

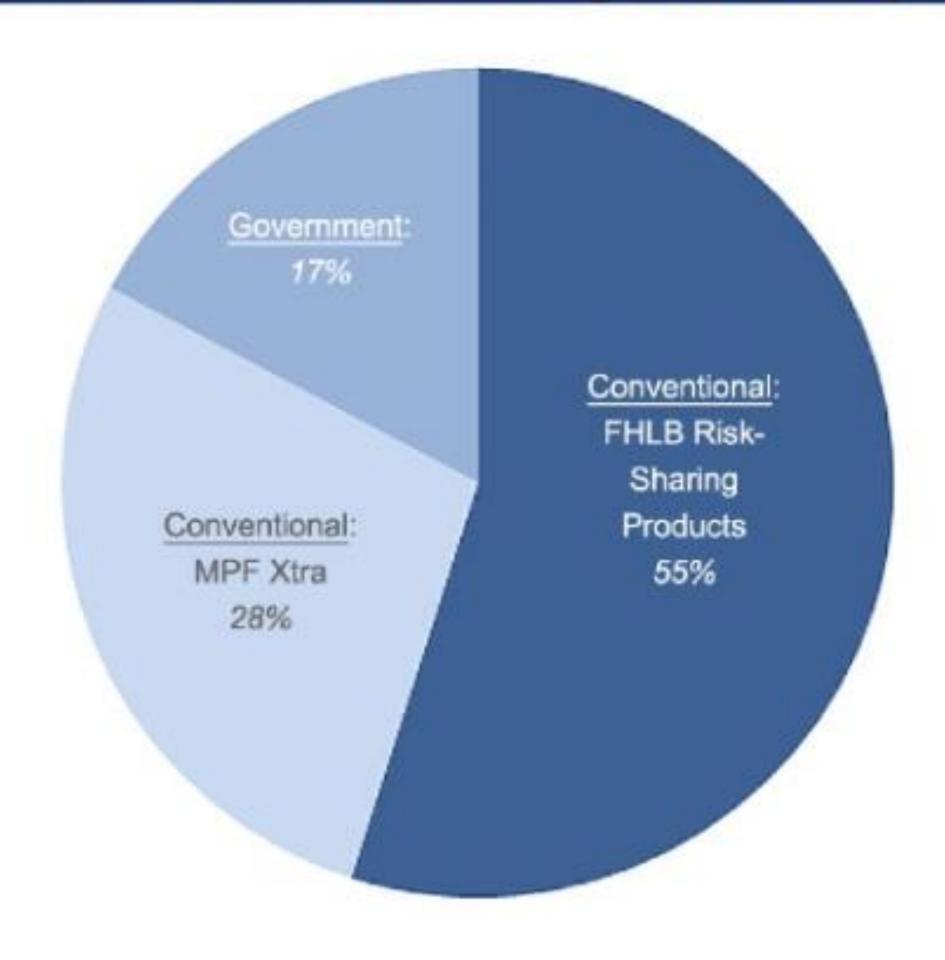
MPF Agenda

- MPF Credit Union Activity
- Xtra (FNMA)
- Traditional (Risk Sharing)
- Direct (Jumbo)



