



Ironing Out the Wrinkles of the Single Security

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On June 3, 2019, Fannie Mae, Freddie Mac, and the Federal Housing Finance Agency (FHFA) launched the Uniform Mortgage-Backed Security (UMBS), a single security that can be backed by mortgages guaranteed by Fannie Mae, Freddie Mac, or some combination of the two. This was an enormous undertaking, moving from two well-known, deeply traded securities to a single, entirely new one, taking care not to disrupt the country's second most actively traded securities market (figure 1).

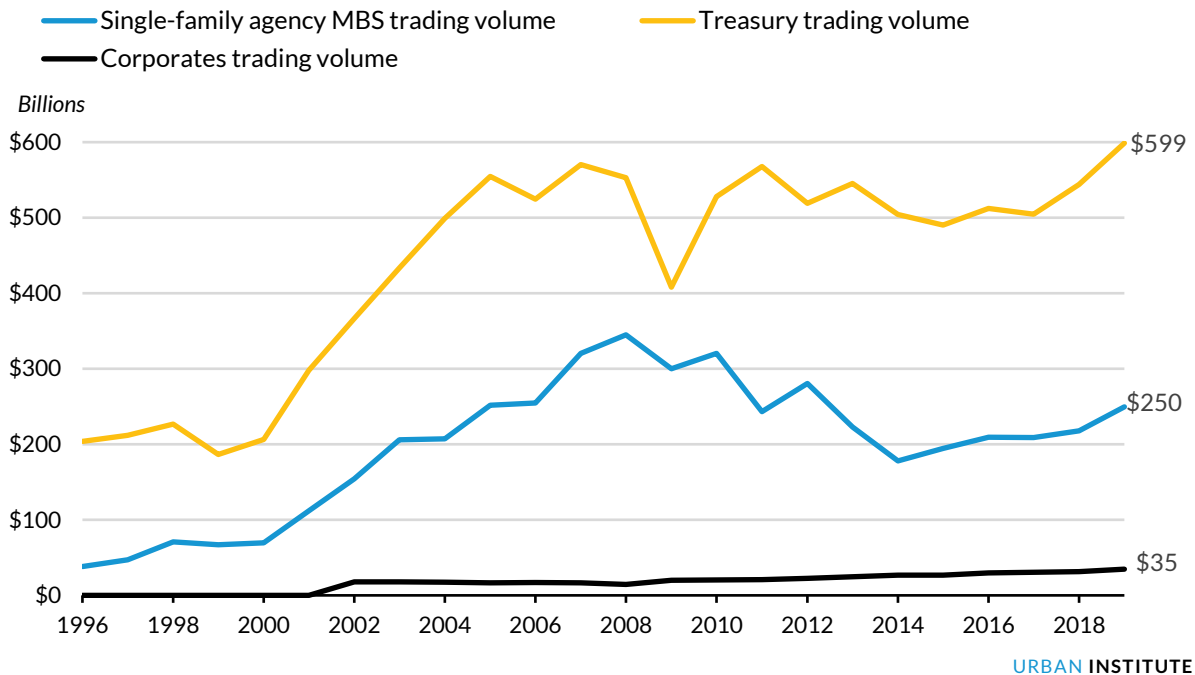
For the effort to work, the pools of loans guaranteed by Fannie Mae and Freddie Mac (the government-sponsored enterprises, or GSEs) would have to perform in roughly the same way. If the loans from either enterprise prepaid materially more quickly than the other, investors would seek to avoid the faster-paying pools to maintain their cash flows, and if unable to, they would likely shy away from the securities altogether. This dynamic would undermine the new security's liquidity and one of the central reasons for creating it.

To align the performance of Fannie and Freddie's pools, the FHFA has worked with the institutions to align the policies and processes by which they determine what loans go into these pools. This led to an admirably smooth launch of the new security, but a recent surge in trading in specified pools suggests that more work needs to be done.

To that end, on November 4, 2019, the FHFA released a request for input on a proposal to further align Fannie and Freddie's pooling practices (Division of Conservatorship 2019). Responses are due January 21, 2020.

FIGURE 1

Average Daily Fixed-Income Trading Volume for the Three Most Actively Traded Markets in the US



Sources: Securities Industry and Financial Markets Association and the Urban Institute.

Note: Data as of November 2019.

In this brief, we assess that proposal. For context, we first review the purpose of the UMBS and the challenges that policymakers have faced in pulling it off. We then turn to its performance, the challenges that remain, and how well the proposal would address them. Finally, we offer thoughts on how the FHFA might use a more market-oriented approach to address the challenges more effectively.

