U.S. Structured Finance Snapshot: The Health Of U.S. Consumers

July 2022



This report does not constitute a rating action.

S&P GlobalRatings

Contents

Key Takeaways	3
Macroeconomic Conditions	5
Consumer Leverage	8
U.S. Consumer ABS	12
U.S. Housing/RMBS	20
U.S. Non-Agency Multifamily	25
Ratings Trend	28
Conclusion And Forecasts	30



Key Takeaways



- Macroeconomic Conditions: Economic conditions have been largely favorable for the U.S. consumer but are starting to show some cracks. Unemployment remains low, at 3.6%. However, inflation and the Federal Reserve Bank's response have led many economists, including those at S&P Global Ratings, to raise their estimate of the probability of recession, especially for one that might occur in 2023. Consumer sentiment has broadly declined.



- U.S. Consumer ABS: Most ABS sectors are continuing to exhibit stronger performance than before the pandemic, reflecting the positive impact of federal stimulus and other government assistance on consumer ABS products as well as strong recoveries in the auto market. However, the positive impact from these programs is beginning to fade and auto loan ABS delinquencies have returned to prepandemic levels. Performance will likely continue to normalize in the coming months, but it could deteriorate further because high inflation will likely hurt the more vulnerable borrowers. The strength of the labor market is the linchpin that will likely determine whether performance normalizes or worsens.



Consumer Leverage: Various consumer debt service ratios have declined (lower is better), spurred by the
rise in disposable income due to pandemic-related federal stimulus and the decrease in spending
following global lockdown measures. Savings remain high, but inflation may erode balances at varying
rates, depending on income levels.

Key Takeaways Continued



Non-Agency RMBS: The steep trajectory of home price growth is outpacing the previous run-up in 2005, and delinquency declines appear to coincide with the falling unemployment rate. The pandemic-related demand for housing has supported price growth. However, ending forbearance periods and foreclosure moratoria, as well the increase in interest rates (for those with adjustable mortgage rates), may present credit risk for RMBS.



 U.S. Non-Agency Multifamily CMBS: Elevated home prices, rising interest rates, and the need for housing have supported the multifamily sector. Delinquency rates declined following the pandemic "deurbanization" bump.



Ratings Trend: The average change in U.S. ABS and RMBS credit quality from the start of the pandemic through second-quarter 2022 has been minimal. Average change for U.S. ABS ratings has remained positive to the tune of 0.1-0.4 notches, while that of U.S. RMBS has recently turned positive following modest declines in the July 2019 through July 2021 period.

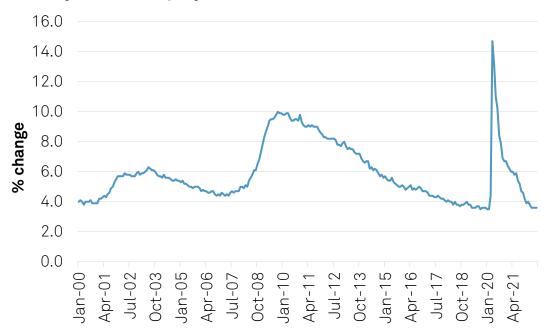
Macroeconomic Conditions



Macroeconomic Conditions — Unemployment And GDP

- After peaking at 14.8% in April 2020, unemployment has retreated to near pre-pandemic levels and, as of June 2022, the unemployment rate sits at 3.6%. Nevertheless. labor markets are experiencing their own supply-chain bottlenecks with the labor force participation rate at a 45-year low.
- Real GDP increased at an annual rate of 3.5% in Q1 2022, although it decreased by 1.5% on a quarter-over-quarter basis in Q1, according to the "second estimate" from the Bureau of Economic Analysis.

Monthly U.S. Unemployment Rate(i)



Real GDP, Percent Change From Year Ago(ii)



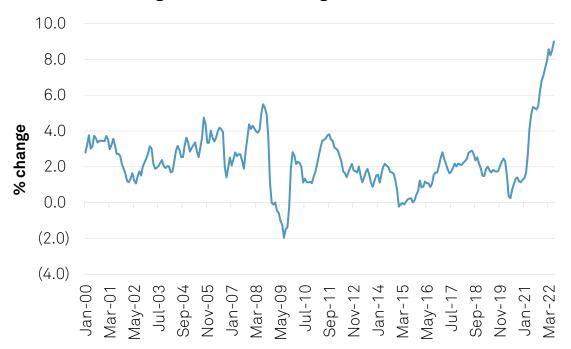
(i)Seasonally adjusted. (ii)GDP—Quarterly seasonally adjusted annual rate. Source: BLS, St. Louis Fed, S&P Global Ratings.



Macroeconomic Conditions — Inflation And Consumer Sentiment

- The CPI started to increase sharply in March 2021, and by March 2022 its growth exceeded +8%. As of June 2022, the seasonally-adjusted annual change in CPI was +9.0%—the highest rate in over 40 years.
- After a period of recovery following the steep decline at the onset of the pandemic, consumer sentiment has drifted downward and now approaches lows not seen since 2011 in the wake of the Global Financial Crisis.

