



Statement before the House Committee on Financial Services
On "A Failure to Act: How a Decade Without GSE Reform Has Once Again Put Taxpayers at Risk"

How a Decade Without GSE Reform Has Once Again Put Taxpayers at Risk

Prompt Administrative Action Is Advisable Now

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Chairman Hensarling and Ranking Member Waters, thank you for the opportunity to testify today.

“A Failure to Act: How a Decade Without GSE Reform Has Once Again Put Taxpayers at Risk” is an appropriate title for this hearing.

The last house price boom and subsequent bust was the result of ill-advised and risky government housing policy. Today we are in the midst of another boom, and, once again, it is the result of ill-advised and risky government housing policy.

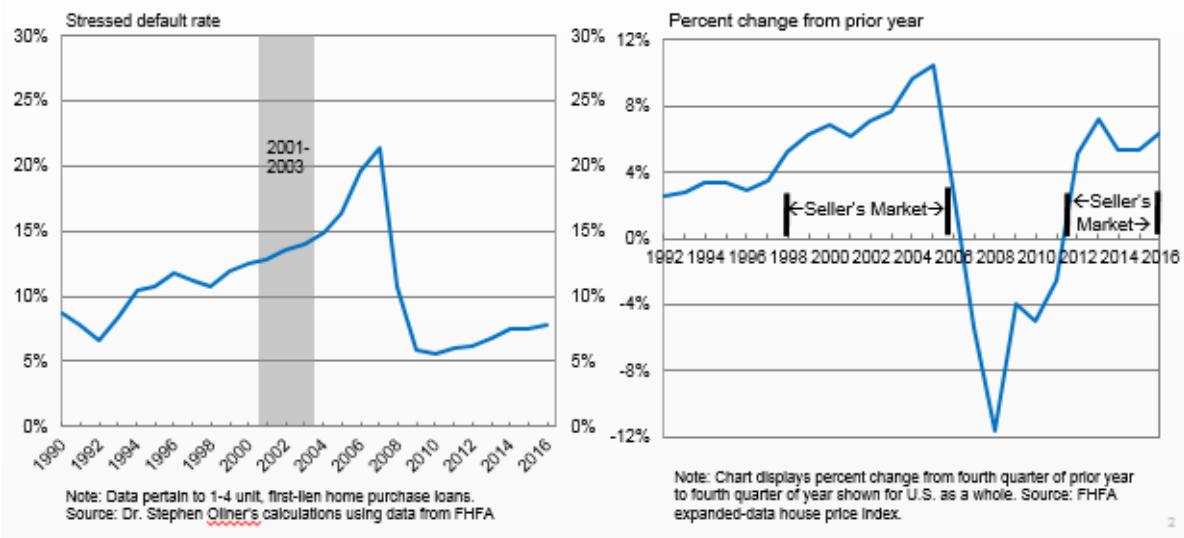
In 2014 I cofounded the AEI Center on Housing Markets and Finance. My prior research had established that the financial crisis largely stemmed from a failure to understand buildup of housing risk. I am pleased to report the center now produces the most comprehensive set of risk measures—providing accurate, real-time tracking of leverage that, when left unchecked, results in destructive housing booms and busts. **Unfortunately, we are now able to document that we are in the midst of another potentially dangerous buildup of policy-induced housing risk. This policy is making entry-level homes less, not more, affordable.**

My testimony today uses the results from risk rating of 60 million individual mortgage loans dating back to 1990.

I will start our analysis with the buildup of risk in the 1990s and 2000s that was the result of ill-advised and risky government housing policy. The left panel below shows that the government-sponsored enterprises’ (GSEs’) Mortgage Risk Index (MRI) began rising in the early 1990s, not the early-2000s as many have incorrectly claimed. This increase in risk was the direct result of the passage of The Federal Housing Enterprises Financial Safety and Soundness Act of 1992. By 2007 the GSEs’ MRI had tripled to 21 percent. The right panel in Figure 1 demonstrates that home prices started climbing at an unsustainable annual rate in the late-1990s and continued until 2006. During this entire period there was a seller’s market, indicative of tight supply versus demand.¹ Then for five years the market was a buyer’s market (2007–11), and home prices plummeted, severely damaging our economy and inflicting untold harm on millions of Americans.

¹ The National Association of Realtors defines a seller’s market as six months or less remaining inventory at the current monthly sales rate. A buyer’s market is greater than six months inventory.

Figure 1. GSE Historical Mortgage Risk Index and National House Price Increases



Note: Data pertain to one to four unit, first-lien home purchase loans. The figure displays percentage change from fourth quarter of the prior year to fourth quarter of year shown for US as a whole.

Source: Stephen Oliner's calculations using data from the Federal Housing Finance Agency; and Federal Housing Finance Agency expanded-data house price index.

As the left panel above demonstrates, the GSEs' MRI is once again on the rise. As I will demonstrate later in my testimony, it is of even more concern that the Federal Housing Administration's (FHA's) MRI now stands at 28 percent, well above the level reached by the GSEs in 2007 and up from the FHA's 19 percent in 2012.

The right panel indicates that we have been in a continuous seller's market since mid-2012, one even stronger than in the last boom. **The current boom is once again fueled by ill-advised and risky government housing policy. We clearly did not learn the lessons of the last boom and bust. And once again, this unsustainable home price boom is making entry-level homes less, not more, affordable and is a threat to low-income homebuyers and taxpayers.**

We have long known what causes unsustainable home price increases in a seller's market. In 1951, Ernest Fisher, the FHA's first chief economist in the 1930s, made the following observation, based on empirical studies of FHA and VA lending.

In a seller's market, when choice is restricted and the seller virtually dictates sales terms, more liberal credit is likely to be [capitalized] in price with probably a reduction in housing standards.²

² Ernest Fisher, *Financing Home Ownership*, National Bureau of Economic Research, 1951

For many decades US housing policy has relied almost exclusively on increasing borrower leverage in an ineffectual attempt to make housing more affordable. Instead, as Fisher points out, the result in a seller's market is to make homes less affordable. For the same reason, policies such as duty to serve, affordable housing fees, and cross-subsidization have the same effect—higher prices in a seller's market.

The history of GSE debt-to-income ratios (DTIs) over the past 30 years helps confirm this. Figure 2 traces the history of DTIs greater than or equal to 42 percent from 1990 through 2018.³ This percentage has ranged from less than 5 percent in 1988–91 up to 15 percent in 1998, hitting a peak of 43 percent in 2007, back down to 17 percent in 2012, and now back up to 38 percent in 2018 (the same as the average level attained in 2005–06). Seller's market coincides with both rapid rises in real home prices.

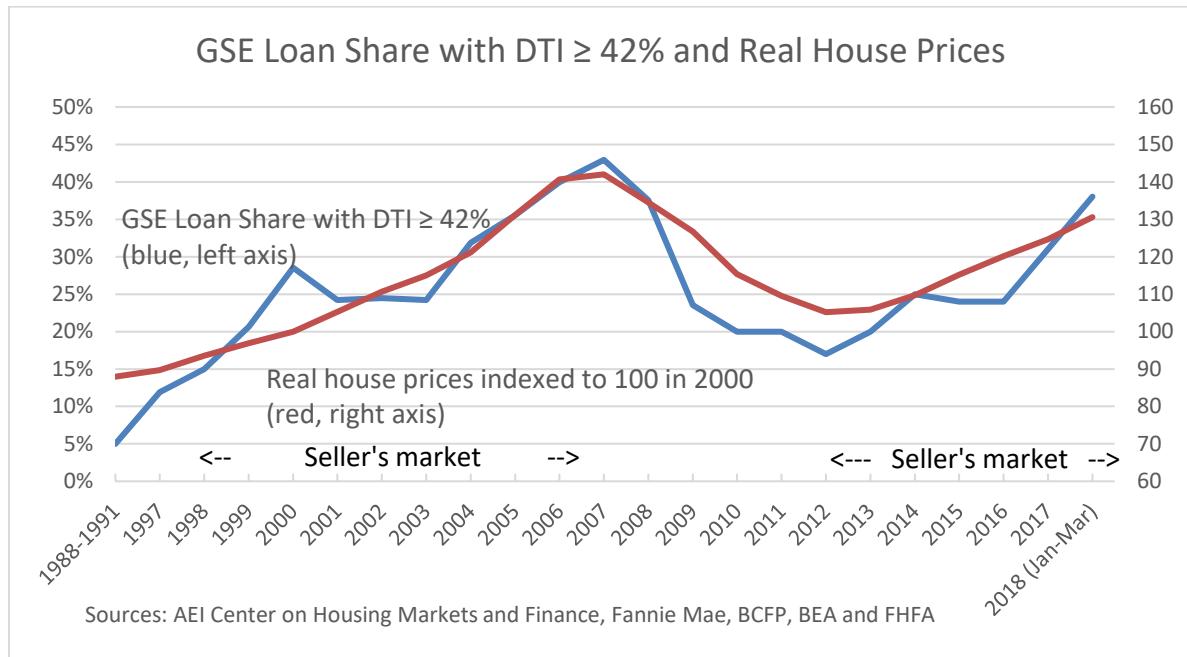
³ Greater than or equal to 42 percent is a common data point available for the entire time period.