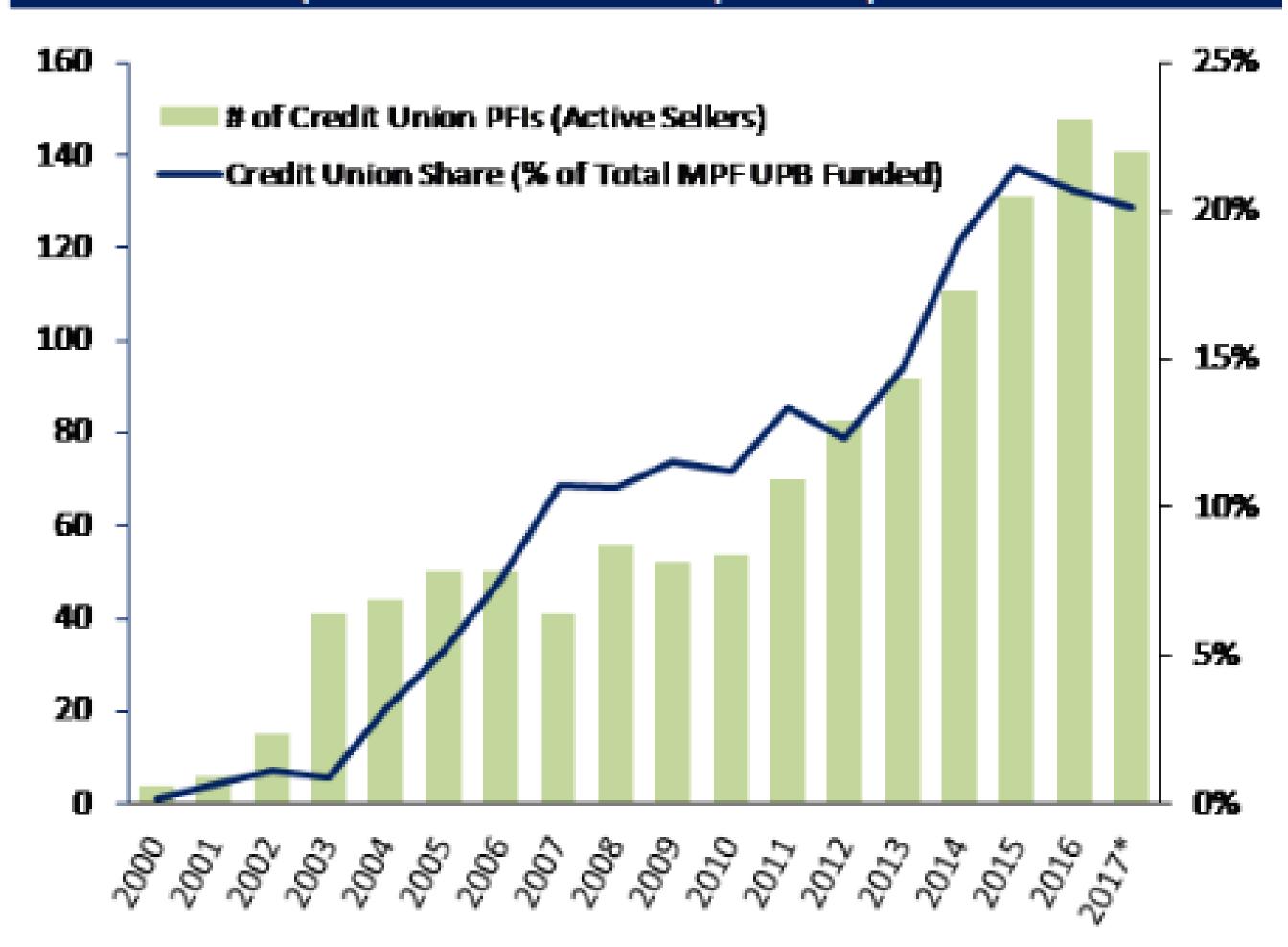
MPF Credit Union Activity

Breakout of MPF Product Usage (2015 - Present)