CPI Percent Change From One Year Ago(i)



(i)Seasonally adjusted. Source: BLS, St. Louis Fed, S&P Global Ratings, University of Michigan.

Index Of Consumer Sentiment





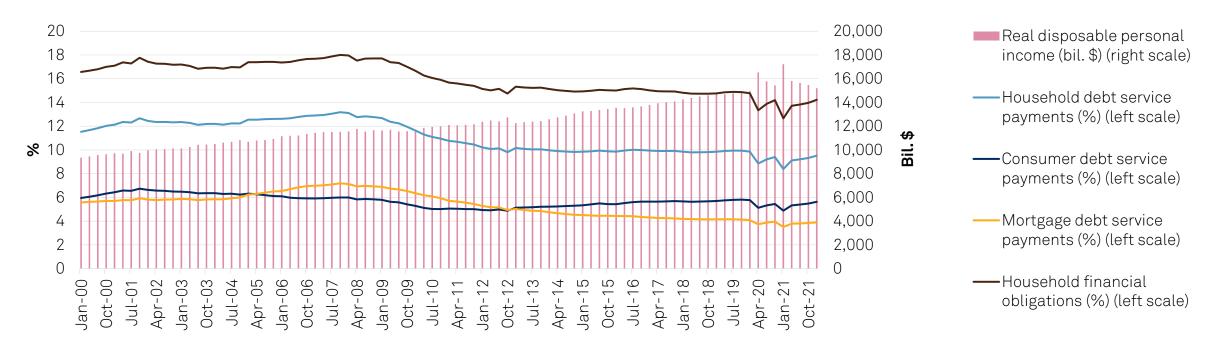
Consumer Leverage



Consumer Leverage — Debt Ratios

 The percentage of household income used to service debt reached an all-time low in Q1 2021 (lower is better for the consumer) due to reduced consumer activity during the pandemic. Decreased spending coupled with federal stimulus packages increased disposable income.

Consumer Debt Ratios



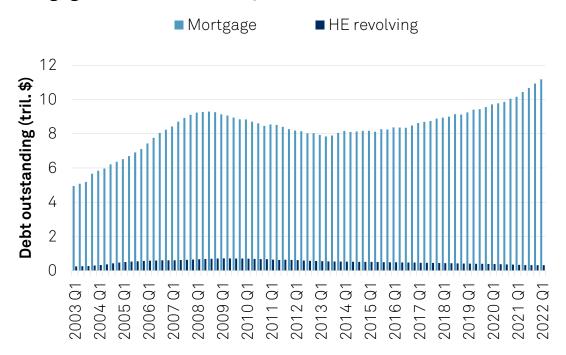
Note: The debt service ratios are as a percent of disposable income. Real disposable income in billions of chained 2012 dollars. Percentages based on a quarterly seasonally adjusted annual rate. Source: Board of Governors of the Federal Reserve System (U.S.).



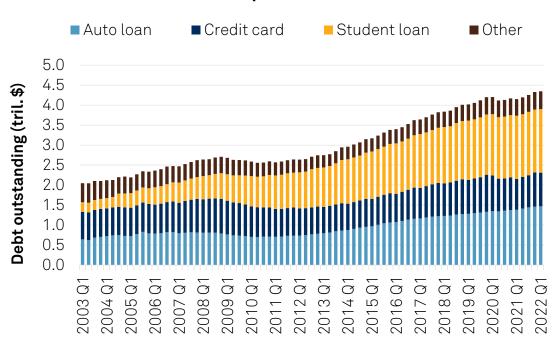
Consumer Leverage — Debt Balance Composition

- Total debt outstanding in Q1 2022 was \$15.84 trillion. Growing student loan debt is attributable to the rising cost of education.
- Mortgage debt has grown sharply as home price appreciation sits near 20% annually.
- U.S. household mortgage debt eclipsed its Q3 2008 peak of \$9.3 trillion in Q2 2019, and it was \$11.2 trillion as of Q2 2021. Revolving home equity, however, has been declining since Q1 2010 and was at \$0.32 trillion as of Q1 2021.

