 30 year	161,527,204	572	282,390	3.316%	338	22	7.89	0.250%	207,525	143	8.220%	4.8	1.203%	1,942,897	1,555,094	387,802	(807)
20 year	less than 3.750%	14,517,205	52	279,177	2.836%	220	20	6.29	0.250%	13,413	133	7.767%	4.2	1.040%	150,934	100,420	50,513	-
	3.750% - 5.750%	447,432	2	223,716	3.819%	214	26	6.07	0.250%	1,074	160	8.386%	4.4	1.091%	4,882	3,498	1,384	-
	greater than 5.750%	-	-	-	0.000%	-	-	-	0.000%	-	0	0.000%	0.0	0.000%	-	-	-	-
	Total 20 year	14,964,637	54	277,123	2.865%	220	20	6.28	0.250%	14,487	134	7.786%	4.2	1.041%	155,816	103,918	51,898	-
15 year	less than 3.250%	27,688,207	122	226,953	2.481%	160	20	4.81	0.250%	24,668	150	8.536%	3.4	0.846%	234,272	214,077	20,195	-
	3.250% - 5.250%	1,637,545	9	181,949	3.515%	148	32	4.34	0.250%	734	186	9.666%	3.0	0.738%	12,089	12,418	(329)	(329)
	greater than 5.250%	-	-	-	0.000%	-	-	-	0.000%	-	0	0.000%	0.0	0.000%	-	-	-	-
	Total 15 year	29,325,751	131	223,861	2.539%	159	21	4.78	0.250%	25,401	152	8.599%	3.4	0.840%	246,361	226,495	19,866	(329)
10 year	less than 3.000%	1,762,433	15	117,496	2.246%	102	18	3.46	0.250%	3,560	147	8.303%	2.6	0.638%	11,246	6,179	5,067	-
	3.000% - 5.000%	-	-	-	0.000%	-	-	-	0.000%	-	0	0.000%	0.0	0.000%	-	-	-	-
	greater than 5.000%	-	-	-	0.000%	-	-	-	0.000%	-	0	0.000%	0.0	0.000%	-	-	-	-
	Total 10 year	1,762,433	15	117,496	2.246%	102	18	3.46	0.250%	3,560	147	8.303%	2.6	0.638%	11,246	6,179	5,067	-
Total excluding ARMs		207,580,026	772	268,886	3.165%	302	22	7.30	0.250%	250,973	143	8.243%	4.5	1.135%	2,356,319	1,891,687	464,632	(1,136)
	ARMs	582,325.65	2	291,163	3.465%	347	13	3.24	0.250%	650	400	23.972%	2.4	0.601%	3,499	1,289	2,211	-
Grand Total		208,162,352	774	268,944	3.165%	303	22	7.29	0.250%	251,623	144	8.287%	4.5	1.134%	2,359,818	1,892,975	466,843	(1,136)
																	Existing Impairment Reserve	(86,739)
																	(Additional) / Excess Impairment	85,603

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MSR Impairment

Managing Runoff Risk

- The operational / macro hedge
- Hedge with positive convexity instruments
- Utilize appropriate amortization methodology

MORTGAGE SERVICING RIGHTS

FFIEC Call Report Requirements for MSRs – Form 041

1. Total volume of loans sold - Schedule RC-S, item 11A and RC-S, Memoranda, item 2a (with recourse) or item 2b (without recourse)
2. Book value of retained servicing – RC-M, Memoranda, item 2a
3. Estimated fair value of retained servicing – RC-M, Memoranda, item 2a(1)
4. Gain or Loss on loan sales for the quarter should be reported on Schedule RI, item 5i
5. Net servicing fees for the quarter should be reported on Schedule RI, item 5f

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MORTGAGE SERVICING RIGHTS

FFIEC Call Report Requirements for Mortgage Banking Activities – Form 041

Schedule RC-P – 1-4 Family Residential Mortgage needs to be completed if the following is true:

1. The Bank at which either 1-4 family residential mortgage loan originations and purchases for resale from all sources, loan sales, or quarter-end loans held for sale exceed $10 Million for two consecutive quarters.

