TESTIMONY of Dr. Clifford V. Rossi[1]

Hearing Entitled: The Current Mortgage Market: Undermining Housing Affordability with Politics

Housing and Insurance Subcommittee of the House Financial Services Committee

May 17, 2023

Chair Davidson, Ranking Member Cleaver and Members of the Subcommittee, I am Dr. Clifford Rossi, Professor-of-the-Practice and Executive-in-Residence at the Robert H. Smith School of Business at the University of Maryland.

We are here today to discuss the updated loan-level price adjustment (LLPA) matrices (grids) implemented by Fannie Mae and Freddie Mac on May 1, 2023. I am providing testimony to present the case for why the current LLPA grids are flawed and how to improve mortgage loan pricing to achieve the FHFA's missions to ensure the safety and soundness of the Enterprises and to "foster housing finance markets that promote equitable access to affordable and sustainable housing".[2]

I offer a unique perspective on this issue having worked for 23 years in the financial services industry, first as a regulator during the S&L Crisis and then at both Fannie Mae and Freddie Mac—pre-conservatorship, as well as at one of the largest commercial banks, the largest savings and loan at the time and the largest nonbank mortgage company during my tenure as a C-level risk management executive, and now as a finance professor working on risk management issues affecting the financial services industry. At both Fannie Mae and Freddie Mac I helped design and work on analytical methodologies used for pricing Enterprise guarantee fees and risk-based underwriting matrices.

There remains much confusion over the process employed to price credit risk by the Enterprises and like much of the housing finance system, that credit pricing process is based on a legacy structure that in a perfect world would likely never have been designed the way it exists today. Of critical importance to this hearing is the issue of cross-subsidization among mortgage borrowers. Changes in the LLPA grids that went into effect on May 1, 2023, sparked enormous controversy over the extent to which high credit quality borrowers are subsidizing low credit quality borrowers. I too in opinion pieces

[1]The views and opinions expressed in this testimony do not reflect those of the Robert H. Smith School of Business or the University of Maryland and are solely those of Dr. Rossi.

[2] https://www.fhfa.gov/AboutUs

raised concern over the appearance that fees on some high credit quality borrowers would rise while reducing fees for a number of low credit quality credit score and loan-to-value (LTV) ratio combinations in the LLPA grids. Those are immutable facts. The current and previous LLPA grids do incorporate elements of risk-based pricing though the current grids flatten the relationship between key risk attributes and credit default. Another fact is that cross-subsidization in credit pricing has been in place for decades by way of average guarantee fee pricing implemented by both Enterprises. Effectively then what we see today is a hybrid form of credit pricing that features flat or average pricing for guarantee fees (ongoing fees) and quasi-risk based pricing for upfront fees (LLPAs). The seminal question is whether such a pricing scheme is the best structure to achieve the FHFA's objectives cited earlier.

Background on Guarantee Fees and LLPAs

To understand what's wrong with the current LLPA approach we need to first review the general framework for how guarantee fees and LLPAs are developed. Both Enterprises leverage internally developed statistically-based models of mortgage default and prepayment that are simulated over hundreds of paths of interest rates and home prices. Default and prepayment models include many factors including those most commonly seen in the LLPA grids such as credit score and LTV, among others. These models are based on what we refer to as a through-the-cycle (TTC) view of mortgage performance over different economic environments, including severe stress periods such as the 2008 financial crisis. These models are used to generate estimates of expected and unexpected default cost. These estimates are then used to calculate guarantee fees which reflect expected default cost, the cost of capital required to insulate the Enterprises from severe credit shocks, and general & administrative expenses. Guarantee fees are averaged across borrowers but vary by product type (e.g., 30-year vs 15-year fixed rate mortgage). If the Enterprises followed a standard private market insurance risk-based pricing scheme, guarantee fees would be priced to be actuarially fair, i.e., cover the Enterprises' risk and costs plus provide a reasonable rate of return on a loan-by-loan basis.

In practice over the years, guarantee fees have deviated from actuarial pricing. For example, in the years leading up to the 2008 financial crisis, guarantee fees reflected market adjustments for sellers and other competitive effects leading both GSEs to compete on price in an effort to gain market share. That approach along with other issues, extremely low capital levels, greater risk-taking and poor regulatory oversight eventually drove both Enterprises into conservatorship where they remain the last vestiges of the 2008 crisis, held in a sort of perpetual regulatory captivity. Then in 2011, Congress further eroded the credit pricing process by requiring the GSEs to raise those fees by 10bps

under the Temporary Payroll Tax Cut Continuation Act of 2011 (TCCA). Clearly payroll taxes have nothing to do with mortgage credit pricing.

