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The COVID-19 Pandemic and its Effects on the Primary and Secondary Mortgage Markets in the U.S.

Jordan Myers

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By Jordan Myers

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ABSTRACT

In this report, there is a multi-faceted analysis of how the COVID-19 pandemic affected relationships within U.S. mortgage markets. First, the paper looks at the economic conditions that arose after the pandemic hit in March 2020. These conditions included a severe drop in home sales followed by the Fed consistently decreasing the Fed Funds rate. Next, the paper looks at the perspective of the individual homeowner and renter. This section touches on the lacking access to liquidity that individuals had during the pandemic, thus making it hard for them to make mortgage or rent payments. Then, there is an examination of the policy action taken to combat these conditions. This specifically looks at the CARES Act and the forbearance program that was attached to it. And to conclude, there is a look at the inequalities that arose within the mortgage market during the pandemic. These include both race- and income-based inequalities that limited people's access to making their mortgage payments.

Keywords: Mortgage, COVID-19, Pandemic, CARES, Forbearance, MBS, Inequality,

JEL Classifications: D63, E42, G21, I18, R30, R31

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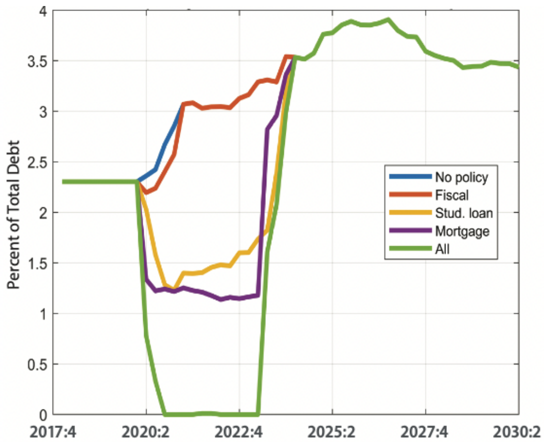
Introduction

There is no question that the COVID-19 pandemic has tested the stability of the global economy for the past two years. Ranging from small, local markets to complex financial markets, the COVID-19 virus has negatively affected all kinds of economic markets. However, specific markets have faced a larger burden than others due to certain characteristics. The specific case that will be examined in the following analysis is the United States mortgage market, in both its primary and secondary forms. When COVID-19 began to spread in the United States in March of 2020, the principal concern for fiscal and monetary policymakers was the stark decline of economic activity (Gordon et al. 2020). This concern made significant waves in the U.S. mortgage markets and caused many to question how it would affect people's ability to make mortgage payments. To help introduce this phenomenon, there will be an examination of mortgage delinquency projections from when the pandemic first hit the United States. This projection-based examination will provide crucial context for the overall analysis of the pandemic's effects on the U.S. mortgage market.

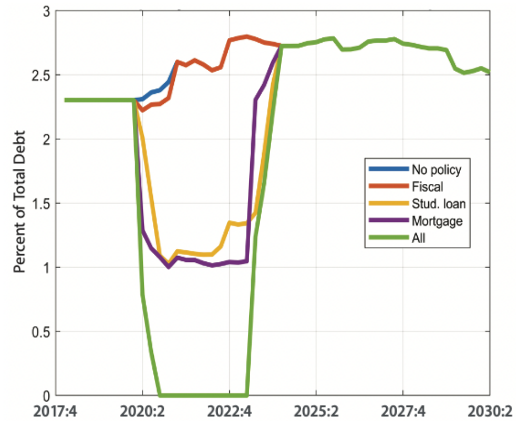
In Grey Gordon and John Jones's article entitled *Loan-Delinquency Projections for COVID-19*, they apply a unique analysis to make their projections. They use two financial ratios, debt service-to-income and loan-to-value, as thresholds to measure if a mortgage was defaulting (Gordon et al. 2020). By comparing these ratios to mortgage delinquency rates in 2019, they were able to produce their projections for 2020. Within their analysis, they constructed three scenarios of loan-delinquency rates in a severe, intermediate, and favorable case (Gordon et al. 2020). This provided the authors with data that described all possible outcomes regarding loan-delinquency rates. These three scenarios are shown graphically below in Figures 1-3.

