The Housing Lobby's APOR Solution for Replacing the QM "Patch" Is Fatally Flawed

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Some members of the Housing Lobby propose substituting QM's existing "Average Prime Offer Rate" (APOR) structure for the current QM "Patch", which sunsets in January 2021.[1] This approach, like the Patch itself, is fatally flawed.

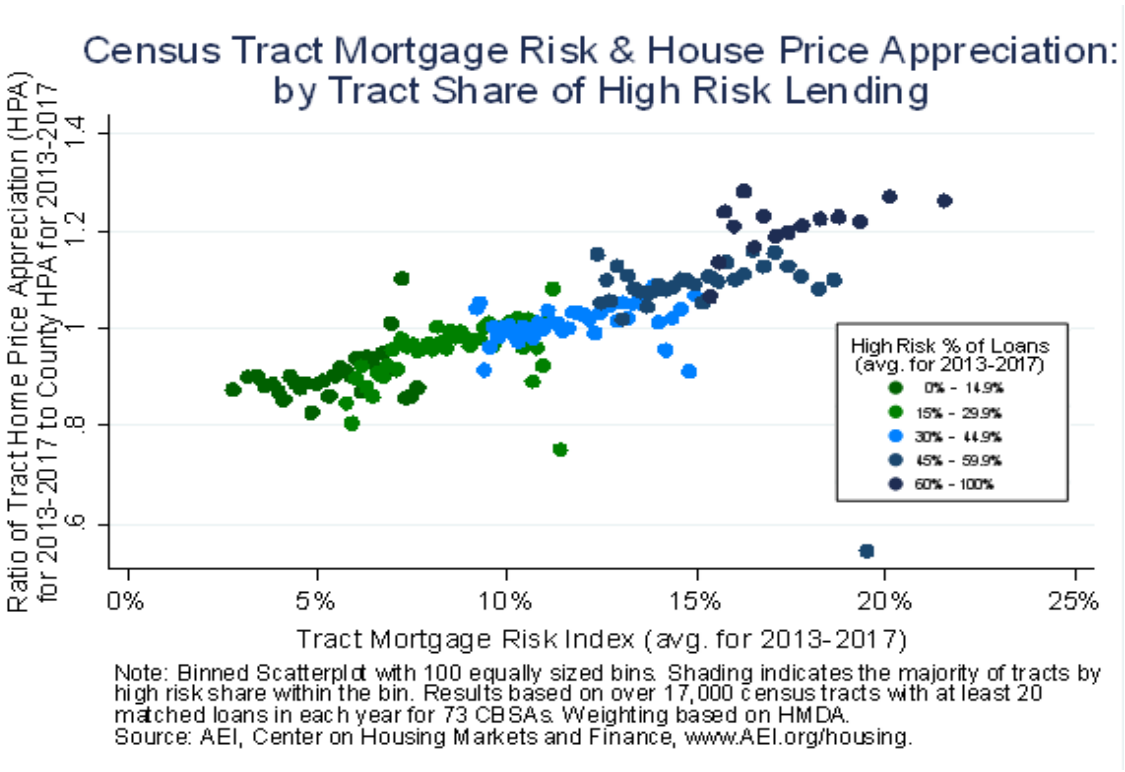
It is well documented that the Patch, which was announced in January 2013, has pro-cyclically supported the current home price boom.[2] The impact has been the most pronounced for entry-level homes.

AEI research has demonstrated that high risk lending in a seller's market drives up house prices faster than market fundamentals, such as wage growth and construction cost increases, justify.[3] The chart below shows how house prices in census tracts with either a higher mortgage risk index or a higher share of high risk loans have appreciated considerably faster between 2013 and 2017 than in census tracts with either a lower mortgage risk index or a lower share of high risk loans.