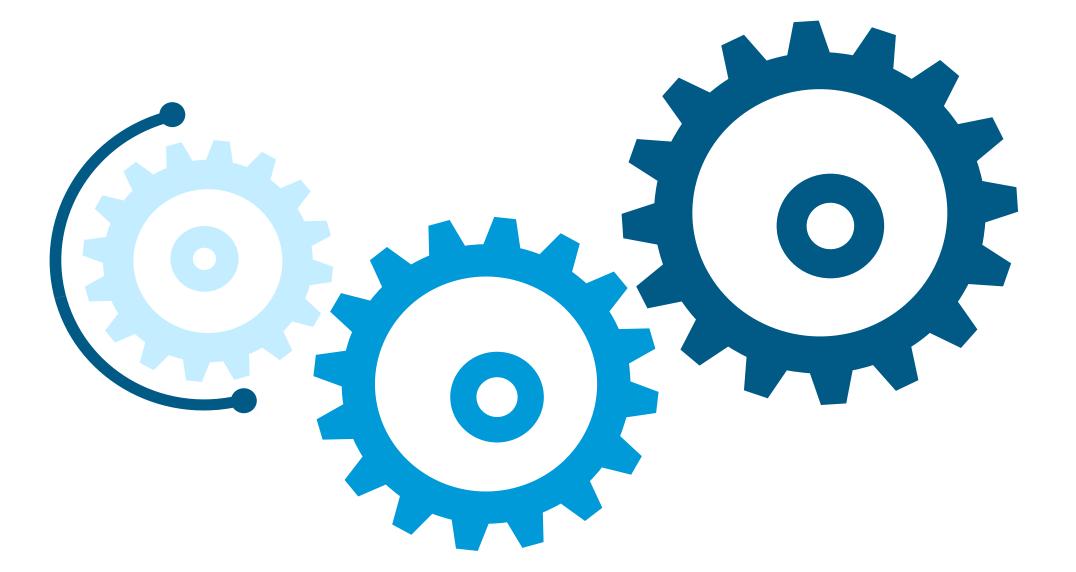
MPF Credit Union Activity - Annual Trend

PFI Participation and Share of Total Unpaid Principal Balance Funded



^{* 2017} figures represent year-to-date activity through June 2017.

MPF Xtra Direct Pass-Through To Fannie Mae



Investor: Fannie Mae (DU)

Loan types:

- Conventional
- Conforming
- Owner-occupied

Product Types

- Fixed rate
- 15, 20 and 30 years (Mandatory)
- 15, 20 and 30 years (Best Efforts)

Maximum LTV/TLTV: 97%

TLTV Exceptions Home\$tart DPA

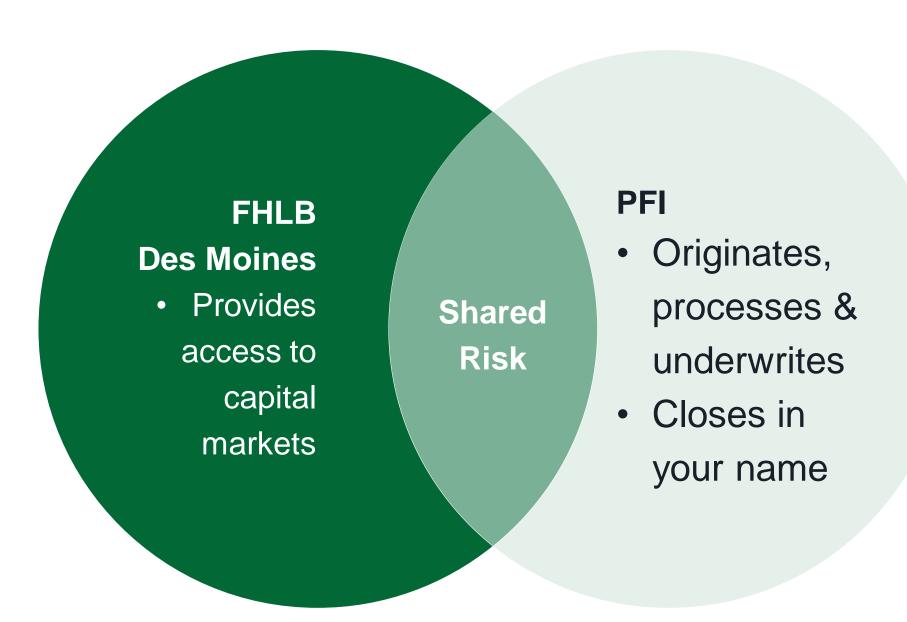
Minimum Credit Score: 620

Servicing Options:

Service Retained or Released



MPF Traditional Credit Risk Sharing For Additional Profitability



Investor: FHLB Des Moines

Loan Types:

- Conventional/Conforming
- 1-4 Unit Residential
- Owner-occupied primary/second homes

Desktop Underwriter (DU)