Why the UMBS Was Created

For decades, Fannie and Freddie each issued their own mortgage-backed securities (MBS), with different securitization practices, terms, and pricing. MBS investors were willing to pay more for Fannie Mae's securities because of their greater liquidity and less variable prepayment speeds. The lower pricing of Freddie's MBS made them more desirable for investors in collateralized mortgage obligations, who pulled them out of the market, rendering them still less liquid and less valuable for MBS investors.

To keep its liquidity problem from undermining Freddie's market share with lenders, many of whom sell their loans to Freddie in return for Freddie securities, Freddie was forced to reduce its guarantee fees, to the tune of \$500 million a year.

This posed several problems. First, while in conservatorship, this \$500 million cost was being borne by the taxpayer. Second, the reduced fees raised significant questions about Freddie's long-term viability. And third, it made it difficult if not impossible to imagine any new institutions entering the

market to compete with Fannie. After all, if Freddie could not compete on equal footing with Fannie because of its liquidity shortfall, how could a new guarantor, starting with no liquidity, compete against either?

The solution was the single security (Goodman and Parrott 2018). By transitioning Fannie and Freddie from two securities to one, policymakers would reduce the cost to taxpayers, increase overall liquidity, and remove a significant barrier to long-term reform.

The TBA Challenge

Critical to the success of the UMBS will be its impact on the to-be-announced (TBA) market, the cornerstone of the broader MBS market. In the TBA market, parties agree to buy and sell securities to be formed at a future date, on terms set in advance. For example, an originator may offer to sell an investor a Fannie Mae security with a 3 percent coupon, deliverable in two months. At the time of the agreement, neither the originator nor the investor knows exactly what loans will go into the pool that will back the security, but locking in terms in advance allows the originator to offer borrowers a rate when they apply for a loan. This attracts more borrowers, leading to more and larger pools of mortgages in which to invest, attracting more investment. The increased liquidity in turn lowers mortgage costs for consumers.

Not all securities trade on a TBA basis, however. In some cases, buyers and sellers agree that the future security will be backed by pools comprising loans with specific characteristics: loans of a certain size, loans made by certain lenders or in certain states, loans that have certain credit characteristics, and so on. Trading on a *specified pool* basis gives investors greater control of the prepayment risk in their securities.

Though not traded in the TBA market, even these securities are priced off of that market, with buyers simply paying a premium over the TBA market price for loans with the same coupon, a so-called *pay-up*. For example, if a Fannie Mae TBA pool with a 3 percent coupon trades at \$101.39 per \$100 par, a pool of loans with a 3 percent coupon and balances of less than \$150,000 may command a pay-up over the TBA pool of \$1.47 per \$100 par, for a total price of \$102.86.

The TBA market thus sets a floor for the broader MBS market, a floor determined by the price investors are willing to pay for securities backed by the least desirable loans eligible for that market, the *cheapest to deliver*. Anything that undermines the TBA market thereby undermines the rest of the MBS market.

The policy challenge the UMBS presents largely comes down to its impact on the TBA market. Ideally, by combining Fannie and Freddie's securities, the UMBS will expand the TBA market's liquidity, thereby improving pricing marketwide. But that will happen only if the combined securities are fungible. A material divergence in the performance of Fannie and Freddie's pools will lead investors to trade more and more in the specified and stipulated pool markets, reducing liquidity in the TBA market and thereby undermining pricing marketwide.

For Fannie and Freddie's pools to be considered fungible, the cash flows to investors must be roughly the same for each MBS coupon. So a pool with a 4 percent coupon should provide roughly the same cash flows to an investor as another pool of the same size with a 4 percent coupon, whether the mortgages are guaranteed by Fannie or Freddie. Their cash flows will diverge, however, if loans from one of the pools prepay more quickly than those of another.

The success of the UMBS depends, then, on aligning the prepayment speeds of the pools issued by Fannie and Freddie, which go into the TBA market. The more they are aligned, the more the UMBS should increase liquidity in the TBA market, thereby improving MBS pricing and reducing mortgage rates. If the prepaid pools are not aligned, it will reduce TBA liquidity, weakening MBS pricing and increasing mortgage rates.

How the UMBS Is Doing So Far

The topline numbers since the implementation of the UMBS are impressive: Fannie and Freddie's guarantee fees have converged, holders of legacy Freddie securities are trading them in for UMBS, and TBA trading volume is high.