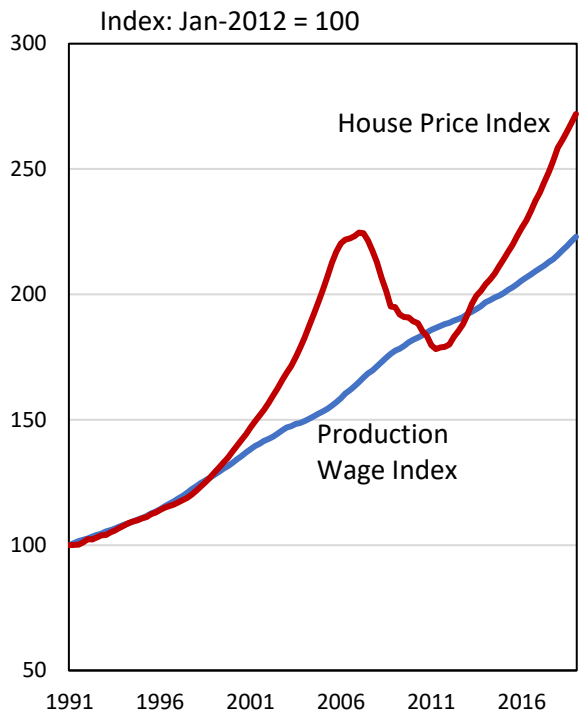
[1] Conventional first-lien mortgages with an annual percentage rate no more than 150 basis points above the APOR qualify for safe harbor protection. The same is true for FHA first-lien mortgages with an annual percentage rate no more than 115 basis points above the APOR. The Patch, applicable to Government Sponsored Enterprise (GSE)-eligible loans, and FHA's own QM rule each provide an exemption from the 43 percent DTI cap. While the Patch expires in January 2021, the FHA QM rule has no expiration date.

[2] "Dear CFPB: Let the QM 'patch' expire", Pinto, May 7, 2019, https://www.americanbanker.com/opinion/dear-cfpb-let-the-qm-patch-expire and "Letting the QM Patch Expire Will Help First-Time Buyers", Pinto, March 7, 2019, https://www.mortgagemedia.com/aei/letting-the-qm-patch-expire-will-help-first-time-buyers

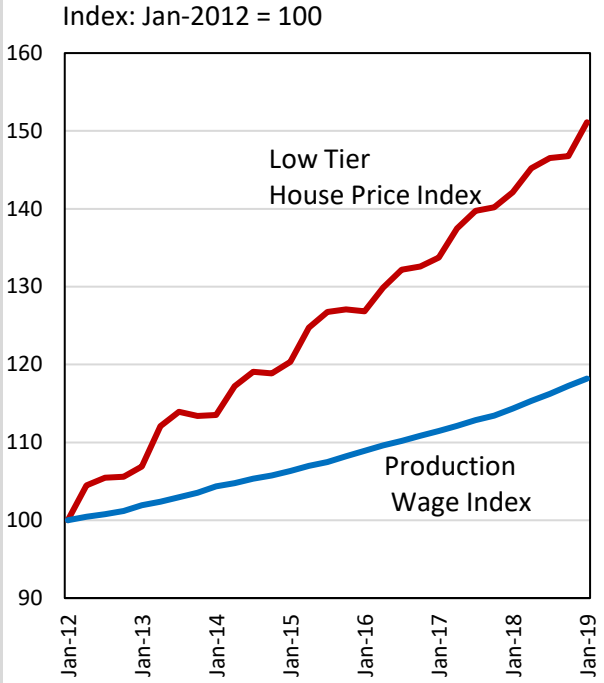
[3] The national existing home market has had continuous seller's market conditions since 2012.



Rather than free market price discovery, the QM Patch's allowance for ever expanding DTIs served to substantially remove income as an underwriting constraint. As a result, housing markets, particularly entry level ones, experience unsustainable house price appreciation (HPA). The chart on the left below shows the historic relationship between the FHFA house price index and the production wage index. The key take-away is that when the gap between both series in the mid-2000s became too wide, house prices quickly and precipitously returned to what market fundamentals would justify. The chart on the right, shows how far house prices at the lower end of the price spectrum have again deviated from market fundamentals in the current house price boom. If historic house price trends provide any guidance, the housing market clearly needs such friction to reign in unsustainable HPA. Without it, the result will be a further widening of the unsustainable and dangerous gap between low price tier home prices and wages.



Source: FHFA and BLS



Note: Low price tier are all homes in the the lower half of the entry-level segment.
Source: AEI and BLS

Substituting the APOR rule for the Patch would merely substitute one pro-cyclical policy for another.