Figure 1: Baseline Scenario



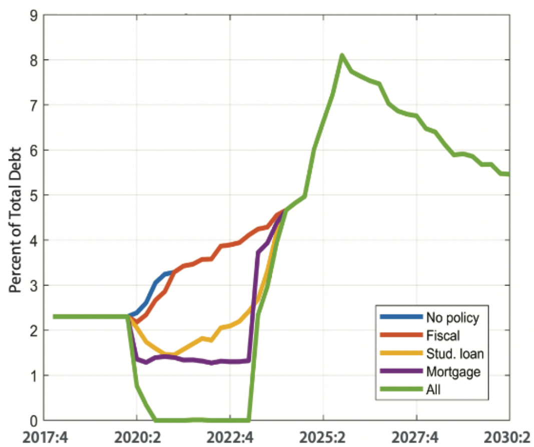
Source: Grey Gordon and John Bailey Jones, "Loan Delinquency Projections for COVID-19," Federal Reserve Bank of Richmond Working Paper No. 20-02, April 15, 2020.

Figure 2: Favorable Scenario



Source: Grey Gordon and John Bailey Jones, "Loan Delinquency Projections for COVID-19," Federal Reserve Bank of Richmond Working Paper No. 20-02, April 15, 2020.

Figure 3: Severe Scenario



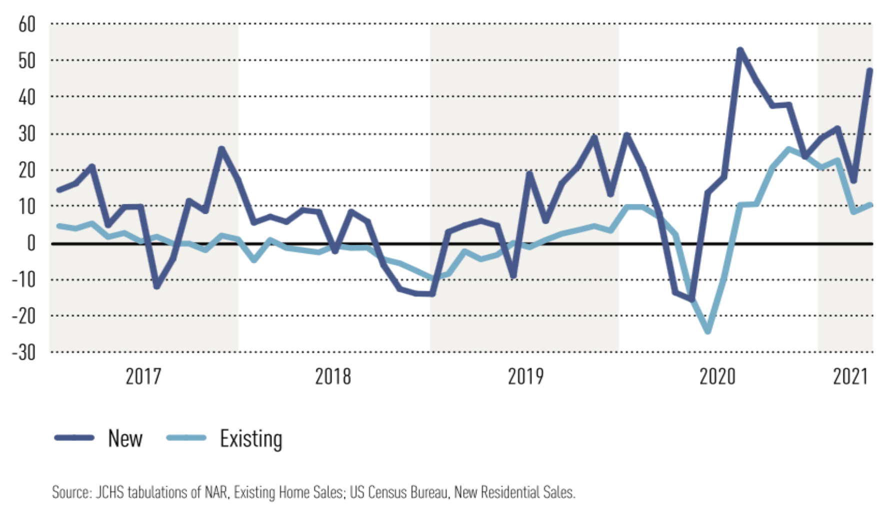
Source: Grey Gordon and John Bailey Jones, "Loan Delinquency Projections for COVID-19," Federal Reserve Bank of Richmond Working Paper No. 20-02, April 15, 2020.

Figures 1-3 above show how varying policy implementations will affect the loan-delinquency rates in the three different scenarios. In the presence of no policy, delinquency rates range from "2.8% to 8.1% and write-offs total $420 billion to $1.1 trillion depending on the scenario" (Gordon et al. 2020). However, when policy is implemented, the graphs show how significantly the default-rates decline. In particular, the mortgage forbearance policy has the largest impact on these rates. Specific policy implementation will be looked at in a more in-depth light later on in this report. Regardless, obtaining this projection-based analysis on mortgage delinquency rates will paint a much clearer picture of the mortgage market as a whole. With this understanding solidified, the paper will transition into the overall economic climate during the COVID-19 pandemic, with a specific focus on the mortgage markets.