- Except for 1988–91 common data point, which is based on loan counts, all other calculations are based on loan dollars.
- Loan type used for BCFP analysis: first-lien mortgages on first or second homes that have fully documented income and are fully amortizing with a maturity that does not exceed 30 years. The BCFP further noted that the tabulations do not include the following types of loans: loans for investor-owned properties; low- or no-document mortgages; interest-only (IO) mortgages; negatively amortizing mortgages such as payment option-ARMs; or mortgages with a balloon payment feature.
- Except for 1988–91, all calculations use the same defined subset of GSE loans.

Data sources:

- 1988–91: Fannie Mae random sample for loan acquisitions, percentage greater than or equal to 42 percent based on extrapolation of data results, document in files of Edward Pinto
- 1997–2009: Derived from Bureau of Consumer Financial Protection, 2012, http://files.consumerfinance.gov/f/201205_cfpb_Ability_to_Repay.pdf
- 2010–16: Fannie Mae and Freddie Mac, loan performance files
- 2017–March 2018: Fannie Mae and Freddie Mac loan level securitization data

Figure 2. GSE Loan Share with DTI \geq 42 Percent and Real House Prices



Source: AEI Center on Housing Markets and Finance; Fannie Mae; Bureau of Consumer Financial Protection; US Bureau of Economic Analysis; and Federal Housing Finance Agency.

The inflation-adjusted house price trend looks quite similar to the DTI trend above. The DTI trend is remarkable for two reasons: (1) the tremendous volatility in the incidence of high DTIs and (2) the interest rate trend's decline to flat for 1991–2017. The house price trend is also unprecedented for two reasons: (1) the amplitude of the booms and (2) their occurring so close together.

I now turn to the deleterious actions of Fannie Mae, Freddie Mac, and the Federal Housing Finance Agency (FHFA) since the beginning of the conservatorship that relate to the proliferation of high DTI lending, quite similar to what happened during the boom of the late-1990s and early- to mid-2000s.

In January 2013 the Bureau for Consumer Financial Protection (BCFP) promulgated, under authority granted in the Dodd Frank Act, its Qualified Mortgage (QM) rule, which set a maximum DTI of 43 percent and simultaneously exempted GSE, FHA, the Veterans Affairs (VA), and Rural Housing Service (RHS) ("Agency") guaranteed loans from QM's 43 percent DTI limitation. Both provisions took effect in January 2014. Since 2013, about 85 percent of all primary home purchase financing has been guaranteed by these agencies.

The bureau believed that the patch would "provide an adequate period for economic, market, and regulatory conditions to stabilize" and that it would "provide an *orderly transition period*, while preserving access to credit and effectuating the broader

purposes of the ability-to-repay statute during the interim period.”⁴ (Emphasis added.) The patch has expired for the FHA, the VA, the US Department of Agriculture (USDA), and the RHS because each agency has issued its own QM rules.⁵ For Fannie and Freddie, the patch will sunset in seven years from the effective date of the rule (January 10, 2014) or when their federal conservatorship ends. Given the current state of the conservatorship, the patch—which now applies only to Fannie and Freddie loans—will expire in January 2021.

Rather than undertake “an orderly transition period” to the QM’s 43 percent DTI limitation during the patch period, the FHFA, the GSEs, the FHA, and the VA all took advantage of the patch to promote the proliferation of high DTI loans, in many cases doubling or more the percentage of their DTIs greater than 43 percent. **Because the patch allows government agencies and the GSEs to increase DTIs, the patch is helping fuel the current house price boom. When mortgage risk expands alongside of home prices, there is little “friction” in mortgage markets to slow the growth of a housing boom. This serves to make entry-level housing less, not more, affordable.**

We conducted an examination of the five-year trend of DTIs greater than 43 percent across purchase; rate and term refinance; cash-out refinances for all market participants for the GSEs, the FHA, the VA, and the RHS; and private portfolio lenders. It discloses a common pattern by the FHA, the VA, and the GSEs to take advantage of the patch to promote the proliferation of high DTI loans, including in the case of the GSEs, apparently at the urging of the FHFA. However, private portfolio lenders and the RHS have been the exceptions, showing *less* usage of DTIs greater than 43 percent over time. Furthermore, the results are similar for portfolio loans *below* the GSE national conforming loan limit.

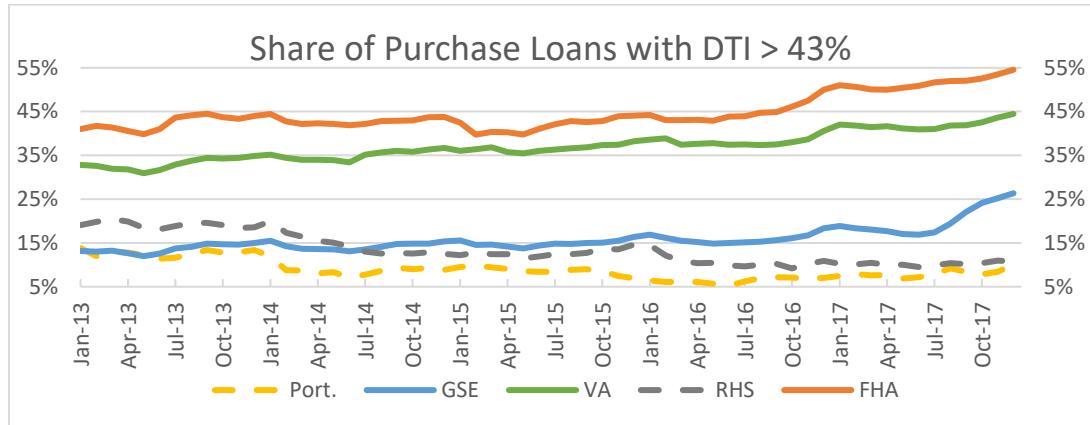
As a result of the broadly applicable patch, 36 percent of agency purchase guaranteed loans that were originated in March 2018 had a DTI in excess of 43 percent, double the level the month before the patch was announced. This rate continues to rise.

Figures 3–5 show the five-year trend of DTIs greater than 43 percent across purchase; rate and term refinance; cash-out refinances for the GSEs, the FHA, the VA, and the RHS; and private portfolio lenders.

⁴ Bureau of Consumer Financial Protection, 6534.

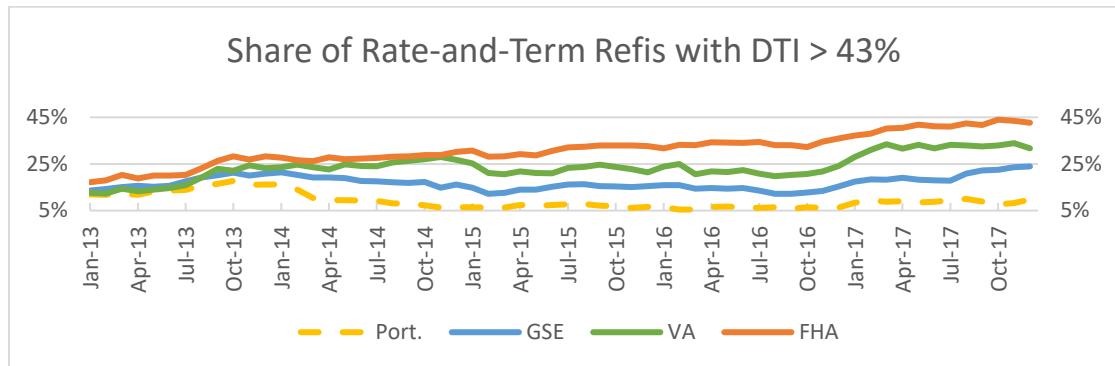
⁵ Section 1412 of Dodd Frank requires each of these agencies to issue its own QM rules. See 15 USC § 1639c(b)(3)(B)(ii).