Supporters of the APOR approach claim:

- …replacing the current DTI-heavy framework with one that captures risk more holistically [the APOR rate spread option] would strike better balance between expanding access while mitigating credit risk. [This] option would also create a more level playing field between the agency-backed and purely private capital–backed channels, potentially providing incentives for more private lending.[4,5]
- The APR/APOR cap serves as the proxy measure of credit risk inherent in the loan.[6]
- [T]he APOR threshold without a DTI, empirically balances responsible credit risk taking based on market pricing signals. Hard DTI ratios could merely encourage high DTIs. While counterintuitive, it may be better for consumers for there to be no stand-alone DTI as the sole measure for QM.[7]

[4] https://www.urban.org/sites/default/files/publication/99268/2018_10_30_qualified_mortgage_rule_update_finalized_4.pdf

[5] Presumably what is meant by the HPC proposal is that the current 43% DTI conventional QM rule, which would be applicable once the Patch sunsets, would be removed by regulatory action of the CFPB, leaving the existing conventional APOR rule as the primary risk limiting factor.

[6] ATR / QM Proposal, May 8. 2019, Housing Policy Council

[7] Ibid

These claims are unfounded for one simple reason. Almost all home purchase loans are either not priced for risk or are subject to substantial cross-subsidies, which results in low-risk loans being overpriced and high-risk loans being underpriced. These policies are undertaken by the federal government, which operates or controls five separate mortgage guarantee agencies: Fannie Mae, Freddie Mac, the FHA, the VA, and Rural Housing Services (Department of Agriculture). Further, all five are currently exempt from QM's 43% debt-to-income (DTI) limitation. On an annual basis, these agencies are responsible for about 85% and 80% of all primary home purchase and first time buyer loan activity, respectively. Given the GSEs' and FHA's combined market dominance, one must analyze their market impact holistically as it relates to any constraint provided by the operation of the APOR rules.

At the time the QM GSE Patch was announced in January 2013 by the Consumer Financial Protection Bureau (Bureau), it established a definition of a conventional prime loan, which was based on the interest rate paid by the consumer. FHA subsequently developed its own definition. In short, a prime conventional loan (whether privately funded or guaranteed by the GSEs) was one where the rate was no more than 150 bps above the APOR. A prime FHA loan was one where the rate was no more than 115 bps above the APOR.[8] A subprime loan was one where the rate was above these limits.

The Bureau observed at the time:

> In many cases, the pricing of a subprime loan is the result of loan level price adjustments established by the secondary market and calibrated to default risk…. The fact that a consumer receives a prime rate is itself indicative of the absence of any indicia that would warrant a loan level price adjustment, and thus is suggestive of the consumer's ability to repay."

Thus the Bureau was of the view that, with risk-based pricing, the rate charged on a prime loan would reflect low default risk.

AEI's Edward Pinto noted in 2013: "[the QM rule] is being touted as making sure 'prime' loans will be made responsibly. Yet true to the government's long history of promoting excessive leverage, it sets no minimum down payment, no minimum standard for credit worthiness, and no maximum debt- to-income ratio. Under its tortured definition of "prime", a borrower can have no down payment, a credit score of 580, and a debt ratio over 50% as long as approved by a government-sanctioned underwriting system. This opens the door to politicized lending at its worst."[9]

In the 6+ years since the rule was announced, the Bureau's rate-based definition of a prime loan clearly demonstrates that the APOR rule is not, in fact, "calibrated to default risk."

