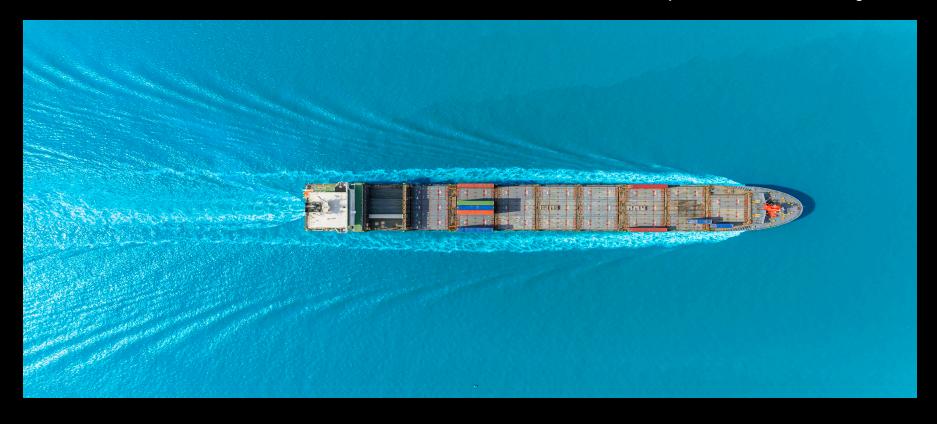
U.S. Structured Finance Snapshot:

The Health Of U.S. Consumers

Sept. 13, 2021

This report does not constitute a rating action



S&P GlobalRatings

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Key Takeaways

Macroeconomic Conditions: Economic conditions are largely favorable for the U.S. consumer. The unemployment rate continues to decline from its COVID-19 peak of 14.8%, currently sitting at 5.2% as of August 2021. While inflation has been a hot topic, we believe it to be largely transitory. Vaccination rates increased in August, surrounding growing concerns attributable to the delta variant. Some 14 million people received their first dose of the vaccine, 4 million more than July (leading to the current level of 74.4% with at least one dose as of Sept.1).



U.S. Consumer ABS: Federal stimulus and other government assistance packages have helped consumer ABS products weather the storm brought by COVID-19, with most sectors exhibiting stronger performance than pre-COVID. However, the expiration of such assistance will likely begin to normalize consumer ABS performance in the coming months.



Consumer Leverage: Various consumer debt service coverage ratios are on the decline as disposable income
has recently increased due to federal stimulus and decreased spending through 2020 and early 2021 following
global lockdown measures.



Housing: The recent surge in home price appreciation is attributable to many factors, most notable of which are
low interest rates, limited home supply (due to high labor & material costs), urbanites moving from cities to
suburban areas, the generational shift of millennials entering the housing market, and the increase in
household wealth.



RMBS: The steep trajectory of home-price growth is outpacing the prior run-up in 2005 and delinquency
declines appear synonymous with the unemployment rate falling. Pandemic related desire for housing have
supported price growth; however, ending forbearance periods and foreclosure moratoria may present a credit
risk for RMBS.



U.S. Non-Agency Multifamily CMBS: Elevated home price appreciation rates and the need for housing will likely offset some localized weakness stemming from the de-urbanization trend, supporting multifamily sector fundamentals overall, and limiting delinquency rate increases.



- **Ratings Trend:** The average change in credit quality through the pandemic and into Q3 2021 has been minimal in U.S. ABS and RMBS.

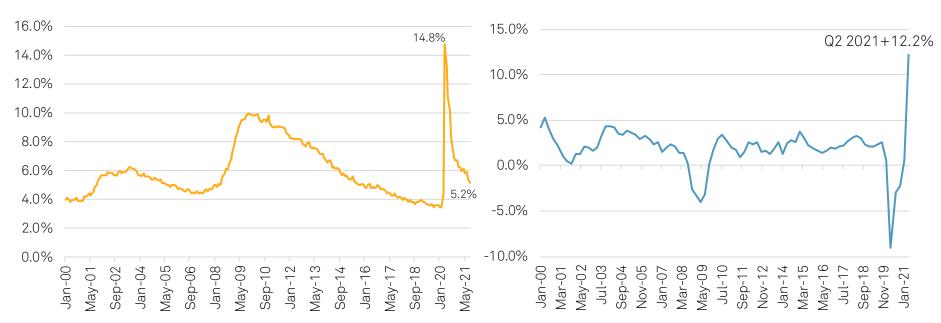


Macroeconomic Conditions

Macroeconomic Conditions—Unemployment & GDP

Monthly U.S. Unemployment Rate (SA)