Figure 3. Share of Purchase Loans with DTI > 43 Percent



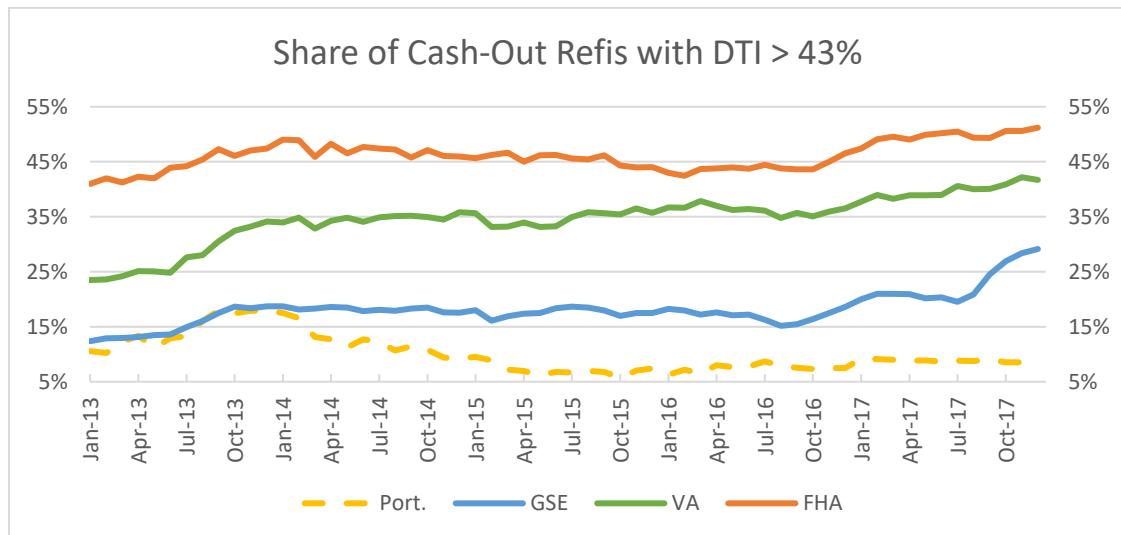
Source: AEI Center on Housing Markets and Finance.

Figure 4. Share of Rate-and-Term Refinance Loans with DTI > 43 Percent



Source: AEI Center on Housing Markets and Finance.

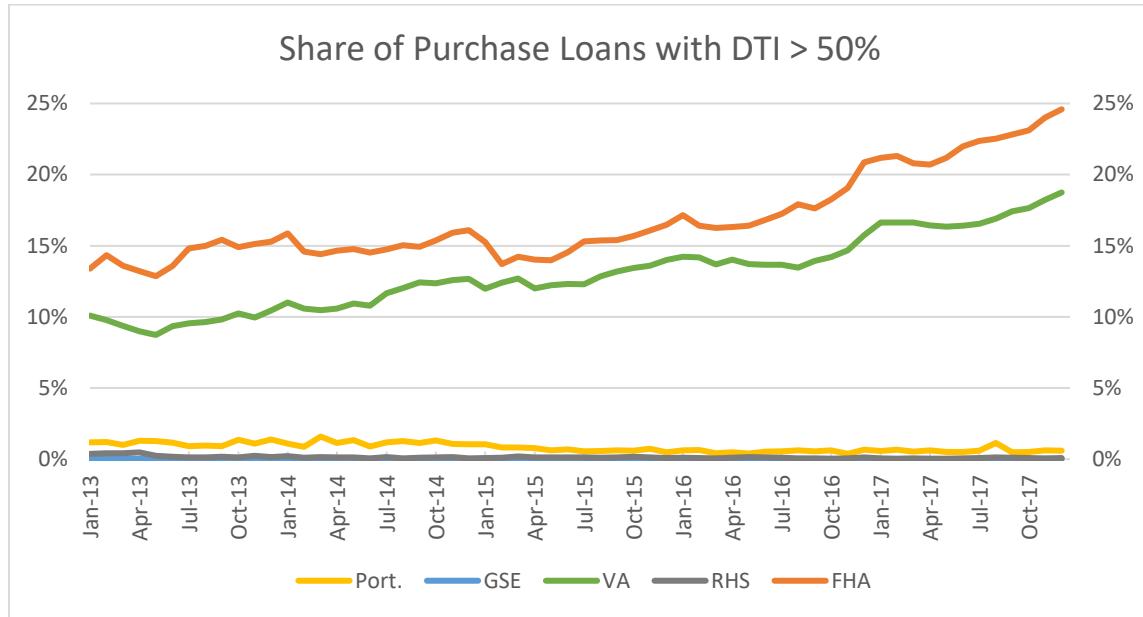
Figure 5. Share of Cash-Out Refinance Loans with DTI > 43 Percent



Source: AEI Center on Housing Markets and Finance.

Figure 6 presents one final point regarding DTI trends: *Purchase* loans with DTIs over 50 percent are almost entirely FHA or VA insured. The GSEs and RHS back only a negligible number of loans, if any, over 50 percent.

Figure 6. Share of Purchase Loans with DTI > 50 Percent



Source: AEI Center on Housing Markets and Finance.

To better understand this boom and the impact of US housing policy and attendant credit easing, one needs to measure home sales, price trends, mortgage risk trends, and other characteristics over time. To this end, AEI's Housing Center has developed an 8.3 million sale transaction study covering five years of home price appreciation (HPA) for over 40,000 census tracts in 73 large metros areas. This data set was used to create a new tiered House Price Index (HPI) that allows for the most thorough analysis of home price trends ever available. In particular it allows for a detailed analysis of the role equity and income leverage, and high risk lending in particular, play on home prices.

Price tiers at the county level are defined as follows:

- Low: \leq 40th percentile of FHA sales price;
- Low medium: $>$ 40th and \leq 80th percentile of FHA sales price;
- Medium high: $>$ 80th percentile of FHA sales price and \leq 125% of GSE limit; and
- High: $>$ 125% of GSE limit.

We found a generally strong correlation between increasing tract HPA and increasing tract mortgage risk index or MRI (a measure of equity and income leverage).

Figure 7 below sets forth key characteristics of the four price tiers. First-time buyers (FTBs) were 68 percent of buyers in low and medium-low priced tiers. At 14 percent, these tiers have a much higher MRI and prices have increased much faster (+38 percent) than for medium-high and high tiers (+28 percent), which have much lower FTB share (35 percent) and an MRI of 7 percent.

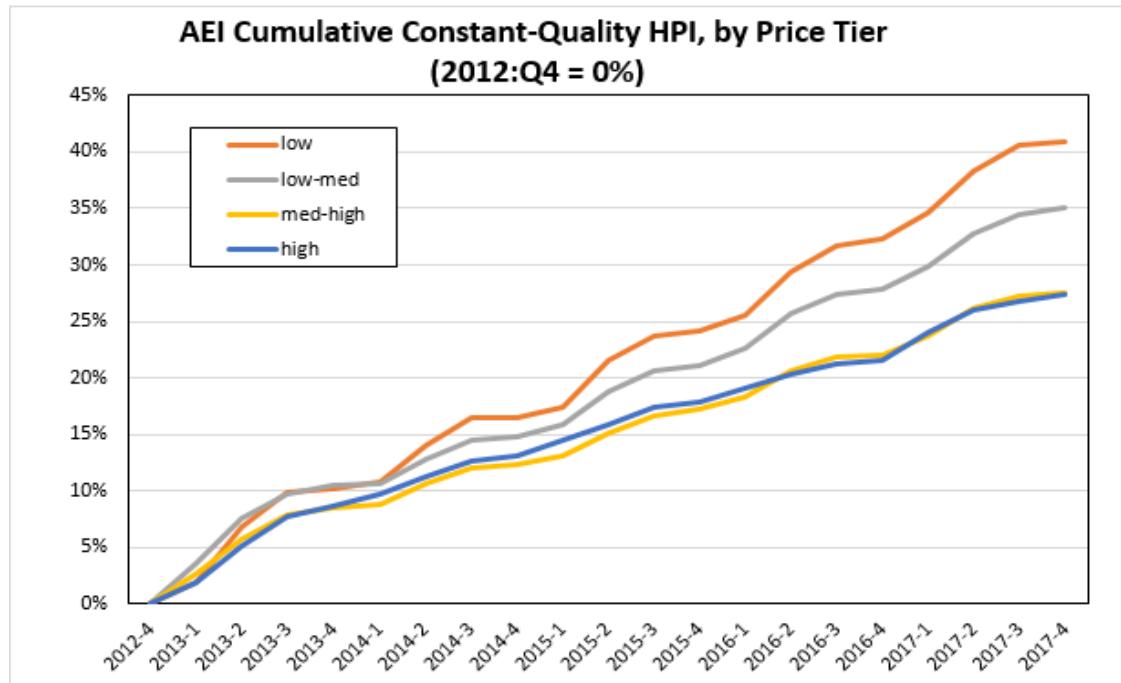
Figure 7. Key Characteristics of the Four Price Tiers

Price Tier	Home Price Increase (2012-Q4 - 2017-Q4)	Share of Market (2017)	FHA Share (2017)	Mortgage Risk (Leverage) Index (2017)	Percentage of First-Time Buyers (Agency loans only) (2013-2017)	Median Sales Price 2017
Low	41%	26%	32%	14.50%	74%	\$157,000
Low-Med	35%	30%	29%	13.50%	63%	\$229,900
Med-High	28%	36%	12%	8.40%	39%	\$365,000
High	27%	8%	0.30%	3.20%	23%	\$870,000
Combined Low & Low-Med	38%	56%	30%	14%	68%	\$197,000
Combined Med-High & High	28%	44%	10%	7%	NA	\$405,000

Source: AEI Center on Housing Markets and Finance.

