ANALYSIS
13 MAY, 2020

Prepared by

Laurie Goodman
Co-director of the Housing Finance Policy Center at the Urban Institute

Jim Parrott
Nonresident fellow at the Urban Institute and co-owner of Parrott Ryan Advisors

Bob Ryan
Co-owner of Parrott Ryan Advisors

Mark Zandi
Mark.Zandi@moodys.com
Chief Economist

Contact Us

Email
help@economy.com

U.S./Canada
+1.866.275.3266

EMEA
+44.20.7772.5454 (London)
+420.224.222.929 (Prague)

Asia/Pacific
+852.3551.3077

All Others
+1.610.235.5299

Web
www.economy.com
www.moodysanalytics.com

The Mortgage Market Has Caught the Virus

INTRODUCTION

The first wave of stress from the COVID-19 crisis is cresting over the housing and mortgage markets right now, much like the rest of the economy. Some segments of these markets are beginning to strain under the pressure, reducing access to credit and threatening years of work to build a healthier housing finance system. More worrisome still, if these early issues are not addressed, they threaten to pose much deeper problems under the second wave of stress to come, as job losses become permanent and many borrowers go from forbearance to foreclosure. In this paper, we look at several critical sources of stress in the housing finance system, how concerning they might become, and what policymakers might do to address them.

The Mortgage Market Has Caught the Virus

BY MARK ZANDI, LAURIE GOODMAN, JIM PARROTT AND BOB RYAN

The first wave of stress from the COVID-19 crisis is cresting over the housing and mortgage markets right now, much like the rest of the economy. Some segments of these markets are beginning to strain under the pressure, reducing access to credit and threatening years of work to build a healthier housing finance system. More worrisome still, if these early issues are not addressed, they threaten to pose much deeper problems under the second wave of stress to come, as job losses become permanent and many borrowers go from forbearance to foreclosure. In this paper, we look at several critical sources of stress in the housing finance system, how concerning they might become, and what policymakers might do to address them.

COVID-19 crisis hits the housing and mortgage markets

When the COVID-19 crisis struck in full force in March, the housing and mortgage markets were in as good a place as they had been since the early 2000s. It had taken nearly a decade after housing hit bottom following the financial crisis, but home sales and house prices had finally fully recovered. First-time homebuyers had become an increasingly large share of the homebuying market, helping to drive its overall expansion. And house prices, which have swung widely in the past two decades, were at last largely aligned with household incomes, rents and construction costs.

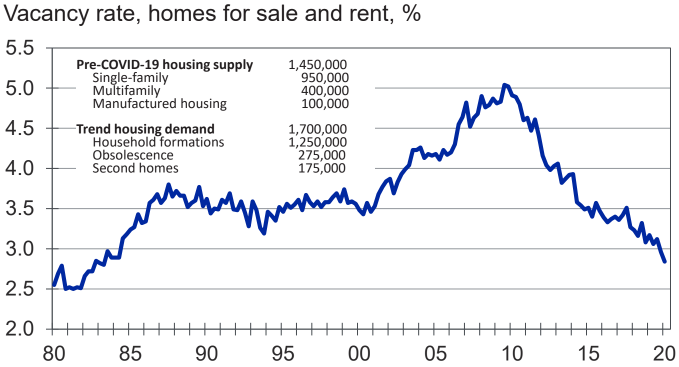
Homebuilding, depressed since the financial crisis, was finally gaining traction. The vacancy rate across the entire housing stock had hit a 35-year low, with new construction consistently falling short of demand (see Chart 1). However, house prices had at last recovered enough to make building more affordably priced homes profitable again, and builders were figuring out ways to overcome a range of headwinds to put up more homes.

The mortgage finance system was also hitting its stride. Mortgage origination volumes were sturdy, with borrowers taking advantage of record low mortgage rates. And mortgage credit quality was about as good as it gets, with delinquency rates on outstanding mortgages and foreclosure rates near all-time lows (see Chart 2).

Behind the strong mortgage performance were solid house price gains and ample homeowner equity, low unemployment, and several years of prudent mortgage underwriting. There had been some recent easing in standards, with lenders extending credit to borrowers with higher debt-to-income and loan-to-value ratios, but borrower credit scores remained high. Only 14% of mortgage debt outstanding is owed by borrowers with

Chart 1: Housing Is Undersupplied

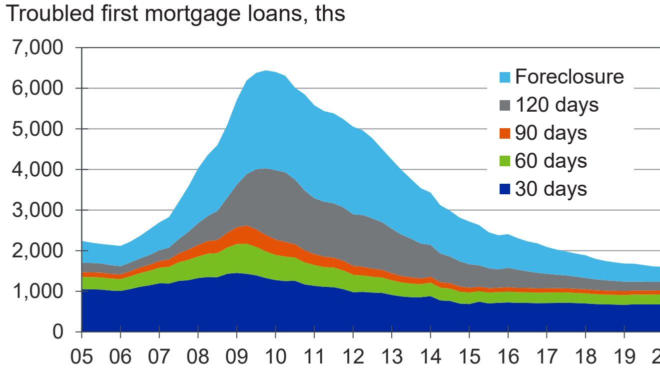
Vacancy rate, homes for sale and rent, %



Sources: Census Bureau, Moody's Analytics

Chart 2: Credit Quality as Good as It Gets

Troubled first mortgage loans, ths



Sources: Equifax, Moody's Analytics

a credit score of less than 660, about half the share at the apex of the housing bubble that led to the last financial crisis (see Chart 3).