Real GDP, Percent Change From Year Ago(i)



- After peaking at 14.8% in April 2020, unemployment is beginning to retreat to pre-pandemic levels. As of August 2021, the unemployment rate is 5.2%. S&P Global Ratings forecasts unemployment to reach its pre-crisis range of under 4% by first-quarter 2023.
- Real GDP increased at an annual rate of 6.6% in Q2 2021, according to the Bureau of Economic Analysis' "second" estimate. Our forecasts of real GDP growth for 2021 and 2022 are 6.7% and 3.7%, respectively, with our 2021 GDP forecast targeting the highest reading since 1984.

(i) GDP—Quarterly seasonally adjusted annual rate. Source: BLS, St. Louis Fed, S&P Global Ratings.



Macroeconomic Conditions—Inflation And Consumer Sentiment





- The CPI increased 0.5% in July 2021, following the largest one-month increase of 0.9% in June since June 2008. The all-items index has increased 5.4% y/y, the largest 12-month increase since the 5.4% increase for the period ending August 2008.
- S&P Global Ratings believes the recent jump in inflation will be transitory due to pandemic-depressed prices last year, in conjunction with the near-term boost in prices from supply and labor bottlenecks across industries. The pick-up in Delta variant weakened growth impulse in the third quarter. It likely reflects delayed recovery rather than a derailed one.
- Consumer sentiment fell 13.5% month-over-month in August to a level of 79.0. However, the negative assessment of economic activity likely reflects an emotional response surrounding the Delta variant as the hopes of putting the pandemic in the rear view have recently been hindered.

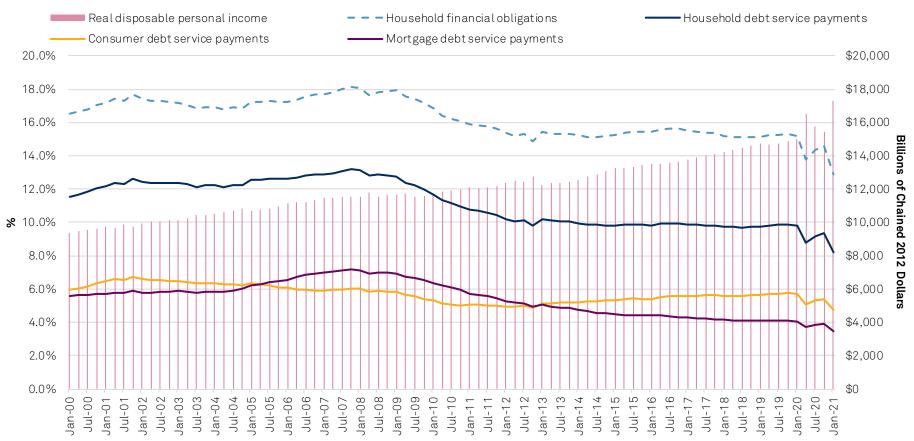
(i)Consumer Price Index for All Urban Consumers: All Items in U.S. City Average Percent Change from Year Ago, Monthly, Seasonally Adjusted. Source: BLS, St. Louis Fed, Survey of Consumers--University of Michigan, S&P Global Ratings.



Consumer Leverage



Consumer Leverage—Debt Service Coverage



- The level of household income being used to service debt reached an all-time low in Q1 2021, attributable to the rise in disposable income as a result of the COVID-19 pandemic. Decreased spending coupled with federal stimulus packages aided in the increase of disposable income.

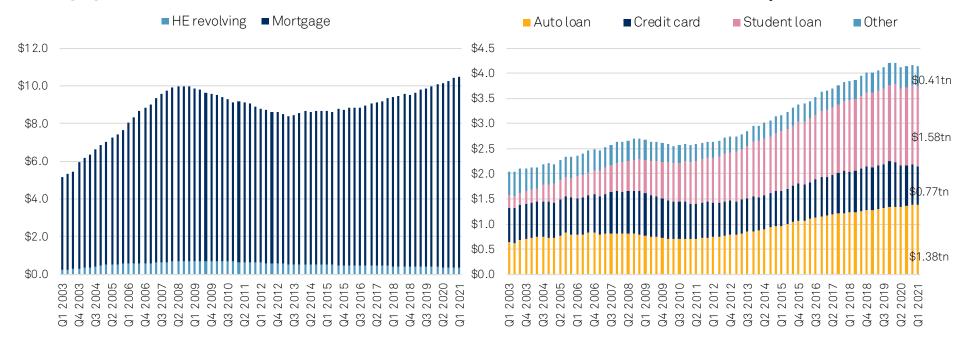
Debt service ratios as a percent of disposable income. Real disposable income in billions of chained 2012 dollars. Source: Board of Governors of the Federal Reserve System (U.S.). Percentages Quarterly SAAR.



