

The Federal Housing Finance Agency
Constitution Center
400 7th Street SW
Washington DC 20014

Attn: Mortgage Insurance Eligibility Project

We are pleased to provide input and share perspectives in response to the Mortgage Insurance Eligibility Project. ¹

As authors of the letter that follows, Mike Molesky brings many years of risk analytics and modeling and Mark Goldhaber has years of housing and mortgage policy expertise and has worked for years on affordable housing initiatives to responsibly expand access to credit. The ongoing willingness of FHFA to ask both technical and policy questions concerning appropriate mortgage insurance eligibility requirements should ultimately lead to better answers on appropriate methodology and level of guarantee fees; for this FHFA should be commended

Today, September 8, is the deadline not just for private mortgage insurance eligibility requirements but also for input regarding Fannie Mae and Freddie Mac guarantee fees. While this was not done by design, it is very much appropriate because taken together these rules will significantly impact both the cost of credit and its availability, particularly for the all-important first time homebuyer. Establishing a capital framework that assures that private mortgage insurance will be a strong and reliable credit enhancement for lenders and investors is critical. The proposed eligibility requirements, along with the new master policies, are clearly important steps to restore confidence in this form of credit enhancement.

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Yet without some adjustments to the proposed rule, the GSE's will fail to meet one of the key objectives set forth in this year's strategic plan:

- The operations and activities of each regulated entity foster liquid, efficient, competitive, and resilient national housing finance markets (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities).

The practical outcome will be a product that is too expensive to meet the needs of those consumers who need help. If this is the ultimate outcome, then in practice the Federal Housing Administration will be the sole outlet for low down payment mortgages.

Regulators, lawmakers, and the housing and mortgage finance industry all say they want more private sector capital and desire to see a smaller government footprint. Consumer groups indicate they want a conventional low down payment product to serve communities across the nation. The current construct of the rule would severely limit, in practice, the utilization of the product within the low-down payment market and as a credit enhancement in below 80 LTV transactions. This makes no sense. This is why the fact that Fannie Mae and Freddie Mac remain in conservatorship provides a unique window of opportunity to understand, coordinate, and achieve the correct policy outcomes.

This is not a Hobson's choice. There can be a strong credit enhancement that remains affordable for the conventional market and that satisfies the key safety and soundness objective in the strategic plan: "Each regulated entity operates in a safe and sound manner, including maintenance of adequate capital and internal controls."

There are five specific areas, which should be addressed to improve the appropriate allocation of capital and provide for a more balanced view of private mortgage insurance company capacity to cover all claims under stressful economic conditions. They are as follows:

1. Because the primary focus of private mortgage insurance is assisting the first-time homebuyer, the base stress losses by FICO and LTV need to be based on 30 year fixed rate owner-occupied purchase loans that reflect a return to traditional underwriting in the QM environment. A separate grid and/or multiple factor should be created for owner rate and term refinanced loans, given their higher differences in both expected and stress situation losses;
2. Mortgage insurance companies, like all other insurance companies, rely on premium income to cover a portion of losses in excess of expected losses. Observations of

- higher than normal survivorship patterns of insured loans during actual regional and national recessions give a clear picture of the amount of premium benefit generated across all exposures to cover significant amounts of loss under stress conditions. Refusing to recognize premium income as a resource to pay losses under stress ignores one of the basic structural benefits of the private mortgage insurance design;
3. The proposal makes no mention of seasoned loan adjustments for post 2008 loans as such loans mature. Seasoning adjustments are needed to factor in the highly beneficial effects of cross-subsidization over time. Benefiting from both the repayment of principal and price appreciation over periods of time prior to the start of a serious recession, the greater buildup of equity in older loans allows such loans to be less sensitive to adverse conditions than newer loans;
 4. The capital charges for the remaining tail risk on loans originated between 2005 and 2008 appear to be unwarrantedly high;
 5. Assuming that the estimated stress losses on performing loans are appropriate, the requirement for additional capital on non-performing exposures over the course of a stress event is unnecessary.

