



# Our Perspective on the Enterprise Regulatory Capital Framework

## Focus on the Countercyclical Features

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On December 17, 2020, the Federal Housing Finance Agency (FHFA) published a final rule to establish the Enterprise Regulatory Capital Framework (ERCF). On September 15, 2021, the FHFA announced that it is seeking comments on a notice of proposed rulemaking that would amend three items in the ERCF. The proposed rule would reduce the prescribed leverage buffer amount (PLBA) and contains two refinements of the capital treatment of credit risk transfers (CRTs). These changes were made to provide incentives to the GSEs (the government-sponsored enterprises Fannie Mae and Freddie Mac) through the capital requirements to make risk-based decisions, including further encouragement to distribute risk from Fannie Mae and Freddie Mac to private investors.

We agree these changes result in a capital rule that will prove to be more risk based and will encourage the transfer of mortgage credit risk from Fannie Mae and Freddie Mac to private investors. But these amendments are designed to address issues that have already arisen—that is, the leverage requirements plus the buffer are binding for Freddie Mac, and the CRT treatment has resulted in a reduction in CRT issuance from Fannie Mae. We wish the FHFA would have been anticipatory and slightly more expansive in the list of items it chose to reconsider. In particular, we strongly urge a reconsideration of the countercyclical adjustment, as this could result in the GSEs writing less new business, especially for first-time homebuyers and underserved borrowers, if home price appreciation continues.

In this brief, we review the items the FHFA has chosen to reconsider and discuss the need to reconsider the countercyclical adjustment.

## The Proposed Amendments

The FHFA has proposed three amendments to the ERCF: one for changes in the PLBA and two for the capital treatment of CRTs.

The ERCF contains both a leverage ratio and a risk-based requirement. The GSEs are subject to the higher of the two. The leverage ratio requires the GSEs to maintain a leverage ratio of tier 1 capital to adjusted total assets of at least 2.5 percent. In addition, to avoid limits on capital distributions and discretionary bond payments, the GSEs must also maintain a tier 1 capital PLBA of at least 1.5 percent of adjusted total assets. If this leverage requirement is binding, the GSEs would have an incentive to take on more risk. The proposed amendment would replace the fixed 1.5 percent PLBA with a dynamic leverage buffer equal to 50 percent of an enterprise's stability capital buffer. This amendment will significantly decrease the PLBA, making it less likely the leverage ratio is binding.

The ERCF also contained features that discouraged the use of CRTs. Two amendments were designed to make it more attractive for the GSEs to use CRTs. In particular, the proposed rule would amend the CRT securitization framework by replacing the 10 percent risk weight floor assigned to any retained CRT exposure with a 5 percent risk weight floor. It would also remove the requirement that the GSEs must apply an overall effectiveness adjustment to these retained exposures.

We support these amendments in that they better align capital to risk. But they correct issues that have already appeared. As of March 31, 2021, the leverage plus PLBA requirement is actually higher than the risk-based capital requirement plus the prescribed capital conservation buffer amount for Freddie Mac. Similarly, because of the unfavorable capital requirements, Fannie Mae did not issue a Connecticut Avenue Securities deal from March 2020 to October 2021. The amendments did not anticipate future issues. We believe the countercyclical adjustment will put a damper on new lending in ways that are not connected to business risk, and this needs to be addressed.