Understanding the economic climate during the pandemic

To understand how the U.S. mortgage markets have been affected by COVID-19, there must first be an analysis of the conditions that the markets are facing. When the pandemic first struck in 2020, the housing market faced a steep drop in home sales due to lockdowns and general uncertainty. However, as mortgage interest rates reached record lows, sales began to soar in both new and existing homes (*The State of the Nation's Housing 2021,* 2021). This is shown in Figure 4 below.

Figure 4: Year-over-Year Change in Single-Family Home Sales (Percent)



These low rates combined with a greater desire for private space due to the pandemic contributed to extremely high demand in the housing market. The COVID-19 pandemic played a role on the supply side of the market as well. When the virus initially spread in the U.S., many people "pulled their homes off the market while others delayed listing their homes for sale" (*The State of the Nation's Housing 2021,* 2021). These tight conditions along with extreme demand helped lead to record price increases in both new and existing homes. Now that the general housing market has been examined, there can be a deeper dive into the U.S. treasury market's conditions during the pandemic.

Once the threat of COVID-19 began to cause severe instability in the U.S. Treasury Market, it was up to the Federal Reserve to take action. They cut the Federal funds rate by 50 basis points, “to maintain the liquidity and functioning of credit markets” (Golding/Goodman 2020). Even with the Fed taking action, the spreads between 10-year treasuries and agency mortgage-backed securities (MBS) reached 170 basis points. This record-breaking mark demonstrated the severe stress levels in both the primary and secondary mortgage markets. On March 23, 2020, this pushed the Fed to take further action by expanding their agency MBS purchases without bounds. The Fed said they would make these purchases “in the amounts needed to support smooth market functioning and effective transmission of monetary policy to broader financial markets and the economy” (Golding/Goodman 2020). This mindset within the Fed pushed the secondary mortgage rate down to normal levels during the fall of 2020. But why did the primary mortgage rate not follow suit?

While the primary mortgage rate did decrease throughout the summer and into the fall of 2020, it did not decrease at the level of the secondary rate or the 10-year treasury rates. A large portion of this can be attributed to the drop in mortgage servicing rights (MSRs) trading. This is because the servicing of delinquent loans is a much greater cost to the servicer than the servicing of a performing loan (Golding/Goodman 2020). Another issue that caused the primary mortgage rate to decrease as a lower rate lay in the refinance market. Due to lower rates, there was a high volume of refinance applications paired with slow processing speeds as many originators were working from home (Golding/Goodman 2020). This combination of high demand and slowly-processing supply put a large amount of pressure on mortgage originators. This was a pivotal feature in the explanation of the primary mortgage rate’s movement during the early months of the pandemic.

To conclude this section, there will be an examination of the economic conditions going into the COVID-19 Crisis. Some of these conditions will be compared to those present before the Global Financial Crisis in 2007-08 to provide further context. Before the pandemic, households in the U.S. had more financial security than they had leading up to the GFC (Amromin et al. 2020). This was a result of the growth seen in the recovery from the GFC, which was displayed through a sturdy labor market and a decline in household debts. Another condition that differed from the period before the GFC was the enhanced stability of the mortgage finance system. This stability was made possible through government-sponsored enterprises (GSEs) like Freddie Mac and Fannie Mae, as they back about 67% of all mortgage debt in the United States (Amromin et al. 2020). While these positive conditions helped bolster the economy against the shock of the pandemic, there were also negative aspects on the other side of the coin that demonstrated the ill-preparedness of the U.S. economy.

Even with a few favorable economic conditions present before the COVID-19 pandemic hit, a large number of people in the U.S. were still financially unprepared. An example of this was shown in liquidity access, as “only 63% of households saying they would cover an unexpected $400 expenditure with cash” (Amromin et al. 2020). This minimized liquidity was not the only issue, as the strong mortgage finance system had an arising issue as well. Within this system, there were sparsely-capitalized nonbank financial institutions that were playing the role of mortgage servicers (Amromin et al. 2020). This demonstrated a presence of instability that could play a significant role in the overall system. Overall, both the mortgage markets and the economy as a whole were in unique positions as the pandemic had begun. With this established, there can be a discussion of the individual homeowner during this time, and how they were able to react to these conditions.