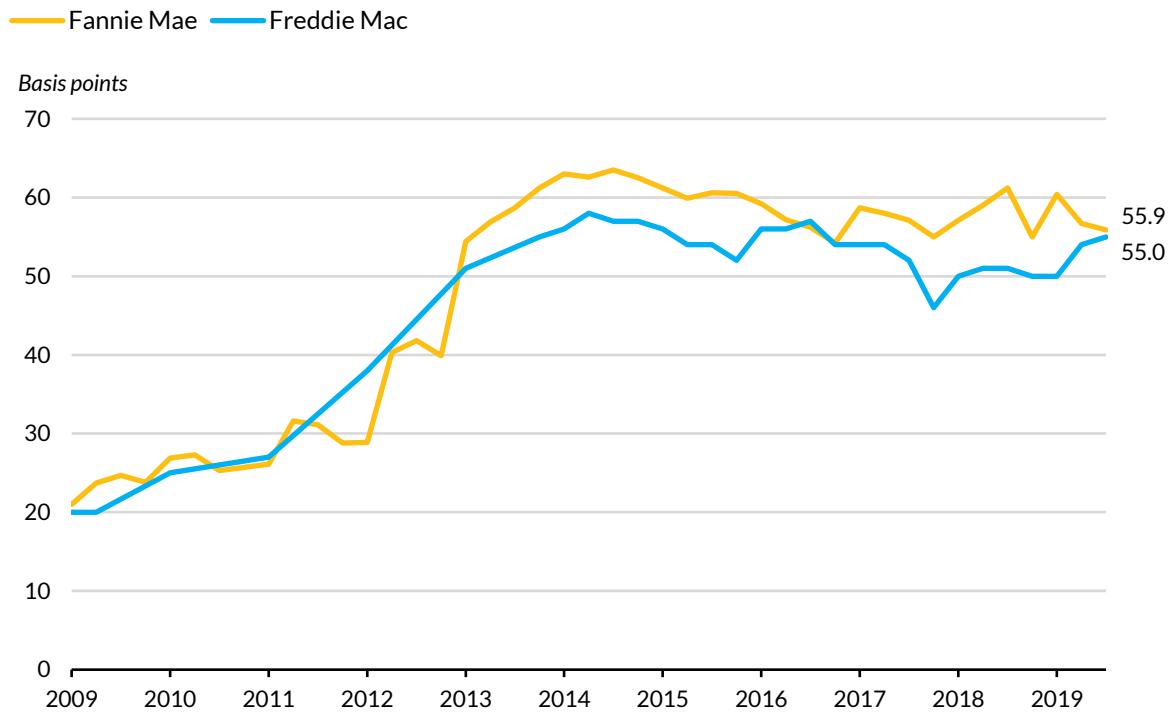
Investor preference for Fannie's securities has long forced Freddie to drop its guarantee fees to hold market share. In the first full quarter since the UMBS launch, this difference in guarantee fees has all but disappeared (figure 2). Several factors are in play here (e.g., Freddie's decades-long work aligning prepayment speeds, market anticipation of the move to the UMBS, and differentials between the riskiness of the GSEs' mortgage acquisitions), but the UMBS itself deserves some credit.

The number of exchanges for Freddie Mac UMBS is also a good sign. Existing Fannie Mae securities were converted automatically into UMBS securities, but because their payment schedules would remain the same, those who hold Freddie Mac securities have to convert theirs to fit a new payment schedule. They are not required to do this, but in a sign that the market views the UMBS favorably, many Freddie investors have chosen to do so.

Through December 12, 2019, 101 counterparties have completed 41,300 exchanges, totaling \$269.9 billion in unpaid principal balance. Table 1 shows the shares of 15-, 20-, and 30-year loans exchanged, which are particularly impressive given that the Federal Reserve, a large holder, has not exchanged its securities.

FIGURE 2

Guarantee Fees Charged on New Acquisitions



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Sources: Fannie Mae, Freddie Mac, and the Urban Institute.

Note: Data as of November 2019.

TABLE 1

Share of Legacy Freddie Securities Exchanged for UMBS

Term	UPB exchanged (\$billions)	UPB not exchanged (\$billions)	Total UPB (\$billions)	Share converted
15-year	34.7	269.4	304.1	11.4%
20-year	13.1	41.1	54.2	24.2%
30-year	222.1	880.3	1,102.4	20.2%

Source: Urban Institute calculations of Freddie Mac data.

Note: UMBS = Universal Mortgage-Backed Security; UPB = unpaid principal balance.