## The Mechanics of the Countercyclical Adjustment

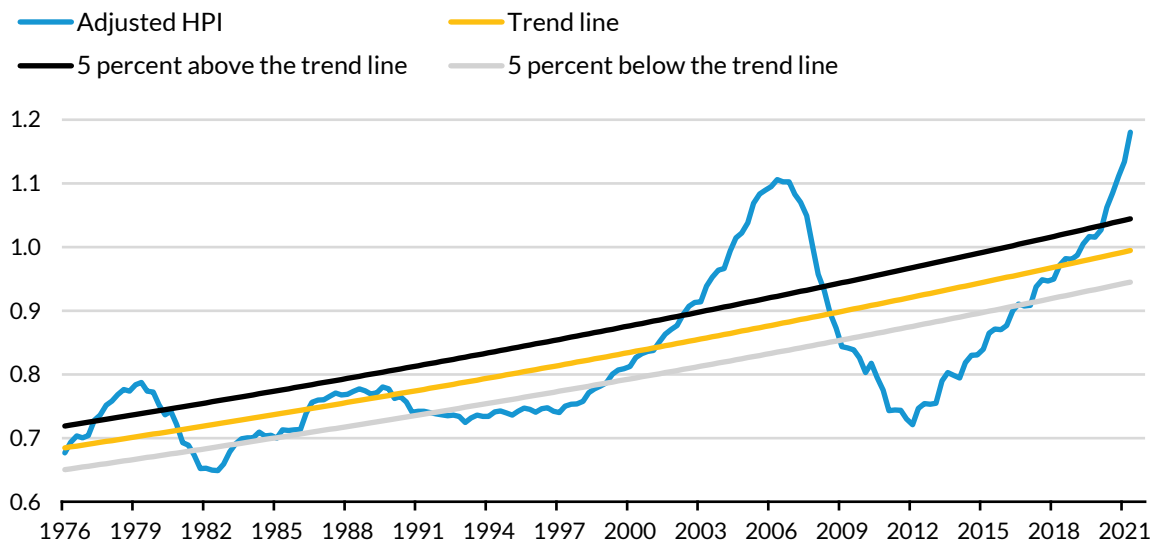
The countercyclical adjustment is designed to counteract the procyclicality of the risk-based capital requirements using the mark-to-market loan-to-value (MTMLTV) ratio adjustment. The countercyclical adjustment has an automatic trigger such that when national home prices increase or decrease relative to a long-term trend, the GSEs would be required to make adjustments. For example, when home prices rise rapidly, the MTMLTV ratios of the mortgages fall, and the risk-based capital requirements, based on the MTMLTV ratios, also fall. The countercyclical adjustment was designed to raise MTMLTV ratios during periods of historically high home prices.

The final rule, adopted in December 2020, fits a long-term trend based on the expanded-data FHFA Home Price Index (HPI). The parameters of the long-term trend are estimated using a linear regression on the natural logarithm of real HPI from the trough in the first quarter of 1976 (Q1 1976) to the trough in Q1 2012. This is a trough-to-trough estimation period. The rules require a countercyclical adjustment

when national home prices are more than 5 percent above or below this inflation-adjusted long-term trend.

Figure 1 shows adjusted HPI, the long-term trend line, and the values 5 percent above and below the trend line. There are three troughs from 1976 to 2012. The figure suggests that, in the 2000s, there would have been downward adjustments in home prices from early 2002 to early 2008 (with a maximum downward adjustment of 16.6 percent in Q2 2006) and upward adjustments from 2009 to 2016 (with a maximum upward adjustment of 21.4 percent in Q1 2012). From Q1 2017 to Q1 2020, no adjustment was necessary. But since Q2 2020, the downward adjustments kicked in. And as a result of rapid home price appreciation during the pandemic, the required adjustment has gone from -2.5 percent in Q2 2020 to -11.5 percent in Q2 2021, and this adjustment is likely to grow in magnitude in the coming year.

**FIGURE 1**  
**The Impact of the 5 Percent Collar and Floor above and below the Trend Line**



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Source: Urban Institute calculations from Federal Housing Finance Agency data.

Note: HPI = Home Price Index.

## The Impact of the Countercyclical Adjustment

This adjustment makes a large impact in the capital requirements for the GSEs' book of business. To see why, let us first consider a new 30-year fixed-rate, full-documentation purchase mortgage with an 80 percent loan-to-value (LTV) ratio and a borrower FICO score between 720 and 740. Table 1 shows the base risk weights for a new performing mortgage; this mortgage would have a base risk weight of 41 percent, or 328 basis points for the risk-based capital requirement (41 percent times the 8 percent risk-based capital requirement). Applying the -11.5 percent countercyclical adjustment, a mortgage with an

80 percent LTV ratio becomes a loan with a 90.4 percent LTV ratio and is subject to the risk-based capital for the applicable bucket (now a 90 to 95 percent LTV ratio). (The calculation for the countercyclical adjustment is  $(LTV \text{ ratio} / (1 + \text{countercyclical adjustment}))$ , or  $80 / (88.5)$ .) Hence, this newly originated loan with an 80 percent LTV ratio with the countercyclical adjustment now has a base risk weight of 84 percent (672 basis points). The amount of capital that needs to be held for that loan has more than doubled from 328 basis points to 672 basis points, a 344 basis-point difference.

Assuming an imputed capital charge of 10 percent per year, the required guarantee fee for the loan would be 34 basis points higher. If the GSEs were not in conservatorship, this would be passed through to the borrower and would affect the mortgage's affordability.