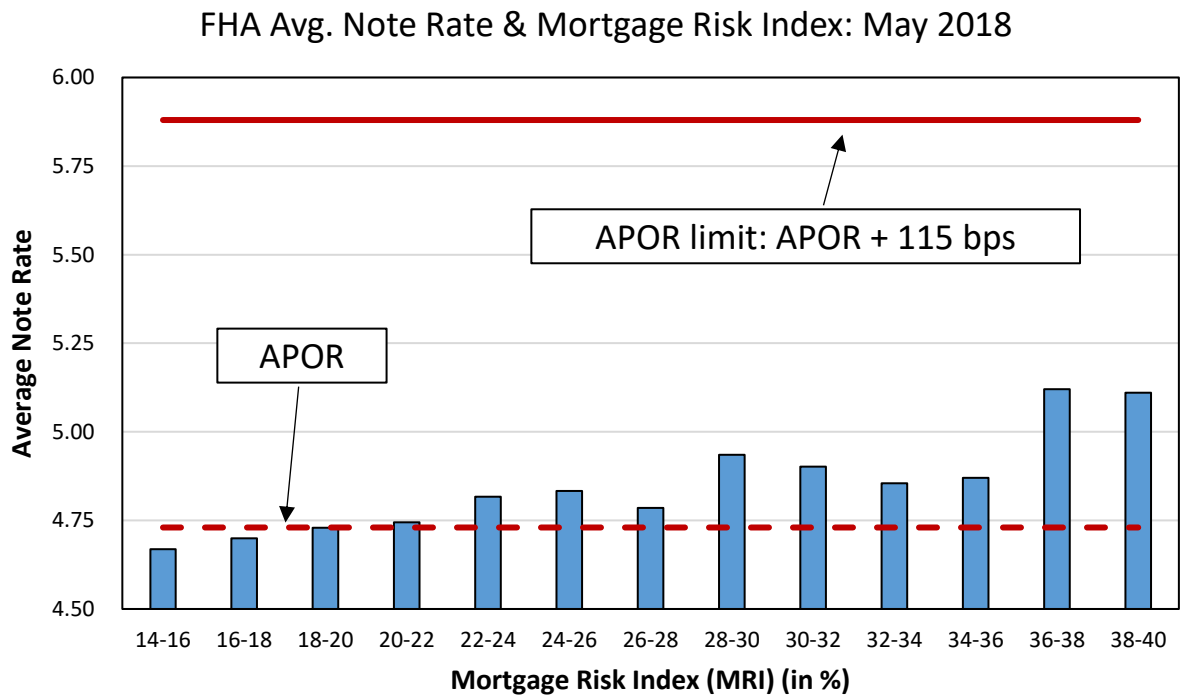
The graph below demonstrates that only 44 bps in note rate separate an average FHA loan with a 14-16% Mortgage Risk Index (MRI) from an average one with a 38-40% MRI.[10] The higher-risk loan with a

[8] For all intents and purposes, FHA does not price for risk. Therefore; its "APOR + 115 bps" rule allows for the introduction of more risk than the" APOR + 150 bps" rule for conventional loans.

[9] Pinto, CFPB's new 'qualified mortgage' rule: The devil is in the details - AEI January, 2013

[10] The Mortgage Risk Index (MRI) is a stress test, similar to a car crash safety rating or hurricane rating for buildings. The MRI's stress event is the financial crisis from 2007. The index places loans in risk buckets and assesses default risk based on the performance of the 2007 vintage loans with similar characteristics. The MRI is therefore a standardized quantitative index for mortgage risk (leverage).

38-40% MRI comfortably meets the APOR limitation thereby qualifying it as a "prime loan". In order not to qualify, the note rate of a loan would have to exceed 5.88%, or around 77 basis points higher.[11]



Note: Date are for FHA 30-yr primary owner-occupied purchase loand in May 2018. Dashed line is that month's APOR which is defined as the average monthly mortgage rate for a GSE primary owner-occupied 30-year fixed rate mortgage with an LTV between 76 and 80%.
Source: AEI National Mortgage Risk Index.

The table below demonstrates how little risk and the prime loan APOR rate correlate for loans with a credit score between 660 and 689, which is where FHA and GSE most directly compete with each other.[12] As the top half of the table shows, mortgage risk rises gradually from the top left cell (low CLTV and DTI) to the bottom right cell (high CLTV and high DTI). However, no such pattern is discernible in the lower half of the table, which shows the average note rate premium over the APOR. The highest rate premium over the APOR (33 bps on average) is being charged for relatively safe loans with a CLTV of 76-80% and a DTI ≤ 50% (MRI of 9.4% on average). The rate premium for loans with CLTVs of 71-75% and 81-95% fluctuates within a relatively narrow range of 20 bps to 26 bps, even though the risk index for such mortgages ranges from 6.4% to 22.7%. Loans with a CLTV of ≥ 96 average a note rate premium of 12 bps, which is half the premium for a relatively safe 76-80% CLTV loan. Furthermore, loans with a DTI > 50% have note rate premiums in line with loans of a 61-70 CLTV, even though such loans carry 3-5 times the risk.

[11] Note rate is the consumer note rate as reported by Fannie Mae, Freddie Mac, and Ginnie Mae. All data on note rates come from AEI's National Mortgage Risk Index (NMRI), which cover 99% of agency loans. The NMRI consists of 37m purchase and refinance mortgages.
[12] We define the prime APOR as the average monthly mortgage rate for a GSE primary owner-occupied 30-year fixed rate mortgage with an LTV between 76 and 80%.