About the time of the financial crisis as both GSEs came under increasing stress from accelerating credit losses, they turned to a new device to raise funds to staunch those losses, LLPAs. The LLPAs are essentially an artifact of a last-ditch effort by the GSEs to save themselves rather than as a well-thought-out credit pricing structure. A key question then, is this an appropriate mechanism to achieve FHFA's touted goals?

Criteria for Mortgage Credit Pricing

In designing an optimal mortgage credit pricing structure for the Enterprises a set of key criteria are essential in guiding the process. These principles are as follows:

1. Any credit pricing structure must achieve the FHFA's goal of ensuring the safety and soundness of the Enterprises.
2. Credit pricing must be transparent and straightforward to understand
3. Credit pricing must be empirically-based, reflecting a through-the-cycle view of loan performance taking key credit risk attributes into account
4. Credit pricing should be operationally tractable and designed to minimize implementation burden for the Enterprises and mortgage originators
5. Credit pricing must seek to reduce and/or eliminate perverse incentives that may pose risk to borrowers or the Enterprises

So how do the current LLPA grids comport with these criteria? The use of the Enterprise Regulatory Capital Framework (ERCF) along with the modelling approach for generating guarantee fees aligns with the first and third criteria. However, the introduction of LLPAs violates the second, fourth and fifth criteria. While on the surface it can be argued that the LLPAs are transparent by virtue of their pricing by risk attribute, the exact mechanics are murkier, thus setting the stage for second-guessing the new LLPA grids. Much of any confusion over the changes to the LLPAs is directly attributed to the FHFA's stated objectives when these modifications to the LLPA grids were introduced:

The priorities outlined in the ***2022*** *and* ***2023*** *Scorecards for the Enterprises include developing a pricing framework to maintain support for single-family purchase borrowers limited by wealth or income, while also ensuring a level playing field for large and small*

sellers, fostering capital accumulation, and achieving commercially viable returns on capital.[3]

Note that the first objective stated by the FHFA has nothing to do with credit pricing either. Intertwining its safety and soundness and affordable housing objectives in the LLPA development process reduces pricing transparency and the relationship of credit default to key risk attributes while creating a potential unintended consequence of putting some borrowers into homes that might not be long-term sustainable for them. Let's examine each of these issues in turn.

Issues with Current LLPAs

While the FHFA argues that the process used to generate the latest LLPAs was based on sound risk-based principles leveraging the latest regulatory capital requirements and taking into account the effects of private mortgage insurance that would achieve a target rate of return for the Enterprises, their objective to also take into account issues relating to borrower wealth or income is not well explained as to how each cell in the LLPA grids was developed taking that goal into account. Without question, this objective is a critically important policy one for the country, however, there are better and more transparent ways of fulfilling that objective while also creating transparency in the LLPA process.

Continued reliance on LLPAs which were borne out of the 2008 financial crisis in conjunction with guarantee fees also reduces transparency in the credit pricing process and introduces more operational burden than needed. In effect credit pricing by the Enterprises is a hybrid of average and risk-based pricing. Ongoing fees are average priced whereas LLPAs are more risk-based though the current grids have become less so.

To gain a visual sense of how the fees have changed, consider Figures 1 and 2 that display the actual LLPAs for two critical borrower segments; 75.01-80% LTVs (no mortgage insurance required) and 80.01-85% LTVs (with mortgage insurance) by credit score. In both cases the previous and new LLPA grids show what we should expect generally if loans are risk-based priced, i.e., fees increase as credit scores decline holding LTV constant. However, notice that the new LLPA curve is significantly flatter than the previous LLPA curve for both LTV groups. A flattening of the curve suggests that there is less differentiation in fees across credit score categories, again holding LTV constant. In the extreme, without risk-based pricing, the curve would be horizontal across credit scores, i.e., no differentiation in fees. In other words, the new grids have become less risk-based,

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[3] FHFA Announces Updates to the Enterprises' Single-Family Pricing Framework, FHFA News Release, January 19, 2023.

and that has implications for high and low risk borrowers. By flattening the curves and pivoting around the 680-699 credit score bucket, high risk borrowers gain, and low risk borrowers lose from these changes.

Another issue with the current LLPA grids is that they are now less reflective of the relative credit risk of specific attributes. Table 1 highlights this issue. Using loan level credit performance data from Fannie Mae's Data Dynamics Tool for purchase money mortgages originated between 1999-2022, net loss rates for different FICO and LTV combinations are shown along with the ratio of net loss rates for 620-639 FICOs to 720-739 FICOs (Multiple). In addition, the actual LLPA fees for those FICO and LTV categories are shown along with their multiples. The flattening of LLPAs across FICO and LTV combinations results in pricing multiples under the new LLPA grid for purchase money loans that are substantially below those under the previous grid which was more closely aligned with historical loss experience over a long period of time.