Mortgage Debt Balance Composition



Consumer Debt Balance Composition

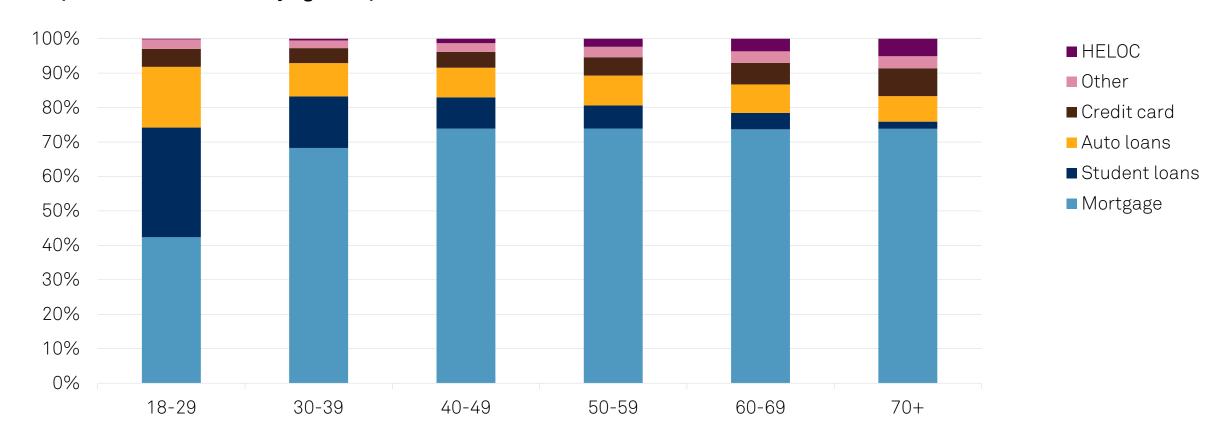


(i)Seasonally adjusted. (ii)GDP—Quarterly seasonally adjusted annual rate. Source: BLS, St. Louis Fed, S&P Global Ratings.



Consumer Leverage — Debt Ratios By Age Group

Composition Of Debt Ratios By Age Group



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



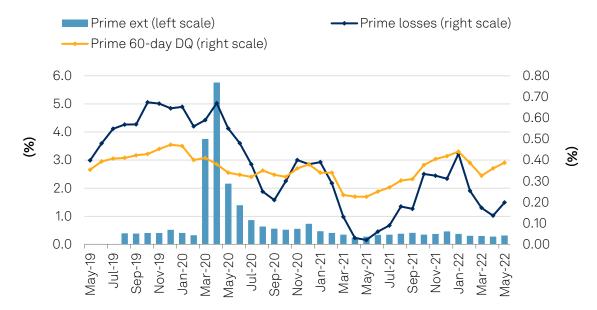
U.S. Consumer ABS



U.S. Consumer ABS — Prime Auto Loan ABS

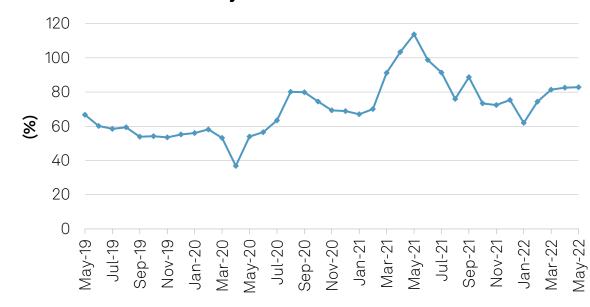
- After the seasonal decline in losses from February through April, losses rose in May. This was largely due to seasonal factors, including the fading benefit of tax refunds. Still, prime losses remained approximately 50% below May 2019 pre-pandemic levels.
- Recovery rates declined from record high levels last year; however, prime recovery rates remained high by historical standards at approximately 83%.
- 60+ day delinquencies rose during May 2022 and slightly exceeded pre-COVID May 2019 levels.
- Extensions rose in May relative to April as we moved further away from tax refund season. They also increased year over year, which was expected given that consumers had recently received their third stimulus check last spring. Still, extensions on average remained below pre-pandemic levels.

Prime Auto Loan Extensions, Losses, DQs



Note: We started tracking extensions in August 2019.

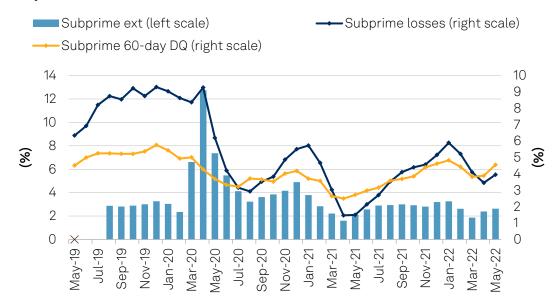
Prime Auto Loan Recovery Dates



U.S. Consumer ABS — Subprime Auto Loan ABS

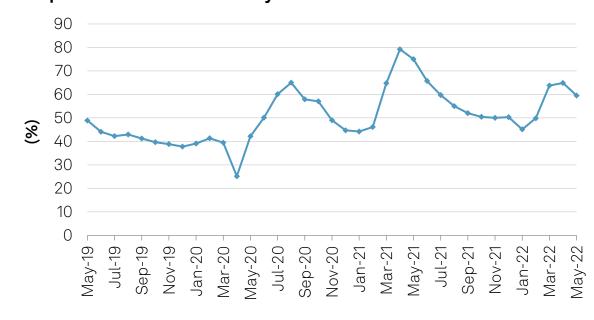
- After the seasonal decline in losses from February through April, losses rose in May. This was largely due to seasonal factors, including the fading benefit of tax refunds and lower recovery rates. Still, subprime losses remained approximately 38% below May 2019 pre-pandemic levels.
- Recovery rates declined from record high levels last year; however, subprime recovery rates remained high by historical standards, at about 60%.
- 60+ day delinquencies rose during May 2022 and slightly exceeded pre-COVID May 2019 levels.
- Extensions rose in May relative to April as we moved further away from tax refund season. They also increased year over year, which was expected given that consumers had recently received their third stimulus check last spring. Still, extensions on average remained below pre-pandemic levels.