Looking at the individual homeowner

Now there can be an examination of the individual, whether they were a current or prospective homeowner at the time, and see how they reacted to the economic environment discussed above. A Joint Center survey done in 2020 found looked at how renters financially reacted to COVID-related job losses. This survey found that about a quarter severely "depleted their savings, another quarter had borrowed from family and friends, and a tenth had turned to payday or personal loans" (*The State of the Nation's Housing 2021,* 2021). Even though most of these people survived the economic conditions brought upon by the pandemic, it is going to be that much harder for people to reattain the financial level where they were originally. This is because they will have fewer financial resources to rely on in the case of emergencies or other unusual situations.

With the widespread suffering of job loss that arose during the pandemic, the government stepped in to ensure increased financial stability for those that suffered. At the end of 2020 and again in March 2021, the government provided $50 billion in total to help households that had fallen behind on rent (*The State of the Nation's Housing 2021,* 2021). This allowed people to get back on their feet, spark growth in the economy, and produce over 1.3 million jobs by April 2021. Another support system lay in the presence of forbearance and a ban on foreclosure. This allowed borrowers to delay or reduce their monthly mortgage payments for as long as 18 months (*The State of the Nation's Housing 2021,* 2021). These government-backed programs were essential for the revitalization of both the mortgage market and the economy as a whole. They will be discussed in further detail in a later section of this report.

Homeowners in the single-family sector were not the only ones burdened during the pandemic. Renters in the multifamily sector also faced the serious blow of COVID-19. The pandemic initiated a large number of unforeseen costs in the operations segment of multifamily housing. These operations expenses included "additional cleaning time and equipment, personal protective equipment for staff, and addressing greater wear and tear on the units from tenants spending so much time at home" (*The State of the Nation's Housing 2021,* 2021). With property managers forced to cover expenses like these, they would have no choice but to raise their tenants' monthly rents. This raising of rents put extreme pressure on tenants, who may have also been going through lay-offs due to so many businesses shutting down. A survey done by the National Apartment Association in September 2020 stated that 1/5 of property owners' overall expenses rose by 50%, while another fifth's expenses rose by 25% or more (*The State of the Nation's Housing 2021,* 2021). This survey data is a clear indicator that property owners were forced to raise rents to cover costs. This is a clear example of how multifamily tenants suffered similarly to single-family homeowners at the hands of the pandemic.

In understanding this comparison between homeowners and renters, is there a way to see who was affected by the pandemic more severely? Data from the Survey of Consumer Finances show that before the pandemic in 2019, the median cash savings of homeowners was $10,100 whereas it was only $1,400 for renters (*The State of the Nation's Housing 2021,* 2021). This significant gap shows while both groups were ill-prepared for the pandemic, renters had significantly fewer resources going into 2020. There is more data to prove this gap as well. The Urban Institute produced surveys at the turn of 2020 regarding renters using their savings to make payments. These surveys found that between 25 to 40 percent of "renter households had used savings to cover their housing payments during the pandemic" (*The State of the Nation's Housing 2021,* 2021). This is another demonstration of renters being forced to hastily adapt to the poor conditions they were facing.

To conclude the discussion of the individual, there will be an examination of a more positive result that has come out of the COVID-19 pandemic. Due to the Fed's magnanimous purchasing of assets, mortgage rates reached some of the lowest levels they had seen in decades. This allowed qualified borrowers to "reduce their monthly mortgage payments by refinancing into a lower-rate loan" (Amromin et al. 2020). With the ability to refinance and lower payments, many homeowners were able to continue to make mortgage payments even with the presence of income disruptions. Interestingly enough, the larger presence of refinances helped mortgage lenders as well. One would expect mortgage lenders and investors to suffer from lower rates due to prepayment risk (Amromin et al. 2020). But, with lower mortgage payments for homeowners, there is a reduction in the chance of mortgage delinquencies, which is beneficial for both parties. This section has shown both the extreme difficulties as well as the surprising positives that individuals have faced during the pandemic. Now, this next section will look at policies and programs established to help these individuals and the results they provided.