Table 1: Comparison of Fannie Mae Net Loss Rates to LLPAs

	75-80% LTV			80.01-85% LTV			85.01-90% LTV		
	FICO Score Category			FICO Score Category			FICO Score Category		
	720-739	620-639	Multiple	720-739	620-639	Multiple	720-739	620-639	Multiple
Net Loss Rate (%)	0.2570	1.1138	**4.3339**	0.1312	1.0157	**7.7416**	0.2675	1.3660	**5.1065**
LLPA Fees									
Previous Grid	0.7500	3.0000	**4.0000**	0.5000	3.2500	**6.5000**	0.5000	3.2500	**6.5000**
New Grid	1.2500	2.7500	**2.2000**	1.2500	2.8750	**2.3000**	1.0000	2.6250	**2.6250**

One of the reasons for maintaining LLPA grids is that it provides the FHFA and the Enterprises with a mechanism to allow some flexibility in managing regulatory and business outcomes. Raising LLPAs on certain risky attributes such as cash-out refinances and second homes, for instance, certainly can be argued to be a sound risk-based practice that telegraphs to the market the Enterprises view on those risks. However, those factors are already embedded in the guarantee fee pricing default models used by the Enterprises. Moreover, credit policy provides the Enterprises with a powerful tool for adjusting the mix of their business and risk profiles.

A key question then is whether this hybrid pricing approach of average pricing for guarantee fees and a form of risk-based pricing for LLPAs is an appropriate approach or not to follow. Referring back to my criteria for such a credit pricing process, is there an alternative approach that increases pricing transparency, is operationally more tractable and still supports the FHFA's safety and soundness and affordable housing missions? The answer is yes and is laid out in the next section.

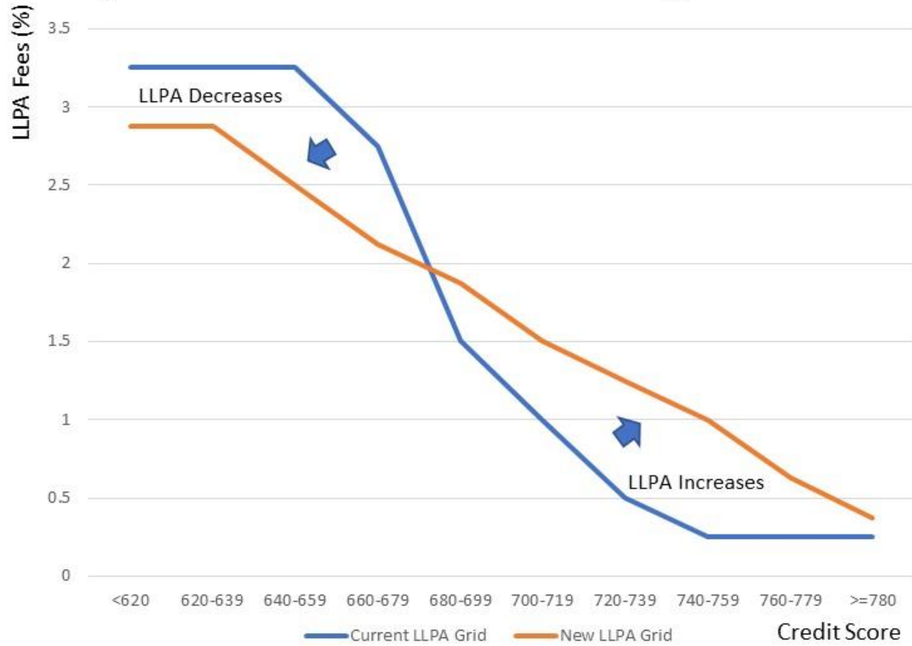
Figure 1: LLPA Fees for Purchase Money, 80.01-85% LTVs
LLPA Fees (%)
3.5
3
2.5
2
1.5
1
0.5
0
LLPA Decreases
LLPA Increases
<620
620-639
640-659
660-679
680-699
700-719
720-739
740-759
760-779
>=780
Current LLPA Grid
New LLPA Grid
Credit Score

