The Preferred Stock Purchase Agreements Will Hamper Access to Credit

A Further Modification Is in Order

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In the final days of the Trump administration, on January 14, 2021, Treasury Secretary Steven Mnuchin and Federal Housing Finance Agency (FHFA) director Mark Calabria amended the senior preferred stock purchase agreements (PSPAs), the contracts that govern the terms on which the US Treasury supports Fannie Mae and Freddie Mac. The changes were intended to create momentum for the government-sponsored enterprises' (GSEs') eventual release from conservatorship and constrain their activities well after their release (Parrott 2021). To create momentum for the GSEs' release, provisions allow the GSEs to build capital to the level required under the FHFA's recently released capital requirements and provides certain milestones for the GSEs' release.

In an apparent attempt to constrain the risk that the GSEs can take after conservatorship, the PSPAs also include limits on the GSEs' business practices. These include limits on the amount of mortgages the GSEs can purchase that are "high risk" or that support second homes or investor properties, as well as caps on the use of the cash window. In this brief, we describe why these moves are an ineffective means of managing risk and will come at considerable cost. The changes will further diminish access to credit for families of color and undermine policymakers' ability to better serve the mortgage market on several other fronts. We conclude that the changes should be revised or abandoned.

PSPA Provisions to Constrain Credit Will be Binding in Many Periods

The PSPA modification limits the GSEs' purchases of high-risk single-family loans to 6 percent of their purchase money mortgages and 3 percent of their refinance mortgages. A high-risk loan has at least two of the following characteristics:

- the loan is more than 90 percent of the home's value (its loan-to-value, or LTV, ratio is above 90 percent)
- the borrower's debt is more than 45 percent of their income (their debt-to-income, or DTI, ratio is above 45 percent)
- the borrower has a credit score below 680

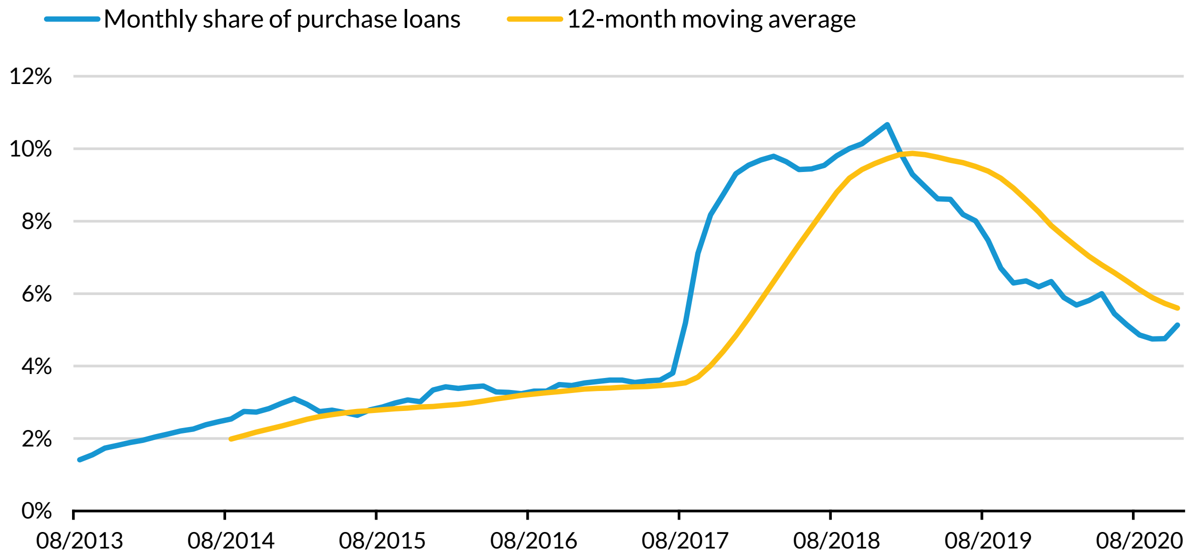
In addition, second homes and investor properties are limited to 7 percent of GSE acquisitions. These ceilings are measured as a 52-week moving average.