Figure 8 demonstrates how constant quality home prices by tier have increased since 2012:Q4, which was just about the beginning of the current boom. The low and medium-low tiers, largely consisting of first-time buyers and with about 30 percent of these two tier's home sales financed with FHA-insured loans, had substantially higher price increases. In the case of the low tier, prices went up 41 percent, compared to 27 percent for each of the medium-high and high tiers. **If low tier prices had increased at the same rate as the medium-high and high tiers, entry-level buyers would today be able to buy these homes at much more affordable prices and with less risk of default—an average of \$17,000 per home less than today.**

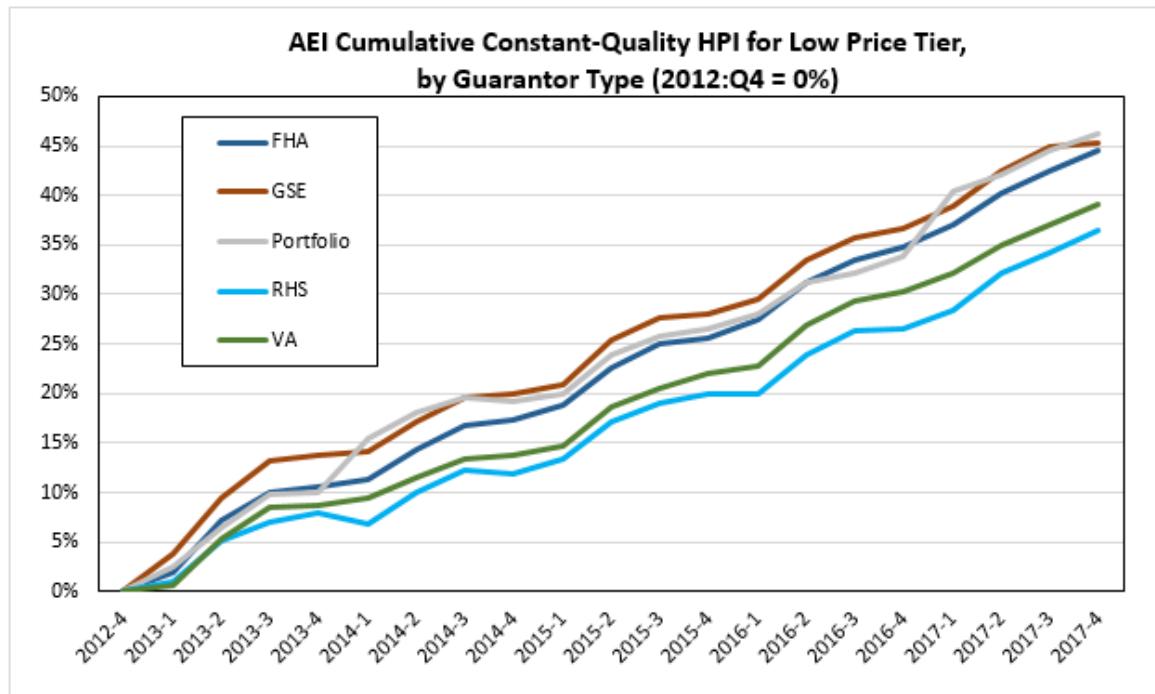
Figure 8. AEI Cumulative Constant-Quality HPI, by Price Tier (2012:Q4 = 0 Percent)



Source: AEI Center on Housing Markets and Finance.

Figure 9 shows low tier price trends by financing source. It is noteworthy that the FHA, GSE, and private HPIs for the low-priced tier all went up about the same amount over five years: 45 percent. This is because the FHA and other buyers with access to high levels of equity and income leverage set the price for that market segment (the “FHA effect”). The VA and RHS had lower price gains, likely due to differing appraisal practices and DTI limitations.

Figure 9. AEI Cumulative Constant-Quality HPI for Low Price Tier, by Guarantor Type (2012:Q4 = 0 Percent)



Source: AEI Center on Housing Markets and Finance.

Most importantly, our research demonstrates that high-risk home purchase lending is fueling home price appreciation. Currently 41 percent of agency purchase lending is high risk. As shown in Table 1, FHA accounts for 57 percent of such high-risk lending, down from 74 percent in 2012. Significantly, the GSEs account for nearly all of this high-risk share shift, increasing from 10 percent in 2012 to 30 percent in 2018.

Table 1. High-Risk Loans by Loan Type (High Risk =>12 Percent Mortgage Risk Index)

High Risk loans by loan type (High risk =>12% Mortgage Risk Index)

	FHA	GSE	Portfolio	RHS*	VA	Total	weighted count
2012	74.4%	10.4%	1.9%	4.9%	8.4%	100.0%	124,052
2013	66.5%	16.8%	2.0%	5.3%	9.5%	100.0%	515,921
2014	60.8%	20.6%	2.4%	5.1%	11.2%	100.0%	555,358
2015	65.9%	18.9%	1.9%	3.3%	10.1%	100.0%	667,255
2016	63.6%	21.5%	2.1%	2.7%	10.1%	100.0%	760,591
2017	58.6%	26.6%	2.2%	2.6%	10.0%	100.0%	762,629
Q1:2018	56.6%	29.9%	3.5%	NA	10.0%	100.0%	132,673

* Unable to identify RHS loans as HMDA data for 2018 not yet available

Source: AEI Center on Housing Markets and Finance.

There is a strong positive correlation between higher mortgage risk (higher expected default rates under stress) and higher home price appreciation, lower home prices, and lower income. Figures 10–12 show correlations at the census tract level relating to: (1) mortgage risk, which measures expected default rates under stress (x-axis) and ratio of tract home price appreciation (HPA) to county HPA, (2) mortgage risk (x-axis) and median home price appreciation, and (3) mortgage risk (x-axis) and income as a percentage of metro area income. The scatter dots for each figure are color coded based on the percentage of high risk purchase loans as a share of all purchase loans in the tract. Those from the green color palette have a high risk share of less than 30 percent. Those from the blue color palette have a high risk share of greater than or equal to 30 percent.

Correlation 1: Census Tract Mortgage Risk and House Price Appreciation, by Tract Share of High-Risk Lending

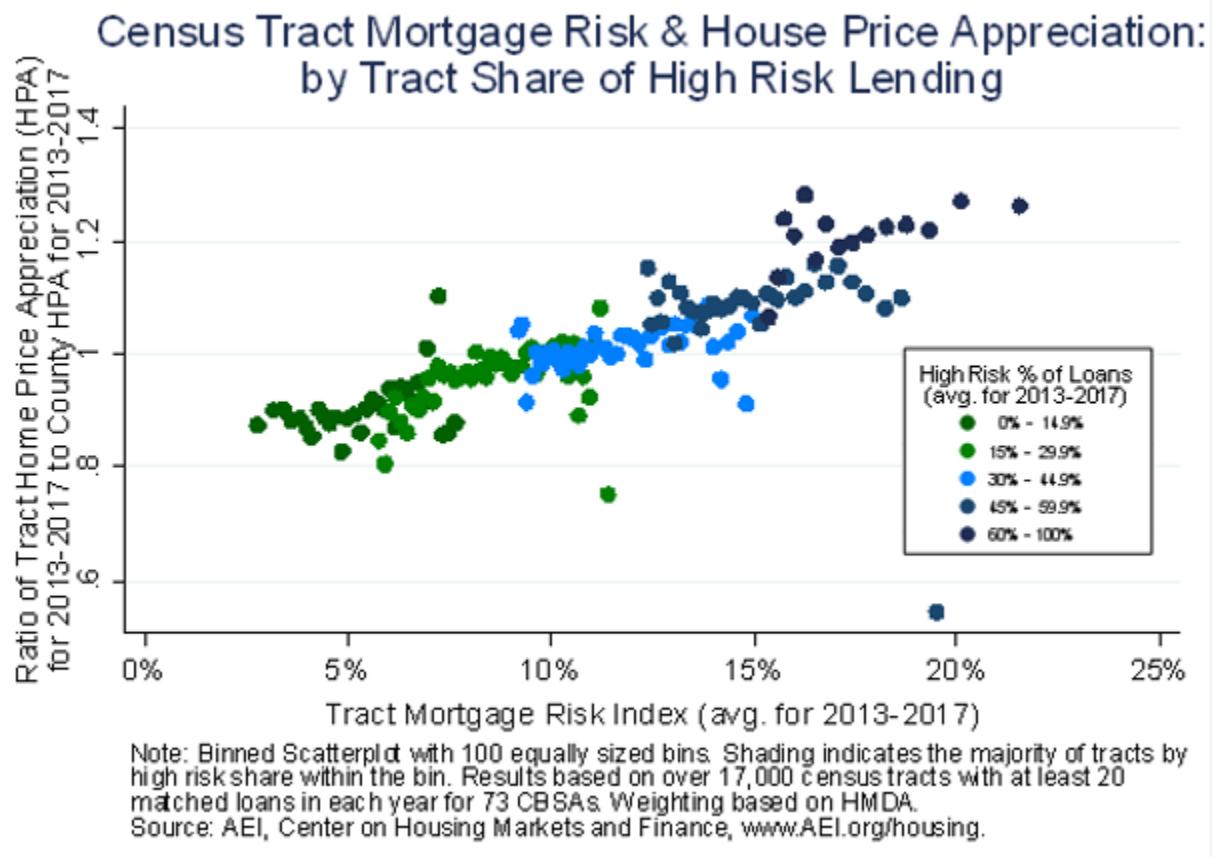
There is a strong positive correlation between higher mortgage risk (higher expected default rates under stress) and home price appreciation.