Consumer Leverage—Debt Balance Composition

Mortgage Debt Balance Composition

Consumer Debt Balance Composition

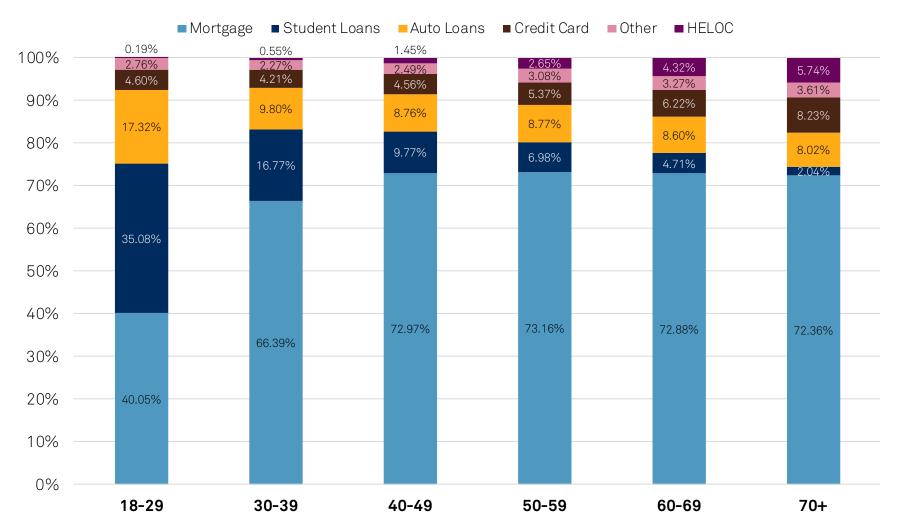


- Total debt outstanding in Q1 2021 was \$14.64 trillion. Growing student loan and mortgage debt due increases in the cost of education and the cost to buy a home could pose longer-term credit risks for borrowers. However, as they are continuously able to refinance their mortgages, and in some cases, student loan debt in this low interest rate environment, we don't foresee any risks in the near term.
- U.S. household mortgage debt eclipsed its Q3 2008 peak of \$9.3 trillion in Q2 2019 and currently sits at \$10.2 trillion as of Q1 2021. Revolving home equity, however, has been declining since Q1 2010 (\$0.34 trillion as of Q1 2021).
- Student loan debt is on the rise as the cost of education continues to increase. According to the ED, 42.9 million Americans owe a total of \$1.73 trillion (\$1.58 trillion in federal loans), owing on average \$36,406.

Source: New York Fed Consumer Credit Panel/Equifax, U.S. Department of Education.



Consumer Leverage—Debt Share By Product Type and Age



Source: New York Fed Consumer Credit Panel/Equifax. Note: Age is defined as the current year minus the birthyear of the borrower. Age groups are re-defined each year. Balances may not add up to totals due to a small number of individuals with unknown birthyears.

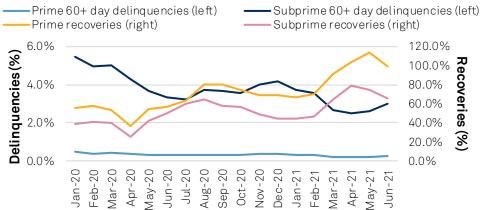


U.S. Consumer ABS



U.S. Consumer ABS—Auto Loan ABS

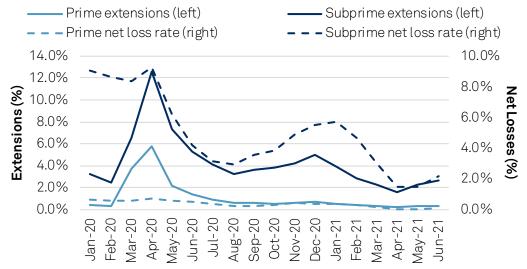
Prime and Subprime 60+ Day Delinquency & Recovery Rates



Manheim Used Vehicle Value Index (i)



Prime and Subprime Auto Loan ABS Extensions and Losses



prime and subprime auto loan ABS have retreated to their pre-pandemic levels.