Figure 1 shows the share of purchase loans originated since 2013 that are high risk, by dollar volume. We show these numbers on a month-by-month basis and as a 12-month moving average. We cannot provide estimates as a 52-week moving average because there are no publicly available weekly numbers, but the results should be similar to the 12-month moving average.

According to the monthly results, 5.13 percent of purchase loans were high risk in November 2020, which is below the 6 percent threshold, and the constraint has not been binding since February 2020. But for individual months, the constraint was binding from late 2017 through January 2020. For the 12-month moving average, the numbers are binding from March 2018 through August 2020. The COVID-19 economic recession has diminished the prevalence of high-risk loans, as lenders have several incentives to make fewer of them. First, the sheer volume of refinance loans has created capacity constraints for many originators, making it less productive to work with the marginal purchase borrower. Second, the cost of servicing delinquent loans is higher than it is for performing loans, and the COVID-19 recession has increased the probability of mortgage nonpayment. Finally, the GSEs have imposed penalties on loans that go into forbearance before they can be sold to the GSEs, and originators do not want to incur these penalties and are putting overlays on the loans they will accept. But as the vaccine becomes more generally available, the economy improves, and interest rates rise enough to slow refinance activity, these incentives will all fade and the 6 percent limitation will again be binding.

FIGURE 1

Share of Purchase Loans Considered High Risk, by Dollar Volume

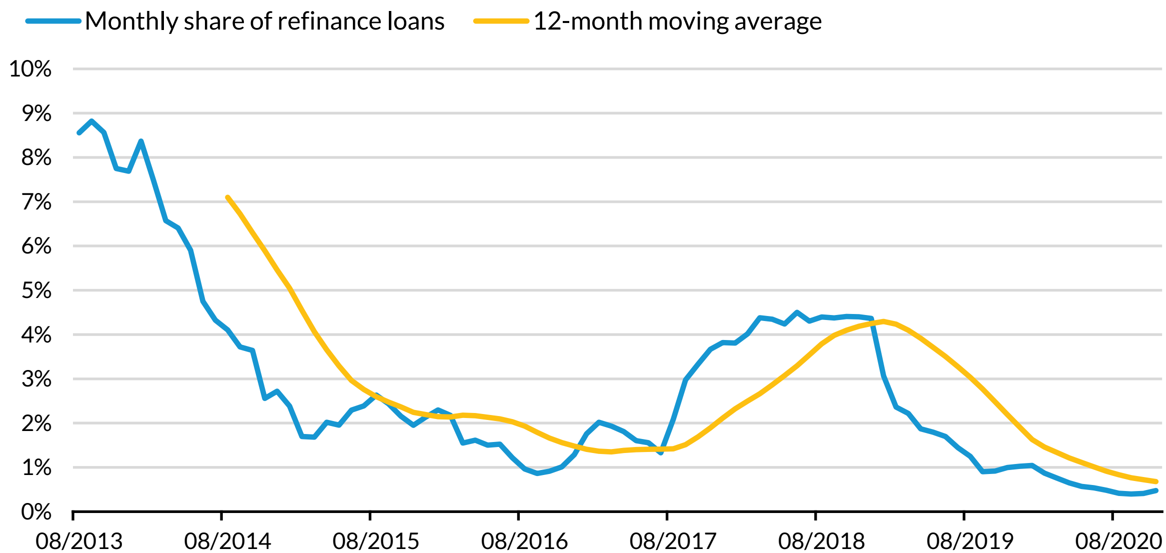


Sources: eMBS and the Urban Institute.
Note: Data as of December 2020.