Rate and Term Refinanced Loans Vs. Purchase Loans

In our recent comment letter on GSE pricing, we expressed our concern that the GSE base-loan pricing grid was based on the combination of both rate and term refinanced and purchase only owner-occupied loans. We showed how purchase loans performed substantially better than rate and term loans and, therefore, deserved a break in both the capital required on such loans as well as the pricing of such loans. The same happens to be the case for privately insured loans. Currently, private MI pricing for owner-occupied loans includes both purchase and rate and term refinancing, and the FHFA proposal for stress loss capital reflects the same requirement for either type of loan. However, if one recognizes the true differences in actual losses over time and under stress conditions, setting the MI capital standards in terms of purchase loans only, with higher capital requirements for rate and term refinancing, would likely encourage lower MI pricing for purchase loans, while providing greater protection against the more volatile and riskier rate and term refinanced loans.

In Table 1 we show the differences in relative default rates of rate and term refinanced loans to purchase loans for various FICO/LTV groupings, based on Freddie Mac data released through FHFA, and using 2007 originations as the key stress loss example. Notice that the relative differences are smaller for lower FICO borrowers and get gradually larger as one moves up the FICO scale.

	<u><=620</u>	<u>620-639</u>	<u>640-659</u>	<u>660-689</u>	<u>690-719</u>	<u>720-769</u>	<u>770+</u>
80.01-85	1.38	1.38	1.77	2.10	2.32	2.51	2.48
85.01-90	1.11	1.81	1.60	2.05	2.91	2.67	2.21
90.01-95	1.25	1.45	1.53	1.73	1.88	2.10	1.90
95.01-100	0.98	1.08	1.14	1.36	1.50	1.76	1.94

Substantial Stress Performance Differences Observed For Most Categories

FHFA has published MI stress loss numbers by FICO and LTV, but not the foreclosure frequencies for each segment. However, if we divide the stress loss rates by the respective effective coverage percentages² by LTV, we get an estimate of the implied foreclosure frequencies by each category for the combination of both purchase and rate and term refinanced loans. (See the results in Table 2.) The implied frequency for loans with LTV greater than 105% and <620 FICO are above 100%, primarily because FHFA's the stress loss estimate for that segment is so extremely high. Also note that the gradations of foreclosure frequencies between LTV within specific FICO ranges are not consistent. The 85 LTV loan frequencies appear to be too high. We suspect that the modeling of these loans may have included non-insured structured financing with combined LTVs of 85%, resulting in an upward bias.

² MI claim benefits include past due interest up to time of foreclosure and foreclosure costs. On average these added amounts add approximately 14% more to the loan balance. Therefore, the average effective coverage benefit is higher as a percentage of the loan than the stated coverage percentage.

	<u><=620</u>	<u>621-680</u>	<u>681-740</u>	<u>741-780</u>	<u>781-850</u>
<=85	73.6%	54.3%	32.1%	17.9%	10.0%
85-90	60.7%	43.8%	25.9%	14.8%	8.6%
90-95	70.0%	49.7%	30.0%	17.6%	10.6%
95-100	75.4%	57.8%	37.6%	21.1%	12.7%
100-105	84.1%	62.7%	44.6%	26.5%	15.4%
>105	104.6%	76.2%	55.7%	35.1%	22.2%

Using the relative shares of rate and term loans and the differences in default performance by the various LTV/FICO range categories, we can derive factors to measure the relative impact of higher default rates of rate and term loans on the estimated FHFA combined loan type foreclosure frequencies for each category. (See the factors as presented in Table 3.)