These strong conditions have been upended with the COVID-19 crisis. The combination of social-distancing measures and heightened economic anxiety has caused active sale listings to plunge by about half nationwide, with large declines in every major metropolitan market. The drop in home sales has depressed mortgage purchase originations despite lenders adjusting to social-distancing requirements by moving more of what had been done in person to a digital format. And homebuilders have battened down the hatches, shoring up their balance sheets and increasing liquidity, renegotiating deal terms, pulling back on new housing starts, and delaying new land acquisitions.

Most concerning, though, has been the dramatic pullback from mortgage credit risk. Although it is too early to know what the fallout from the COVID-19 crisis will be on mortgage credit quality, with unemployment surging to levels not seen in a generation, investors in every corner of the mortgage market are pulling back aggressively on their exposure to credit risk.

Flight from credit risk

The speed and breadth of the retreat from mortgage credit risk has been remarkable, nowhere more so than in the non-agency market, the part of the mortgage market not directly supported by the federal government. Prior to the virus, the non-agency market accounted for more than 30% of originations, catering largely to borrowers unable to qualify for an agency loan because of loan size or borrower characteristics, including many small-business owners and self-employed individuals. The non-agency market had been slowly expanding, as stakeholders worked through the challenges that had held it back in the years after the Great Recession (see Chart 4).

This market is now teetering as investors, warehouse lenders, servicers and originators respond to the uncertainty over credit risk by pulling back on their exposure. Originators are shutting down their non-agency correspondent channels and putting heavy credit overlays on the loans they will do even for their own banking customers. Buyers of non-agency loans are not only stopping future purchases but are trying to back out of purchases they had committed to before the disruption. And investors in non-agency mortgage-backed securities have fled the field entirely. Taken together, this has brought lending through the non-agency channel to a virtual standstill.

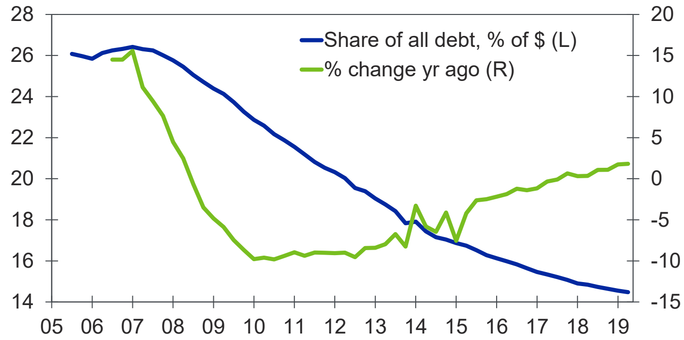
The situation is similar in the market for credit risk within the government-backed segment of the market, the so-called credit risk transfer market. The CRT market was developed after the financial crisis to allow Fannie Mae and Freddie Mac to sell the credit risk they were taking to private investors. The market was flourishing prior to the COVID-19 crisis, with the government-sponsored enterprises readily off-loading their risk on attractive terms. Almost half of the credit risk on all the loans guaranteed by the GSEs had been taken on by private investors via the CRT market (see Chart 5).

The credit risk transfer market shut down amid the COVID-19 crisis and has been slow to rebound. Investors have pulled away from the market, because of uncertainty over the level and duration of credit risk in the system, lack of price discovery, and a lack of clarity over how that risk will be handled in CRT securities. All of this uncertainty has made it costlier for Fannie Mae and Freddie Mac to transfer the risk than simply retain it. The GSEs are thus holding the risk on their own balance sheets once again, just as they did prior to the advent of the CRT market.

In short, almost all those willing to take credit risk in the mortgage system as recently as February have pulled back, bringing most of the channels through which

Chart 3: Subprime Mortgage Fade

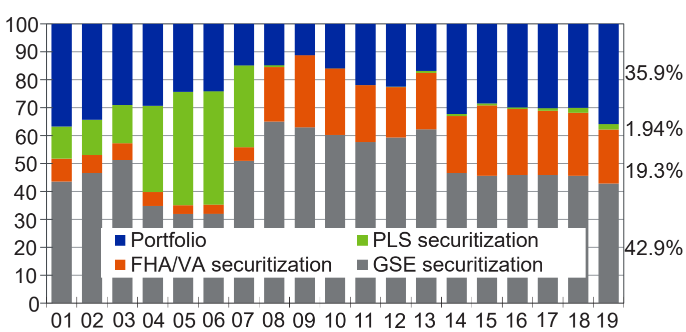
Mortgage debt owed by borrowers with less than 660 score



Sources: Equifax, Moody's Analytics

Chart 4: Non-Agency Comes Back to Life

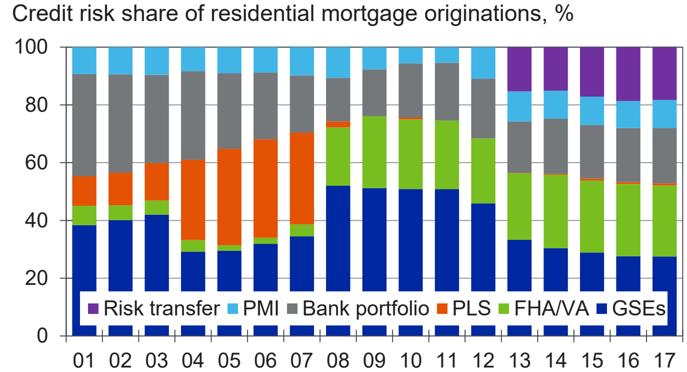
First lien origination share, %



Sources: Inside Mortgage Finance and Urban Institute, Moody's Analytics

Chart 5: Rise in Credit Risk Transfers

Credit risk share of residential mortgage originations, %



Sources: Fannie Mae, Moody's Analytics

parties bought and sold credit risk largely to a halt.

Challenges in making and servicing loans

A host of challenges in making and servicing loans are exacerbating this retreat from credit risk and threatening to contract the mortgage market even further.