Moreover, losses and delinquencies have gone down to near record lows, while recovery rates are abnormally high.

— We believe auto ABS performance will remain

After peaking in April 2020, extension rates in

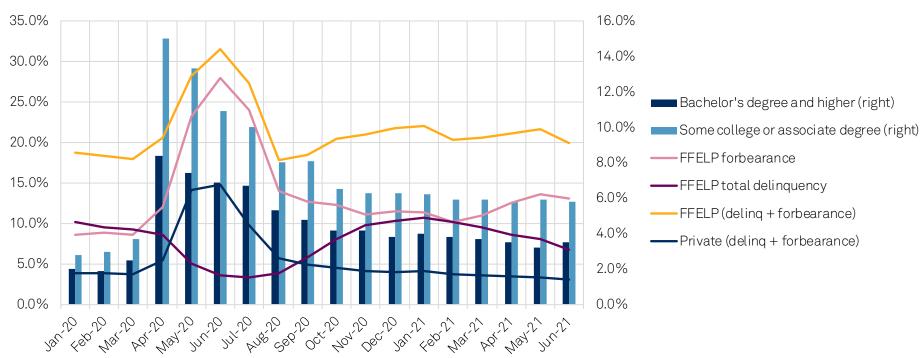
 We believe auto ABS performance will remain relatively strong over the next few months, but as stimulus checks are spent and enhanced unemployment benefits terminate, performance metrics will likely normalize and return to historical levels.

(i)2000-2019 are annual averages. Source: S&P Global Ratings, Manheim.

S&P Global Ratings

U.S. Consumer ABS—Student Loan ABS

Unemployment Levels By School Type vs. Student Loan Forbearance and Delinquency Rates¹



- After peaking in June 2020, forbearance rates in FFELP student loan ABS have since fallen back towards their pre-COVID levels. While significantly declined relative to their peak, FFELP forbearance rates remain elevated compared to pre-COVID levels, as some issuers have extended forbearance in line with the current administration policies, which recently extended the suspension of monthly interest and principal payments on federally held student loans; the moratorium is now set to expire Jan. 31, 2022.

¹Represents transactions that report forbearance and delinquencies on a monthly basis. Forbearance + Total Delinquencies is captured to account for different servicing practices (some automatically provided forbearance to those in delinquency, some provided forbearance to those in delinquency at the request of the borrower). Source: S&P Global Ratings.

U.S. Consumer ABS—Student Loan ABS

Federal Student Loan Portfolio Summary As Of Q2 2021



Dollars outstanding

\$1.6 trillion



FFELP Loans

\$128.5 billion (8.1%)



FFELP Recipients

5.0 million



Average FFELP loan balance

\$25,600

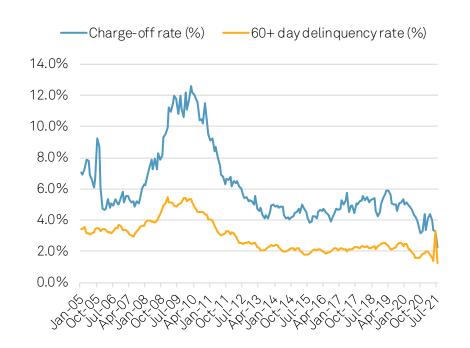
 Current loan forgiveness proposals appear to be coalescing around \$10,000 per borrower. It is unclear at this point if there will be other qualifications borrowers will have to meet to obtain FFELP loan forgiveness. However, \$10,000 of loan forgiveness against an average loan balance of \$25,600 has the potential to generate significant, one-time prepayments in FFELP ABS trusts.

 $Source: National\ Student\ Loan\ Data\ System\ (NSLDS).\ FFELP\ loans\ held\ by\ commercial\ lenders.$

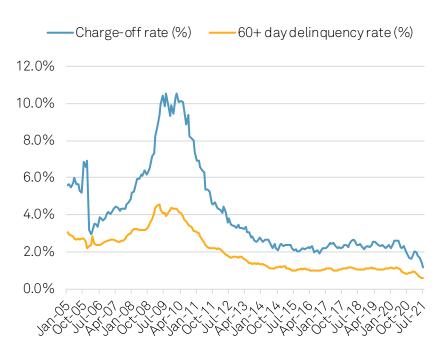


U.S. Consumer ABS—Credit Card ABS

CCQI-U.S. ABS Credit Card Private Label



CCQI--U.S. ABS Credit Card Bankcard



- U.S. credit card collateral performance has remained steady, benefiting from originators' COVID-19 forbearance programs, government assistances programs, and the overall credit quality of the collateral pools.
- However, the expiration of supplemental unemployment insurance payments in the U.S. may pose risks to credit card collateral performance.