	<u><=620</u>	<u>621-680</u>	<u>681-740</u>	<u>741-780</u>	<u>781-850</u>
80.01-85	1.14	1.31	1.38	1.35	1.19
85.01-90	1.07	1.56	2.05	1.77	1.36
90.01-95	1.08	1.26	1.29	1.26	1.16
95.01-100	1.00	1.03	1.05	1.06	1.04

Now if we take the combined loan type frequencies in Table2 and divide them by their counterpart factors from Table 3, we get an estimate of the implied foreclosure frequencies by category for purchase only loans. Taking these purchase loan only frequencies and multiplying them against the effective MI coverage percentages by

LTV category, we can then present purchase only stress loss rates. These results for purchase only loans are set out in Table 4. We note that the stress level foreclosure frequencies for loans between 80.01 and 85 LTV appear to be out of sync with the rest of the LTV groupings. It may be possible that the FHFA analytics have included a large number of loans with a combined LTV of 85 that actually are not insured by the private MI companies. It would appear that these non-insured loans may have biased the stress losses upward.

Table 4. Owner Occupied Purchase Loans

	Estimated FHFA Stress Foreclosure Frequencies					Estimated FHFA Stress Loss Rates				
	<u><=620</u>	<u>621-680</u>	<u>681-740</u>	<u>741-780</u>	<u>781-850</u>	<u><=620</u>	<u>621-680</u>	<u>681-740</u>	<u>741-780</u>	<u>781-850</u>
<=85	64.7%	41.4%	23.2%	13.2%	8.4%	9.1%	5.8%	3.3%	1.9%	1.2%
85-90	56.7%	28.0%	12.6%	8.4%	6.3%	16.5%	8.1%	3.7%	2.4%	1.8%
90-95	64.8%	39.4%	23.3%	14.0%	9.1%	22.0%	13.4%	7.9%	4.8%	3.1%
95-100	75.5%	56.0%	35.6%	19.9%	12.2%	27.9%	20.7%	13.2%	7.3%	4.5%

To estimate the stress loss rates for rate and term refinanced loans we simply multiply our results in Table 4 by the 2007 performance ratios we developed in Table 1. The estimated stress loss rates for rate and term refinanced loans are displayed in Table 5. Rate and term frequency of foreclosure rates are significantly higher than for purchase loans. We also note the same unusual upward bias in frequencies for 85 LTV rate and term refinanced loans as we did for purchase only.

Table 5. Owner Occupied Rate and Term Refinanced Loans

	Estimated FHFA Stress Foreclosure Frequencies					Estimated FHFA Stress Loss Rates				
	<u><=620</u>	<u>621-680</u>	<u>681-740</u>	<u>741-780</u>	<u>781-850</u>	<u><=620</u>	<u>621-680</u>	<u>681-740</u>	<u>741-780</u>	<u>781-850</u>
<=85	89.5%	77.3%	54.0%	33.3%	20.8%	12.5%	10.8%	7.6%	4.7%	2.9%
85-90	63.1%	52.2%	36.7%	22.4%	14.0%	18.3%	15.1%	10.6%	6.5%	4.1%
90-95	81.2%	63.8%	43.8%	29.4%	17.3%	27.6%	21.7%	14.9%	10.0%	5.9%
95-100	74.0%	70.2%	53.4%	35.0%	23.6%	27.4%	26.0%	19.8%	13.0%	8.7%

With higher capital charges on rate and term refinanced mortgages MI companies will need to revisit their pricing of not only rate and term loans but also purchase loans. As we will show in the next section, when we apply current MI pricing to portfolios of each type of loan, there are very different results for the two types of loans in the coverage of losses under the recent stress period.

Recognition of Premium During Stress Conditions

Under the current FHFA proposal, future flows of premium earned from both monthly paid policies and unearned amounts from pre-paid premium would not be recognized as a financial resource to offset claim losses under stress conditions. While the authors do recognize that premium flows vary from one year to the next under non-stress situations, reflecting a sensitivity to changes in interest rates and home prices over time as other mortgage loans, the same is not true when MI exposures come under more stressful situations, such as the one causing the FHFA assumed stress loss levels. In our experience in analyzing both regional and national level severe stress situations, the fall in property values has a more pronounced effect on high LTV borrowers than on low LTV borrowers. The drop in home values puts the value of the property of high LTV borrowers significantly below the balance of their mortgages. As a result, these borrowers cannot refinance their loans without digging deeper into their pockets to pay off enough of the current balance to qualify for a new loan. Consequently, the survivorship rates of high LTV loans are higher than would be the case under more average circumstances. One of the shortcomings of the original GSE capital model was its inability to accurately model high LTV survivorship rates which led to the model's under-estimation of high LTV loss rates.