Challenges hedging risk in the origination pipeline

Lenders that sell the mortgages they originate into the secondary market face heightened risk between the time they commit to mortgage terms for a borrower and the time they sell that mortgage into the secondary market. During that period, which can last several weeks, they face interest rate risk, credit risk and liquidity risk, all of which must be managed so that the risks do not wipe out the profits the loans generate through fees and servicing.

If the price of mortgage-backed securities falls after a lender locks in terms for a borrower, the lender will have to sell their loan for less than they had planned in pricing it, perhaps even at a loss. To hedge that risk, the lender will assume that some share of the loans they have committed to over a period will ultimately close, and then sell that amount to an MBS investor in the forward market—the market for loans to be pooled in the future. Assuming they are correct in their estimate, the lender will earn precisely the returns intended in the pricing of that group of loans, whatever MBS prices are when the loan is delivered to the investor.

This strategy is how most lenders manage their origination pipeline risk and is relatively easy to deploy in normal times. However, it becomes difficult to deploy if a lender cannot estimate what share of their committed loans will actually close. If their estimate is either too high or too low, they will be forced to buy or sell in the MBS market well after the loans are locked, exposing them to the very changes in MBS pricing they were trying to avoid.

In the days following the initial economic shutdown associated with the virus, the strategy became all but impossible to deploy. As businesses shuttered, it became unclear how many borrowers would actually close on their loans and thus how much lenders should sell into the forward market. And MBS pricing was even less predictable; dramatic sell-offs sent pricing into free fall, and then dramatic purchasing by the Federal Reserve sent prices through the roof (see Box 1). This extreme uncertainty made it virtually impossible for lenders to hedge their originations.

Box 1: The Early Impact of the Federal Reserve

The Federal Reserve's efforts to stabilize the agency MBS market have been critically important. In its absence, mortgages would have been much more costly, perhaps unavailable altogether. However, given the scale of the intervention, it caused some unavoidable dislocation. On March 12 and 13, a Thursday and Friday, the mortgage-treasury spread widened to approximately 160 basis points, from about 90 basis points only two weeks earlier (see Chart 6). This was driven by investors unloading portfolios, originators selling their refinancing pipelines, and those with MBS positions compensating for the now shorter duration of these securities.

The Federal Reserve stepped in to stop the free fall on Sunday, March 15, announcing that it would purchase up to $500 billion in Treasuries and $200 billion in agency MBS. Spreads promptly snapped back by 50 basis points on the following Monday and Tuesday. By Wednesday, however, investors became nervous that this would not be enough and began heavy selling again, pushing spreads back out to 168 basis points.

The Federal Reserve stepped in again before markets opened on Monday, March 23, announcing that it would buy agency MBS and Treasuries "in the amounts needed to support smooth market functioning and effective transmission of monetary policy to broader financial markets and the economy."[1] This proved enough to steady the market, bringing spreads back in by 50 basis points over the next five trading days.

The Fed's efforts have been heroic and unprecedented. Its purchase of $292.2 billion of agency MBS in March amounted to 178% of the total amount of agency securities originated that month, easily exceeding any month during the last financial crisis (see Chart 7). Now aware that the Fed will buy as much as needed to stabilize the market, investors will likely need the central bank to purchase less going forward. Indeed, its purchases have slowed in recent weeks.

1 Federal Reserve, March 23, 2020. "Federal Reserve Announces Extensive New Measures to support the economy". https://www.federalreserve.gov/newsevents/pressreleases/monetary20200323b.htm

Challenges posed by early forbearance

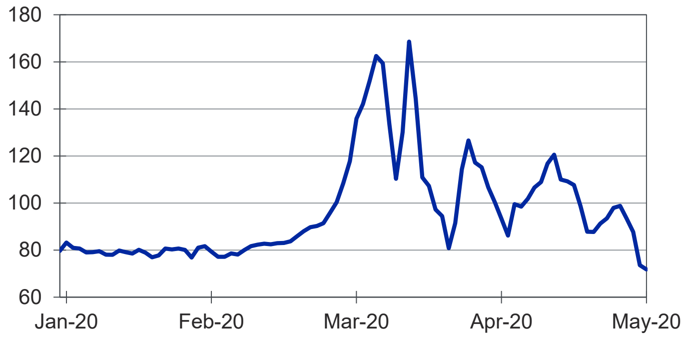
Lenders face a second significant challenge in managing the risk in their origination pipeline that has unfortunately not faded: that borrowers whose loans have been approved for insurance by the Federal Housing Administration or sale to Fannie or Freddie request forbearance before their loans are insured or sold. Historically, the FHA will not insure loans in forbearance, nor will Fannie or Freddie purchase them, forcing lenders to sell the loan at a steep discount into the non-agency market or hold it on their balance sheet.

This makes sense in typical times, when the inability of a borrower to make their first payment is a red flag that should give the party taking the credit risk significant pause. However, under the current circumstances a number of borrowers who have recently closed on a loan have been caught off guard by the economic dislocation across the country and taken Congress up on its offer under the CARES Act to forbear on their mortgage payments until the economy stabilizes. Given the scale and unprecedented nature of the economic dislocation, it is not clear why policymakers would want to shut these borrowers out from the relief Congress has intended to provide them.