The situation with high-risk refinancing is somewhat similar. Although only 0.48 percent of refinance loans are high risk now (figure 2), the share was above the 3 percent threshold on a monthly basis between October 2017 and January 2019 and for the 12-month moving average between June 2018 and September 2019. The median FICO score on refinance loans now stands at 770, as capacity-constrained originators are processing larger loans with higher FICO scores first. But the low share of high-risk refinance loans reflects the fact that we have been amid a refinancing wave, in which capacity-constrained originators do their lowest-risk refinances first. As the refinancing wave abates, the cap will become more binding.

FIGURE 2

Share of Refinance Loans Considered High Risk, by Dollar Volume

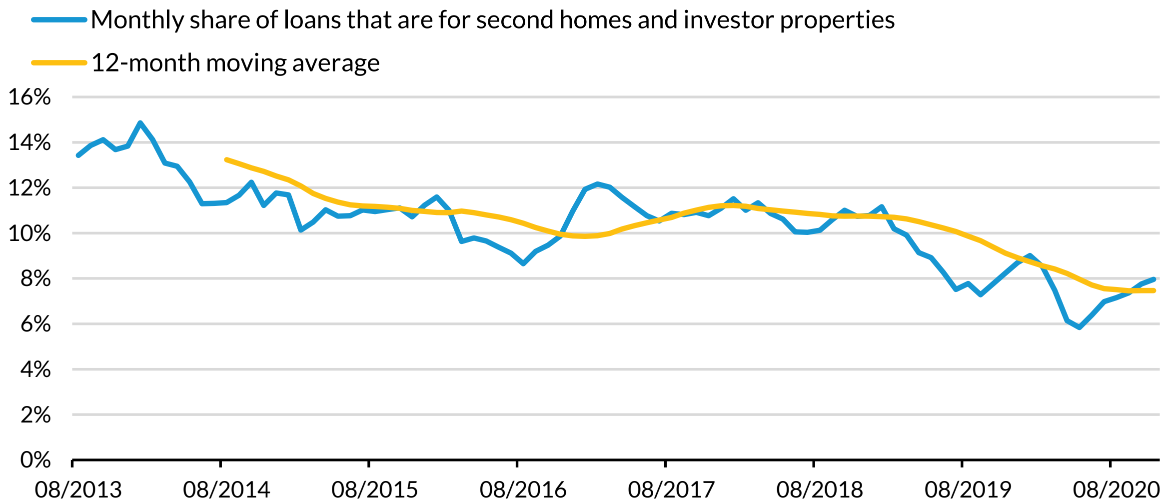


Sources: eMBS and the Urban Institute.
Note: Data as of December 2020.

Figure 3 shows the share of loans that are for second homes and investor properties. This constraint is already binding; the share of loans for second homes and investor properties is above 7 percent. In fact, as a 12-month moving average, it has been binding continuously since 2013. Investor properties are a lucrative part of the GSE portfolio. The loan-level pricing adjustments required on these are well more than the compensation for their risk (Goodman, Parrott, and Zandi 2019; Stegman and Cooperstein 2019). This allows for cross-subsidization to the rest of the GSE purchases. In addition, the rental units in single-family properties (one-to-four-unit structures) account for half of all rental units, many of which are rented by low- and moderate-income households. Although placing limitations on these markets will not directly affect any of the Biden administration's policy objectives, they are likely to significantly indirectly affect those objectives by reducing the resources by which the GSEs can reduce the cost of borrowing for underserved borrowers.

FIGURE 3

Share of Loans That Are for Second Homes and Investor Properties, by Dollar Volume



Sources: eMBS and the Urban Institute.
Note: Data as of December 2020.

In short, the caps on high-risk purchases and refinances, while not binding now, will be binding in an environment that is not driven by refinances. And the caps on second homes and investor properties are currently binding and will result in fewer of these loans, limiting some of the more profitable books of business and hence the resources to subsidize underserved market segments.

The Case for These Hard Limits Is Weak

Even if there were some policy justification to limit the GSEs' support of these market segments, the imposition of hard limits in the PSPAs makes little sense. These limits are inefficient, difficult to manage, and redundant as a means of controlling risk.

