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Unlike 2008/09, when the US housing market and non-performing subprime MBS formed the epi-center of the GFC, the housing market has proved more robust in 2020. Learning from 2008/09, the Fed quickly resumed MBS purchases in March 2020. These MBS purchases were designed to prevent a collapse in mortgage finance and self-feeding spiral of loan defaults, repossessions, negative equity and lower prices. Although the spread between 10-year yields and mortgage rates has widened sharply, outright mortgage rates are at historic lows. Re-financings have also recovered quickly, despite the Covid-19 restrictions.

For prime borrowers, there is little evidence of a housing crisis, despite the surge in unemployment. Loan forbearance schemes and a foreclosure moratorium have temporarily alleviated significant distress for many borrowers. A robust housing market in the years since 2009, and steady house price gains mean prime borrowers generally have good equity buffers at current house prices. Lower building permits in the decade since the GFC also mean the over-build of housing supply, which occurred in the run-up to the GFC, is less evident today, reducing downward pressure on house prices.

### **CRTs has helped spread mortgage credit risk to the private sector**

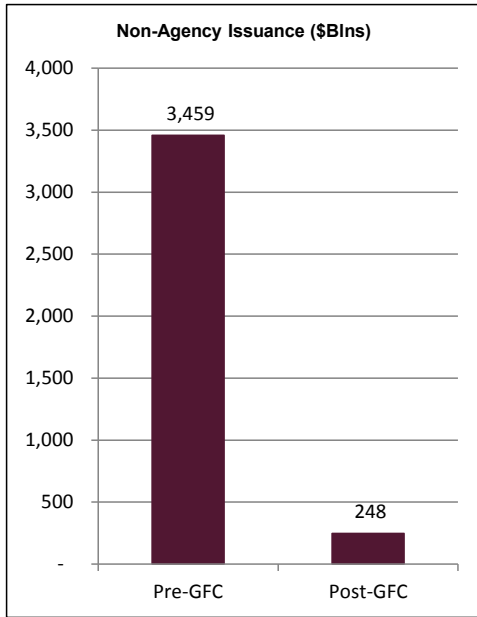
The key structural development in the mortgage finance market since the GFC, has been the creation of Credit Risk Transfer (CRT) deals, by the government sponsored enterprises (GSEs), in order to spread mortgage credit risk to the private market; before the GFC, the GSEs, like Fannie Mae and Freddie Mac, bore all the credit risk in the agency market. CRT deals are not eligible for the Fed's QE program, not least because QE purchases would move all of the credit risk back onto the Fed's balance sheet. Most CRT deals are credit-linked notes, where bonds were sold and bond payments, including losses, are determined by the payment performance of a reference pool of loans. Many loans backing CRT securitizations have lower credit scores, higher loan to value ratios, and higher debt to income ratios.

However, CRT bond payments are a general obligation of the GSEs, and the reference collateral benefits from being agency-eligible, making it easier to refinance and eligible for hardship programs and servicing loss mitigation efforts. Because they are a blend of agency-eligible mortgage collateral, and non-agency securitizations, they tend to perform somewhere in the middle, between higher quality, "Jumbo near Prime" mortgages, and lower quality, Non-Qualified mortgages. Total CRT outstanding mortgage collateral amounts to approx. \$1,685 billion, so this is a sizeable market, which has significantly reduced GSE mortgage credit risk.

### **Non-agency market is now much smaller, with higher underwriting standards since the GFC**

In contrast to the agency-RMBS market, the GFC crash, subsequent financial regulations and tougher underwriting standards, all led to a much smaller non-agency RMBS market, as Table 1 shows.

**Table 1: Pre-GFC and Post-GFC Non-agency issuance**

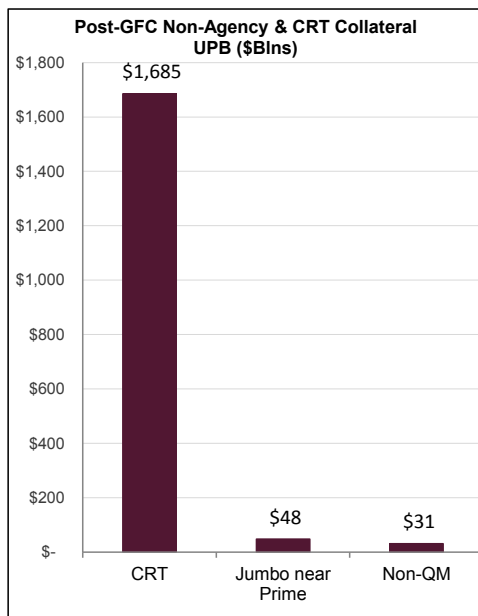


Source: Securitized on Yield Book; data as of July 31, 2020.