Whatever one thinks of the importance of helping these borrowers, sticking lenders with their loans is creating another significant and largely unmanageable pipeline risk. The severity of the risk is significant even if a lender winds up with only a few such loans in a month, given the difficulty they would have in selling the loan and the inability of those without

Chart 6: Fed Intervention Stabilizes Market

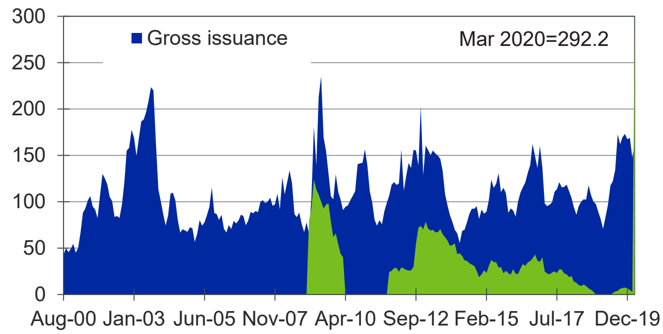
Spread, bps, 30-yr fixed mortgage rate – 10-yr Treasury



Sources: U.S. Treasury, Fannie Mae, Moody's Analytics

Chart 7: March Fed Intervention Massive

$ bil



Sources: eMBS, NY Fed, Urban Institute, Moody's Analytics

a balance sheet to hold it for any length of time.

The Federal Housing Finance Agency has responded by allowing Fannie and Freddie to purchase loans in forbearance, but only through May and only after paying a premium. The latter is noteworthy because the cost is substantial—5% of the loan balance for first-time homebuyers and 7% for others—and because it must be paid after the lender has committed to terms with the borrower.[1] This means that the lender will have to pass that cost on to future borrowers in the form of higher fees. The move thus converts the lender's risk of being stuck with a loan it cannot sell into higher mortgage rates for borrowers. The FHA has taken no such steps to date, leaving lenders with a significant pipeline risk.

Rise of the warehouse lender

These additional pipeline risks have prompted the primary institutions financing these pipelines—warehouse lenders—to reassess their own risk exposure. Non-bank lenders rely on warehouse lenders for financing to hold the loans they close until they get them insured by the FHA or sell them to Fannie or Freddie. As the risks during this limbo period have gone up, warehouse lenders have begun to protect themselves by charging more for their pipeline financing, increasing the amount of collateral they require, limiting the types of loans they will finance or, eventually, refusing to provide the financing at all. Each of these has a meaningful impact on the ability to non-bank lenders to lend, but the last step would be the most dramatic, a virtual death sentence for some lenders.

We are not there yet, fortunately. But the experience of the financial crisis just over a decade ago, when warehouse lines were reduced by 85%, to just $20 billion to $25 billion, offers a warning. To put this in context, current estimates of annual mortgage origination are between $2.3 *trillion* and $2.5 *trillion* given the expectation of heavy refinancing in coming months.

The servicer liquidity squeeze

Many lenders service loans as well as originate them, which is creating another set of challenges. Mortgage servicers take payments from borrowers and pass them along to investors, local governments, insurers and guarantors. When borrowers do not pay, servicers have to come up with the sums owed these parties until the party that has guaranteed the loans against default pays them back. In normal times, servicers manage this cash flow issue with their ordinary revenues and a mix of borrowing facilities. However, these are anything but normal times. An unprecedented number of borrowers will not be sending in their mortgage payments any time soon, in part at the prompting of policymakers. For a sense of the sums involved, servicers advance about $89 billion a month in the normal course of business. Footing the bill for a meaningful share of that for a few months would put enormous pressure on an industry that makes less than $10 billion a year.

Banks can cover their obligations with their deposits or by borrowing at a modest rate through the Federal Reserve's discount window. Non-bank servicers, on the other hand, have to rely once again on warehouse lenders. Here, too, warehouse lenders are reacting to the increase in risk by requiring higher rates or more collateral, limiting the loans they are willing to finance, or just refraining from providing the financing at all.

Combined with the liquidity challenges in their originations, this threatens to put non-bank lenders under enormous stress. Making matters still more challenging, the primary source of collateral used by many non-banks for their warehouse lines is the revenue stream they expect to receive from servicing these loans, called mortgage servicing rights, or MSRs. Yet the recent fall in interest rates, the rise in the number of borrowers not making mortgage payments, and the higher cost of servicing nonperforming loans have combined to drastically reduce the revenue stream they can expect to get from servicing and thus the value of their MSRs. As the value of their collateral drops, they must put up more just to maintain the same level of collateralization for their warehouse lines, at a time when their lenders are increasing the levels of collateral required. They thus have less resources and a higher hurdle to clear.

Policymakers have taken some steps to address the servicing advance problem. Ginnie Mae introduced a program in which servicers of the loans that Ginnie guarantees can pay to have Ginnie advance payments owed

1 These added fees are in keeping with the incremental risk involved and thus consistent with what a private sector institution would impose in a risk-off environment. However, they are inconsistent with the countercyclical role of government-sponsored enterprises. After all, when private capital leans out, they are supposed to lean in.

Table 1: Mortgage Servicer Advances Under Different Scenarios

$ bil

	Scenario 1	Scenario 2	Scenario 3
All servicers	33.2	67.4	117.8
Principal & interest	21.9	42.7	72.9
Taxes, insurance, PMI, guarantee fee	11.3	24.7	44.9
Non-bank servicers	18.1	37.1	65.1
Principal & interest	11.9	23.7	40.9
Taxes, insurance, PMI, guarantee fee	6.1	13.3	24.2

Scenario 1 is based on a 10% forbearance rate and 4 mo of forbearance
Scenario 2 is based on a 15% forbearance rate and 6 mo of forbearance
Scenario 3 is based on a 20% forbearance rate and 8 mo of forbearance

Sources: Urban Institute, Parrott Ryan Advisors, Moody's Analytics

to investors. And the FHFA announced that servicers of loans guaranteed by Fannie and Freddie will have to advance payments to investors for no more than 120 days. Although this is meaningful help, it still leaves servicers that take advantage of these policies on the hook for advancing the following for borrowers in forbearance:

- some principal and interest on Fannie and Freddie loans for the first 120 days; [2]
- property insurance, property taxes, mortgage insurance premiums, corporate costs[3] and guarantee fees on Fannie and Freddie loans;
- property insurance, property taxes, corporate costs and FHA, USDA or VA premiums on Ginnie loans;
- property insurance, property taxes, corporate costs and principal and interest on all loans not guaranteed by Fannie, Freddie or Ginnie; and
- the carrying costs of all of the above.