Subprime Auto Loan Extensions, Losses, DQs



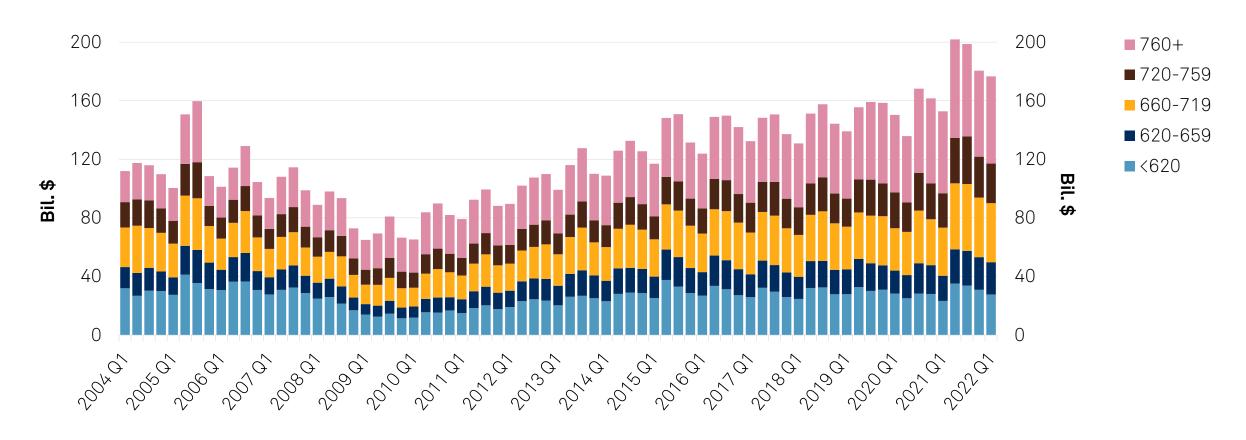
Note: We started tracking extensions in August 2019.

Subprime Auto Loan Recovery Dates



Subprime And Near Prime — Originations Are Climbing

Auto Loan Originations By Credit Score(i)



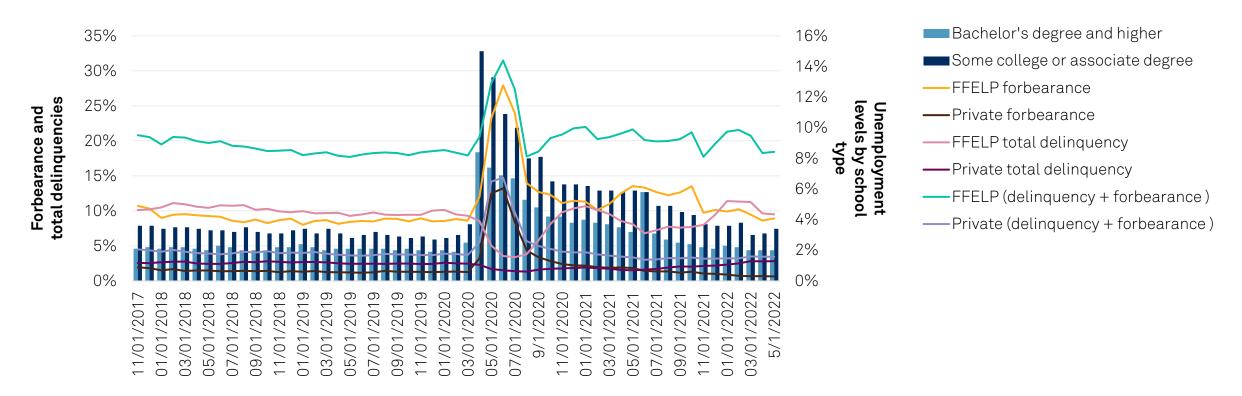
Note: Scales in billions of dollars. (i)Credit Score is Equifax Riskscore 3.0. Source: New York Fed Consumer Credit Panel/Equifax.



U.S. Consumer ABS — Student Loans

- After peaking in June 2020, forbearance rates for FFELP student loan ABS declined to pre-pandemic levels.

Unemployment Levels By School Type Versus Student Loan Forbearance And Delinquency Rates(i)



(i) Transactions that report forbearance and delinquencies on a monthly basis. Forbearance and total delinquencies are captured to account for different servicing practices: some servicers automatically provided forbearance to delinquent loans, while some servicers provided forbearance to delinquent loans only at the borrowers' request. Source: S&P Global Ratings.