Table 2 shows that the average daily trading volume of agency MBS pools is also up sharply, another positive sign. Although average daily volume is always higher when refinancing is robust, as it is now, 2019 had the highest average daily turnover of agency MBS since 2012, which was the largest single year for agency MBS issuance on record since the crisis.

TABLE 2

Average Daily Trading Volume of Agency TBA and Agency Specified Pools*Billions of dollars*

Year	Agency-specified pool	Agency TBA	Total
2011	11.1	229.2	240.2
2012	13.0	264.5	277.5
2013	11.4	209.1	220.6
2014	8.6	167.3	175.8
2015	11.2	179.4	190.6
2016	13.5	194.1	207.6
2017	13.4	194.0	207.4
2018	12.9	204.6	217.5
2019	17.0	231.0	248.0

Source: Securities Industry and Financial Markets Association.**Note:** TBA = to-be-announced.

And the TBA market continues to dominate trading. In 2019, of the \$248 billion of daily trading in agency MBS pools, \$231 billion was in TBAs, and only \$17.0 billion was in specified pools.

That said, the TBA market is showing signs of diminished liquidity, as more trading moves into the specified pool market. The daily volume of trading in the specified pool market remains low but increased sharply in the past year, rising from an average of 5.9 percent of the total agency MBS traded in 2018 (\$12.8 billion), to 6.2 percent from January to May 2019 (\$15.3 billion), and 7.3 percent from June to November 2019 (\$18.5 billion).

There is always an increase in specified pool trading during a surge in refinancing, as investors seek to reduce their exposure to the rapidly prepaying cheapest-to-deliver pools. This is particularly true in the current refinancing surge. Many loans being refinanced today were made in 2018 and early 2019, when there was often a large spread between the coupon rate paid to MBS investors and the interest rates paid by the borrowers whose loans backed the MBS. Pools with these larger spreads prepay faster than other pools with the same coupon rate because the loans in them carry higher interest rates. These faster pools deteriorate the quality of the TBA market, putting still more pressure on investors to seek specified pools.

The question is whether the UMBS rollout has made the increase in specified pools even worse, as investors flee TBA trades that conceal a material divergence in the performance in Fannie and Freddie's pools. And the numbers are suggestive, as the share of specified pool trading in the agency market since the UMBS launch exceeds that during the strongest refinance booms in recent years, 2012 and 2016, when it was 5.0 percent and 6.5 percent, respectively.

The FHFA's Proposal

Understandably concerned about these market shifts, the FHFA takes the rise of specified pools head-on, proposing a prescriptive set of pooling requirements to push on Fannie and Freddie to use more

large multilender pools. The points below are taken directly from the proposal (Division of Conservatorship 2019, 12):

- All sellers/servicers would be incentivized or required by Enterprise policy to deliver the vast majority of production into generic multi-lender pools formed by either Enterprise; potentially 70 to 80 percent of each month's TBA-eligible MBS issuance would be in these very large, well-diversified multi-lender pools.
- Specified pools and potentially other pools with market pay-ups (such as certain single-lender pools that have particularly desirable characteristics) would continue to be allowed under prescribed circumstances, and the loans underlying these pools would not be directed into the generic multi-lender pools. The expectation is that a modest share (potentially 20 to 30 percent) of each month's TBA-eligible MBS issuance would be comprised of these pools.
- On a case-by-case basis, to address anomalies in prepayment speeds, certain seller/servicers would be directed to deliver all or part of their production into non-TBA-eligible, single-lender pools; the criteria for these cases would be aligned across the Enterprises and would consider overall lender performance and the effects of such a pooling requirement on the performance and liquidity of UMBS and other market impacts.

By pushing Fannie and Freddie toward these larger multilender pools and narrowly circumscribing the use of specified pools, the FHFA is attempting to force Fannie and Freddie to maximize TBA liquidity, much the way that Ginnie Mae does through its Ginnie II pools. In Ginnie II pools, all loans of a particular MBS coupon issued in a given month go into a single multilender pool. Thus, loans from the Federal Housing Administration (FHA), Veterans Administration (VA), and the US Department of Agriculture all go into the same pools, regardless of loan characteristics.

It is not clear, however, that this will work as the FHFA intends. Recall that the underlying problem is a divergence in the prepayment speeds of Fannie and Freddie's cheapest-to-deliver pools, which increases investor preference for specified pools and undermines TBA liquidity. By focusing on the effect (the rise of specified pools) and not the cause (*why* investors increasingly prefer them), the FHFA may actually exacerbate the problem rather than solve it.