In addition to carrying that load, servicers will also need to bear significant costs for those borrowers unable to pay their mortgage after they come out of forbearance. While these loans are moving toward foreclosure or a foreclosure alternative, the lender is responsible for advancing property taxes, insurance, and the mortgage insurance premium until the property is sold.

All told, we estimate that servicers are likely to have to bear a total advance burden of somewhere between $33 billion and $118 billion, depending on how many borrowers go into forbearance, how long they remain in forbearance, and how many can return to full payments after (see Table 1). Under the scenario that 15% of mortgage borrowers receive forbearance for an average of six months, servicers will need to advance $67 billion, with approximately one-third of the advances on loans insured by Fannie Mae and Freddie, another one-third on FHA-insured loans, and the remaining one-third on loans in bank portfolios and private label securities (see Table 2). Non-bank services will be on the hook for well over one-half of these advances. Under any scenario, the advances servicers are required to make to investors will be an overwhelming lift for many of them.

Why the strain on non-banks matters

The strain on non-banks might not have mattered in the last crisis, when banks dominated servicing, but it could be extremely disruptive in this one. In the years since the Great Recession, the housing finance system has seen a remarkable shift in servicing from banks to non-banks, with the latter going from servicing only one in 10 borrowers in 2009 to more than half today, including almost two in every three loans made to a black or Hispanic borrower.

Any significant disruption of non-banks thus risks significant disruption in the mortgage system generally, particularly the segments that serve lower-income and minority borrowers. Some have suggested that only a few non-banks might stumble under the coming liquidity stress, and that their servicing could be easily transferred to others. There is reason, however, to be worried that the disruption could be much broader and more damaging.

First, the sheer size of the advance burden coming will likely put significant pressure on all but the best capitalized non-banks. It is unlikely, that is, to affect only the weakest institutions. Second, as we begin to see the first wave of institutions struggle, they will be forced to sell their MSRs, further reducing the value of MSRs generally and compromising the financial position of many of those remaining. Third, it may well be challenging

Table 2: Mortgage Servicer Advances Under Scenario 2

$ bil

	Fannie Mae	Freddie Mac	FHA	Other	Total
All servicers	13.0	7.6	22.9	23.9	67.4
Principal & interest	6.5	3.3	14.7	18.2	42.7
Taxes, insurance, PMI, guarantee fee	6.5	4.3	8.2	5.7	24.7
Non-bank servicers	5.7	3.3	16.0	12.0	37.0
Principal & interest	2.8	1.4	10.3	9.1	23.7
Taxes, insurance, PMI, guarantee fee	2.9	1.9	5.7	2.9	13.3
Forbearance rate	12.2	12.2	20.9	13.7	15.0

Scenario 2 is based on a 15% forbearance rate and 6 mo of forbearance

Sources: Urban Institute, Parrott Ryan Advisors, Moody's Analytics

2 On loans in forbearance, Freddie requires servicers to advance interest owed investors and whatever principal is received, if any, from borrowers. For Fannie, what servicers must advance to investors, if anything, varies from servicer to servicer depending on their contracts.

3 This includes lien recordation, collateral valuation, property preservation, legal fees and other reimbursable expenses.

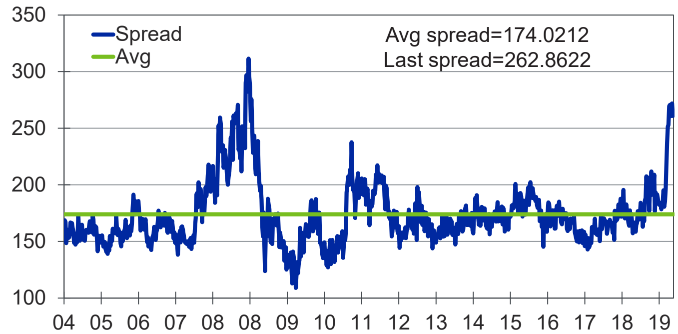
Chart 8: Bank Lenders Tighten

% of lenders tightening standards less easing standards

Sources: Federal Reserve, Moody's Analytics

Chart 9: Mortgage Rate High vs. Treasury

Spread, bps, PMMS rate vs. 10-yr Treasury



Sources: U.S. Treasury, Fannie Mae, Moody's Analytics

to transfer the servicing of those that do go down, particularly if there are more than a few.

Banks pulled back on their servicing business after the last financial crisis, because changing capital treatment, rising legal and reputational risk, and rising costs of servicing nonperforming loans together made it too costly. None of that has changed materially since, and given the distress in the market it will get worse and not better in the coming months. It is thus difficult to see why they would be eager to step back in again. That leaves other non-banks to step in and pick up the servicing of their failing competitors, which is problematic for all the reasons already discussed. Of course, there is a price at which regulators could find someone to take on stranded servicing, but presumably it would be remarkably costly. All the while, struggling borrowers will have to wait as regulators look for someone new to take their calls.

Why the disruption in the mortgage market is a problem

All of this disruption is doing significant damage to the mortgage market, constraining access to mortgage credit at a time when the economy desperately needs the stimulus and laying waste to the diversified housing finance system that policymakers and stakeholders spent a decade developing.