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MORTGAGE SERVICING RIGHTS

FFIEC Call Report Requirements for MSRs – Form 051

1. Schedule SU
   a. Item 5 – Servicing Retained with Recourse – YES
   b. Item 5 a. – Outstanding UPB of loans sold with recourse
   c. Item 6 – Servicing Retained without Recourse – YES
   d. Item 6 a. – Outstanding UPB of loans sold without recourse
2. Book value of retained servicing – RC-M, Memoranda, item 2a
3. Estimated fair value of retained servicing – RC-M, Memoranda, item 2a(1)
4. Gain or Loss on loan sales for the quarter should be reported on Schedule RI, item 5i
5. Net servicing fees for the quarter should be reported on Schedule RI, item 5f

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FFIEC Call Report Requirements for MSRs – Form 051

Schedule SU – 1-4 Family Residential Mortgage Banking Activities

1. Item 2 – For 2 calendar quarters preceding the current quarter did the institution meet one or both of the following mortgage banking activity thresholds: 1. Sales of 1-4 family residential mortgage loans during the calendar quarter exceeded $10 million, or 2. 1-4 family residential mortgage loans held for sale or trading as of calendar quarter-end exceeded $10 million?
2. Item 2 a. Principal amount of 1-4 family residential mortgage loans sold during the quarter
3. Item 2 b. Quarter-end amount of 1-4 family residential mortgage loans held for sale or trading.

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NCUA 5300 Call Report Requirements for MSRs

1. Servicing fees are included in Non-Interest Income – Page 5, line 13
2. Loan servicing expenses are included in Non-Interest Expense – Page 5, line 29
3. Total amount of 1st mortgage loans sold into the secondary market year-to-date is reported on Schedule A, Section 6, Account 736
4. Amount of real estate loans sold but serviced by the credit union (dollar amount of servicing) is reported on Schedule A, Section 6, Account 779A
5. The MSR book value is reported on Page 2, Line 22, Account 779
6. MSR book value is risk weighted at 250% under the new risk-based capital rule

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Accounting for Credit Enhancement Fees Receivable & Credit Enhancement Obligation Liabilities

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Recording of the CE Obligation Liability

Record the CE Recourse Liability and the CE Fee Receivable at their fair values

Record CE Recourse Liability equal to CE Fee Receivable – FAS ASC 460-10 Practical Expedient

MORTGAGE PARTNERSHIP FINANCE PROGRAM

FFIEC Call Report Requirements for CE Obligation Liability

BASEL III

- “The agencies believe that these exposures that tranche credit risk meet the definition of a synthetic securitization and that the risk of such exposures would be appropriately captured under the securitization framework.” (pg. 346)

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MORTGAGE PARTNERSHIP FINANCE PROGRAM

Calculating Risk Weight Assets Related to the MPF Program

- Gross up method under general risk-based capital rules
- Simplified Supervisory Formula Approach (SSFA)
- Multiply the CE Obligation by 12.5 (dollar for dollar capital impact)
- Supervisory Formula Approach (SFA) (for largest institutions only – advanced approaches)

The SSFA and gross up method approaches are subject to a risk-weighted assets floor of 20%

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Master Commitment Detail Report

MPF® Program
Master Commitment Detail Report
Through May 2022

Report Date: 06/01/2022

Outstanding balance totals do not reflect the additional amounts owed as a result of approved Payment Deferral Plans.