U.S. Consumer ABS

Federal Student Loan Portfolio Summary As Of Q1 2022



Dollars outstanding

\$1.61 trillion



FFELP Loans

\$117.7 billion (7.3%)



FFELP recipients

4.5 million



Average FFELP loan balance

\$26,331

Legislators continue to publicly discuss the need for federal student loan forgiveness. This has the potential to generate significant, one-time prepayments in FFELP ABS trusts, for which the average balance is now slightly over \$26k.

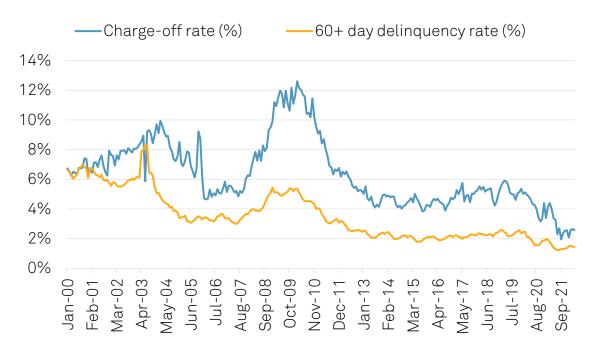
Note: FFELP loans held by commercial lenders. Source: National Student Loan Data System (NSLDS).



U.S. Consumer ABS — Credit Card ABS

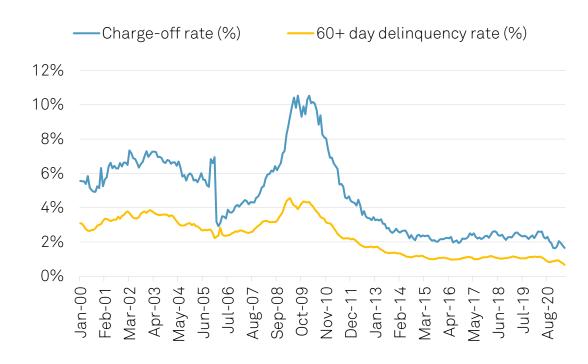
- We expect the performance and ratings of U.S. credit card ABS collateral to remain stable over the next 12 months, supported by solid collateral performance and banking sector trends, declining unemployment, and strong U.S. household balance sheets.
- On the downside, if persistent inflation leads to an entrenched recession and increased unemployment, performance would be expected to deteriorate.
- The initial reduction in revolving consumer credit outstanding occurred as consumers scaled back spending and increased savings during the market disruption.

U.S. Private-Label Credit Card ABS



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

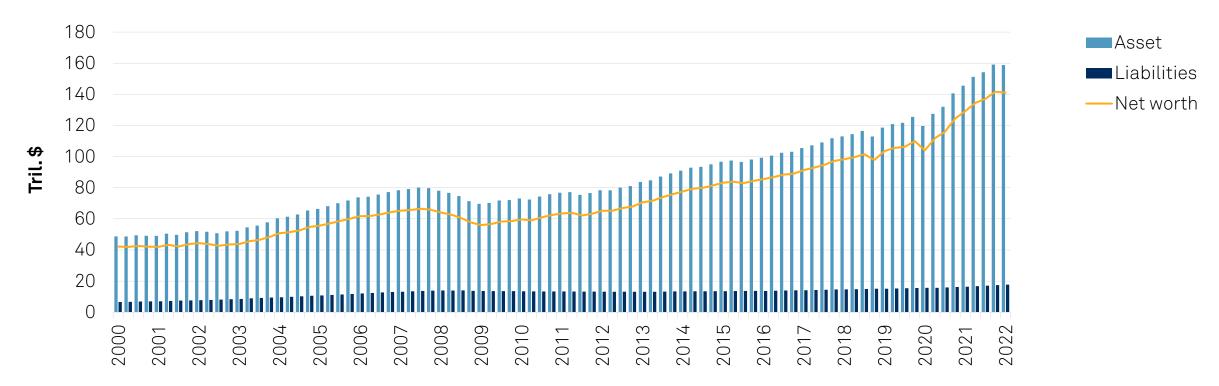
U.S. Bank Credit Card ABS



U.S. Consumer ABS — Credit Card ABS

- Consumer balance sheets strengthened with increasing net worth since 2007-2009
- Households are better positioned to manage inflation volatility in terms of servicing debt

U.S. Household: Balance Sheet



Source: Federal Reserve Bank.