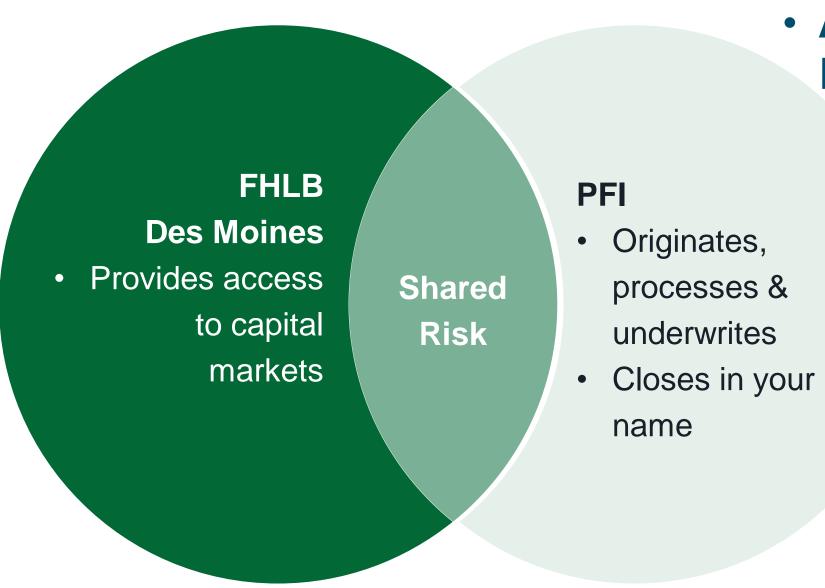
Maximum LTV: 95%

CLTV Exceptions Home\$tart DPA

Minimum Credit Score: 620



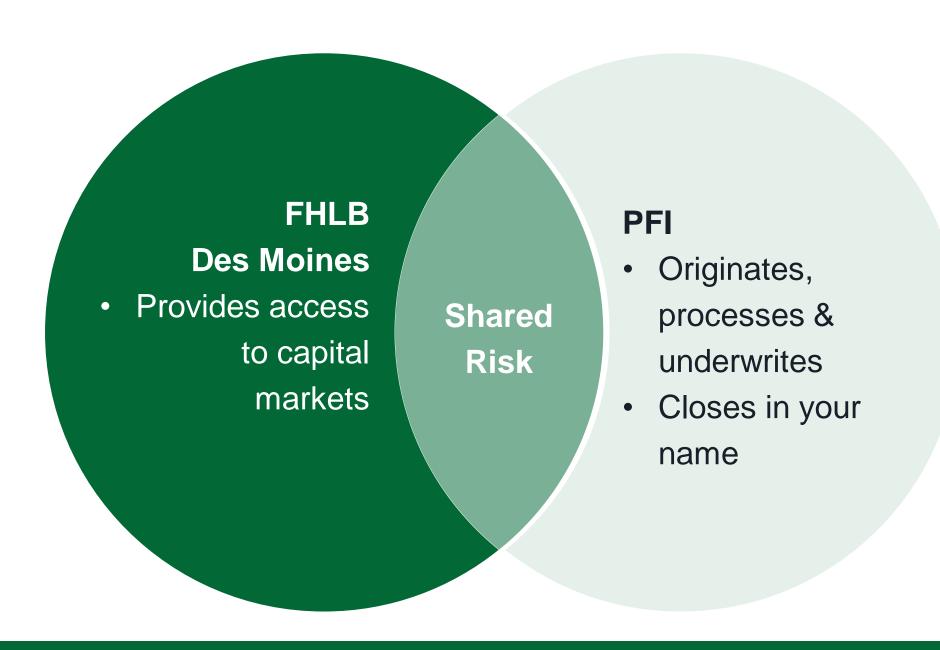
MPF Traditional Benefits



- No Loan Level Price Adjustments (examples)
- Additional Fee Income Stream-Post
 Purchase
 - "Credit Enhancement Fee"
 - Paid for retaining credit risk
 - 10 basis points annually calculated using outstanding loan balances
 - Paid monthly over the life of the loans on total unpaid balances