Table 2 shows the impact of the countercyclical adjustment on the capital requirements for all newly originated 30-year fixed-rate purchase mortgages sold to the GSEs in June 2021. These numbers account for the loan-level risk multipliers and the original LTV ratios, credit scores, and countercyclical adjustment. Although the overall adjustment represents a 63 percent increase, the impact is different across LTV categories. Loans with LTV ratios around 80 percent are significantly affected. For example, the total increase in loans with 75 to 80 percent LTV ratios is 97 percent. The issue is even more compounded at lower FICO scores that likely belong to underserved borrowers. This is compared with no increases in loans with LTV ratios below 30 percent and a very small increase in loans with LTV ratios from 30 to 60 percent. Loans with high LTV ratios (above 90 percent) are less affected as well.

TABLE 1

## Risk Weights for Performing Loans

Credit score	Adjusted Mark-to-Market Loan-to-Value Ratio													
	≤30%	30–40%	40–50%	50–60%	60–70%	70–75%	75–80%	80–85%	85–90%	90–95%	95–100%	100–110%	110–120%	>120%
<620	2%	10%	18%	34%	49%	72%	105%	129%	159%	188%	218%	247%	275%	317%
620–640	2%	8%	14%	27%	39%	58%	84%	102%	127%	151%	178%	208%	237%	282%
640–660	2%	7%	12%	23%	34%	51%	73%	89%	111%	133%	159%	186%	214%	258%
660–680	2%	6%	10%	20%	29%	44%	63%	78%	98%	119%	141%	168%	194%	236%
680–700	2%	6%	9%	18%	26%	38%	55%	67%	88%	109%	125%	150%	176%	215%
700–720	2%	5%	8%	15%	22%	33%	47%	57%	75%	94%	110%	134%	158%	194%
720–740	2%	4%	6%	13%	19%	28%	41%	50%	66%	84%	96%	118%	140%	172%
740–760	2%	4%	5%	11%	16%	23%	33%	40%	54%	69%	80%	99%	119%	147%
760–780	2%	3%	4%	9%	13%	19%	27%	32%	43%	56%	65%	82%	99%	122%
≥780	2%	3%	3%	7%	10%	14%	21%	25%	33%	43%	50%	63%	77%	96%

Source: Enterprise Regulatory Capital Framework, Final Rule, 85 Fed. Reg., 82150 (December 17, 2020), 263.

TABLE 2

## Percentage Increase in Capital Requirements, by FICO Score and Original Loan-to-Value Ratio

Credit score	Loan-to-Value Ratio										All
	≤30%	30–60%	60–70%	70–75%	75–80%	80–85%	85–90%	90–95%	95–97%	>97%	
<620	0%	7%	114%	79%	77%	N/A	N/A	N/A	N/A	26%	67%
620–640	0%	32%	86%	76%	77%	70%	60%	38%	N/A	28%	65%
640–660	0%	35%	88%	75%	80%	70%	63%	40%	17%	31%	64%
660–680	0%	25%	87%	77%	86%	77%	67%	41%	19%	25%	66%
680–700	0%	20%	87%	76%	95%	81%	67%	38%	20%	31%	60%
700–720	0%	10%	82%	73%	97%	87%	75%	43%	22%	24%	62%
720–740	0%	3%	79%	79%	100%	87%	75%	40%	23%	30%	62%
740–760	0%	1%	52%	73%	105%	93%	79%	43%	24%	42%	66%
760–780	0%	0%	29%	61%	103%	96%	85%	46%	26%	39%	68%
≥780	0%	0%	9%	38%	94%	89%	77%	42%	24%	22%	60%
All	0%	4%	42%	60%	97%	88%	76%	42%	23%	29%	63%

Source: Urban Institute calculations from eMBS data.

Note: N/A = not applicable.

Table 3 aggregates this to the portfolio level, showing the risk weights for the portfolio of 30-year fixed-rate mortgages originated in March and June 2021. Note that in March 2021, the risk weight with no countercyclical adjustment was 37 percent; with the countercyclical adjustment of -8.1 percent, the risk weight was 53.3 percent. Thus, the required capital to be held jumps from 2.79 percent (35.6 basis points times 8 percent without the countercyclical adjustment) to 4.04 percent with the adjustment. In June 2021, the risk weight with no countercyclical adjustment was 36.5 percent, similar to what it was in March; it was 58.7 percent with the -11.5 percent countercyclical adjustment. This raises the amount of required capital on the new 30-year purchase book of business from 276 basis points without the adjustment to 450 basis points, a 174 basis-point or 63 percent increase as a result of the countercyclical adjustment. Even if one considers only the jump from March to June, the increase is 36 basis points in a single quarter, with a similar book of business.