Policies and regulations put in place to aid the individual homeowner

To begin this discussion of policies and regulations, there will be a look back at some of the lessons learned from the policies enacted during the Global Financial Crisis in 2007. The first lesson learned is that programs should be designed in a straightforward manner, thus allowing for simple access and use. During the GFC, policymakers created "complex screening mechanisms in an effort to target truly struggling borrowers" (Amromin et al. 2020). This made it an even more difficult process for the borrowers, which ultimately slowed down the work done by the financial institutions, thus decelerating the entire payment process. This explains that straightforward policies benefit both sides of the coin, allowing for general economic recovery at the individual and aggregate levels. The GFC also showed the important role that credit market intermediaries in providing payment relief to mortgage borrowers (Amromin et al. 2020). These intermediaries had complications with their constraints and incentives, which created unnecessary confusion for borrowers. As a lesson for policy-making in the presence of COVID-19, there must be a constant dialogue with the intermediaries to ensure a smooth and successful movement of funds.

Next, there will be a summary of some of the primary policy responses used to ease economic tension and keep people in isolation to prevent the spread of COVID-19. The first large policy made was the CARES Act in March 2020. This legislation provided direct payments to a large number of people and increased the benefit access for those facing unemployment (*The State of the Nation's Housing 2021,* 2021). This was the first of three major legislations that began to maintain stability in the American economy. The second major legislation was the Consolidated Appropriations Act, which was established in December 2020. The relief in this program included similar features to the CARES Act, like $600 stimulus checks and $25 billion in rental support (*The State of the Nation's Housing 2021,* 2021). The final major legislation during the pandemic took place through the American Rescue Plan in March 2021. This bill provided similar aid as the previous two bills, through the presence of rental assistance and unemployment benefits. Now that a summary of these legislations has been presented, they can be examined with a more direct focus.

The CARES Act was the first line of defense utilized by the U.S. government against the COVID-19 pandemic. While the CARES Act ended up providing about $3 trillion in relief, it also implemented changes that directly impacted the mortgage industry. The Act required mortgage lenders to establish a forbearance program. When a loan is in forbearance, the lender allows the borrower to pay a lower amount or pause payments, agreeing to make up the payments at a later date (An et al., 2021). This implementation was essential given the rise in unemployment across the U.S. The CARES Act did not only establish these forbearance requirements but clarified them making it easier for individuals to understand. This included eliminating the requirement that the loan is current and eliminating the full approval of forbearance so long as the borrower could confirm a "COVID-19 related hardship" (Golding/Goodman 2020). The clarification of these laws in the CARES Act made it easier for both individuals and servicers in the mortgage industry. It allowed these parties to make more responsible decisions and maintain accountability as well. For example, as demonstrated by Section 4021, the CARES Act mandated "special reporting by credit bureaus for loans in pandemic-related forbearance" (An et al., 2021). This is just another direct example of how the CARES Act provided greater overall clarity through its forbearance program.

While forbearance was an essential program applied through the CARES Act, it was not a long-term solution to the economic issues caused by the COVID-19 pandemic. Since forbearance only delivered temporary relief to these issues, the Federal Housing Finance Agency (FHFA) stepped in regarding next steps. The FHFA, which regulates the GSEs, "adopted a 'waterfall' approach to prioritize how its servicers should work out loans exiting forbearance (An et al., 2021). This would require that the borrowers fully complete their missed payments, which would then require some work from mortgage servicers. For example, servicers would have to set up short-term repayment plans, modify the rates or terms of the loans, and possibly pursue foreclosure alternatives (An et al., 2021). Although mortgage forbearance was an essential program for the pandemic, it was not the long-term solution for total economic recovery. There must be a balance of payments in the financial sector to maintain overall economic health. And this could only be achieved if the loans in forbearance ended up being paid in full.