CCQI—Credit card quality index. Source: S&P Global Ratings.

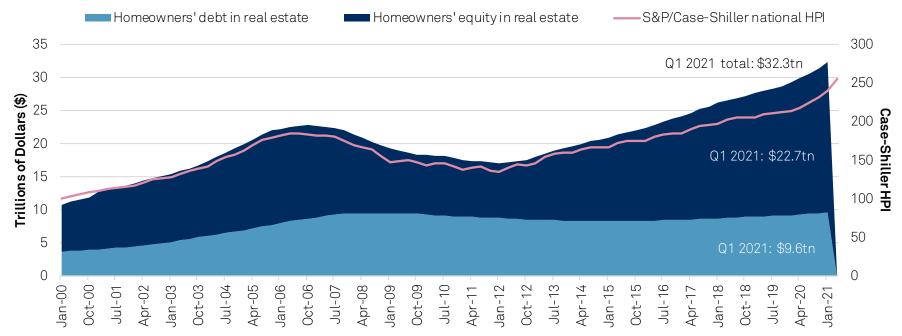


U.S. Housing/RMBS



Housing—U.S. Mortgage Debt, Equity And HPI

Market Value Of Debt and Equity In U.S. Real Estate And S&P/Case-Shiller U.S. National Home Price Index



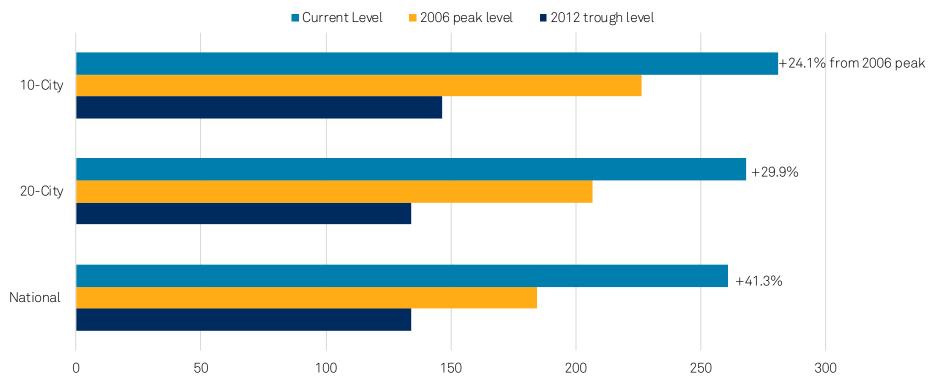
- The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index grew 18.6% y/y from June 2020 to June 2021, the highest reading since the index began.
- The degree of recent mortgage debt increase compared to that of home price growth demonstrates that borrowers are making larger down payments, and the strong increase in purchase demand has likely brought more cash buyers.

Source: S&P CoreLogic Case-Shiller (S&P Dow Jones Indices), Federal Reserve Board. Home Price Index: Jan 2000=100, Quarterly, Not seasonally adjusted.



Housing—Case-Shiller Home Price Appreciation

Case-Shiller HPI Peak, Trough, and Current Levels



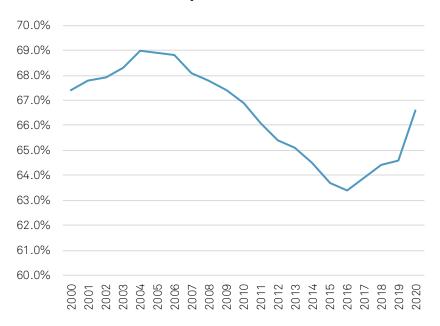
- Housing price growth set a record for the third consecutive month in June 2021. S&P Global Ratings believes the recent surge in home price appreciation is attributable to many factors, most notably low interest rates, limited home supply (due to high labor & material costs), urbanites moving from cities to suburban areas, the generational shift of Millennials entering the housing market, and the increase in household wealth.
 - The surge in demand also likely represents an acceleration of purchases that would have happened anyway due to COVID-19
 effects as urbanites began to move to suburban homes in search for additional space.

Source: S&P CoreLogic Case-Shiller (S&P Dow Jones Indices).