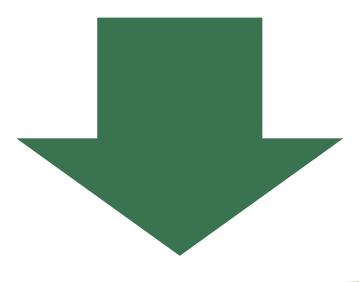
MPF Traditional Benefits



- Activity Stock Dividend
 - 4% Activity Stock Required
 - 3.5% dividend Last 20 quarters
- Service Retained / Service Released
- AUS U/W Allowed or Manual
- Fully Delegated Lending Authority
- Mandatory Locks Only



MPF Traditional Shared Risk and Shared Reward

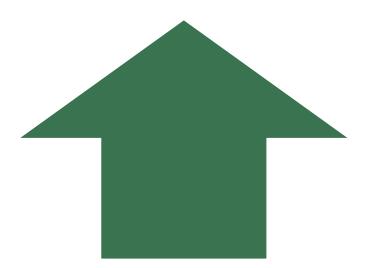


Shared Credit Risk

 Credit Enhancement Obligation

Shared Reward

- Credit Enhancement Fee Income
- Activity Based Stock Dividend





MPF Traditional What is Credit Enhancement Obligation?

- Loan level CE Obligation is determined by S&P LEVELS model
- Loan credit enhanced to "AA" level (currently)
 - What is a Pool? (aka Master Commitment)
 - Loan level Calculated
 - Pool level Accumulated
- Off balance sheet contingent liability (RBC may apply)

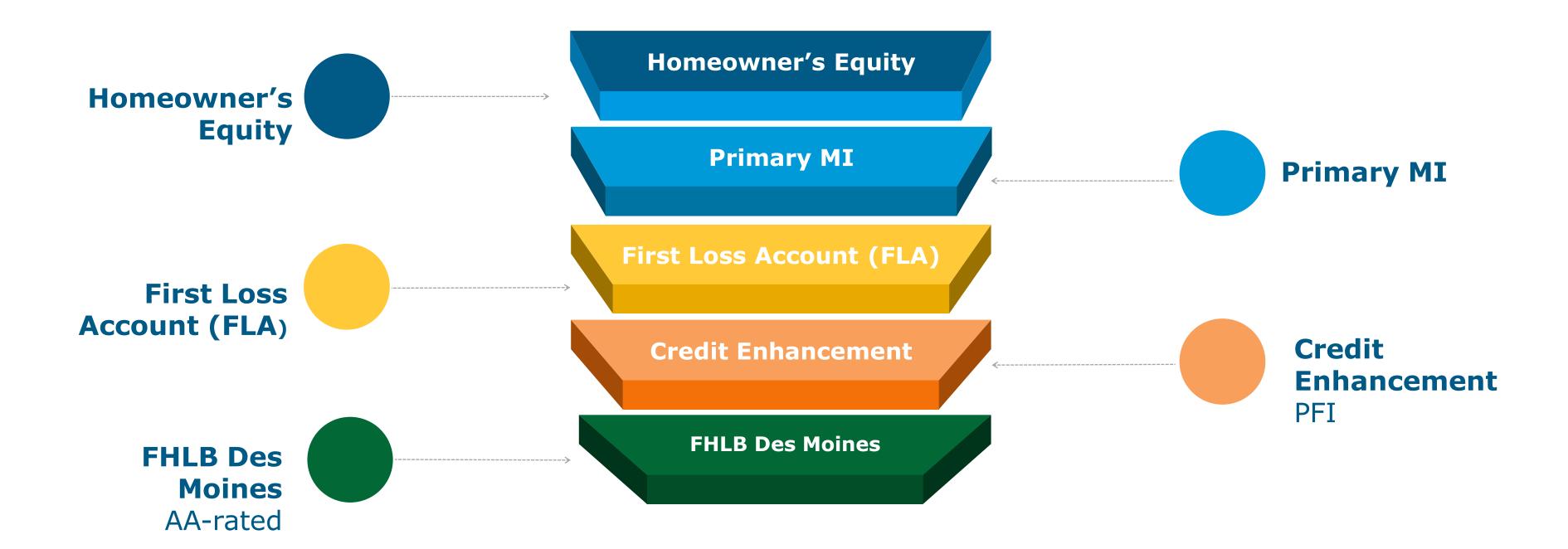


MPF Traditional Original / 125 Comparison

	Original	125	
First Loss Account (FLA)	4bps Accrues annually UPB	100bps 1% of funded loans	
Credit Enhancement Fee (bps)	10 Guaranteed	10 Performance Based	
Servicing Fee (bps)	25	25	