Inequality resulting from the mortgage market during the COVID-19 Pandemic

The final section of this report looks at an unexpected result from the mortgage market during the pandemic. However, it may be the most crucial issue that the nation has faced. Since mortgages are connected to the largest percentage of household wealth, the activity in the mortgage market is inevitably going to affect specific groups of people in a harsher manner (An et al., 2021). Xudong An and his colleagues put this research to the test in a statistical analysis. Using data from Black Knight's Mortgage Servicing Platform (MSP), An and his team attempted to recognize how people of different races and ethnicities were affected in making their mortgage payments during the pandemic. The study found that Black and Hispanic borrowers respectively had 9.8% and 6.4% higher rates of nonpayment than their white counterparts (An et al., 2021). The study tracked data in a pre-pandemic period ranging from 2016 to 2019 and found little disparity based on race. However, once the pandemic hit in 2020, these disparities expanded rapidly causing more inequality for Black and Hispanic mortgage borrowers.

Along with racial disparities in the mortgage market, this study found key information regarding income disparities as well. The data showed that borrowers with low credit scores were more likely to have higher nonpayment rates and "to miss forbearance opportunities" (An et al., 2021). There is a clear issue here, as individuals with lower credit scores are the ones who most desperately need access to forbearance opportunities. This demonstrates an obvious flaw in the policy system, that can only be fixed through a more comprehensive effort by government entities. There needs to be more resources and time focused on optimizing access to these government programs. This will allow those who truly need relief to obtain what they specifically need. Regardless, An's study does an exceptional job of displaying the inequities based on race and income as a result of the mortgage market during the pandemic.

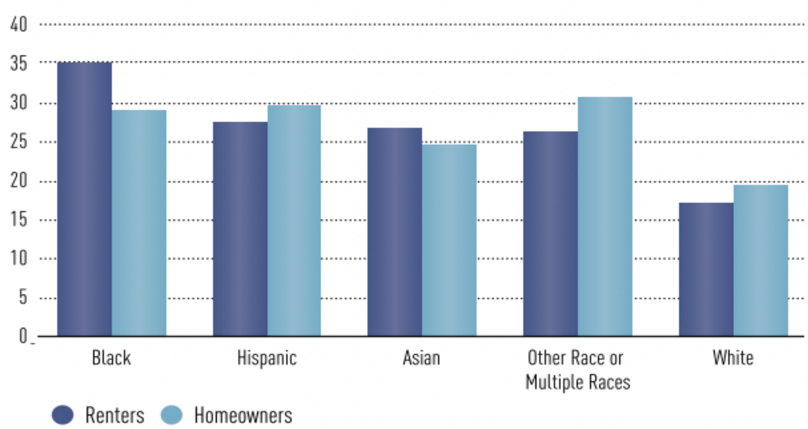
These inequities persisted through an unexpected factor as well: educational attainment. Whether an individual obtained a bachelor's degree or just a high school diploma had a significant impact during the pandemic. In households that lost income due to pandemic-related factors, 74% of them were led by someone without a college degree (*The State of the Nation's Housing 2021,* 2021). This is a clear-cut example of inequality being exacerbated through the presence of

COVID-19. However, this is not the only case of educational inequality taking place during the pandemic. The Bureau of Labor Statistics found that a much larger portion of workers with a bachelor's degree worked in jobs that could be performed from home in comparison to workers with a high school diploma (*The State of the Nation's Housing 2021,* 2021). The ratio of workers was nearly three to one in this statistic, with 67.5% of workers with a degree to 24.5% of workers with a diploma. With COVID-19 spreading at higher rates and the government enforcing more lockdowns, this made it much more difficult for those with only a high school diploma to perform their occupations and therefore earn income. This allowed for an even greater income gap, as those with jobs that require a bachelor's degree were still able to perform their tasks from home

.