There are times when hard limits are called for, such as with pollution and safety standards (Weitzman 1974). In general, it is more efficient to directly price for risk in the market, rather than doing so through hard limits. The hard limits considered here give no credit for compensating factors, where a very high credit score could offset a high LTV ratio and a high DTI ratio or where a low LTV ratio could offset a low credit score and a high DTI ratio.

The limits are also going to be prohibitively difficult to manage as a 52-week moving average ceiling. Assume the GSE is below the ceiling and has attractive opportunities to go considerably above the ceiling for a short time. This above-ceiling production will continue to factor into decisions for the entire next year, requiring the GSE to go below the ceiling for a short time, regardless of the circumstances. Thus, as with any limit, the GSEs will need to manage to these limits with a cushion. The size of the cushion depends on the metric's volatility. Using data from August 2013 through November 2020, we

computed how much the next 12-month average share of high-risk products deviated from the current month's share. For high-risk purchase money mortgages, the standard deviation was 1.53 percent, and for high-risk refinance mortgages, the standard deviation was 1.34 percent. The GSEs may be able to reduce volatility, but these standard deviations are large, between a quarter (1.53 / 6) and nearly half (1.34 / 3) of the limits. This suggests that managing these ceilings will be problematic, and the cushion could be sizeable.

Most concerning, however, is that the ceilings are redundant if the objective is to help the GSEs guard against risk. The FHFA has already implicitly priced for the mortgage products that are restricted in the PSPA through its final risk-based capital rule. Although the rule is complicated and has many moving pieces, it is straightforward to approximate the extra capital charge for the PSPA's high-risk products.

Table 1 estimates capital requirements for high-risk purchase loans using the FHFA capital multiplier. Based on the multipliers and the share of 2020 loans in each bucket, we estimate that the high-risk loans will require 4.25 times the capital of low-risk loans.

TABLE 1

Capital Multiplier for High Risk-Loans

High-risk category	FHFA capital multiplier (A)	Share of category (B)	(A) x (B)
LTV ratio and FICO score	6.0	28.4%	1.704
LTV ratio and DTI ratio	3.6	68.5%	2.466
FICO score and DTI ratio	2.4	2.9%	0.060
LTV ratio, FICO score, and DTI ratio	7.2	0.2%	0.014
Total (average)	**4.3**	**100.0%**	**4.254**

Sources: Multipliers are from Enterprise Regulatory Capital Framework: Final Rule, 12 C.F.R. 1750 (2020), tables 2 and 6. The share of loans in each category is calculated from 2020 eMBS data.
Notes: DTI = debt-to-income; FHFA = Federal Housing Finance Agency; LTV = loan-to-value. To calculate the multipliers for LTV ratios and FICO scores, we use the average ratio of the risk relative to a mortgage with an 80 percent LTV ratio and a 750 FICO score.

We have commented on limitations to the capital rule and the effects of the rule's overall stringency on credit availability (Golding, Goodman, and Zhu 2020), but the multipliers do capture relative mortgage risk based on risk characteristics. The overall multiplier of 4.25 for high-risk products, as defined by the PSPA, is enough to protect against the incremental risk. And this multiplier amplifies an already overly stringent average capital level of around 3 percent, resulting in a 12.75 percent capital requirement for these loans. This should guard against excessive risk building up in the GSEs.

Thus, the FHFA is already accomplishing the same goal through its capital rule (by charging for high-risk loans through a higher capital requirement) than is done in the PSPA using a cruder ceiling. Moreover, the automated underwriting systems also measure these characteristics so that any loan that makes it through these screens likely has other compensating factors, such as a stable borrower

income. Less than 0.2 percent of the high-risk loans in 2020 violated all three of the triggers, indicating that weakness on two triggers was compensated for by strength on the third.

The PSPA also puts limits on second homes and investor properties at 7 percent of purchases. These limits do not seem based on concern for risk, as the capital multipliers for these products are 1.0 and 1.2, respectively, in the capital rule. The loan-level pricing adjustments more than cover this additional risk, and investor loans are the cash cows of the GSE business.