**TABLE 3**  
**Risk Weights and Capital for March and June 2021**

Month	HPI adjustment	Risk weight, no adjustment	Risk weight, with adjustment	Capital, no adjustment	Capital, with adjustment
March 2021	-8.1%	37.0%	53.3%	279 basis points	404 basis points
June 2021	-11.5%	36.5%	58.7%	276 basis points	450 basis points

Source: Urban Institute calculations from eMBS data.

Note: HPI = Home Price Index.

Overall, assuming a 10 percent return on capital, if this were passed through to the borrower, borrowers, on average, would pay 17.4 basis points more. This could deter borrowing if the GSEs decide to pass through these charges (or after conservatorship, when the private markets will likely demand it).

All these calculations were as of Q2 2021. If home prices continue to rise faster than inflation, the effects will be amplified. And other publicly available home price indexes indicate Q3 2021 will require an even larger adjustment than Q2 2021.

## What Can Be Done about the Countercyclical Adjustment?

The ERCF does include a trigger to reestimate the long-term trend. That is, the FHFA will adjust the formula for the long-term HPI if two conditions are satisfied:

1. The average of the deflated HPI departures from the long-term HPI trend over four consecutive quarters has been less than -5.0 percent.
2. After the end of the quarter in which the first condition is satisfied, the deflated HPI has increased to an extent that again exceeds the long-term HPI trend.

The new trough the FHFA uses to adjust the formula for the long-term HPI trend will be identified by the quarter with the smallest deflated HPI in the period that includes the quarter the first condition is satisfied and ends at the end of the quarter the second condition is satisfied.

This suggests it could be years before the formula can be readjusted; not only must a new trough be established, but HPI has to return to a level above the trend. For example, the trough HPI in 2012 was achieved in Q1, but the HPI was not above the trend until 2018. Thus, the formula would not have been reestimated until 2018.

This autopilot approach to home prices ignores the impact of low interest rates allowing borrowers to take advantage of lower payments, increasing affordability (although that is captured indirectly, as the HPI is deflated by inflation, and interest rates reflect inflationary expectations). Furthermore, most evidence shows these home prices are not the result of a bubble and irrational exuberance but arise from the large supply-demand imbalance in the housing market. Freddie Mac estimates that as of the end of 2020, we are 3.8 million units short of the target housing stock (this deficit was 2.5 million units in 2018) (Khater, Kiefer, and Yanamandra 2021). A June 2021 report released by the National Association of Realtors and authored by Rosen Consulting finds that underbuilding since 2001 is at least 5.5 million units (Rosen et al. 2021). The Urban Institute found the population-adjusted rate of housing production (single-family starts plus multifamily starts plus manufactured housing) has fallen from more than eight homes per 1,000 population in the 1960s, 1970s, and 1980s to four homes per 1,000 population (Neal, Goodman, and Young 2020). This well-documented housing supply shortage suggests home prices running above the trend has a structural component and a cyclical component (Parrott and Zandi 2021).

Over time, these effects could reverse, but slamming on an automatic lending brake nationwide based on a linear regression of long-term trends makes no sense. The FHFA has other tools to slow down lending in those markets where it believes overvaluation is an issue. For example, the FHFA could restrict cash-out refinancing in certain areas by lowering the maximum LTV ratios in those areas, or it could prohibit purchase loans with LTV ratios above 90 percent in those areas.

There are several solutions to ameliorate the effects of the countercyclical adjustment. To preserve the autopilot nature of this adjustment rather than use judgment based on specific markets at specific times, the FHFA should consider an asymmetric approach, with a wider collar and less than a 100 percent adjustment when the current year is above the trend line. Adjustments that are not symmetric will encourage more lending during periods of home price declines while not slamming on the brakes during periods of home price increases (i.e., allowing for a 7.5 percent band above the trend line and a 5 percent band below the trend line) or, when home price appreciation for a given year is above the corridor, give credit for half the incremental real home price appreciation. When home price appreciation is below the corridor, make the full upward adjustment. We believe that when home prices are below the trend line, it often corresponds to periods when others have pulled out of the market, and the GSEs should be more aggressive. In fact, their charter would suggest that this countercyclical presence is one of their roles.

Even so, we strongly believe a “set it and forget it” approach will prove unsatisfactory. We suggest that the FHFA, in consultation with the Federal Reserve and the Financial Stability Oversight Council, retain the right to reevaluate the adjustment every few years to make sure it does not unreasonably inhibit lending both nationwide and in local markets.

At the minimum, the countercyclical adjustment in the ERCF needs to be reexamined, and we hope the FHFA does so quickly.

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