MPF Traditional Loss Absorption Progression





MPF Traditional – AA Rated MPF 125 Loan Pool

Funded	CE%	CE\$	Funded	CE%	CE\$		Funded	CE%	CE\$
\$ 270,400.00	2.657	\$ 7,183.79	\$ 178,767.75	2.358	\$ 4,215.57	\$	64,000.00	8.500	\$ 5,440.00
\$ 117,510.79	0.379	\$ 445.30	\$ 127,000.00	3.824	\$ 4,856.10	\$	128,000.00	11.096	\$ 14,203.42
\$ 141,229.64	2.670	\$ 3,770.26	\$ 108,800.00	3.416	\$ 3,716.14	\$	179,497.57	0.000	\$ -
\$ 151,840.07	1.473	\$ 2,236.91	\$ 44,000.00	5.060	\$ 2,226.23	\$	104,800.00	6.280	\$ 6,581.43
\$ 100,000.00	2.125	\$ 2,125.29	\$ 86,400.00	6.226	\$ 5,378.95	\$	157,200.00	4.935	\$ 7,757.23
\$ 196,204.66	1.641	\$ 3,219.54	\$ 78,000.00	2.618	\$ 2,042.15	\$	132,000.00	4.738	\$ 6,253.65
\$ 76,893.71	10.000	\$ 7,689.37	\$ 200,000.00	1.782	\$ 3,563.06	\$	50,000.00	11.050	\$ 5,525.00
\$ 95,000.00	0.227	\$ 215.26	\$ 84,000.00	6.728	\$ 5,651.36	\$	192,000.00	12.494	\$ 23,988.04
\$ 74,700.00	9.35	\$ 6,984.45	\$ 72,000.00	2.115	\$ 1,523.12	\$	69,533.50	0.393	\$ 273.30
\$ 109,613.56	0.069	\$ 758.09	\$ 190,000.00	3.926	\$ 7,458.84	\$	165,000.00	3.811	\$ 6,287.73
\$ 56,000.00	2.912	\$ 1,630.75	\$ 190,400.00	3.458	\$ 6,584.28	\$	112,500.00	0.000	\$ -
\$ 176,000.00	3.997	\$ 7,035.13	\$ 34,400.00	2.538	\$ 872.90	\$	46,400.00	3.677	\$ 1,706.30
\$ 57,340.76	0.812	\$ 465.67	\$ 220,000.00	6.288	\$ 13,832.61				
\$ 45,000.00	0.000	\$ -	\$ 256,000.00	1.892	\$ 4,844.26	\$ 4	1,938,432.01	3.938	\$ 188,541.48
								less FLA	\$ 49,384.32
									\$ 139,157.16



MPF Traditional Retained - Price Comparison 8/23/17

30yr Purchase, Rate: 4%, Credit Score: 720, LTV 80.00%, Loan Amt. \$200,000, LLPAs 75bps

Pricing as of: August 23, 2017	
Loan Amount	\$200,000
Interest Rate	4.00%
Transaction Type	Purchase
Credit Score	720
LTV	80.00%

	MPF Traditional	Agency Direct	MPF Advantage
Base Premium (Discount)	2.53%	2.64%	-0.11%
LLPAs		0.75%	0.75%
Credit Enhancement	3.12%		
PV of CE Fee	0.44%		0.44%
PV of Dividend	0.33%		0.33%
Net Gain on Sale (bps)	330.00	189.00	141.00
Net Gain on Sale (\$)	\$6,600.00	\$3,780.00	\$2,820.00

Assumptions:

6 Year Life

High Volume Agency Pricing (i.e. >\$1B)