PFI:

Credit Enhanced Master Commitments for

Master Commitments where Originating PFI and CE Obligation Owner is

MC#	MPF Product	Outstanding Balance of All Loans Sold	Remaining FLA	Remaining FLA as a % of Outstanding Balance	Remaining CE Obligation	Remaining CE Obligation as a % of Outstanding Balance	Outstanding Balance Excluding Loans 90+ Days Past-Due	Outstanding Balance of Loans 90+ Days Past-Due Amount (Count)	Loans 90+ Days Past-Due as a % of Outstanding Balance	Servicing Rights
10562	ORIG	$1,615,968	$52,051	3.22 %	$40,230	2.49 %	$1,615,968	$0 (0)	0.00 %	Retained
10905	125	$4,966,926	$319,519	6.43 %	$43,132	0.87 %	$4,966,926	$0 (0)	0.00 %	Retained
11778	125	$16,126,053	$1,156,866	7.17 %	$161,470	1.00 %	$15,959,714	$166,339 (2)	1.03 %	Retained
14282	125	$14,886,722	$972,190	6.53 %	$3,189,222	21.42 %	$14,574,832	$311,890 (2)	2.10 %	Retained
15987	125	$3,820,156	$260,427	6.82 %	$1,120,690	29.34 %	$3,820,156	$0 (0)	0.00 %	Retained
16715	125	$29,617,311	$751,741	2.54 %	$1,872,460	6.32 %	$28,689,905	$927,406 (4)	3.13 %	Retained
18052	125	$11,757,548	$143,764	1.22 %	$118,815	1.01 %	$11,733,381	$24,167 (1)	0.21 %	Retained

Master Commitments where CE Obligation was Assumed from Others by

No Master Commitments meet the criteria

Totals for 7 MCs:		**$82,790,684**	**$3,656,558**		**$6,546,019**		**$81,360,882**	**$1,429,802 (9)**		

Master Commitments for where the Credit Enhancement Obligation was Transferred and for non-Credit Enhanced Products

Master Commitments where CE Obligation was Transferred to Others by

No Master Commitments meet the criteria

Master Commitments for Non-Credit Enhanced Products for

MC#	MPF Product	Outstanding Balance of All Loans Sold	Outstanding Balance of Loans 90+ Days Past-Due Amount (Count)	Servicing Rights
12092	MPF Xtra®	$39,563,224	$938,668 (3)	Retained
12303	MPF Xtra®	$172,058	$0 (0)	Retained
Totals for 2 MCs:		**$39,735,282**	**$938,668 (3)**	

MORTGAGE PARTNERSHIP FINANCE PROGRAM

Gross-Up Method – Five Inputs

- Pro-rata share – for MPF CE obligation 100%
- Exposure amount – CE obligation amount
- Enhanced amount – Balance of sold loans in excess of the CE obligation amount
- Applicable risk weight – 50% for loans that are current and 100% for non-current loans
- First Loss Account – The amount of the FLA is deducted before multiplying the balance by the Applicable Risk Weight result

If a bank elects the gross-up method, it must use it for all of its securitization exposures.

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MORTGAGE PARTNERSHIP FINANCE PROGRAM

Gross-Up Method – Calculation Example

- Pro-rata share – 100%
- Outstanding Amount – **$42,669,125**
- Exposure amount – CE obligation amount - **$298,693**
- First Loss Account amount - **$442,822**
- Enhanced amount – Balance of sold loans in excess of the CE obligation amount – **$42,370,432**
- Delinquent loans – **$640,037 (1.50%)**
- Applicable risk weight – 50% for loans that are current and 100% for non-current loans – (1 - 1.50%)*0.5 + 1.50% = **50.75%**
- Risk Weighted Assets = 50.75% * ($42,669,125 - $442,822) or **$21,429,849**

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MORTGAGE PARTNERSHIP FINANCE PROGRAM

SSFA Method – Calculator

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BASEL III SSFA Calculator for the FHLB MPF Program

Enable Macros before using the Calculator

Instructions | Contact Wilary Winn | Reset Calculator

MPF Program	100/125
Dollar Amount of Sold and Outstanding	42,669,125
Dollar Amount of CE Obligation	298,693
Dollar Amount of First Loss Account	442,822
Dollar Amount of Loans Greater than 90 days Past Due	640,037

Calculate

https://wilwinn.com/resource/mpf-ssfa-calculator-2/

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BASEL III SSFA Calculator for the FHLB MPF Program

Instructions | Contact Wilary Winn | Calculator

Weighted Average Capital Requirement (KG) (%):	4.06%
Ratio of Delinquent Loans (90+ days) to Total Balance (%):	1.50%
Credit Enhancement Obligation (%):	0.70%
First Loss Account (%):	1.04%

