

# Introducing the MI Factor

August 28, 2018

Mortgage insurance (MI) providers have been valued partners of Fannie Mae for decades, providing compensation for credit losses on insured mortgage loans resulting from borrower defaults. Unfortunately, the MI claims process has lacked standardization, resulting in operational inefficiencies and payment unpredictability. In response, Fannie Mae recently introduced a program to streamline the calculation of MI claims, accelerate payment, and reduce uncertainty. After testing this simplified approach through a pilot with select MI partners, Fannie Mae is now offering the MI Factor program more broadly. Investors in Fannie Mae's credit risk transfer (CRT) programs can now expect timelier, more predictable settlement of MI claims with no expected material impact on aggregate proceeds received.

## MI Factor in Practice

When an insured mortgage loan defaults, the servicer submits a claim to the MI provider in the amount of eligible loss incurred on the defaulted loan. In practice, servicers have often submitted claims that erroneously included foreclosure/property preservation costs not covered by or subject to a cap under MI master policies, which govern the terms of coverage. As a result, MI benefits paid by the MI provider have historically been less than implied by initial claim amounts that were submitted. Reconciling and recouping underpaid amounts – which are called curtailments and disallowances – have resulted in extended settlement timelines, payment uncertainty, and unnecessary processing overhead.

In response, Fannie Mae recently introduced a program designed to streamline the calculation and settlement of MI claims and remove the need to reconcile foreclosure/property preservation costs on a claim-by-claim basis. The MI Factor program only applies to the foreclosure/property preservation cost component of the MI claim, which typically represents approximately 5 percent of the claim amount but produces the most work for all parties involved. Under the MI Factor program, the current practice of using actual foreclosure/property preservation costs to determine a claim amount is replaced by a calculation that applies a numerical factor to the property value or default UPB (see Exhibit 1). The factor applied to a given loan is determined by using a grid that allows consideration of relevant loan characteristics that impact foreclosure/property preservation costs. There are separate factors to estimate the fixed and variable components of foreclosure/property preservation costs. Using this methodology eliminates the need for MI providers to curtail benefit payments, and thus the need for Fannie Mae to bill servicers for these shortfalls. The result is a fairer and more certain process for all parties involved.

Investors in Connecticut Avenue Securities® (CAS) and Credit Insurance Risk Transfer™ (CIRT™) transactions can now expect timelier, more predictable settlement of MI claims with no expected material impact on aggregate proceeds received.

This commentary provides an introduction of the MI Factor program. This program only applies to the foreclosure/property preservation cost component of a claim, which typically represents approximately 5 percent of the claim amount but produces the most work.



Exhibit 1. MI Factor Calculation of Foreclosure/Property Preservation Costs<sup>1</sup>



### Development of MI Factor

In developing the MI Factor algorithm, Fannie Mae leveraged its internal dataset containing all of the actual foreclosure/property preservation costs that were incurred on its inventory of defaulted loans. Fannie Mae found that these costs could be predicted with great accuracy using four loan attributes: disposition types, geography clusters, statistically-derived home value buckets, and property type buckets. The result is a single grid composed of factors for each combination of these attributes. The same set of factors is used for all participating MI providers and will apply to all loans insured by the participating MI providers, including those insured prior to implementation of this program. In order to capture changing market dynamics, Fannie Mae will evaluate the selection of loan attributes and determination of factors annually. Any recommended changes to the framework will be proposed in a transparent manner for our MI counterparties to have an opportunity to review and affirm.

Exhibit 2. Illustration of MI Factor Implementation

Sample Factor Grid:

Loan Attribute Inputs				Foreclosure Cost Outputs	
Disposition Type	Geography	Value	Property Type	Fixed Cost	Variable Cost/Day
PFS	Overall	[\$0 - \$75,000]	1 Unit	5.90%	0.01170%
PFS	Overall	[\$0 - \$75,000]	Condo	5.03%	0.00508%
PFS	Overall	[\$0 - \$75,000]	Other	7.12%	0.01851%
PFS	Overall	(\$75,000 - \$150,000)	1 Unit	2.67%	0.00646%
PFS	Overall	(\$75,000 - \$150,000)	Condo	2.50%	0.00385%
PFS	Overall	(\$75,000 - \$150,000)	Other	3.78%	0.01220%
PFS	Overall	(\$150,000 - \$240,000)	1 Unit	1.79%	0.00542%
PFS	Overall	(\$150,000 - \$240,000)	Condo	1.43%	0.00310%
PFS	Overall	(\$150,000 - \$240,000)	Other	2.55%	0.00972%
PFS	Overall	(\$240,000 - \$1,000,000)	1 Unit	1.24%	0.00447%
PFS	Overall	(\$240,000 - \$1,000,000)	Condo	1.11%	0.00342%
PFS	Overall	(\$240,000 - \$1,000,000)	Other	2.12%	0.00586%
REO/TPS	Overall	[\$0 - \$75,000]	1 Unit	10.72%	0.01198%
REO/TPS	Overall	[\$0 - \$75,000]	Condo	11.11%	0.00768%
REO/TPS	Overall	[\$0 - \$75,000]	Other	12.75%	0.01400%
REO/TPS	Overall	(\$75,000 - \$150,000)	1 Unit	5.00%	0.00746%
REO/TPS	Overall	(\$75,000 - \$150,000)	Condo	5.00%	0.00501%
REO/TPS	Overall	(\$75,000 - \$150,000)	Other	5.95%	0.00913%
<b>REO/TPS</b>	<b>Overall</b>	<b>(\$150,000 - \$240,000)</b>	<b>1 Unit</b>	<b>3.00%</b>	<b>0.00612%</b>
REO/TPS	Overall	(\$150,000 - \$240,000)	Condo	3.09%	0.00418%
REO/TPS	Overall	(\$150,000 - \$240,000)	Other	3.19%	0.00779%
REO/TPS	Overall	(\$240,000 - \$1,000,000)	1 Unit	1.96%	0.00527%
REO/TPS	Overall	(\$240,000 - \$1,000,000)	Condo	2.05%	0.00398%
REO/TPS	Overall	(\$240,000 - \$1,000,000)	Other	2.16%	0.00672%