The binned scatterplot below shows that the greater a census tract's MRI, the faster house prices have appreciated for 2013–17. The scatterplot has a clear upward trend: As the tract MRI increases (x-axis), the ratio of tract home price appreciation relative to county home price appreciation also increases (y-axis). For example, the dark green dots on the right, which had <15 percent high risk loans, had low average tract MRIs (about 3–6 percent) and the dark purple dots on the right, which had >=60 percent high risk loans, had high tract MRIs (about 17–23 percent). For the dark green dots, the median ratio of tract to county house price appreciation is 0.86, while for the dark purple dots, the median ratio of tract to county appreciation is 1.19—a 38 percent higher level of price appreciation for the dark purple over dark green tracts.

Further, the blue color palette tracts all had a high risk loan share of 30 percent or more. Together these tracts represent about 50 percent of all sale transactions and had higher price appreciation relative to the county than did the green color palette tracts. In these tracts, a critical mass of buyers (at least 30 percent) has access to high-risk loans providing higher equity and income leverage, thereby allowing this group to essentially set the price for all buyers (and for borrowers in the tract who are refinancing). Therefore, all these borrowers (and lenders and mortgage guarantors) in a tract with a greater share of high-risk lending are exposed to dangerous home price volatility that is not related to fundamentals but to increases in leverage.

The BCFP's DTI patch, announced in 2013 and still in effect, bears special mention in this regard. Because the patch allows government agencies and the GSEs to increase DTIs, the patch is helping fuel the current house price boom. When mortgage risk expands alongside of home prices, there is little “friction” in mortgage markets to slow the growth of a housing boom.

Figure 10. Correlation 1: Census Tract Mortgage Risk and House Price Appreciation, by Tract Share of High-Risk Lending



Note: Binned scatterplot with 100 equally sized bins. Shading indicated the majority of tracts by high-risk share within the bin. Results based on over 17,000 census tracts with at least 20 match loans in each year for 73 CBSAs. Weighting is based on the Home Mortgage Disclosure Act.

Source: AEI Center on Housing Markets and Finance.

Correlation 2: Census Tract Mortgage Risk Index and Home Price by High-Risk Loan Share of Tract Lending

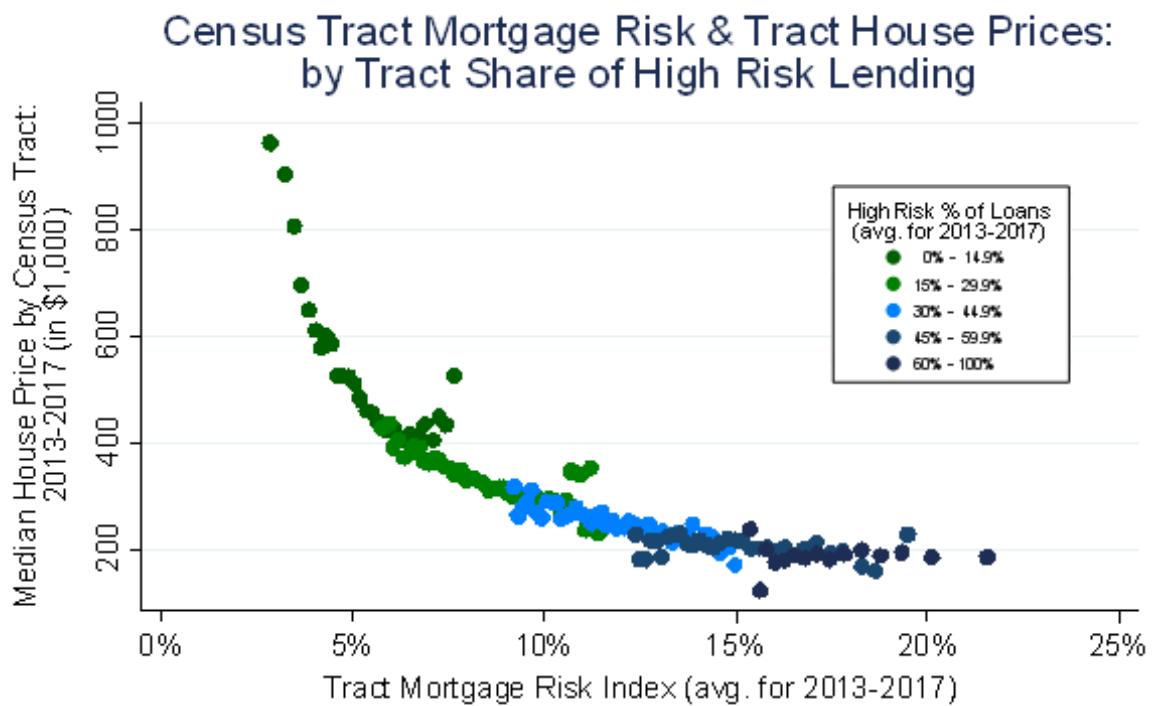
There is a strong positive correlation between higher mortgage risk and lower home prices.

The binned scatterplot below shows that the greater a census tract's MRI, the lower the median home price. Low mortgage risk census tracts are present among the entire range of tracts by average home price (green color palette dots). High-risk census tracts are concentrated among tracts with median home prices of \$300,000 or less. High-risk lending is associated with at least 30 percent of purchases for all these tracts (blue color palette dots).

Further, the scatterplot has a clear downward trend: As the tract MRI increases (x-axis), the median tract home prices decreases (y-axis). For example, the dark green dots on the right, which had <15 percent high risk loans, had low average tract MRIs (about 3–6 percent) and the dark purple dots on the right, which had ≥ 60 percent high risk loans, had high tract MRIs (about 17–23 percent). For the dark green dots, the median tract home price is \$482,000, while for the dark purple dots, the median tract home price is \$176,000.

Eighty-three percent of the binned census tracks with median home prices below \$300,000 had average tract MRIs of 9 percent or greater. As was demonstrated by Correlation 1 above, there is a strong positive correlation between higher mortgage risk and home price appreciation. When the inevitable reversion of real house prices to their trend growth path occurs, these lower-priced census tracts and their residents, who are more likely to be low-income and minority, will again be subjected to more price volatility, greater loss of equity, and higher rates of loan default.

Figure 11. Correlation 2: Census Tract Mortgage Risk Index and Home Price by High-Risk Loan Share of Tract Lending



Note: Binned Scatterplot with 100 equally sized bins. Shading indicates the majority of tracts by high risk share within the bin. Results based on over 17,000 census tracts with at least 20 matched loans in each year for 73 CBSAs. Weighting based on HMDA.

Source: AEI, Center on Housing Markets and Finance, www.AEI.org/housing.

Note: Binned scatterplot with 100 equally sized bins. Shading indicated the majority of tracts by high-risk share within the bin. Results based on over 17,000 census tracts with at least 20 match loans in each year for 73 CBSAs. Weighting is based on the Home Mortgage Disclosure Act.

Source: AEI Center on Housing Markets and Finance.

Correlation 3: Census Tract Mortgage Risk Index and Income, by High-Risk Loan Share of Tract Lending

There is a strong positive correlation between higher mortgage risk and lower tract income as a percentage of metro area income.

The binned scatterplot below shows that the greater a census tract's MRI, the lower tract income as a percentage of metro area income. The scatterplot has a clear downward trend: As the tract MRI increases (x-axis), the median tract home prices decreases (y-axis). For example, the dark green dots on the right, which had <15 percent high risk loans, had low average tract MRIs (about 3–6 percent) and the dark purple dots on the right, which had ≥ 60 percent high-risk loans, had high tract MRIs (about 17–23 percent). For the dark green dots, the median tract income was 158.2 percent of metro area income, while for the dark purple dots, the median tract income was 88.8 percent of metro area income.

Seventy-five percent of the binned census tracks with median income below 120 percent income of metro area income had average tract MRIs of 9 percent or greater. As was demonstrated by Correlation 1 above, there is a strong positive correlation between higher mortgage risk and home price appreciation. Once again, the residents of these lower-income census tracts will be subjected to more price volatility, greater loss of equity, and higher rates of loan default.