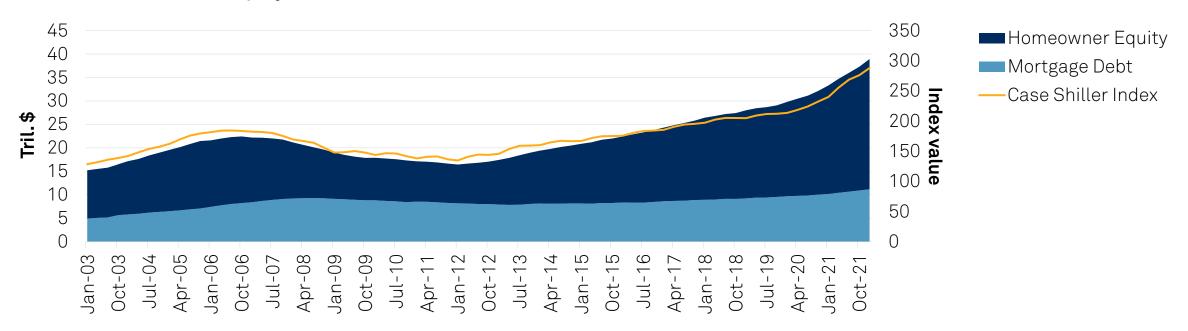
U.S. Housing/RMBS



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

- The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index grew 20.3% year over year between April 2021 and April 2022.
- The recent increase in mortgage debt compared to that of home price growth shows that borrowers are making larger down payments.
- Given the increase in mortgage rates, we expect some downward pressure on home price growth. The most likely outcome will be a normalization such that price growth falls in line with the historical levels of 3%-5%, although some regions could see price declines.

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



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



Housing — Homeownership And Homeowner Equity

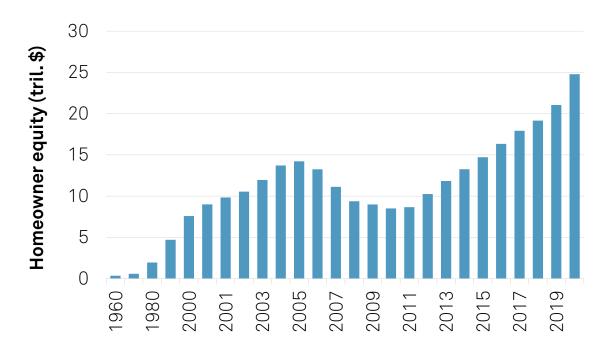
- The increase in homeownership and homeowner equity have been partially exacerbated by effects of the COVID-19 pandemic.
- Homeownership peaked near 70% in 2004. But it declined sharply following the Global Financial Crisis (as homeowners were forced out of the market through foreclosure or other financial difficulty) before finally rebounding in 2016.

U.S. Homeownership Rate



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

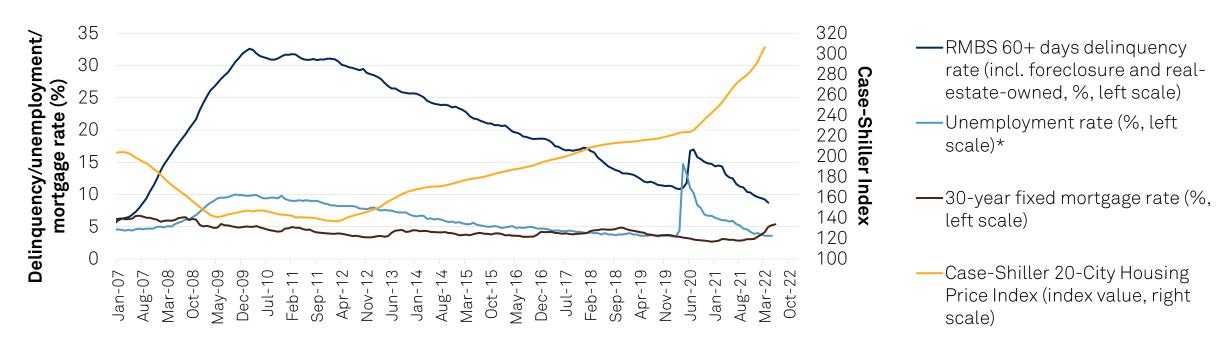
Homeowner Equity In The U.S. (1960-2020)



Housing — RMBS Snapshot

- The trajectory of home-price growth steepened dramatically since mid-2020. Although the 30-year fixed-rate mortgage increased sharply since March 2022, eroding affordability and putting potential downward pressure on future price growth, supply shortages in both the new and existing home markets remain the dominant driver of prices.

Effects Of Home Price, Unemployment Rate, And Mortgage Rate On Residential Mortgage Performance

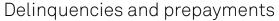


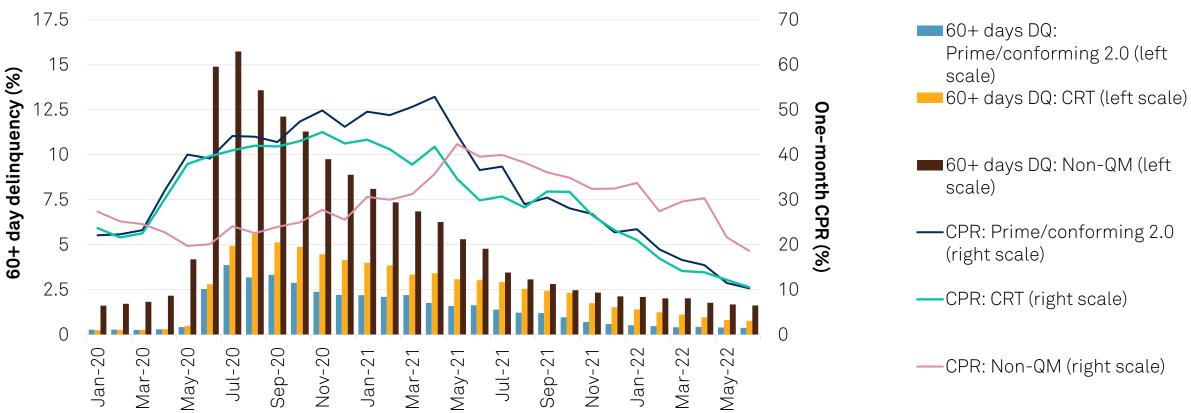
Source: S&P Global Ratings, Freddie Mac, FRED, and BLS. *Seasonally-adjusted.