With the sub-prime mortgage market effectively closing after the GFC, the non-agency market has morphed into a range of different mortgage securities, which vary considerably in credit quality. This is a much smaller market than agency-guaranteed RMBS. At the top end for credit quality, so called “Jumbo near Prime” deals, are typically backed by high quality loans above the agency conforming limits. In contrast, Non-Qualified mortgages (Non-QM) are generally lower credit quality loans. They are the mortgages most at risk, since they have no agency guarantee and their underlying credit quality is lower, even if it is a small segment of the market.

To give an overall idea of the mortgages at risk, Table 2 shows the mortgage principal, or Unpaid Principal Balance (UPB) outstanding on Credit Risk Transfer collateral and on non-agency RMBS.

**Table 2: Post GFC Non-agency collateral and (agency) CRT collateral UPB**

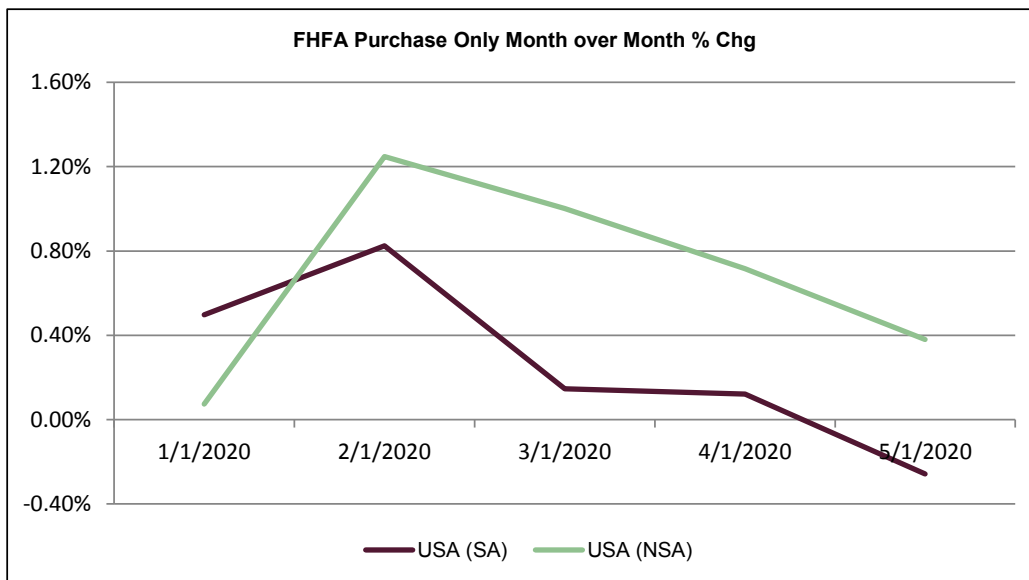


Source: Securitized on Yield Book; data as of July 31, 2020.

In general though, post-GFC origination adheres to higher underwriting standards than in 2007/2008. Exotic mortgage products, which camouflaged underlying credit risks with risk layering, including a mix of prior poor payment performance, low income, high loan to value and poor credit scoring, (typical of the subprime market), are much less evident as a result. Mortgage servicers are also empowered to engage in a host of loss mitigation strategies, most of which were developed during the crisis to keep borrowers paying or avoid high loss liquidation scenarios.

Also, forbearance programs and loss mitigation strategies will be most effective for the more credit worthy borrowers, whose distressed situation is more likely to be temporary – leaving them capable of clearing arrears or meeting the criteria of repayment programs or modifications. Aggregate house price indexes have shown little evidence of distress to date, even if some measures of home price appreciation are starting to decline during the typically strong spring sales season. So far, there is limited evidence a significant correction is underway.

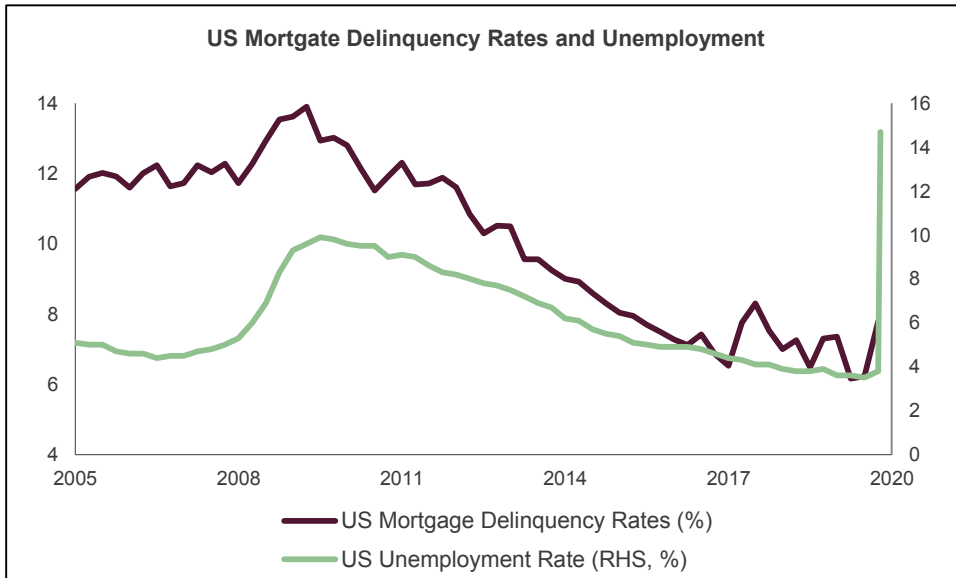
### House prices show few signs that a major Covid-correction is underway