View Definitions | View All Inputs

SSFA:	
Risk Weight	1250%
Total Increase to Risk-Weighted Assets $ Amt	3,733,663
Total Increase to Risk-Weighted Assets %	8.75%

Gross-Up:	
Risk Weight	50.75%
Total Increase to Risk-Weighted Assets $ Amt	21,429,849
Total Increase to Risk-Weighted Assets %	50.22%

CE times 1250%:	
Total Increase to Risk-Weighted Assets $ Amt	3,733,663
Total Increase to Risk-Weighted Assets %	8.75%

MORTGAGE PARTNERSHIP FINANCE PROGRAM

Gross-Up Method – Pros & Cons

Pros:

1. Benefits MCs with high CE balances and low DQs.
2. RWA should benefit as UPBs decrease
3. Easier calculation than the SSFA Method

Cons:

1. Calculations should be done at the MC level.
2. PFI must use Gross-Up Method for all MCs

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MORTGAGE PARTNERSHIP FINANCE PROGRAM

SSFA Method – Pros & Cons

Pros:

1. Benefits MCs with high FLA balances.
2. RWA should benefit as UPBs decrease

Cons:

1. Not “Simple”
2. Calculations should be done at the MC Level

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MORTGAGE PARTNERSHIP FINANCE PROGRAM

Risk Weight Capital

- For any individual Master Commitment, if multiplying the CE Obligation amount by 12.5 is a better result than either the SSFA or Gross-up method, the institution can hold dollar for dollar capital for said Master Commitment.
- An institution will report the most beneficial result to risk-based assets in RC-R line 10.
- See "Guide to Reporting Under Basel III for FHLB MPF Program Participants" document on the Wilary Winn website for specifics about RC-R reporting.

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MORTGAGE PARTNERSHIP FINANCE PROGRAM

Community Bank Leverage Ratio (CBLR)

- The Community Bank Leverage Ratio could potentially benefit MPF participants. The rule replaces risk-based capital with a simple leverage ratio for "eligible" community banks. Eligible banks would thus not have to consider the off-balance sheet exposure arising from the CE obligations in calculating required regulatory capital. However, the proposed rule limits the amount of MSAs and off-balance sheet exposures in order to be deemed eligible to use the leverage ratio.

- Wilary Winn has published a summary of the Community Bank Leverage Ratio rule on its website.

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Complex Credit Union Leverage Ratio (CCULR)

- The Complex Credit Union Leverage Ratio rule replaces risk-based capital with a simple leverage ratio for "eligible" credit unions ($500M+ in total assets). PFIs opting into the CCULR would no longer calculate the risk-weighted ratio in accordance with the 2015 risk-based capital rule. Under that rule, for loans transferred under the FHLB's MPF program, applying a 20 percent credit conversion factor to the net outstanding loans balance and then applying a 50 percent risk weight results in a risk-based capital requirement of 10% of the outstanding UPB of the commitments.
- For credit union's looking to adopt the CCULR, it must report the outstanding loan balance amount as an off-balance sheet securitization. Total combined off-balance sheet exposures cannot exceed 25 percent of total assets.

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MORTGAGE SERVICING RIGHTS

How Wilary Winn Can Help

1. Wilary Winn can perform a valuation of a servicer's entire mortgage servicing portfolio. The valuation will include determining the values of the MSR at the Loan Level and assisting with any questions related to the accounting for the portfolio. Similarly, we can calculate the value of the CE Fees Receivable and CE Obligation Liability at the loan level. We can also help you calculate the amount of risk-weighted assets your bank must hold related the CE Recourse Obligation Amount.
2. For those electing the amortization method for MSRs, Wilary Winn will incorporate the MSR into a loan level basis roll forward file, which provides the information necessary to produce the amortization journal entries going forward. The file includes a section where newly sold loans can be added and the amount of the new MSR is calculated; the amortization for these loans is also calculated. We can also provide similar ongoing accounting related the CE Fees Receivable and CE Obligation Liability.