Figure 12. Correlation 3: Census Tract Mortgage Risk Index and Income, by High-Risk Loan Share of Tract Lending

Census Tract Mortgage Risk & Tract Income: by Tract Share of High Risk Lending



Note: Binned Scatterplot with 100 equally sized bins. Shading indicates the majority of tracts by high-risk share within the bin. Results based on over 17,000 census tracts with at least 20 matched loans in each year for 73 CBSAs. Weighting based on HMDA.

Source: AEI, Center on Housing Markets and Finance, www.AEI.org/housing.

Note: Binned scatterplot with 100 equally sized bins. Shading indicated the majority of tracts by high-risk share within the bin. Results based on over 17,000 census tracts with at least 20 match loans in each year for 73 CBSAs. Weighting is based on the Home Mortgage Disclosure Act.

Source: AEI Center on Housing Markets and Finance.

Correlation 4: 73 CBSAs Predicted Census Tract–Level Home Price Appreciation by Census Tract Average Mortgage Risk, with Housing Demand as a Factor

This fourth correlation shows there is a strong positive correlation between leverage and house price appreciation.

In a 5.7 million sales transaction study of five-year home price appreciation (HPA) rates for over 17,000 census tracts with at least 20 loans per year, we examined the relationship between tract house price appreciation from 2013 to 2017 and tract-level average mortgage risk between 2013 and 2017 within 73 large core-based statistical areas. (See Appendix 1 for a list of CBSAs.) We found that within these CBSAs, leverage is positively correlated with house price appreciation.

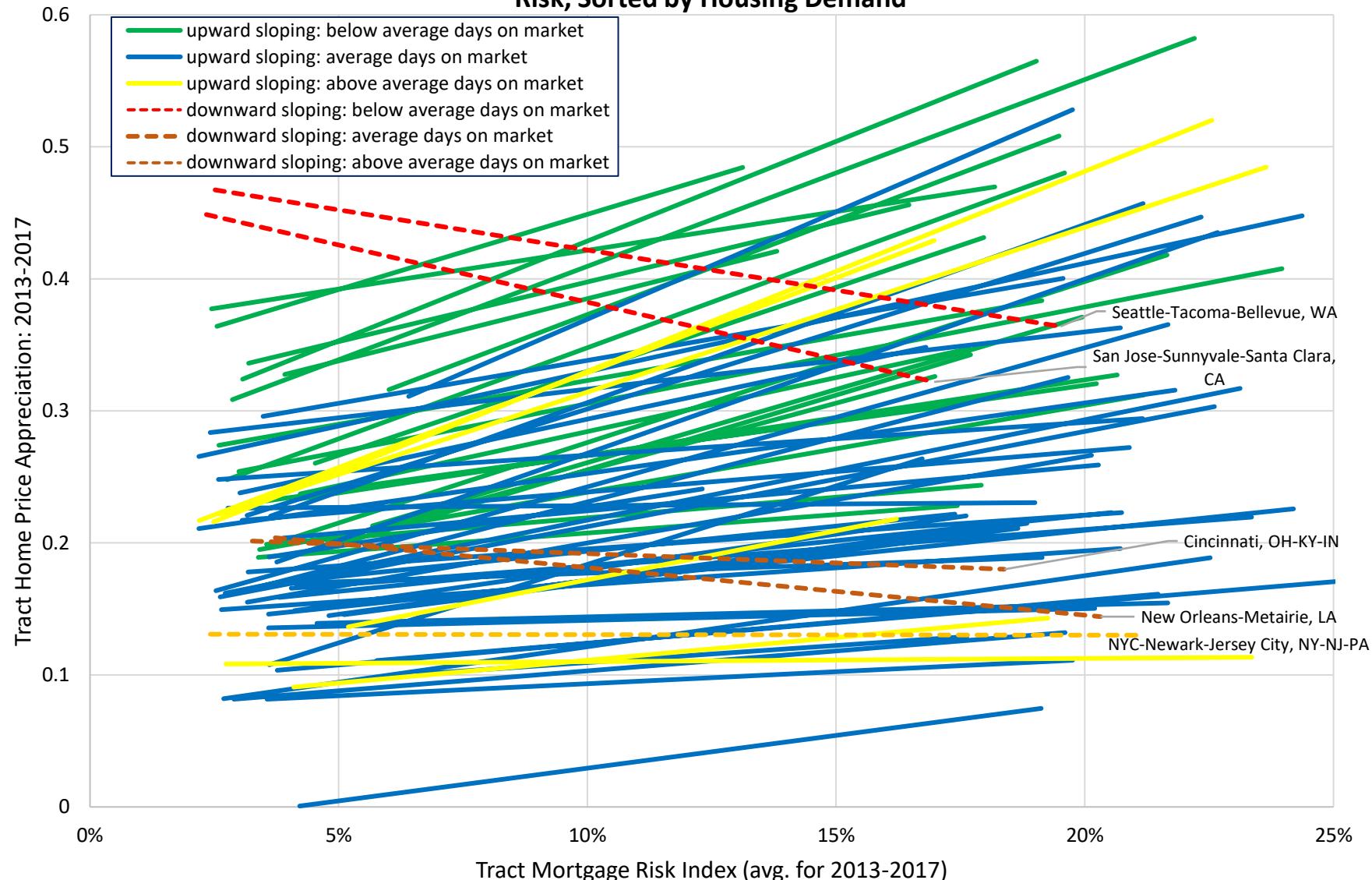
The scatterplot below (Figure 13) shows the predicted tract-level home price appreciation by tract-level average mortgage risk. Each line represents the

relationship between the two variables for a given CBSA. The color coding of the line represents a snapshot of market tightness.

- This correlation was positive in 68 of the 73 CBSAs.
 - The positive correlation between tract house price appreciation and tract mortgage risk was statistically significant at the 5 percent level in 62 of 68 CBSAs.
 - This positive correlation was observed across a range of demand conditions as measured by days on market relative to the national average.
 - Twenty-four of the 68 were in metros with below average days on market (high relative demand),
 - Thirty-eight of the 68 were in metros with average days on market (average relative demand), and
 - Six of the 68 were in metros with above-average days on market (below average relative demand).
 - The correlation was even stronger when markets are tighter (as measured by the average days on market of listings between 2013 and 2017.)
- The correlation was negative in five of the 73 CBSAs.
 - The negative correlation was, however, only statistically significant in three CBSAs (San Jose-Sunnyvale-Santa Clara, California; Seattle-Tacoma-Bellevue, Washington; and New Orleans-Metairie, Louisiana).
 - For San Jose and Seattle, both with below-average days on market, strong demand in the high-price tier may have outweighed the mortgage risk effect. In San Jose for example, the share of sales in the high price tier increased from 35 percent in 2013 to 65 percent in 2017. In Seattle, sales growth in the high-price tier also far outpaced sales growth in the low tier. Additionally, when King County (Seattle) and Pierce County (Tacoma) were examined individually, while the correlation in King was still negative, the correlation in Pierce was positive.
 - New Orleans was an outlier.

Figure 13. Seventy-Three CBSAs Predicted Trace-Level Home Price Appreciation by Tract-Level Average Mortgage Risk, Sorted by Housing Demand

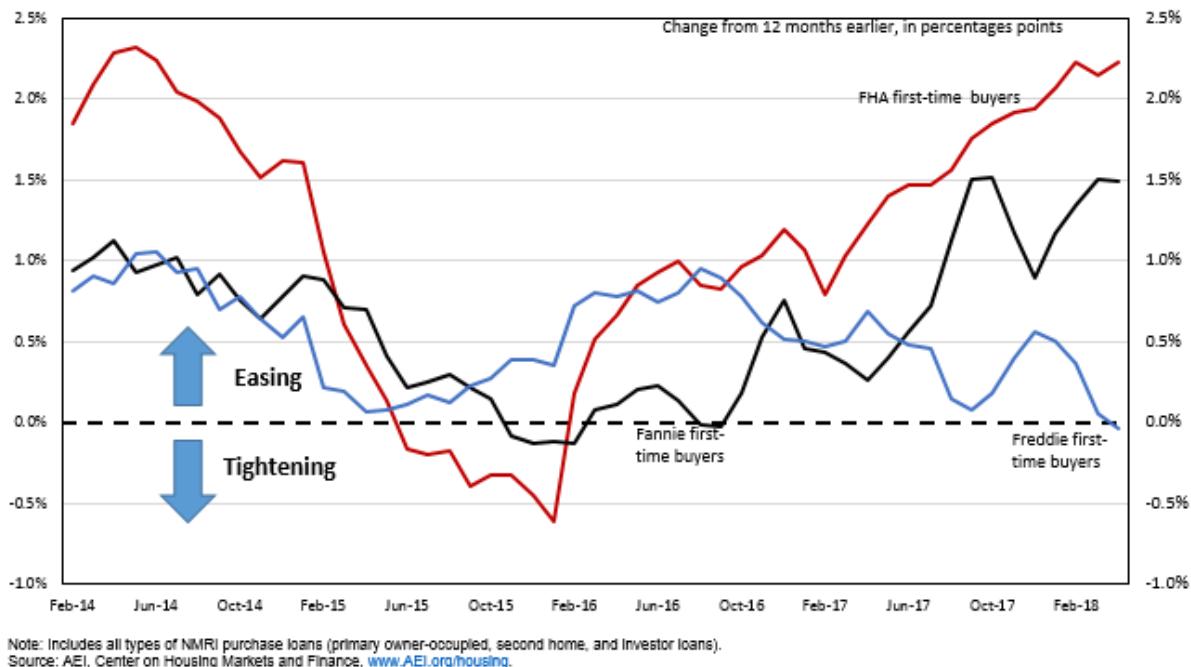
73 CBSAs: Predicted Tract-Level Home Price Appreciation by Tract-Level Average Mortgage Risk, Sorted by Housing Demand