The more substantial high LTV survivorship rates high under stress conditions also tend to offset the higher delinquency rates on high LTV loans under stress conditions. But even the state of delinquency does not reduce premium to a great extent. According to the terms of the insurance policy, premium must continue to be paid up until the foreclosure results in transfer of title and a completed claim is filed with the provider. Failure to pay premium under the terms of the policy risks cancellation of the policy with no right to benefits. GSE loan servicing requirements make this point very clear as well. Servicer failure to abide by the GSE servicing agreement runs the risk of having the GSE pull all of the lender's GSE servicing rights. Most often, lenders require an escrow account for insured loans, which can be used to cover a large portion premium due while a loan is potentially delinquent.

Examination of actual events using insured loan data clearly show this phenomena of higher survivorship rates under stress conditions. Indeed, if we look at GSE data as a proxy we can examine how both purchase loan and rate and term refinanced loans are expected to generate losses and premium between 2007 and 2022. Using actual loss development data on loans originated from 1998 to 2007 through the end of 2013, and then separately estimating the remaining tail losses of each cohort, we can view the concurrent losses of these loans for a 15 year period. In Table 6, we have estimated the loss rates and premium generated on loans originated between 1998 and 2007 starting in January 2007 through December 2022. The table shows that using current MI pricing for purchase loans may be too high and the same price applied to rate and term loans may be too low. Combined, the premium would be expected to cover nearly **68%** of the portfolio losses on that set of loans. For rate and term loans, the current premium would cover only 44.4% of the portfolio stress

losses while purchase only loan premium would cover more than 95% of the portfolio stress losses.

Table 6
Owner Occupied Purchase and Rate & Term Concurrent MI Premium Vs MI Losses Paid
For 2007 and Nine Previous Books for Activity Between 2007 and 2022
30 Year Fixed Rate Owner Occupied Loans

LTV	Gross Loss Rates			Ult Prem Less Expenses As % Policies	Net MI Premium / Losses Paid		
	Purchase	Rate & Term	Combined		Purchase	Rate & Term	Combined
85	0.96%	1.79%	1.16%	0.76%	79.5%	42.5%	65.8%
90	3.09%	6.65%	4.91%	2.53%	81.8%	38.0%	51.6%
95	4.39%	8.57%	5.56%	4.46%	101.6%	52.1%	80.2%
Subtotals	3.74%	7.28%	5.06%	3.43%	95.6%	44.4%	67.9%

Application Of Current MI Pricing To Previous Exposures Show
Substantial Premium Benefit For Purchase Loans, Need For Higher Pricing On Rate & Term Refinanced

These results strongly illustrate the importance of both premium recognition and the role played by cross-subsidization of risk over time. The ability of currently priced premium to cover nearly 68% of the stress losses (and potentially higher with further adjustments to price) indicate that failure to recognize future premium under stress conditions is also a failure to understand the design of private mortgage insurance business, leading to a severe understatement of the ability of private mi companies to pay claims under stress conditions.

In addition, FHFA needs to carefully consider that the prohibition of recognizing future streams of premium under stress situations will compel MI companies to come up some way to monetize what FHFA would deny them credit for. Such monetization efforts would likely increase risk to the system as well as increase operating costs, which in all likelihood would be passed on to consumers. It is simply not in FHFA's best interests to encourage MI companies to move in this direction.