Housing — RMBS Snapshot

RMBS 2.0 Transactions—One-Month CPR And 60+ Days DQ





DQ—Delinquency. CRT—Credit risk transfer. Non-QM—Non-qualified mortgage. CPR—Conditional prepayment rate. Source: S&P Global Ratings



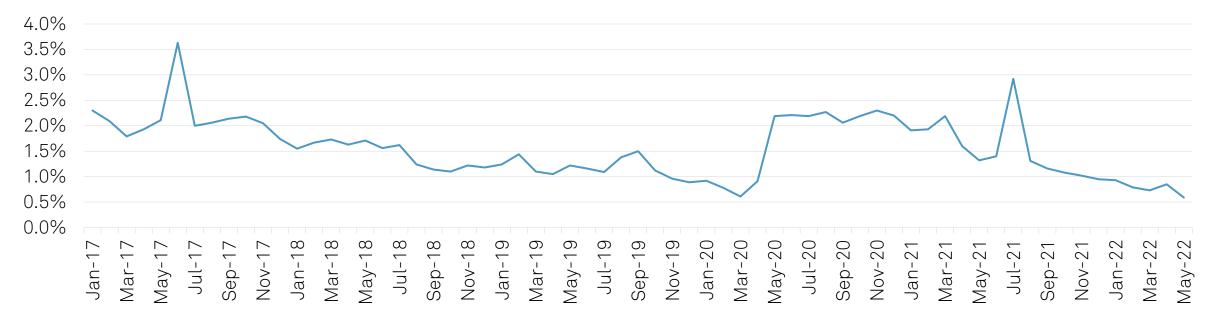
U.S. Non-Agency Multifamily CMBS



CMBS — Non-Agency Multifamily

- Multifamily properties are typically 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 (and now rising rates) 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 or increase rents and to lower multifamily delinquencies, which had increased from historically low levels due to the pandemic.

Multifamily 60+ Day Delinquency Rates

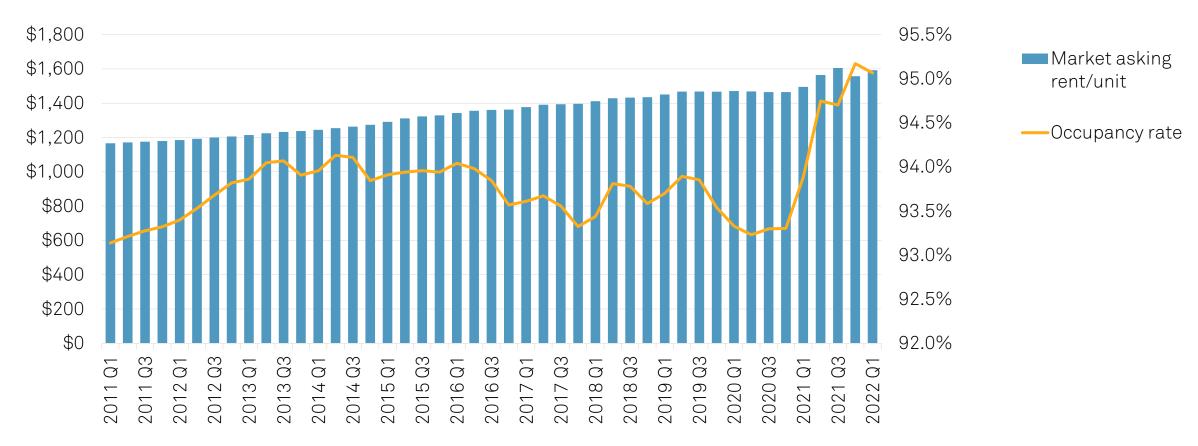


Source: S&P Global Ratings.



CMBS — Non-Agency Multifamily

Multifamily Market Asking Rent And Occupancy Rate



Source: CoStar.