Note: Each line represents the linear regression plot line for Tract Home Price Appreciation and Tract Mortgage Risk Index in a CBSA. Results are based on over 17,000 census tracts with at least 20 matched loans in each year for 73 CBSAs. Weighting based on HMDA. Inventory is defined relative to the national average for days on market for May 2018. Below average means a ratio of < 80%, average means a ratio of $\geq 80\%$ and $< 120\%$, and above average means a ratio of $\geq 120\%$.
 Source: AEI, Center on Housing Markets and Finance, www.AEI.org/housing, and Zillow.

I will now turn to the deleterious actions of Fannie Mae and FHFA during the past few years of the conservatorship that relate to the growing competitive battle between Fannie and FHA for high-risk first-time buyers (Figure 14). Worryingly, the pace of credit easing by FHA and Fannie is increasing. Over the past nine months, Freddie has largely resisted this trend but will likely eventually have to compete as well.

Figure 14. First-Time Buyer Agency Loan NMRI



Note: This includes all types of NMRI purchase loans (primary owner-occupied, second home, and investor loans).

Source: AEI Center on Housing Markets and Finance.

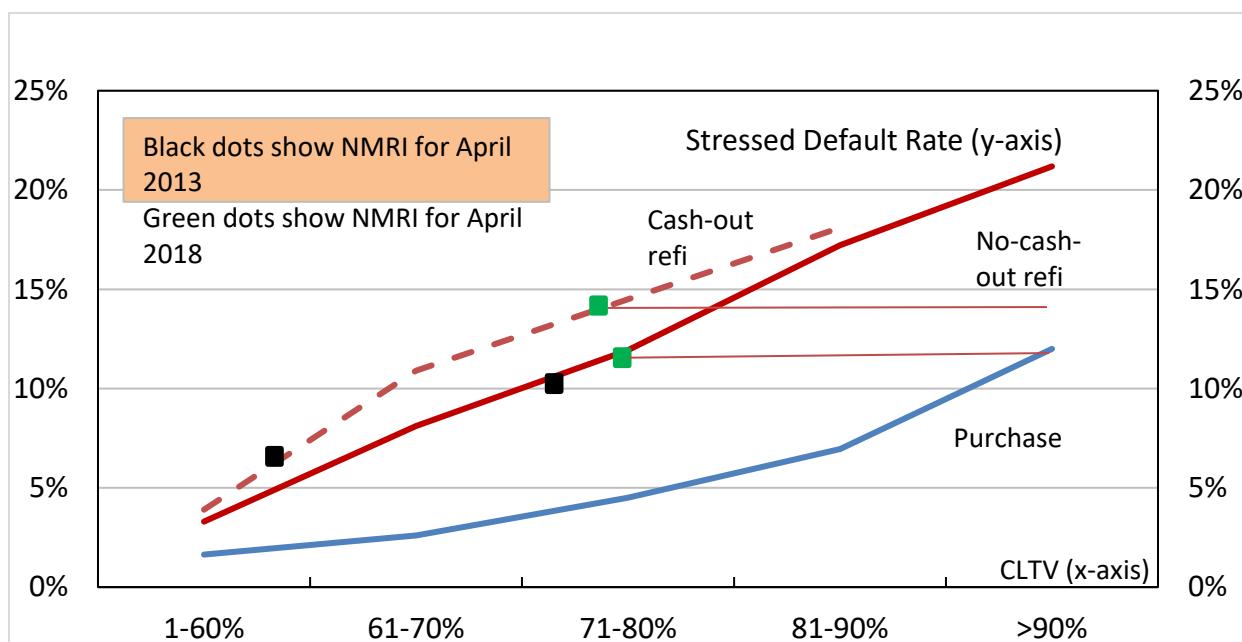
Given that the GSEs' purchase share is nearly three times that of FHA, impact of relatively modest increases in high-risk lending by the GSEs will be amplified by their greater share. The share of GSE loans that are high risk (an MRI >12 percent) has risen from 7 percent in late-2012 to 21 percent today. This will have a commensurate impact on driving home prices unsustainably higher.

Before turning to potential actions that the administration and the FHFA could take with respect to the GSEs and the FHA, I want to briefly point out some of the many areas where the long-running conservatorship has been used to strengthen the GSEs' taxpayer-guaranteed duopsony and compete unfairly with the private sector.

- GSE's Common Securitization Platform (CSP), pricing, and credit risk transfers
- Expansions into private-sector business activities including:
 - Mortgage insurance,
 - Lines of credit to nonbank mortgage companies to assist with their mortgage servicing operations, and

- Services and technology that help mortgage bankers raise cash from mortgage servicing rights.
- Multifamily GSEs' loan acquisitions grew by 256 percent from 2013, reflecting an increase from \$54.5 billion in 2013 to \$139.3 billion in 2017.
- Expansion into risky cash out refinance loans

Compared to an identical purchase loan, refis have higher stressed default rates across all CLTV buckets. Cash-out refis are even riskier than no-cash-out refis. For example, a purchase loan with a 720-769 credit score, a DTI of 39-43 percent, and a CLTV of 71-80 percent has a stressed default rate of 4.5%, however, a cash-out with the same characteristics has a MRI that is three times as high at 14 percent, the same as a purchase loan with a CLTV of >90 percent.



Note: For illustrative purposes, all stress default rates computed for credit score of 720-769 and DTI of 39-43%.

Source: AEI, Center on Housing Markets and Finance.

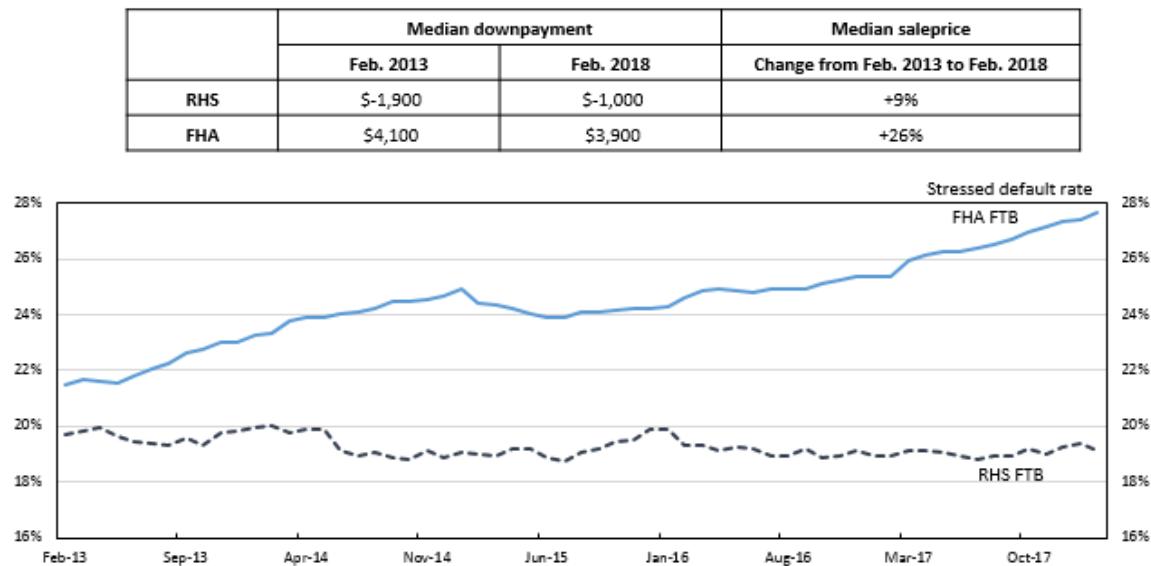
I will now turn to potential actions that the administration and the FHFA could take regarding the GSEs and the FHA.