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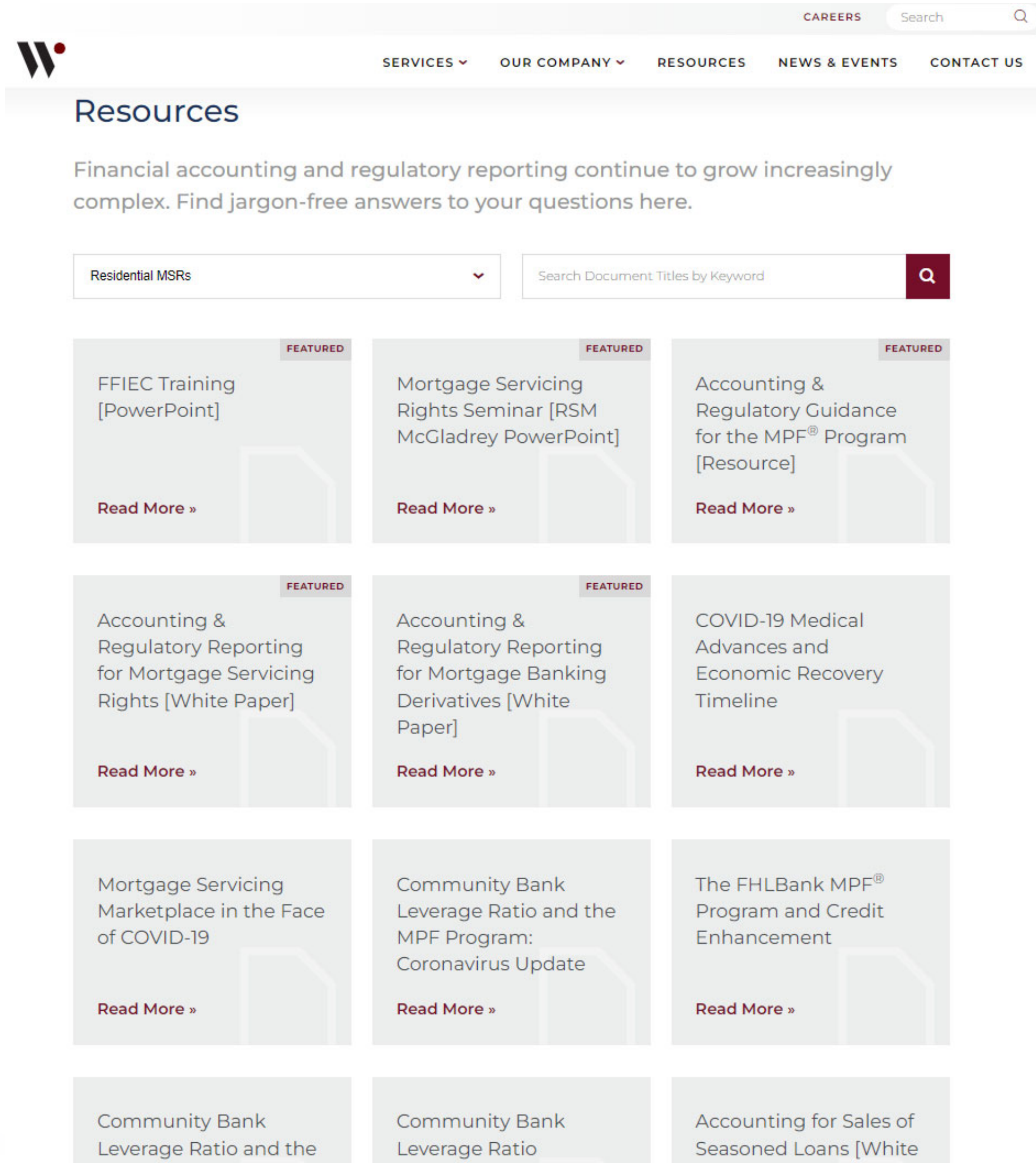
RESOURCES

Website

https://wilwinn.com/resources/



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Thank You
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