These Limitations Will Disproportionately Affect Borrowers of Color

The proposed limits are not only an inefficient way to control risk, but they will have a disproportionate impact on borrowers of color. Table 2 presents the median FICO scores, median combined loan-to-value (CLTV) ratios for purchase and refinance mortgages, and median DTI ratios by race and ethnicity in 2019. Black and Hispanic borrowers have lower FICO scores and higher CLTV ratios and DTI ratios than either non-Hispanic white or Asian borrowers.

TABLE 2

FICO Scores, DTI Ratios, and CLTV Ratios, by Race or Ethnicity

2019 originations

Borrower race or ethnicity	Median FICO score	Median CLTV ratio for purchase mortgages	Median CLTV ratio for refinance mortgages	Median DTI ratio
Non-Hispanic white	752	90.0%	74.0%	36%
Hispanic	714	96.5%	74.2%	41%
Black	694	96.5%	79.6%	41%
Asian	763	80.0%	70.0%	38%
Other	723	96.5%	75.0%	40%
Total	**746**	**90.0%**	**74.0%**	**37%**

Source: Feng Liu, Young Jo, Akaki Skhirtladze, and Laura Barriere, *An Updated Review of the New and Revised Data Points in HMDA: Further Observations Using the 2019 HMDA Data* (Washington, DC: Consumer Financial Protection Bureau, 2020).
Note: CLTV = combined loan-to-value; DTI = debt-to-income.

The publicly available Home Mortgage Disclosure Act data do not include information on FICO scores, where table 2 indicates that there are substantial differences by race and ethnicity. But we can look at CLTV and DTI ratios.[1]

Table 3 shows that for GSE purchase mortgages made in 2019, more than twice the share of Black and Hispanic borrowers versus white borrowers (8.75 percent versus 4.07 percent) would be considered high risk, as determined by FICO scores and LTV ratios only. This would make it more difficult to expand the credit box to incorporate more Black and Hispanic borrowers. Looking at purchase denials of conventional mortgages, we find 27.4 percent of denials of Black borrowers and 18.1 percent of denials of Hispanic borrowers were considered high risk, as measured by LTV and DTI

ratios only. This compares with 8.0 percent of white borrowers and 5.3 percent of Asian borrowers. The refinance denials also show a higher share of Black and Hispanic borrowers in this high-risk category, as defined by the PSPAs, although the absolute numbers are much lower.

TABLE 3

Mortgage Extensions and Denials for Borrowers Violating the Debt-to-Income and Loan-to-Value Restrictions, by Race or Ethnicity

Borrower race or ethnicity	Share of purchase originations	Share of refinance originations	Share of purchase denials	Share of refinance denials
Non-Hispanic white	4.07%	0.37%	8.0%	2.3%
Hispanic	8.75%	0.65%	18.1%	3.1%
Black	8.74%	0.71%	27.4%	4.5%
Asian	3.78%	0.43%	5.3%	1.9%
Other	6.02%	0.55%	13.9%	2.7%

Source: Urban Institute calculations based on 2019 HMDA data.
Notes: HMDA = Home Mortgage Disclosure Act. Because of technicalities in HMDA reporting, denial shares are based on all conventional loans while origination shares describe only loans purchased by the government-sponsored enterprises.

This restriction on high-risk loans would thus further drag down the already low share of Black and Hispanic borrowers who use GSE mortgages. In 2019, around 3.5 percent of GSE mortgages went to Black borrowers and 8.9 percent went to Hispanic borrowers. But mortgages to Black and Hispanic borrowers represented 5.8 and 10 percent of all mortgages extended in 2019.

Of those borrowers who will fall out of the GSE channel because of this constraint, some would go to the Federal Housing Administration. Thus, the constraint would not reduce the total risk to the taxpayer; it would merely shift the risk from the GSEs to the Federal Housing Administration, a government entity that has less flexibility in loss mitigation than the GSEs (Goodman et al. 2018).