Source: FHFA Purchase-Only Indexes, May 2020

### ...but cracks appear in some credit metrics at the lower end

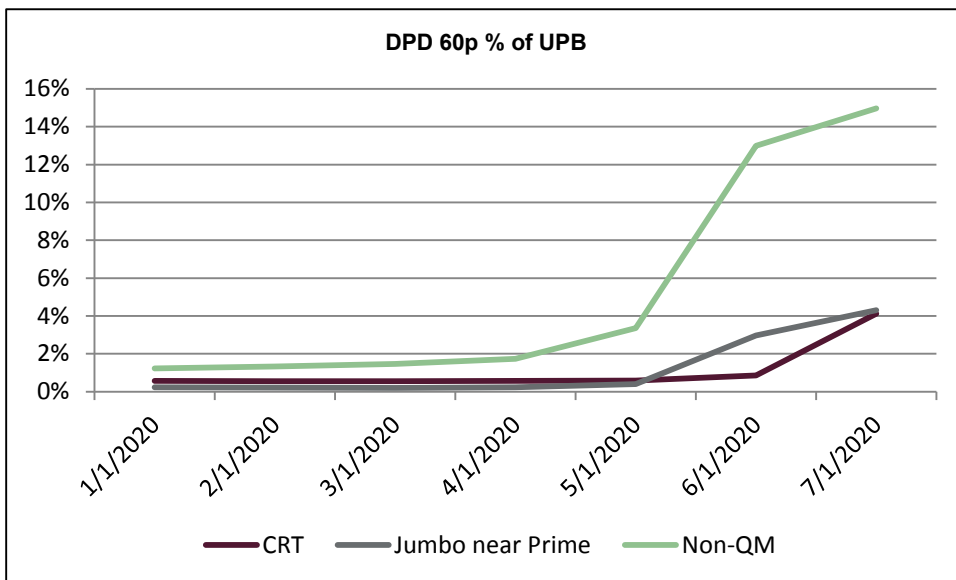
However, in contrast to more credit worthy borrowers, the low credit worthy segment is more exposed to the Covid-19 recession, and less likely to qualify for support, like next step, programs. Historically, the correlation between unemployment rates and mortgage delinquencies is well established, as the Chart shows below. Unsurprisingly, with unemployment spiking into double digits, very high delinquencies and defaults in the Non-QM sector have emerged, while “Jumbo near Prime” and CRT loan performance has also deteriorated. But note unemployment and delinquency rates were very low, by historical standards, at the outbreak of the Covid recession, so the housing finance market was not over-extended going into the recession in 2020, unlike 2007/8, as the Chart shows.



Source: Refinitiv, August 2020.

Nonetheless, credit metrics, like the share of loans 60 days past due date (DPD 60) as a percentage of the overall unpaid principal balance (UPB) below, show a clear upward spike from May onwards, consistent with the Covid-related lockdowns, the increase in unemployment rates and loan forbearance programs. This deterioration raises the key question of what the ultimate default rates will be among this group of delinquent loans? Improved underwriting standards would suggest lower default rates than occurred after the GFC, but lower quality Non-QM could be expected to show higher rates of default than loans near Prime.

**Share of loans 60 days past due date has spiked since May, showing Covid effect**



Source: Securitized on Yield Book; data as of July 31, 2020.

### **.... and mortgage credit availability has fallen as unemployment spiked**

These sectors may be a much smaller segment of the overall securitized mortgage market than before the GFC, but when the foreclosure moratorium ends, a lower share of these delinquent loans can be expected to clear arrears, putting pressure on the health of the housing market. Mortgage credit availability has also declined sharply for borrowers in distress, as lenders have tightened credit standards, so despite record low mortgage rates for prime borrowers, credit rationing is occurring through reduced availability of loans. The tightening in underwriting standards is part of this, and the surge in unemployment. Since the US Fed has confined QE MBS purchases to agency-MBS, these mortgages in the non-agency sector are also less attractive to securitize, tightening credit conditions further. The combination of record low mortgage rates for prime borrowers and deteriorating credit availability at the lower end is another anomaly caused by the bifurcation of the housing market.

### **So, although history doesn't repeat itself, it often rhymes**

Finally, there are many loans on portfolio (not securitized), which are credit challenged and originated in the mode of Non-QM programs. These amount to several 100 billion dollars of outstanding unpaid principal balances (UPB). With Non-QM's high deterioration in payment performance and tightening of credit availability for the lower end, this segment of loans may yet prove a threat to both mortgage and housing stability, which is difficult to monitor. So even if there is no re-run of the GFC underway in the US housing market, and history doesn't repeat itself, it often rhymes, as Mark Twain once said.

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