Access to credit

Lending has become less profitable and more uncertain with the volatility and increase in mortgage credit risk, particularly lending to borrowers with anything short of pristine credit. Not surprisingly, this has led stakeholders throughout the system to impose credit overlays on the mortgage lending they will support.

Few originators are willing to lend at all outside the government-backed segment of the market, except in some cases to existing banking clients willing to put down large down payments. And most are being exceedingly cautious even within the government-backed segment of the market. Some originators have imposed a minimum credit score of 680 or higher, and a minimum down payment of 20% or higher; while others have discontinued altogether their FHA, VA or correspondent lending.

One can already see the impact on access to credit of this widespread retrenchment. According to a quarterly Federal Reserve survey of senior loan officers at banks, more are tightening underwriting on their mortgage loans than easing for the first time since in the immediate wake of the financial crisis (see Chart 8), and the Mortgage Bankers Association is reporting that credit availability has dropped by 26% in the months of March and April. Moreover, those who can get a loan are finding that rates are much higher than would typically be indicated by today's very low Treasury interest rates (see Chart 9).

This gap between where mortgage rates should be and where they actually are is being driven in part by lenders and servicers pricing in all of the unmanageable risks discussed, and in part by capacity constraints. The number of employees working from home, the challenges lenders are facing closing loans remotely, and the volume of refinancing coming through the pipeline have combined to make it difficult for originators to meet demand except by elevating pricing.

The tighter credit standards and elevated mortgage rates will stifle housing demand at a critical time for the housing market and broader economy. The economy is already reeling as consumers and businesses have pulled back on their spending and investment. Impaired home sales and housing construction will only exacerbate the economic downturn.

Longer-term structural damage

Equally problematic is the damage that all of this disruption could do the mortgage market over the long term. Policymakers and stakeholders have spent the better part of the last decade developing a housing finance system that spreads risk and market power well beyond the GSEs and largest banks. The market today is characterized not simply by a few big banks selling loans to a few big GSEs that hold all of the credit risk, but by a wide range of originators selling loans through a wide range of channels—over whole loan platforms, through private label securities, and to the GSEs—with credit risk being taken by a wide range of credit risk investors and insurers. The result is a more competitive, stable and consumer-friendly system with market participants innovating to improve and expand access to credit in ways more sustainable than in the years prior to the crisis.

That entire ecosystem is now at risk. The investors it has taken years to attract back into the non-agency market have once again fled. Confidence in many of the channels through which credit risk is bought and sold has evaporated as buyers and sellers of that credit risk look to change the terms of their commitments and get bogged down in disagreements about who is on the hook for what risks. This not only constrains access to credit and demand over the near term, but could also threaten the viability of the non-agency market altogether, with parties throughout the market reassessing their long-term appetite for anything more than minimal credit risk in the face of so much uncertainty about the level and nature of the risks involved.

The story is much the same in the CRT market. This market was only beginning to mature in recent years, so the fallout from the virus is presenting investors with their first look at how it functions in a time of stress and, most important, how liquid the securities are and how losses are allocated. Unfortunately, the answers thus far are unnerving.

Not only have CRT transactions ceased, but the aftermarket for the securities has largely disappeared as well. And a cloud of uncertainty hangs over how losses are to be allocated on the earliest CRT securities. Because of the way some CRT deals prior to 2016 were drafted, it appears that loans in forbearance due to the COVID-19 crisis will count as delinquent, triggering heavy unanticipated losses for many early investors. Unless addressed, all of this may undermine the longer-term viability of this market as well, as investors abandon it or price in a level of uncertainty and cost that will render this a largely uneconomic way for the GSEs to manage their risk.

If the non-agency and CRT markets freeze up for more than a few months, the damage may be difficult to undue. It could take years to rebuild some of the infrastructure once it is abandoned, and longer still to rebuild confidence among the counterparties.

Finally, if we see a significant decline in non-banks, we are likely to see a decline in access to mortgage credit for lower-income and minority communities that non-banks have effectively served in the years since the Great Recession. Though the banks and remaining non-banks will step in to take some of this market share, they are unlikely to take it all up. This will increase the number of communities across the country with few lending options, or none at all.

All told, we are on course to undermine much of the mortgage ecosystem that has developed over the last decade, leaving behind a system largely dominated by a few big banks and GSEs. That will leave us with a less competitive, less stable, and altogether less healthy system for years to come.

What should be done

Fortunately, we do not have to be resigned to this bleak course. There are steps that policymakers can take to stabilize the mortgage market over the near term and others that can help us avoid these problems in the next crisis.

But before turning to what should be done, it is important to recognize the unifying theme of the issues raised: *The parts of the market that are not working are those that are not being supported by the government.* The moribund non-agency and CRT markets, the loans caught in forbearance prior to sale to the GSEs or insurance by FHA, and non-bank servicers without access to the Fed window to manage their liquidity burden all have that in common.[4] By contrast, the primary and secondary markets within the government backstop remain relatively robust, and depositories with access to the Fed window are largely free from the threat of collapse under the strain of servicing advances. It is the government's support—through its assumption of credit risk, the purchasing power of the Fed, and its offer of access to affordable capital—that is distinguishing what is working in the system during this time of stress from what is not.

Near-term solutions

With that in mind, policymakers need to find ways to expand the government's support to the critical segments of the market that are struggling without it.

Of all of the issues raised, addressing the liquidity strain on servicers is the most straightforward. Much of the strain is the result of the decision by policymakers to make it easier for homeowners to skip their mortgage payments. While this is the right policy under the circumstances, it makes little sense to impose the entirety of its cost on servicers, particularly when the systemic risk it creates is so significant.