A HARP 3.0 Will Be Impossible

One of the most successful policy actions following the Great Recession was the Home Affordable Refinance Program (HARP). This program allowed for streamlined refinancing for 3.4 million borrowers, cutting the probability of default for these borrowers 40 to 60 percent (Golding et al. 2021). The program's hallmark was a no-documentation refinance, allowing all borrowers to refinance if they had an existing Fannie Mae or Freddie Mac mortgage. Currently, the median FICO score for refinancing borrowers is above 770, the median DTI ratio is 32 to 33 percent, and the median LTV ratio is 66 to 67 percent. Only the safest loans are being given the opportunity to refinance.

A reprise of that program makes sense in the current pandemic environment (Golding et al. 2021). In addition to lowering default rates and reducing the use of forbearance, it would provide a further stimulus channel for monetary policy, without cost to the taxpayer.

If the GSEs were to create such a program, however, they would be unable to control the number of high-risk loans to come through. Thus, this PSPA amendment would make the implementation of a streamlined refinance program—which would benefit the high-risk borrowers the most—difficult, unnecessarily taking a powerful policy tool off the table.

The PSPA Amendment Undermines the Single Security

The PSPA also calls for limitations on the use of the cash window. After January 1, 2022, Fannie Mae and Freddie Mac will be unable to acquire more than $1.5 billion from any single seller over any four-year period. To put this in perspective, with an average loan size of close to $300,000, this is about 5,000 loans per originator or 10,000 across the two GSEs. Using HMDA data, which do not capture all GSE originations, we estimate that approximately 107 originators in 2020 (58 in 2019) have volumes in excess of 10,000 loans per year and could be affected by this limit. This seems to be prompted by a desire to make sure the pricing was the same for both large and small lenders, but eliminating these price disparities had already been mandated in previous FHFA guidance.

Although it is unclear what benefit the move would provide, it comes at a clear cost. The success of the single security, which can contain Fannie Mae or Freddie Mac loans, requires that the Fannie Mae and Freddie Mac prepayment speeds be close for every coupon–issue year cohort. The cash window allows the GSEs to create large pools with similar characteristics, as it gives them the flexibility to put any given loan into whichever of several pools to maintain consistent prepayment speeds across the various pools. Taking away this pooling flexibility will make it more difficult for the GSEs to harmonize their prepayment speeds, which, over time, will make the management of the single security more difficult. There is some risk that some investors begin to reject the single security, compromising the liquidity of the agency mortgage-backed security market.

At the very least, the FHFA could have calibrated its cutoff to target just the top 5 or 10 or even 20 originators, rather than at a level that potentially hits more than 100 originators. A more appropriate target might be 100,000 loans (50,000 loans per GSE), rather than one-tenth that amount. This higher target would have affected 6 originators in 2019 and 19 in 2020. And the appropriate limit can change with market conditions, so it would have been better to impose any limit through rulemaking that gave the FHFA the flexibility to easily change the limit.

Conclusion

The limits imposed in the PSPAs make little sense. They are not an efficient or effective way for the GSEs to manage their risk, yet they come at considerable cost, undermining policymakers' ability to support the mortgage market on several fronts. These limits both disproportionately affect borrowers of color and unnecessarily constrict policy choices going forward. We thus urge the new administration to revise the limits to better meet their policy objectives or abandon them for the sake of more dynamic, flexible tools in rulemaking or directives.

Note

[1] We use CLTV ratios rather than LTV ratios for this analysis because CLTV ratios are disclosed in HMDA data. LTV ratios are not disclosed, and few homes are purchased using a section mortgage, suggesting the LTV and CLTV ratios should be close. Although HMDA data are available for both mortgage amounts and home values, which allows for an LTV calculation, the disclosure is in buckets, introducing inaccuracies in the calculation and producing an LTV ratio that is often (and on average) higher than the CLTV ratio.

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