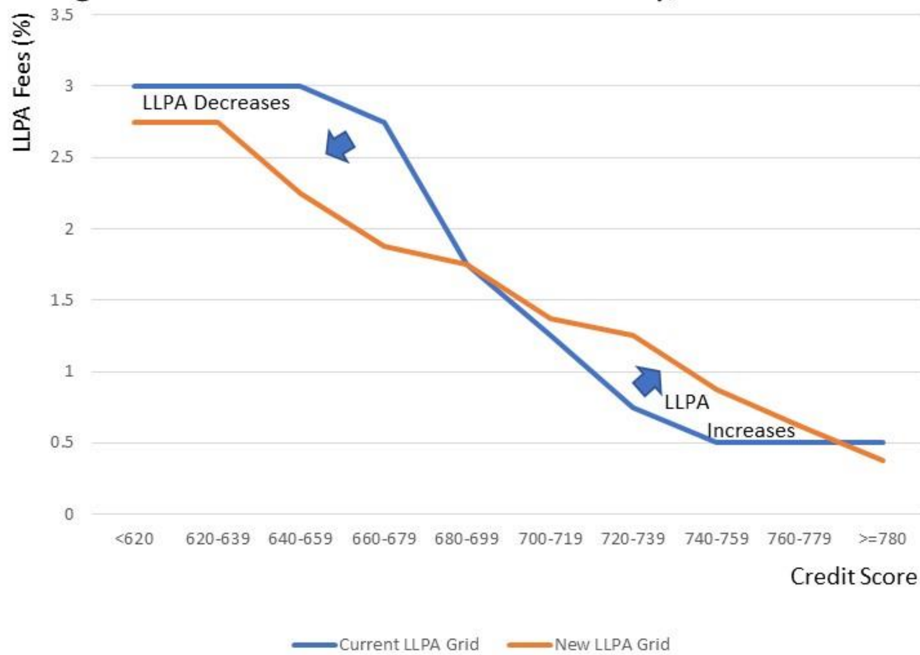
Figure 2: LLPA Fees for Purchase Money, 75.01-80% LTVs
LLPA Fees (%)
3.5
3
2.5
2
1.5
1
0.5
0
LLPA Decreases
LLPA
Increases
<620
620-639
640-659
660-679
680-699
700-719
720-739
740-759
760-779
>=780
Credit Score
Current LLPA Grid
New LLPA Grid

A Proposed Enterprise Mortgage Credit Pricing Structure

Fundamentally, the combination of ongoing and upfront fees is overly cumbersome and prone to the kind of concerns we are here to discuss at this hearing. Some have argued that risk-based pricing can at times lead to adverse selection, particularly with respect to the Federal Housing Administration (FHA). That is, if the Enterprises engage in risk-based pricing while the FHA is average pricing risk, there is a tendency for the lower credit quality loans to make their way to FHA. So, while we are here to discuss Enterprise LLPAs, we should take a broader view and account for what existing policy may be doing to drive risk to other corners of the market and expose taxpayers to greater risk down the road overall.

Eliminating the current FICO and LTV LLPA grids and updating guarantee fees provides a framework that meets all the stated criteria of mortgage credit pricing laid out earlier. This proposal would require the Enterprises to update their guarantee fees consistent with achieving a target rate of return taking into account the ERCF. A precedent has already been set with the FHFA's announcement rescinding the LLPA fee for debt-to-income (DTI) ratio.

Instead of imposing LLPA fees for various risk categories, an add-on to the actuarially fair guarantee fee would be determined by the FHFA to use as a legislatively-capped rebate (the Affordable Housing Rebate, or AHR) account of sorts to borrowers that are income and/or wealth challenged. There is ample precedent for guarantee fee "on tops" for various reasons such as the FHFA's requirement over the years to add 10bps to guarantee fees to provide additional coverage for credit exposure at the Enterprises and the 10bps adjustment for TCCA. The proposed approach would eliminate existing on tops to guarantee fees. This new AHR component then would be simply an add-on not related to credit risk but in a more transparent manner provide support to borrowers most in need.

This proposal decouples the safety and soundness objective from the affordable housing mission in credit pricing, provides transparency in credit pricing, reduces operational burden, reduces risks to borrowers and the Enterprises while supporting the goal of affordable housing.

Closing Thoughts

FHFA's approach at allowing the GSEs to continue to use LLPAs and incorporating affordable housing objectives into the credit pricing process has created confusion brought on by a lack of transparency in the pricing process and results in overengineering of credit pricing. Today we have a sort of Frankenstein approach to credit pricing, cobbling together average pricing for ongoing fees with quasi-risk-based pricing for upfront fees. It is no surprise then that we have arrived at a place where so much heated debate has

occurred on these fees. Fundamentally, the FHFA should immediately eliminate the FICO and LTV LLPA grids and request the Enterprises to update their guarantee fees to reflect that change while conforming to actuarial-based pricing. This approach is essential to ensure the integrity of credit pricing and to make the process operationally tractable. Beyond that allowing for an on top affordable housing adjustment to the guarantee fee to be used as a rebate for designated borrowers provides the FHFA some discretion to modulate their affordable housing mission while disconnecting it from the credit pricing process.