To address the problem, the Federal Reserve should use its authority under 13.3 of the Federal Reserve Act to set up a lending facility for servicers. Congress set aside $455 billion for such facilities and later made it clear that this is one of the uses to which that money should be put.[5] The servicer liquidity facility should be available to servicers of agency and non-agency loans alike to solve the problem market-wide, and it should provide low-cost loans of up to 18 months, to cover the length of time it will take for these servicers to be paid back.

Addressing the challenges in the CRT market is also relatively straightforward. There is broad consensus that CRT is a critical means of dispersing credit risk away from the GSEs and whatever guarantor entities might succeed them, so its long-term collapse would strike a blow to both the reforms we have managed coming out of the Great Recession and to the prospect of more structural reforms in the years to come.

To keep that from happening, the GSEs and their regulator, the FHFA, should take steps to shore up confidence in the CRT market. First, they should clarify that loans in forbearance during the COVID-19 crisis will not count as delinquent under the terms of the early CRT deals, since they do not pose the level of credit risk that is supposed to trigger losses among investors. Second, the GSEs should purchase some modest amount of CRT securities on the open market to create price transparency and help breathe life back into the market for these securities. Issuers often do this to stabilize the market for their issuance, and that is precisely what is needed here.

Of all the issues raised, those plaguing the non-agency market are the most challenging. Market participants have long bought and sold loans and securities in this market fully aware of the absence of a government backstop, and the terms of their deals reflect the different risks that entails. Policymakers thus

4 While the CRT market is within the agency channel, the risk involved is by design outside the government backstop.

5 Letters to that effect were sent to the FSOC by a bipartisan group of members of the Senate Banking Committee, Democratic leadership in both the Senate Banking Committee and the House Financial Services Committee, Democrats in the House Financial Services Committee, and Republicans in the House Financial Services Committee. It is difficult to recall such broad bipartisan and bicameral support for any policy measure in recent years.

must be careful not to intervene in a way that distorts the longer-term economics and incentives in this market by removing risks that should have been priced in.

That said, the importance of having a robust non-agency market and the existential threat to it posed by current market conditions warrant careful, targeted steps to help it survive the crisis. There are at least two ideas here worth considering. The first is expanding the Federal Reserve's Term Asset Backed Lending Facility, which provides financing for the highest-rated tranches of securitizations backed by consumer and small-business loans. Extending the facility to support securitizations backed by non-agency mortgages would help restart non-agency securitization, and thus help reopen non-agency lending. Another possibility would be to resurrect the Treasury's Public-Private Investment Program, a program established during the financial crisis to provide financing and matching equity investments for commercial mortgage-backed securities and non-agency mortgage-backed securities. This too could be used to help open up non-agency securitization or even the secondary market for whole loans. Either way, by stepping in with financing or equity investment the federal government would inject into the non-agency market the certainty it needs to rebound.

Longer-term policy implications

In this scramble to shore up the housing finance system, it is worth remembering that we have been here before. While a global pandemic is hopefully anomalous, that the mortgage market has run ashore twice in just over a decade should give us pause. In particular, that the federal government has again needed to reinforce much of the mortgage market that would otherwise have buckled, suggests that having so much of the market ostensibly outside government support is unhelpful and perhaps simply illusory. So, rather than having the government rush in at each crisis to save markets designed specifically for its absence—which creates unnecessary uncertainty, cost and moral hazard—we should acknowledge that government support will be needed in a time of crisis, and plan and pay for it.

One way to do this would be to leave in place liquidity facilities like those described above, though priced in a way that would ensure they remain funding sources of last resort. Those that would benefit from the support could pay a fee ex ante to cover operational expenses. Another way would be to expand the role of the Federal Home Loan Bank system. FHLB membership is currently open only to banks, insurance companies, and community development financial institutions. Opening membership to others, subject to requirements to ensure that new entrants are not riskier counterparties in the system than current members, would extend this stable source of low-cost, long-term funding to many of those that are under stress right now in its absence. Here too, pricing could be set so that this remains only a funding source of last resort. The objective should be to design support that only becomes economic for the intended market participants after private capital sources have largely withdrawn, but before the market has ceased to function in an orderly way.

The one thing policymakers should not do, however, is release Fannie Mae and Freddie Mac from conservatorship, at least not without an explicitly defined government backstop and a much clearer mandate to support the market.

Uncertainty over the government's support of the GSEs during the last crisis threatened to destabilize the enterprises and the mortgage market, leading the Bush administration to make their support explicit with a push into conservatorship. This explicit support has been a source of desperately needed stability again in this crisis, which should confirm once and for all the need for it to continue in robust form should they ever be released from conservatorship.

Yet, in the crisis thus far the GSEs' regulator, FHFA, has been reticent to allow them to support the market as aggressively as they can and frankly should. Despite being in a position to step in and support more aggressively the liquidity needs of non-banks, for instance, or to shore up the CRT market, the FHFA has chosen to focus primarily on the risk to the enterprises. This captures well the challenge posed by the ambiguous nature of the GSEs' mandate as profit-maximizing, shareholder-owned institutions with a public mission. If they are ever to be released from conservatorship, their public mission must be defined in such a way that their role in a time like this leaves no doubt.

Conclusion

The nation right now is facing economic stress on an unnerving number of fronts. However, unlike many of the issues we are confronting, the stresses in the mortgage market are for the moment manageable, as long as they are handled quickly and thoughtfully. Indeed, they are largely matters of shoring up cash flow and confidence. But, if they are not addressed, these stresses could well become deeper issues of solvency, which will make them more damaging to consumers, harder and more expensive to address, and a much greater drag on the nation's recovery. Given how daunting the nation's path ahead already is, there is no reason to let that happen.