Housing—Homeownership And Homeowner Equity

U.S. Homeownership Rate



Volume of Homeowner Equity in the U.S. 1960-2020



- For reasons previously mentioned, we are exhibiting an increase in both homeownership and homeowner equity, both of which have been partially exacerbated by effects of the COVID-19 pandemic.
- Homeownership peaked in 2004 at 69.2% but declined sharply following the Great Financial Crisis as homeowners were forced out of the market through foreclosure or other financial difficulty, finally rebounding in 2016.

Source: U.S. Census Bureau, St. Louis Federal Reserve.



Housing—Interest Rates

30-Year Fixed Rate Mortgage



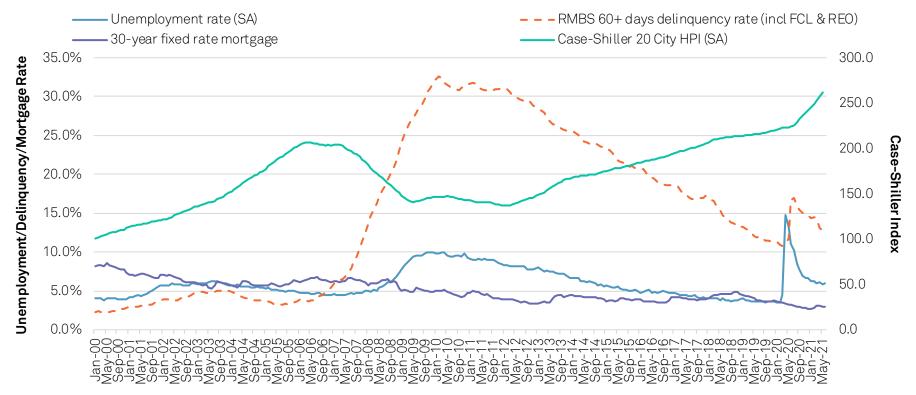
- The 30-Year FRM fell to record lows in 2021 following the COVID-19 pandemic, causing new borrowers to enter the housing market or otherwise refinance existing mortgages.
- While the Fed recently moved up its timeline for a rate increase to as soon as late 2022 or early 2023, the availability of credit at low interest rates appears accessible for at least the next 12 months.

Source: Freddie Mac, St. Louis Federal Reserve.



Housing—RMBS Delinquencies

Effects of Home Price, Unemployment Rate & Mortgage Rate on Residential Mortgage Performance



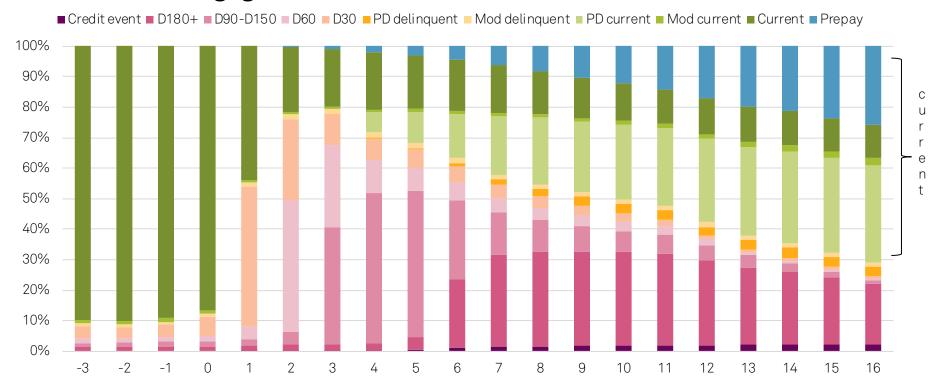
- The steep trajectory of home-price growth appears to outpace prior run-up (2005 time frame), and delinquency declines appear synonymous with the unemployment rate falling.
- Fundamentals and pandemic-related desire for housing have supported price growth; however, it should be noted that ending foreclosure moratoria and bidding wars may present a credit risk for RMBS.

Source: S&P Global Ratings, Freddie Mac, FRED, BLS.



Housing—COVID-19 Forbearance

Freddie Mac Mortgage Related Performance--COVID-19 Ever Forbearance



- 71% of borrowers with Freddie Mac mortgage loans—and had previously entered a forbearance plan at the onset of COVID-19 assistance programs—have either made prepayments or otherwise come current (including modifications) on their loans.
- However, 18% of this group are still 180+ days delinquent, reinforcing forbearance extensions.