MPF Traditional Retained - Price Comparison 8/23/17

30yr Cash out, Rate: 3.875%, Credit Score: 700, LTV 80%, Loan Amt. \$200,000, LLPAs: 2.375%

Pricing as of: August 23, 2017

Loan Amount \$200,000

Interest Rate 4.000%

Transaction Type Cashout Refinance
Credit Score 700

LTV 80.00%

	MPF Traditional	Agency Direct	MPF Advantage
Base Premium (Discount)	2.53%	2.64%	-0.11%
LLPAs		2.375%	2.38%
Credit Enhancement	4.13%		
PV of CE Fee	0.44%		0.44%
PV of Dividend	0.33%		0.33%
Net Gain on Sale (bps)	330.00	26.50	303.50
Net Gain on Sale (\$)	\$6,600.00	\$530.00	\$6,070.00

Assumptions:

6 Year Life

High Volume Agency Pricing (i.e. >\$1B)

Foreclosure Rate = .2%



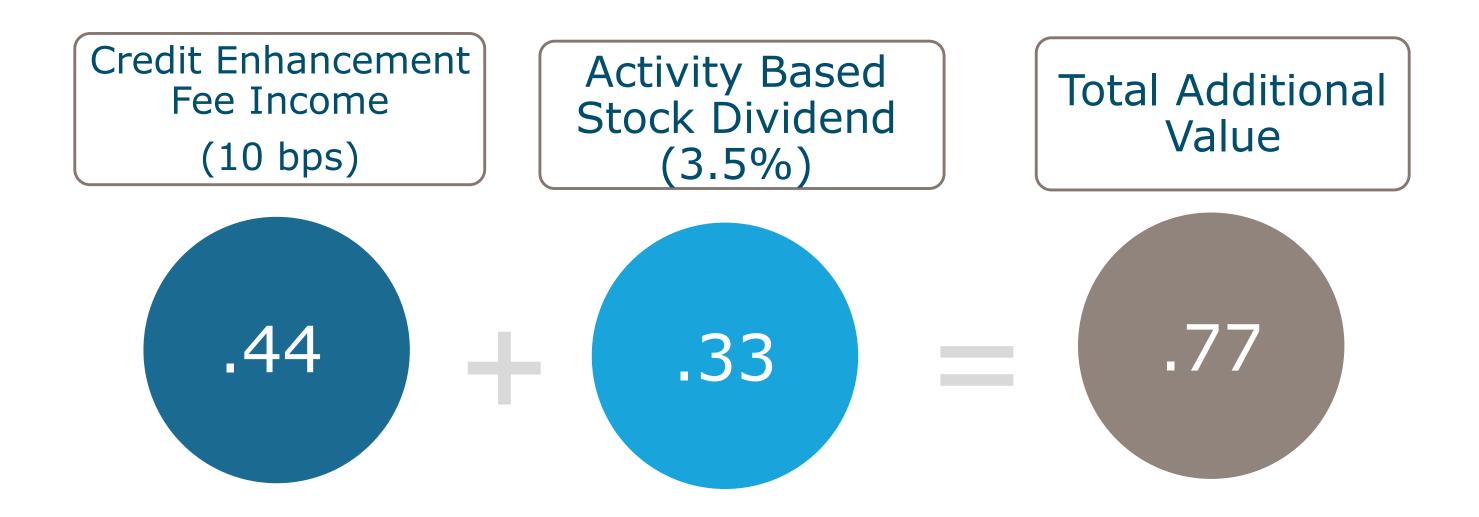
MPF Traditional Credit Risk Sharing = Additional Profitability

Superior Loan Performance

- 90 day+ delinquencies 50% 70% of MBA national average for conventional loans
- Traditional MPF Program-wide foreclosure rates have historically ranged between 40% - 60% of the corresponding MBA national average for conventional loans.
- Program wide MPF historical losses
 - 9 bps total



MPF Traditional Additional Income Post Purchase



*CE Values are based on FX30 3.875% - Dividend value assumes an activity stock dividend of 3.5% - Both CE fees and Dividend values are evaluated using the 8/14/2017 EOD market