About the Authors

Laurie Goodman is the co-director of the Housing Finance Policy Center at the Urban Institute. The center is dedicated to providing policymakers with data-driven analyses of housing finance policy issues that they can depend on for relevance, accuracy and independence. Before joining the Urban Institute in 2013, Goodman spent 30 years as a research analyst and manager at a number of Wall Street firms, including Amherst Securities Group and UBS. Goodman was inducted into the Fixed Income Analysts Hall of Fame in 2009. Goodman currently serves on the board of directors of MFA Financial, Arch Capital Group Ltd., and DBRS Inc., and is an advisor to Amherst Capital Management LLC. She has published more than 200 journal articles and has co-authored and co-edited five books. Goodman has a BA in mathematics from the University of Pennsylvania and an AM and PhD in economics from Stanford University.

Jim Parrott is a nonresident fellow at the Urban Institute and co-owner of Parrott Ryan Advisors, which provides strategic advice on housing finance issues to financial institutions active in the primary and secondary mortgage market. Parrott served in the Obama White House as a senior advisor at the National Economic Council, where he led the team charged with counseling the cabinet and president on housing issues. Earlier in the Obama administration, he was counsel to Secretary Shaun Donovan at the U.S. Department of Housing and Urban Development. Prior to his time in public policy, Parrott was a litigator, first in New York with Sullivan & Cromwell, and later in North Carolina with Smith Anderson. He served in Sri Lanka with the Peace Corps, has a BA in philosophy from the University of North Carolina, an MA in philosophy from the University of Washington, and a JD from Columbia Law School.

Bob Ryan is co-owner of Parrott Ryan Advisors, which provides financial institutions with strategic advice on housing finance and business issues. Ryan left the Federal Housing Finance Agency in July 2019 after spending more than five years as Special Advisor to the Director. From July 2015 through September 2018 he was also the Acting Deputy Director for the Division of Conservatorship. Prior to joining the FHFA, Ryan served as Senior Vice President of Capital Markets at Wells Fargo Home Mortgage. He was responsible for strategic policy impacting capital markets and the mortgage company.

From 2009 to 2012 he was Senior Advisor to HUD Secretary Shaun Donovan, the Acting Federal Housing Administration Commissioner and Assistant Secretary for Housing and prior to that the first Chief Risk Officer for the FHA. In that capacity, Ryan was responsible for establishing a new Office of Risk Management that oversees the FHA's credit risk management functions, including single family, multifamily and healthcare. Prior to HUD, 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 more than 35 years of experience in all aspects of the mortgage market.

Mark Zandi is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a cofounder of Economy.com, which Moody's purchased in 2005.

Dr. Zandi's broad research interests encompass macroeconomics, financial markets and public policy. His recent research has focused on mortgage finance reform and the determinants of mortgage foreclosure and personal bankruptcy. He has analyzed the economic impact of various tax and government spending policies and assessed the appropriate monetary policy response to bubbles in asset markets.

A trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public, Dr. Zandi frequently testifies before Congress on topics including the economic outlook, the nation's daunting fiscal challenges, the merits of fiscal stimulus, financial regulatory reform, and foreclosure mitigation.

Dr. Zandi conducts regular briefings on the economy for corporate boards, trade associations and policymakers at all levels. He is on the board of directors of MGIC, the nation's largest private mortgage insurance company, and The Reinvestment Fund, a large CDFI that makes investments in disadvantaged neighborhoods. He is often quoted in national and global publications and interviewed by major news media outlets, and is a frequent guest on CNBC, NPR, Meet the Press, CNN, and various other national networks and news programs.

Dr. Zandi is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. His other book, *Financial Shock: A 360º Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by The New York Times as the "clearest guide" to the financial crisis.

Dr. Zandi earned his BS from the Wharton School at the University of Pennsylvania and his PhD at the University of Pennsylvania. He lives with his wife and three children in the suburbs of Philadelphia.

About Moody's Analytics

Moody's Analytics provides financial intelligence and analytical tools supporting our clients' growth, efficiency and risk management objectives. The combination of our unparalleled expertise in risk, expansive information resources, and innovative application of technology helps today's business leaders confidently navigate an evolving marketplace. We are recognized for our industry-leading solutions, comprising research, data, software and professional services, assembled to deliver a seamless customer experience. Thousands of organizations worldwide have made us their trusted partner because of our uncompromising commitment to quality, client service, and integrity.

Concise and timely economic research by Moody's Analytics supports firms and policymakers in strategic planning, product and sales forecasting, credit risk and sensitivity management, and investment research. Our economic research publications provide in-depth analysis of the global economy, including the U.S. and all of its state and metropolitan areas, all European countries and their subnational areas, Asia, and the Americas. We track and forecast economic growth and cover specialized topics such as labor markets, housing, consumer spending and credit, output and income, mortgage activity, demographics, central bank behavior, and prices. We also provide real-time monitoring of macroeconomic indicators and analysis on timely topics such as monetary policy and sovereign risk. Our clients include multinational corporations, governments at all levels, central banks, financial regulators, retailers, mutual funds, financial institutions, utilities, residential and commercial real estate firms, insurance companies, and professional investors.

Moody's Analytics added the economic forecasting firm Economy.com to its portfolio in 2005. This unit is based in West Chester PA, a suburb of Philadelphia, with offices in London, Prague and Sydney. More information is available at www.economy.com.

Moody's Analytics is a subsidiary of Moody's Corporation (NYSE: MCO). Further information is available at www.moodysanalytics.com.

About Moody's Corporation

Moody's Analytics is a subsidiary of Moody's Corporation (NYSE: MCO). MCO reported revenue of $4.8 billion in 2019, employs more than 11,000 people worldwide and maintains a presence in more than 40 countries. Further information about Moody's Analytics is available at www.moodysanalytics.com.