Let me start off by stating that measured steps now would moderate the current pace of unsustainable home price increases and not lead to home price declines.

Unlike FHA, RHS has not moved out risk curve during the current boom, keeping housing more affordable for RHS buyers. This is demonstrated in the next chart. The upper portion shows that FHA borrowers are able to buy a 26 percent more expensive home than five years ago (more than triple the rate of inflation), yet with a smaller down payment. At the same time, homes purchased by RHS buyers have only gone up 9 percent, about the same as the rate of inflation. RHS's stressed default rate is unchanged over the past five plus years, while FHA's first-time

buyer risk index has increased from 21.5 percent to 27.5 percent. At the same time, our research shows that the median income of home buyers served by the FHA and RHS over the last five years have both gone up by about the same percentage, further evidence that RHS' policy has helped RHS borrowers buy home at more sustainable prices and with less leverage.

Figure 15. Not Moving Out the Risk Curve During the Current Boom Has Helped Keep Housing More Affordable for RHS Buyers



Source: AEI Center on Housing Markets and Finance, www.AEI.org/housing.

Source: AEI Center on Housing Markets and Finance.

Turning now to my recommendations for administrative actions addressing housing finance reform, I will cover the need for prompt action, which may be taken by three parties: the Department of Housing and Urban Development (HUD)/FHA, BCFP, and FHFA/Treasury.

Step 1: Actions by HUD/FHA That Should Be Taken in 2019. As suggested in recent testimony by Benjamin Carson, HUD/FHA should “closely examine policies that go beyond FHA’s core mission” and be “mindful of concerning trends.”

The evidence is clear that during a seller’s market, with FHA’s share at 20 percent and its MRI at nearly 30 percent, FHA and other FHA-like lending will result in an unsustainable increase in home prices.

In light of this, HUD/FHA should takes steps to:

- Reduce FHA’s footprint by better targeting to FHA’s core mission of serving low-income home buyers
 - Cap FHA’s QM at loan limits equal to a multiple of area median income:
 - Three times income for all but high-cost areas and new construction
 - Four times income for high-cost areas and new construction
 - FHA’s volume would drop by 42 percent with share at about 12 percent, down from 20 percent today

- Trim several risky parts of FHA's credit box by:
 - Limiting DTIs to 50 percent along with other corresponding DTI changes
 - Reducing seller's concessions from a maximum of 6 percent to 3 percent
 - Restricting equity leverage risk layering resulting from simultaneous use of down payment assistance and seller concessions
 - Eliminating all or a substantial portion of FHA's cash-out refinance loan activity
- Promote wealth building by crowding in loan terms of 20 years or less and crowding out 30-year loans
- Use QM authority to implement countercyclical changes:
 - Evidence that a creditor's ability-to-repay determination was reasonable and in good faith:
 - Underwriting standards that have historically resulted in comparatively low rates of delinquency and default during adverse economic conditions
 - Underwriting standards based on empirically derived, demonstrably, and statistically sound models
 - Evidence that a creditor's ability-to-repay determination was not reasonable or not in good faith:
 - The creditor disregarded evidence that the consumer may have insufficient residual income to cover other recurring obligations and expenses, taking into account the consumer's assets other than the property securing the loan, after paying his or her monthly payments for the covered transaction, any simultaneous loans, mortgage-related obligations, and any current debt obligations
- Institute a consumer disclosure regarding a loan's likelihood to default under stress conditions
- Net present value (NPV) claims-paying capacity, MIP revenue and capital resources
 - At end of FY 2018, assuming a portfolio of \$1.19 trillion and a need to withstand a Great Recession-sized event, FHA should have:
 - NPV claims-paying capacity equal to 9.0 percent or \$107 billion
 - Capital resources portion equal to 5.0 percent or \$60 billion
 - However, home prices, particularly entry-level prices, have been inflated by excess leverage, most of which has been provided by FHA
 - Therefore, a buffer of an additional 2 percent in capital resources should be provided for each 10 percent that low and low-medium FHA home prices have increased faster than medium-high and high home prices (currently +18 percent)
 - This would require \$24 billion in additional capital resources for a total of \$84 billion to support \$1.19 trillion in outstandings

The above steps would go a long way toward reducing the FHA's pro-cyclical impact of driving up entry level home prices in a seller's market.

Step 2: Actions by BCFP in 2019. The bureau should, coincident with its five-year review of the QM regulation and attendant "patch" due by January 2019, announce that the GSE

patch will not be renewed when it expires in January 2021. It should also provide guidance to the GSEs that they should immediately begin reducing industry reliance on the patch in a measured manner, thereby reducing any market impacts between now and the 2021 expiration of the patch. Providing guidance to the GSEs would go a long way toward eliminating the capture by the GSEs of the high DTI FHA business that the FHA would be cutting back under Step 1 above. Finally, it should coordinate these actions with HUD/FHA's own actions to reduce FHA's DTIs.

Step 3: Actions by FHFA in Concert with Treasury. The only plausible reason for government to back the housing market is to help low- or moderate income families buy homes. An evaluation of the GSEs 2017 business shows, that the GSEs fail to meet this simple test. **Almost half of the GSEs' 2017 volume wasn't even related to buying a primary residence. Another 41% went to help well-to-do buyers, of which 25 percentage points went to well-to-do repeat buyers of primary residences and 16 percentage points went to well-to-do first-time buyers. Only 6.5% (1 in 16) GSE Dollars went to first-time buyers of more modest homes and only 3.7% (1 in 30) GSE Dollars went to repeat buyers of more modest homes.**

Therefore, even before a new permanent or acting FHFA director named by the president takes office, the Treasury should announce a strategic plan to implement at least a 50 percent reduction in the GSEs' single-family and multifamily acquisition footprint. Once a director named by the president has taken office, Treasury and FHFA should work together to implement this strategic plan.

Single-family-plan reductions might be accomplished by the following steps over three to four years with minimal impact on the primary owner-occupied home finance market and the availability of the 30-year fixed rate mortgage:

- End acquisition of cash out refinance loans (25 percent footprint reduction based on 2017 acquisition volumes)
- End acquisition of high-cost limit loans (3 percent additional footprint reduction based on 2017 acquisition volumes) and freeze conforming loan limit at \$453,100
- End acquisition of second home and investor loans (9 percent additional footprint reduction based on 2017 acquisition volumes)
- End acquisition of noncash-out refinance loans (15 percent additional footprint reduction based on 2017 acquisition volumes)

Multifamily:

- A 50 percent reduction in combined GSE annual acquisition volume to \$65 billion/year would return their share to 2012 levels, taking into account the growth of outstanding multifamily debt since 2013.
 - The GSEs' loan acquisitions grew by 256 percent from 2013, reflecting an increase from \$54.5 billion in 2013 to \$139.3 billion in 2017.
 - This reduction will be achieved through some combination of increased pricing, more limited product offerings, and tighter overall underwriting standards.

GSE's Common Securitization Platform (CSP), pricing, and credit risk transfers. Treasury and FHFA should:

- Conduct a detailed study of the issues and options on the GSE's CSP and credit risk transfers.

Treasury should work with FHFA to:

- Either implement the suspended standby fee as compensation for the taxpayer backstop as originally provided for under the PSPA or raise guarantee fees a commensurate amount
- Examine the GSEs' guaranty fee pricing, capital requirements, and full implementation of Section 401 of the Temporary Payroll Tax Cut Continuation Act of 2011. This statutory provision directs FHFA to require GSE guarantee fees to be set so as to appropriately reflect the cost of capital allocated to similar assets held by fully private regulated financial institutions
- Examine current cross-subsidies in the guarantee fee pricing, effect of competing with FHA, and impact on home prices
- Expand the credit risk transfer program to maximize the amount of credit risk transferred to or retained by the private market, with emphasis on front-end, first-loss transfers. Also to review CRT pricing, structure, and entities (including where domiciled)
- Review the current wind down of the GSE's retained portfolios to ensure the size is commensurate with the operational needs of the GSE's and Treasury's exposure as effective guarantor
- Examine Affordable Housing Program
 - Reduce combined loan to value ratio on >20 year loan term to 95 percent
 - Implement wealth building home loan (<=20 year loan term) at 100 percent combined loan to value ratio
 - Examine Affordable Housing Trust Fund and Capital Magnet Fund funding while in conservatorship
- Reduce maximum DTI to:
 - 43 percent on >20 year loan term by January 2021
 - 46 percent on <=20 year loan term by January 2021
- Promptly examine all program and product expansion approvals that have been given while in conservatorship, with the immediate termination of those that compete with the private sector

In conclusion, prompt administrative action is advisable now. We are in the midst of a strong home price boom that is unsustainable and fueled by leverage. While we do not know when real house prices will revert to their trend growth path, what is certain is that when such a reversion occurs, low-income and minority home buyers will again be unduly subjected to volatile home prices, loss of equity, and attendant loan defaults. As a nation we can and must do better.