Table: Mortgage Risk Index (MRI) & Avg. Note Rate Premium over Prime Rate APOR; for loans with credit scores between 660 and 689

DTI Buckets	1 - 60 CLTV	61 - 70 CLTV	71 - 75 CLTV	76 - 80 CLTV	81 - 85 CLTV	86 - 90 CLTV	91 - 95 CLTV	>= 96 CLTV
Mortgage Risk Index								
1 - 33	2.1%	5.1%	8.0%	6.5%	6.4%	11.4%	13.7%	18.7%
34 - 38	3.6%	7.6%	9.6%	8.8%	10.4%	13.5%	18.4%	20.4%
39 - 43	3.2%	6.6%	10.9%	10.2%	13.6%	15.9%	21.9%	22.7%
44 - 50	4.4%	6.6%	9.9%	12.2%	15.4%	17.5%	22.7%	26.1%
> 50	5.3%	9.3%	13.0%	14.0%	18.6%	24.2%	28.7%	34.5%
Avg. rate premium over APOR								
1 - 33	(0.08)	0.02	0.20	0.32	0.22	0.21	0.23	0.11
34 - 38	(0.09)	0.04	0.23	0.32	0.23	0.23	0.24	0.14
39 - 43	(0.08)	0.05	0.24	0.34	0.25	0.23	0.26	0.17
44 - 50	(0.07)	0.04	0.23	0.34	0.23	0.23	0.25	0.13
> 50	(0.00)	(0.02)	0.01	(0.09)	(0.06)	(0.11)	(0.10)	0.04

Note: Rate data are for 2018 GSE & FHA conforming 30-yr primary owner-occupied purchase loans.
Source: AEI National Mortgage Risk Index

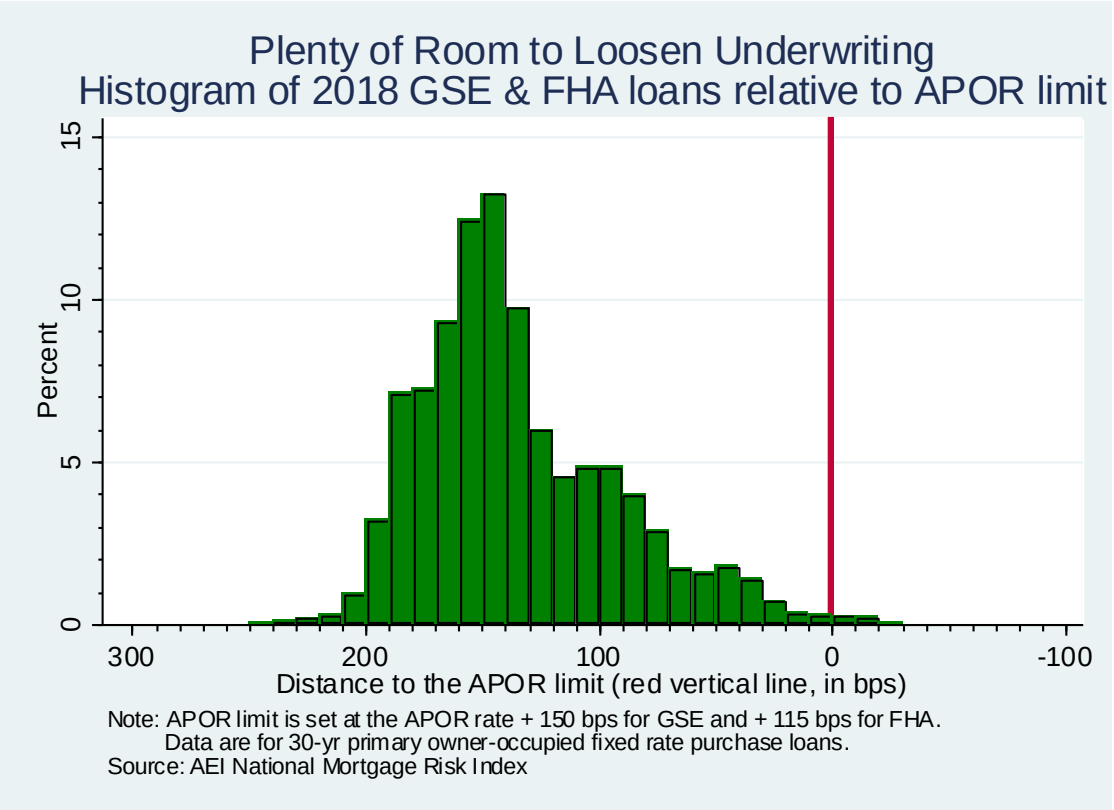
The next graphic provides further confirmation that the APOR rule is not well calibrated for risk. When compared against the MRI levels, the flaws of the APOR test become apparent as the APOR test only partially captures the risk relationship between CLTV and credit score. While lower credit score loans require a higher premium than higher credit score loans, loans with higher CLTVs only require a higher premium for credit score >= 720. Loans with a credit score between 719 and 620, and layered with very high CLTV loans, have a sizeable rate advantage relative the 76-80% CLTV loans. For example, a >=96% CLTV loan with a borrower DTI of <=33% and credit score loan of 620=639, has about one-half the APOR premium compared to a 76-80% CLTV loan with the same borrower DTI and credit score. This difference is notwithstanding that the high-risk loan has an MRI of 28.6%, about double that of the lower risk loan. This fact is a direct result of the federal government's insistence that agencies either not price for risk or provide substantial cross-subsidies.