Pushing Fannie and Freddie into still larger comingled pools is likely to give investors concerned about a divergence in Fannie and Freddie's performance *less* confidence, not more. To see why, we need to look at what drives diverging prepayment speeds and how that might change under the proposed plan.

Whether Fannie or Freddie's pools prepay more quickly is driven in large part by the kinds of loans they are buying, which is in turn driven by the mix of lenders they do business with. Although most lenders' loans prepay at similar rates, some lenders refinance their borrowers materially faster than others, leading to materially faster prepayment speeds. Whether Fannie or Freddie has a larger share of such lenders tends to determine whether its pools prepay more quickly.

Lenders that refinance more quickly do so either by getting their borrowers into lower-rate mortgages more quickly, *saving* them money, or by convincing their borrowers to take out new loans that do not meaningfully reduce their mortgage rate, *costing* them money. Though difficult to distinguish, the former is, on net, beneficial to the market, saving consumers money and pushing the rest of the market to adapt to superior lending practices. The latter, called *churning*, harms the market, costing borrowers and investors alike for no broader social benefit.

Investors, which tend to dislike faster prepayment speeds of either type as they *both* reduce their cash flows, provide a modest check on the fastest lenders. By offering more for securities backed by the loans of lenders known to prepay slowly and offering less for securities backed by the loans of lenders known to prepay quickly, particularly those that churn their borrowers, investors drive down the secondary market price of loans made by the fastest lenders. The more a pool comprises a mix of loans from fast and slow lenders, however, the less powerful this market check.

This brings us back to the FHFA's approach to ensuring the UMBS does not undermine TBA liquidity. It rightfully notes the underlying problem of faster-prepaying lenders, but its solution focuses on simply reducing its effect, the rise of specified pools. In doing so, however, the approach not only fails to address the underlying problem but will likely make it worse by undermining the one check in place already: investor preference.

Moreover, in its proposed solution, the FHFA does not distinguish between faster-prepaying lenders that are good for consumers and the market and those that are harmful. When combined with the removal of an investor check on faster lenders, the proposal runs the risk of creating a problematic dynamic, giving lenders additional incentive to churn their borrowers and all but preventing Fannie, Freddie, and investors from doing anything about it.

The experience of Ginnie II pools offers a cautionary tale. FHA loans prepay more slowly than Fannie and Freddie loans, so its securities should fetch a better price in the market. And historically, Ginnie's securities have indeed traded at a better price than Fannie and Freddie securities. But a recent surge in VA prepayment speeds has undermined the relative strength of FHA loans, driving Ginnie's pricing below that of Fannie and Freddie, despite the fact that the former and not the latter enjoys the full-faith guarantee of the government. As a result, the first-time homebuyers who dominate the FHA market pay more for their mortgages because they are pooled with VA loans.

How to Address the Problem More Effectively

To recap, the FHFA is right to be concerned about recent market developments, which suggest a trend in the UMBS that might undermine TBA liquidity if unaddressed. And the FHFA is right to focus on the rise of specified pools, as this could drive a loss of TBA liquidity. But it needs to dig deeper to what is causing the rise of specified pools: a divergence in the prepayment speeds of Fannie and Freddie's cheapest-to-deliver pools.

Rather than looking for other regulatory tools to address the problem, however, we suggest empowering the market to address it. After all, in a healthy market, investors should naturally drive toward more liquidity and punish the churning that undermines it here. Instead of using its regulatory muscle to overcome the market forces undermining MBS liquidity, then, the FHFA should create an environment in which those forces deepen MBS liquidity.

The most important step in this direction would be to establish a process for Fannie and Freddie to identify and penalize lenders for churning, in a way that positions investors to do the same. The FHFA could do this through a process that allows Fannie and Freddie to first identify bad actors and then gradually increase the cost of remaining so.

If a lender is considerably faster than other lenders, it should be required to explain why to Fannie and Freddie. If the lender can show that it is simply providing its borrowers a *beneficial* refinance option more quickly than the rest of the market, it should be able to continue to participate in the GSEs' standard pooling practices.

If not, the loans should initially go into a separate lender-specific TBA pool. Not only will they no longer compromise the multilender pools this way, but the increased transparency will allow investors to provide a powerful market check on the practices at issue, offering lower pricing or avoiding the loans altogether.