MPF Traditional Risk Based Capital Guidance

Wilary Winn LLC

Accounting information for the Traditional program regarding RBC

- https://www.wilwinn.com/assets/documents/accounting-and-regulatory-reporting-for-mortgage-ser.pdf
- https://www.wilwinn.com/mpf-baseliii-ww-v3.pdf



MPF Direct Pass Through To Redwood Trust



Investor: Redwood Trust

Loan types: Amounts from \$424,101 - \$2,500,000

Owner

Non-owner occupied

Second homes

• Investment properties (1-4) units

Max LTV/TLTV: 90% with no PMI required

Min Credit Score: Minimum FICO 661* - Max DTI

43%

Servicing Options: Released



MPF Direct Pass Through To Redwood Trust

Guideline	Select QM	Select 90 QM	Choice QM	
Products/Terms	10, 15, 20, 25, 30-Year Fixed* 5/1, 7/1, 10/1 ARMs	20, 25 and 30-Year Fixed	10, 15, 20, 25, 30-Year Fixed* 5/1, 7/1, 10/1 ARMs	
Minimum FICO Score	700-760	720-740	661-680	
Max LTV/CLTV: Primary Purchase or Rate/Term refinances	85% LTV No MI No secondary financing	90% LTV No MI No secondary financing	90% LTV/CLTV No MI Secondary financing permitted	
Max LTV: Primary Cash-out refinance	70% LTV: Minimum 720 FICO 65% LTV: Minimum 700 FICO	Not Available	80% LTV: Minimum 680 FICO 70% LTV: Minimum 661 FICO	
Max LTV: Second Home Purchase, Rate/Term refinance or Cash- out refinance	80% LTV Purchase: 720 FICO 75% LTV Rate/Term: 720 FICO 60% LTV Cash-out: 740 FICO	Not Available	80% LTV Purchase: 680 FICO 80% LTV Rate/Term: 661 FICO 65% LTV Cash-out: 661 FICO	
Max LTV: Investment (1-4) Units Purchase, Rate/Term refinance or Cashout refinances	65% LTV Purchase: 740 FICO 60% LTV Rate/Term: 740 FICO Cash-out Refi: Not permitted	Not Available	75% LTV Purchase: 680 FICO 70% LTV Rate/Term: 661 FICO 60% LTV Cash-out: 661 FICO	
Condominiums	No Non-warrantable Features	No Non-warrantable features	Non-warrantable features permitted in some cases	
Reserve Requirements	6-36 months	12-18 months	3-24 months	
Maximum Loan Amount	\$2,500,000	\$1,500,000	\$2,000,000	
Minimum Loan Amount	\$1 over conforming	\$1 over high balance limit	\$1 over high balance limit	
Mortgage/Housing Lates	No late pays in past 24 mo.	No late pays in past 24 mo.	1x30 past 12 months; 2x30 past 24 months	
Adverse Credit Events Foreclosure, BK, Short Sale, etc.	None Allowed	None Allowed	Allowed after 7 years	



MPF Direct

Pass Through To Redwood Trust

Eligible	Ineligible
 Credit Score Lot Size > 20 Acres Business Use of Funds LTV / CLTV / HCLTV Cash-out > max allowed Non-Warrantable Condos Unique Properties 	 Any loan characteristics that would make the loan not safe harbor > Max DTI 43%

- Fully delegated lending authority
- Appraisal pre-close approval
- Help Desk for product assistance
- Exceptions are granted on a cases by case basis with a prior-approval helpdesk





STAY IN TOUCH WITH US

Chuck Vaughn – Mortgage Relationship Manager



801 Walnut
Street
Suite 200
Des Moines, IA
50309



Phone

OFFICE: 515.471.4040

CELL: 515.419.6145



Email / Website

cvaughn@fhlbdm.com www.fhlbdm.com



STAY IN TOUCH WITH US

Ed Barker – Mortgage Relationship Manager



801 Walnut
Street
Suite 200
Des Moines, IA
50309



Phone

OFFICE: 515.471.4044

CELL: 708.497.8786

Email / Website

ebarker@fhlbdm.com www.fhlbdm.com