		Mortgage Risk Index		**Avg. rate premium over APOR**		**Difference in avg. rate premium over APOR**
Credit Score Bucket	**DTI Bucket**	**76 - 80 CLTV**	**>= 96 CLTV**	**76 - 80 CLTV**	**>= 96 CLTV**	
>= 770	**1 - 33**	1.7%	5.3%	(0.13)	0.00	0.13
720 - 769	**1 - 33**	2.9%	9.7%	(0.10)	0.04	0.14
690 - 719	**1 - 33**	4.5%	14.9%	0.09	0.07	(0.02)
660 - 689	**1 - 33**	6.5%	18.7%	0.32	0.11	(0.21)
640 - 659	**1 - 33**	9.7%	25.6%	0.48	0.17	(0.31)
620 - 639	**1 - 33**	13.6%	28.6%	0.53	0.27	(0.25)
300 - 619	**1 - 33**	17.8%	37.3%	0.44	0.48	0.04

Note: Rate data are for 2018 GSE & FHA conforming 30-yr primary owner-occupied purchase loans.
Source: AEI National Mortgage Risk Index

A conventional DTI limit of 43% after the patch sunsets and a movement by FHA away from today's 57% DTI maximum, to say a 50% maximum, would provide counter-cyclical friction to house prices rising much faster than wages. As demonstrated earlier and reinforced below, the APOR test provides no such friction and won't for many years. The next graphic demonstrates that the prime loan APOR limit not only provides no friction today, there is very substantial room to further loosen before it would become binding.[13]

The chart shows the distribution of the gap between 2018 GSE and FHA note rates and their respective APOR limit. There is significant bunching of loans around the middle of the chart and only very few loans close to the APOR limit at 0, which is signified by the red vertical line on the right. Given that despite a significant increase in the riskiness of loans between 2013 and 2018, the median distance to the APOR limit has only shifted from 147 bps in 2013 to 144 bps in 2018, this chart shows how little of a constraint on house prices the APOR limit will provide in the future.[14]



[13] For GSE loans, the prime loan APOR limit is set 150 bps over the APOR. For FHA loans, the note rate is effectively set at 115 bps. To compute the distance to the APOR limit, we compare each loan's actual note rate to the prime loan APOR. In conducting this exercise, we had to make some assumptions regarding a proxy for the applicable APOR. This introduced some small estimation error. We believe that if a loan's actual APOR were available, no, or virtually no loans would have exceeded the applicable APOR limits.

[14] AEI's National Mortgage Risk Index increased from 11.0% in 2013 to 13.0% in 2018.

In December 2018 Nobel laureate Robert Shiller noted: The Housing Boom Is Already Gigantic. How Long Can It Last?

Given the incontrovertible evidence of the APOR rule's failure to calibrate for default risk, the Housing Lobby's suggestion to replace the sun-setting Patch with the APOR prime loan rule is just a veiled attempt to substitute a different means of providing pro-cyclical leverage support during the ongoing house price boom.

Back in 2013, when writing about the just promulgated QM rule, Pinto noted: "Booms are fueled by excessive leverage. This rule not only does little to limit borrower leverage, it greases the slope for the next bust."[15] It is clear that the suggested APOR rule suffers from the same pro-cyclical infirmities.

[15] Supra, "Devil is in the Details"