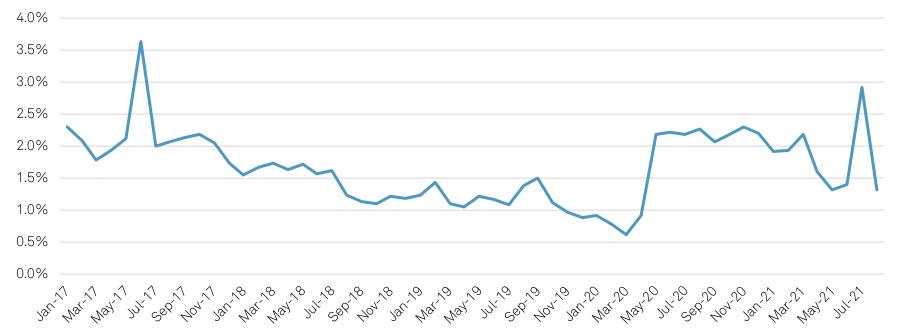
PD—payment deferral. Source: Freddie Mac.



U.S. Non-Agency Multifamily CMBS

CMBS—Non-Agency Multifamily

Multifamily 60+ Day Delinquency Rates



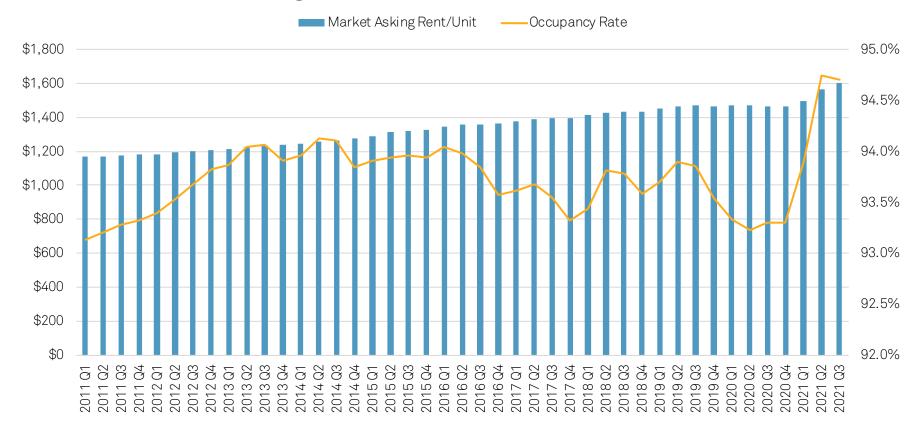
- Multifamily properties are inherently more stable than other commercial property types because of the essential need for housing and their lower expense ratio relative to other property types. Furthermore, recent strong home-price gains have shown little sign of easing and are likely pricing potential home buyers out of the market, forcing them to keep renting.
- We believe this trend could help to stabilize and increase rents and continue to put downward pressure on multifamily delinquencies after having seen a COVID-19 induced increase from historical levels.
- Multifamily delinquencies slowly decreased from their COVID-19 peak. In July, One Parkmerced, a \$1.29 billion loan secured by a 3,165-unit multifamily property located in San Francisco was reported as delinquent in error and subsequently corrected. August multifamily delinquencies currently stand at 1.31%.

Source: S&P Global Ratings.



CMBS—Non-Agency Multifamily

Multifamily market asking rent and occupancy rate



 The recent increase in occupancy rates likely reflects home price appreciation continuing to lock some potential buyers out of the market.

Source: CoStar.