To conclude this section, there will be an examination of the inequalities seen in the connection between race and income. According to the 2021 State of the Nation's Housing Report, 67% of Hispanic, 58% of Black, and 53% of Asian homeowners reported that they lost income after the pandemic started in March 2020 (*The State of the Nation's Housing 2021,* 2021). These statistics compared to only 49% of white homeowners reporting income losses. The worst part about these statistics is that the racial disparities only increase within lower income brackets. This is demonstrated graphically in Figure 5 below.

Figure 5: Share of Low-Income Households Behind on Payments (Percent)



Notes: Low-income households earned less than $25,000 in 2019. Black, white, and Asian households are non-Hispanic. Hispanic households may be of any race.
Source: JCHS tabulations of US Census Bureau, Household Pulse Surveys, January–March 2021.

Figure 5 shows how much lower the percentage of white homeowners and renters that failed to make their housing payments was in comparison to other races. Although inequalities in the mortgage sector were present before the pandemic hit, the pandemic began to open the public's eyes to these inequalities through their intensification. This ultimately proves that there are systemic issues that must be targeted by local and state government entities. The longer they wait to take action, the more extreme these disparities will spread across different races and income brackets.

Conclusion

This report has provided an all-encompassing view of how the COVID-19 pandemic has affected the entirety of the mortgage market. This perspective began with the economic conditions that were present once the pandemic hit. This included drastic mortgage and treasury rate fluctuations, which ultimately stimulated significant demand in the U.S. housing market. These economic conditions also presented the lack of liquidity that households had access to for emergency funds. This financial ill-preparedness established an incredibly difficult time for a large number of homeowners. This transitioned the report's viewpoint into the lenses of the individual homeowner during the pandemic. This section explained how both homeowners and renters had severe struggles making payments due to income shortages from the pandemic. Both groups were unprepared, but the research showed that renters had much fewer savings funds available on average, thus making it harder for them to cover unexpected expenses. However, with a majority of negative results arising for individuals, there were a few positive ones. Prospective homebuyers and current homeowners reaped the benefits of lower mortgage rates as a result of the market. This allowed for lower payments which allowed them to allocate those original funds towards other expenses.

The report then transitioned into the policies and regulations enacted to provide relief to individual homeowners and renters. The U.S. government learned from the GFC that access to relief is just as important as the relief itself. If people struggle to access relief due to certain complexities, then it will not reach the people that need it most. This is why the CARES Act and its following legislations were so effective in providing aid to households. They not only provided direct payments and a forbearance program to people, but they delivered it in an incredibly efficient manner. This form of aid allowed renters and homeowners to allocate funds where they were needed most, which allowed them to get back on their feet financially. While these relief programs were essential for homeowners, there were still results of the pandemic that were unfavorable. This leads into the final body section of the report, which discussed the inequality that took place in the mortgage market during the pandemic. This section highlighted some of the critical inequalities that arose, including those based upon race and income. For example, Black and Hispanic individuals had much higher nonpayment rates than their white counterparts. Also, data showed that individuals with lower credit scores were more likely to miss forbearance opportunities. This demonstrates a complete defeating of a forbearance program's purpose. These were just a few pivotal examples of the numerous inequalities that arose in the mortgage market during the pandemic.

Given this complete perspective of the mortgage markets in a pandemic environment, a key question must be asked: What does one do with this analysis? With this information, there can be insight into how to better prepare for a similar event in the future. From both an individual and aggregate perspective, there can be measures taken to prevent many of the negative impacts of a pandemic environment. This would include well-expedited forbearance programs, proper maintenance of U.S. Treasury rates, and an emphasis on reducing multi-faceted inequality in the presence of a pandemic. With a focus on these aspects, those within the mortgage market will have a better chance of operating with minimized risk, even when facing unexpected economic environments.

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