Note: The sample factor grid above is provided in summary form for illustrative purposes. The actual factors used by Fannie Mae for calculation are sourced from a grid in accordance with the attributes of the loan. PFS refers to pre-foreclosure sale such as a short sale. TPS refers to a third-party sale at foreclosure auction. REO refers to real estate property owned inventory.

<sup>1</sup> A joint alignment effort among Fannie Mae, Freddie Mac, and their regulator, the Federal Housing Finance Agency (FHFA) sets guidance on reasonable state-level foreclosure timelines. They can be viewed [here](#).



Consider a defaulted loan with the following characteristics:

Disposition Type	Geography	Defaulted UPB	Property Type	Note Rate	MI Coverage %	LPI Date	Foreclosure Date	Allowable Days
REO	Overall	\$200,000	1-Unit	5.0%	20%	1/1/2015	9/30/2015	330

**Actual days to complete foreclosure** = *Foreclosure Date* – *LPI Date* = 272 days. This is less than the assumed allowable days to complete foreclosure pursuant to Fannie Mae guidelines, 330 days for this state.

Using these loan characteristics to look up the fixed and variable foreclosure cost factors in the grid, the fixed and variable foreclosure costs can be calculated as follows:

**Fixed foreclosure costs** = 3.0% x \$200,000 = \$6,000

**Variable foreclosure costs per day** = 0.00612% x \$200,000 = \$12.24

**Variable foreclosure costs** = \$12.24 x *minimum*(272, 330) = \$3,329.28

**MI Factor foreclosure costs** = \$6,000 + \$3,329.28 = \$9,329.28

Delinquent interest is capped at the allowable foreclosure timeline:

**Delinquent interest** = \$200,000 x (5.0% / 365) x *minimum*(272, 330) = \$7,452.05

The total MI claim amount submitted by the servicer and payment made by the MI provider are calculated as:

**MI claim amount** = \$200,000 + \$7,452.05 + \$9,329.28 = \$216,781.33

**MI benefit payment** = \$216,781.33 x 20% = \$43,356.27

## Summary

The MI Factor program is not expected to have any material effect on the overall levels of MI proceeds received in connection with defaulted loans. When back-tested against 13 years of claim data covering a number of different economic environments, we found that the MI Factor algorithm tracks the actual MI proceeds received with great accuracy. Furthermore, by updating the factor grid annually, we can ensure that the algorithm continues to adapt to changing market dynamics.

## Resources

[Fannie Mae Credit Risk Transfer Programs](#)

[Understanding the Impact of Mortgage Insurance Coverage on Credit Risk Transfer](#)

[Fannie Mae Mortgage Insurance Primer](#)

[Single-Family Loan Performance Dataset](#)



*This commentary is provided by Fannie Mae solely for informational purposes based on information available at the time it is published. This document is based upon information and assumptions (including financial, statistical or historical data and computations based upon such data) that we consider reliable and reasonable, but we do not represent that such information, assumptions, data, or computations are accurate or complete, or appropriate or useful in any particular context, including the context of any investment decision, and it should not be relied upon as such. It is subject to change without notice. Fannie Mae disclaims any responsibility for updating the commentary or the opinions or information discussed herein. The opinions presented in the commentary represent the views of professionals employed by Fannie Mae of certain factors that may impact the performance of certain loans in Connecticut Avenue Securities reference pools. The effect of factors other than those assumed, including factors not mentioned, considered or foreseen, by themselves or in conjunction with other factors, could produce dramatically different performance or results. Statements in this commentary regarding the future impact of data quality improvements are forward-looking, and actual results may be materially different due to, among other reasons, those described in “risk factors” in our most recent Form 10-K and Form 10-Q. Fannie Mae does not represent that such views are the sole or most accurate explanations for loan performance or that there are not credible alternative views or opinions. Fannie Mae publishes this commentary as a service to interested parties and disclaims any liability for any errors contained herein. Fannie Mae securities are more fully described in applicable offering circulars, prospectuses, or supplements thereto (such applicable offering circulars, prospectuses and supplements, the “Offering Documentation”), which discuss certain investment risks and contain a more complete description of such securities. All statements made herein are qualified in their entirety by reference to the Offering Documentation. An offering only may be made through delivery of the Offering Documentation. Investors considering purchasing a Fannie Mae security should consult their own financial and legal advisors for information about such security, the risks and investment considerations arising from an investment in such security, the appropriate tools to analyze such investment, and the suitability of such investment in each investor’s particular circumstances.*