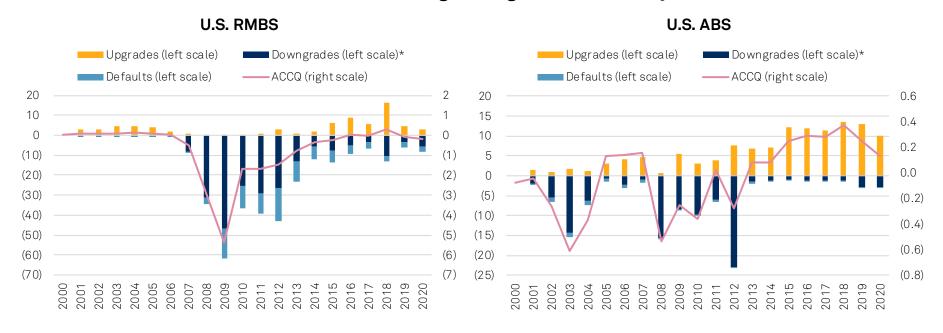


Ratings Trend



Ratings Trend—U.S. ABS And RMBS

U.S. RMBS And ABS Transition Rates And Average Change In Credit Quality



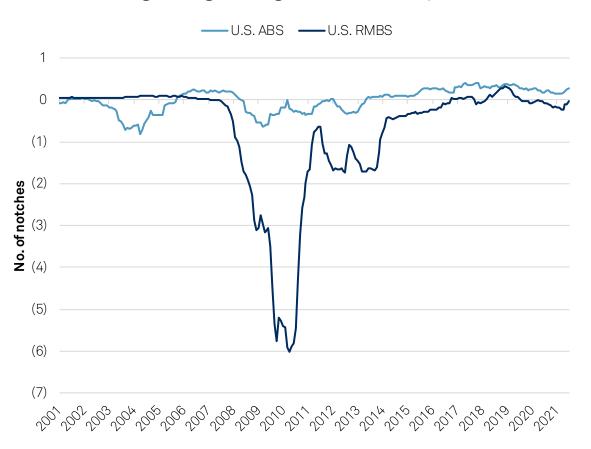
- U.S. RMBS exhibited 3.2% upgrades, 8.0% downgrades*, and 2.6% defaults of its outstanding ratings in 2020.
 - It should be noted that these actions included ratings on legacy RMBS (pre-2009), which likely would have seen a
 negative rating action without COVID-19 effects due to tail risk.
- U.S. ABS on the other hand, saw 9.9% of its outstanding ratings upgraded, 2.9% downgraded, and only 0.2% defaulted.

^{*}Excluding defaults. ACCQ--Average change in credit quality. Securities whose ratings migrated to 'NR' over the period are classified based on their rating prior to 'NR'. Source: S&P Global Ratings Research.



Ratings Trend—U.S. ABS And RMBS

12-Month Trailing Average Change In Credit Quality



Although net ratings
migration for U.S. structured
finance securities turned
negative during the COVID-19
pandemic, the scale of rating
decline has been limited for
the U.S. ABS and RMBS
sectors, having seen +0.1 and
-0.2 notches, respectively,
during the worst 12-month
period following the
pandemic.

Chart shows the average rating movement over the previous 12 months in terms of rating notches. Securities whose ratings migrated to 'NR' over the 12-month period are classified based on their rating prior to 'NR'. Excludes covered bonds. Source: S&P Global Ratings Research.

Conclusion



Conclusion

- In our current view, the recent increase in COVID-19 cases attributable to the Delta variant slowing
 economic recovery could normalize performance for certain U.S. consumer structured finance sectors
 barring any headwinds related to remaining forbearance activity (for impacts related to broader global
 structured finance, see Global Structured Finance: Charting The Recovery From COVID-19, published June
 14, 2021).
- However, all things considered, the average U.S. consumer appears to be in good health:
 - Considerable growth in disposable income as a result of federal stimulus and enhanced unemployment benefits has led to a sharp decline in debt service coverage ratios.
 - Home price appreciation and, consequently, the rate of homeownership equity growth are at record highs.
 - While the Fed recently moved up its timeline for rate increases to as early as late 2022 or early 2023, the availability of credit at low interest rates is a positive for U.S. consumers in the near term.
 - Consumer structured finance products (secured and unsecured ABS and RMBS) delinquencies are near, or in some cases, below pre-COVID levels.
- The Bureau of Labor Statistics estimated 943k jobs were added in July, recording the fastest pace since August 2020. In addition, the unemployment rate has declined sharply in recent months, falling 0.7% from June to August, currently sitting at 5.2%. This could partially offset the ending of direct stimulus and the expiration of enhanced unemployment benefits to the average consumer.
- We consider inflation to be largely transitory, due to pandemic-depressed prices last year in conjunction with the near-term boost in prices from supply, and labor bottlenecks across industries. Despite the pickup in COVID-19 cases tied to the delta variant, economic activity remains high, and the rollout of the vaccine has intensified in recent months due to growing concerns surrounding the variant.

Related Research

- <u>U.S. Credit Card Quality Index: Monthly Performance--July 2021</u>, Aug. 26, 2021
- <u>U.S. Auto Loan ABS Tracker: June 2021 Performance</u>, Aug. 18, 2021
- Non-Qualified Mortgage Summer Snapshot, July 22, 2021
- Global Structured Finance Midyear Outlook 2021: Issuance Forecast Raised To \$1.4 Trillion, July 20, 2021
- Auto Loan ABS COVID-19 Loss Adjustment Reassessed After Better-Than-Expected Performance, July 8, 2021

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