Seasoning Factors and the 2005-2008 Originations Problem

The design elements of the mortgage insurance industry are unique in the insurance industry. The companies are allowed to offer exclusively policies for mortgage default insurance, and no other types of insurance. They must set aside 50% of their premium into contingency reserves for a period of ten years on a first in first out basis, or unless losses exceed 35% of premium. As such it is designed to operate by cross-subsidizing exposures from one origination year to all of the loans previously insured and all of the loans to follow. In effect, it is truly insurance on a portfolio basis, with the expectation that risks and performance will always vary between origination years.

When we look at regional and even national downturns that occurred in both the recent and distant pasts, there are some very striking similarities. First of all, in every major housing market downturn both in the United States and abroad, the downturn was preceded by a higher than average increase in home price changes for several years. What this did, was to provide extra equity cushion for older loans prior to the inevitable correction in home values. The newer loans originated just before and after the peak of home price increases generally experienced the highest default rates, with the older loans performing much better. Indeed, the older loan, the better was the performance.

Sovereign regulators of private mortgage insurance in Australia, Canada, and Mexico all recognize the lower volatility of older loans and provide for a series of seasoning adjustment factors based on loan age, and often by original LTV. In Mr. Molesky's design of rating agency MI capital models from the 1980s and 1990's for Moody's and Standard and Poors, he also utilized actual concurrent stress performance of seasoned loans relative to the newest loans in setting stress level losses by age. He also consulted with both the Australian and Mexican insurance regulators in setting seasoning adjustment factors for private MI capital purposes. Unfortunately, FHFA has not provided for such seasoning factors going forward. And while it did recognize the better performance of loans originated from 2004 and prior, it actually came up with especially dire loss rates on the 2005 through 2008 originations that are effectively 40% to 88% higher than the post 2008 stress loss levels.

If we take actual defaults through the end of 2013 on loans originated from 1999 to 2007 and then estimate the remaining tail loss development on each cohort(origination year) separately, we can compare the concurrent losses of each book from the beginning of 2007 through 2022. In Table 7, we show the results for 90 LTV owner-occupied 30 year fixed rate loans. Clearly, older loans in the most recent severe downturn performed substantially better than the 2007 originations. Such factors would be appropriate as long as the older loans performed within a range of long-run expected losses.

Table 7.
Concurrent Performance Factors
All 90 LTV Owner Occupied Fixed Rate Purchase Loans
Using 2007 as Base For Stress Losses

<u>Loan Age</u>	<u>Estimated Seasoning Factors</u>
New	100%
1 Yr Old	85.6%
2 Yrs Old	74.2%
3 Yrs Old	41.9%
4 Yrs Old	36.4%
5 Yrs Old	35.3%
>5 Yrs Old	37.0%

But what to do with loans that are already performing poorly as they season. We would urge FHFA to consider the use of **conditional** seasoning factors. If the cumulative performance of loans does not remain below some set target for performance that is within **x times** the long-run average performance by similar age, then the current capital charge would not be adjusted downward for that category. Each succeeding year a set of originated loans would get the next lower adjustment as long as the cumulative loss rates on the loans did not exceed this measure of cumulative loan performance.

Therefore, with regard to the 2005 through 2008 originations, had this approach and the FHFA stress loss levels been in place prior to 2005, this approach would essentially apply the unadjusted post 2008 standard to those loans originated in 2007, with no further adjustments. For the 2006 loans the adjustments would have stopped with the year 1 adjustment, and the 2005 loans with the year 2 adjustment. The capital levels set should have been sufficient to cover these stress losses. We see no further need to increase the levels of stress losses as these loans age. We are not aware of any examples of remaining tail performance in any of the regional stress events let alone national stress events which have exhibited such remaining tail stress performance levels as FHFA requirements for the 2005-2008 originations.

In summary, seasoning adjustments to stress level losses, and therefore capital, essentially recognize the cross-subsidization benefits from the pooling of risk through an on-going business that holds all of such risk. Without the recognition of such benefits, MI pricing would clearly have to be raised substantially to cover the additional costs of holding such unusually high levels of capital over the life of the

loan. In so doing, the resulting increase in pricing would be exorbitant relative to the pricing of FHA, thereby pushing first-time homebuyers away from private capital, and increasing federal risk exposures through FHA.