If these lenders resolve the problematic practices, their loans could go back into standard multilender GSE pools. If they cannot, the GSEs should require pooling their loans into a separate non-TBA pool. Being pulled from the TBA market altogether is dramatic, but if lenders cannot correct their practices even when isolated in TBA pools, it may be necessary to exert more downward pressure on their pricing and further empower investors to handle these lenders in a way that makes the most economic sense.

The FHFA should require Fannie and Freddie to develop such a process together, or perhaps each develop its own version with some assurance that the two would be closely aligned. Any material divergences in their processes will lead to yet another divergence in pooling, undermining the effort once again. However the process or processes are developed, the FHFA must oversee implementation, even if Fannie and Freddie are released from conservatorship.

By bringing market forces to bear on churning through a process like this, the FHFA could reduce the variation in prepayment speeds among lenders and further align the GSEs' performance. This in turn would reduce demand for specified pools and increase TBA liquidity more effectively than by intervening directly.

A smaller step to better align market forces with the policy objectives here would be to eliminate the fee that investors are charged for creating larger and comingled securities, called Supers. These securities function much like the FHFA hopes the multilender pools they are pushing in the request for input will function: by comingling large pools of Fannie and Freddie issuance, they expand liquidity in

the market. Any costs associated with these securitizations should be removed so the market naturally creates more of them.

Finally, the FHFA should require Fannie and Freddie to provide more extensive disclosure regarding policies and processes that tend to affect prepayment speeds: where, for instance, they take steps to provide more appraisal waivers. This increased transparency will give investors greater confidence in what is going into the pools and how they will behave over time and will allow them to provide a stronger check on changes in speeds that are being driven instead by problematic lender behavior.

These steps would be powerful in their own right, but, more broadly and more importantly, they illustrate the kind of alternative approach the FHFA should consider here. Rather than attempting to stop a bad outcome (too many specified pools) by simply banning it, the FHFA should marshal market forces to address its underlying causes.

Thinking about the challenge this way should open them up to entirely new lines of inquiry. The FHFA might consider prohibiting the largest lenders from putting loans into the multilender pools altogether, so that they cannot hide their faster product from the market. It might look at the GSEs' use of buy-ups and buy-downs to make sure they are not distorting pooling practices to gain or protect market share with larger lenders. And it might explore requiring Fannie and Freddie to align their cash-window and multilender pooling processes to reduce variation in prepayment speeds across GSE channels. Whether any or all of these ideas prove worthwhile remains to be seen, but they are the kind of steps that should be on the table as the FHFA turns to a market-oriented approach to the problem.

This approach should lead to a more stable UMBS over time than simply forcing more loans into multilender pools would do. It would mean a larger number of small pools than would the FHFA's proposal, at least initially, but it would give investors more transparency and confidence in the pools, leading to greater liquidity overall. Over time, it may even lead to greater liquidity for the very multilender pools the FHFA prefers, as investors will have more confidence of what is going into them and how they will perform.

Conclusion

Despite our focus on the challenges that remain with the move to a single security, it is important to recognize the scale of the security's success. The FHFA and the GSEs have transformed one of the world's largest securities markets, one that underpins a large segment of the nation's economy, with minimal disruption. And in doing so, they are saving the taxpayer a considerable sum and removing what would have been a formidable barrier to long-term reform. Whatever one thinks of how they propose to address the remaining issues, they deserve to be commended for having gotten us this far.

That said, the FHFA should consider shifting its focus from a top-down regulatory approach to staunching the concerning rise of specified pools, to a bottom-up market-oriented approach to

addressing its underlying causes. This is likely to be a more effective way to ensure the UMBS expands rather than undermine TBA liquidity.

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About the Authors

Bob Ryan left the Federal Housing Finance Agency (FHFA) in July 2019 after more than five years as special adviser to the director. From July 2015 through September 2018, he was also the acting deputy director for the Division of Conservatorship. Before joining the FHFA, Ryan was senior vice president for capital markets at Wells Fargo Home Mortgage. He was responsible for strategic policy affecting capital markets and the mortgage company. From 2009 to 2012, he was senior adviser to Secretary of Housing and Urban Development Shaun Donovan, the acting Federal Housing Administration (FHA) commissioner, and the assistant secretary for housing, and before that, the first chief risk officer for the FHA. In that capacity, Ryan established a new Office of Risk Management that oversees the FHA’s credit risk management functions, including single-family, multifamily, and health care. Before joining the Department of Housing and Urban Development, Ryan was at Freddie Mac, where he held several senior positions in capital markets, single-family pricing and credit, and the office of the president. Ryan has over 35 years of experience in all aspects of the mortgage market.

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