Capital Requirements on Non-performing Loans

FHFA has included in its regulation additional capital charges on non-performing loans. The charges start off at 55% of risk on loans delinquent two to three months, and increase sharply as loans take longer to get to claim pending where the charge is set at 106% of risk. In the normal course of business, MI companies are required to set up loss reserves based on average and recent loss development patterns following notice of delinquency. Such loss provision approaches are reviewed on a regular basis with state insurance regulators. The loss reserves are funded out of premium received and/or contingency reserves as required. The proposed charges on non-performing loans are excessive and duplicative, given that the capital charge on performing loans is deemed to be adequate to cover all stress losses. Why is additional capital required as one draws down the capital to cover the stress losses? Doing so essentially creates a pro-cyclical capital model. During normal times, capital is not much more than the post 2008 standard, but if the economy causes a rise in delinquency rates, more capital is required. Should the markets look more akin to our last serious recession, such additional capital not only would be hard to find, it would be very expensive.

If the stress levels of losses don't yield a sufficiently high enough confidence level, then raise them. But don't put the system under additional operational stress at a time when the entire financial market would be strained, that's just bad public policy. The greater the uncertainty is about what is adequate capital, the greater will be the cost of capital both actual and potential, and the greater the cost to the consumer.

Summary of Comments

In designing a claims capacity model one needs to be sure that the model accurately portrays what really happens to all of the various components of the business during a severe housing market recession. Making sure you have the right stress losses for the newest exposures is only a small part of the issue. The model needs to recognize the benefits of seasoning and measure the actual losses of loans that are older and have greater equity cushions from borrowers who are now better equipped to handle a mortgage than they were years earlier. The model needs to be able to measure the actual higher survivorship rates of high LTV loans under stressful conditions, so that the appropriate flow of premium income may be credited to MI capacity to cover claim losses. All model results need to be compared to actual outcomes of real stress conditions to be sure that the model has accurately captured how the companies actually perform under such conditions.

Based on our experience, all of the changes noted in our comments above need to be implemented to assure a more balanced assessment of the capacity of private mortgage insurers to pay all legitimate claims. As the two largest beneficiaries of private MI policies, it is appropriate for the GSEs to have an accurate assessment of the capacity of MI companies. But if the main components of the models used do not accurately reflect all aspects of MI operations under true stress conditions, but merely set standards that push confidence levels out way beyond the 99.5% level supposedly targeted, it puts the bar so fantastically high that no private firm would be able to compete with FHA.

Conclusion

There's an old saying, "keep your eyes on the prize". In this case, the prize is clear: **A credit enhancement that protects lenders and investors and facilitates a robust and vibrant low down payment conventional market that is also affordable for the consumer.**

When one considers all of the benefits that GSE's have received from their unique government status and continue to receive under conservatorship it seems wholly appropriate that a balanced approach results in a robust and vibrant low down payment conventional market that is also affordable for the consumer. It goes to the core of what kind of housing and mortgage finance system the nation should have moving forward. Does the FHA dominate the low down payment market or will consumers and neighborhoods across the nation have an effective competitive conventional choice.

We are confident that FHFA will strike the right balance to assure that an effective partnership between the private capital of the mortgage insurance industry and the GSE's can continue. One final observation as it relates to partnerships, the concept of partnership is exceedingly important as we develop the final rules. The mortgage insurance industry and Fannie Mae and Freddie Mac should be the strongest partners because these entities are in the first loss position. Both groups have a vested interest in good underwriting and strong overall risk management, but through the run up to and the mortgage meltdown the partnership appears to have frayed. The adoption of effective mortgage insurance eligibility requirements presents a unique opportunity for the regulator, the GSEs and MI industry to present a credit enhancement structure that the marketplace can have confidence in, as we move forward in rebuilding the mortgage finance system of the future.