Ratings Trend

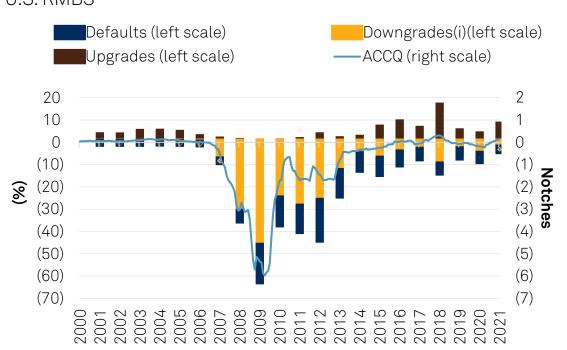


Ratings Trend — U.S. ABS And RMBS

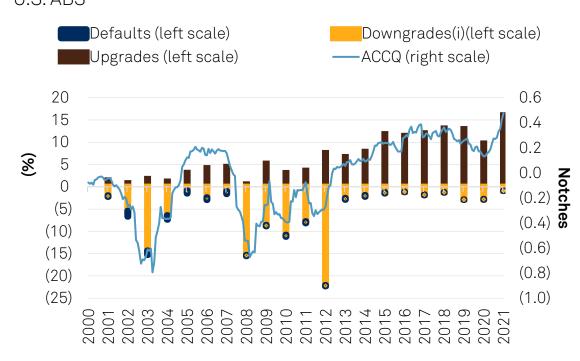
 Although net ratings migration for U.S. structured finance securities turned negative during the pandemic, the scale of rating decline for the U.S. ABS and RMBS sectors has been limited. ABS remains positive overall, while RMBS turned positive following modest declines over the two-year period ended July 2021.

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

U.S. RMBS U.S. ABS



(i)Excluding defaults. ACCQ—Average change in credit quality. Securities whose ratings migrated to 'NR' (not rated) over the period are classified based on their rating prior to 'NR'. Source: S&P Global Ratings Research.



(i)Excluding defaults. ACCQ—Average change in credit quality. Securities whose ratings migrated to 'NR' (not rated) over the period are classified based on their rating prior to 'NR'. Source: S&P Global Ratings Research.



Conclusion And Forecasts



Base Case Scenario

Q2 2022: 12-Month North American Structured Finance Forecasts

	Collateral performance	Rating trends
Residential mortgages		
RMBS	Somewhat Weaker	Stable
RMBS - Servicer Advance	Somewhat Weaker	Stable
Asset-backed securities		
ABS - Prime Auto Loans	Stable	Stable to Positive
ABS - Subprime Auto Loans	Somewhat Weaker	Stable to Positive
ABS -Auto Lease	Stable	Stable
ABS - Auto Dealer Floorplan	Stable	Stable
ABS - Credit Cards	Somewhat Weaker	Stable
ABS - Unsecured Consumer Loans	Somewhat Weaker	Stable to Negative
ABS - FFELP Student Loan	Somewhat Weaker	Stable
ABS - Private Student Loan	Stable	Stable
ABS - Commercial Equipment	Stable	Stable
Asset-backed Commercial Paper	Stable	Stable

- North American structured finance basecase collateral performance and rating trends remain generally stable, buoyed by a strong labor market and healthy consumer and corporate balance sheets.
- Sustained inflation could hurt both consumer and commercial sectors, especially those that can't easily pass on price increases over time. In addition, recession risk is rising, particularly for 2023, and new issuance has been somewhat choppy, most notably for longer duration sectors, amid wider spreads.

Source: S&P Global Ratings.



Conclusion — Base-Case And Downside Consideration

- In our base case, S&P Global Economics' qualitative assessment of the risk of recession in the next 12 months is now 40% (within a 35%-45% range)—with the risk greater in 2023.
- With economic pressures worsening as the Fed tightens the screws, we now expect unemployment to top 4.3% by year-end 2023 and climb to over 5.0% by year-end 2025.
- S&P Global Economics has introduced a downside macroeconomic case with a one-third probability. This scenario is anchored in two themes: persistently high inflation and continued energy market dislocation (See Global Credit Conditions Q3 2022: Resurfacing Credit Headwinds, published June 30, 2022).
 - The downside case calls for inflation to remain elevated in 2022 at 8.5% before falling to 4.8% in 2023 and 2.5% in 2024 as economic growth slows from tighter financial conditions. Unemployment is expected to rise from below 4% in 2022 to 6.0% in 2023 and 7.2% in 2024.
 - Our assessment of the impact of the downside case on consumer ABS suggests considerable ratings resiliency given enhancements following Global Financial Crisis of 2008-2009

Conclusion Continued — Base Case And Downside Consideration

- The credit card sector is dominated by bank cards with strong financial profiles, very high account seasoning and ratings supported by base case loss expectations that are significantly above current credit quality trends, leaving room for deterioration in credit as implied by the downside case for current rating levels.
- Although the impact on home prices may be muted due to the continued undersupply in the housing market, with interest rates up and unemployment expected to rise, we expect to see higher delinquencies, especially in non-QM, for which adjustable-rate mortgages are more prevalent. This could affect transactions differently depending on specific structural features and protections. Potential negative rating trends are most likely to impact less seasoned non-investment grade tranches as the period of heighted unemployment may be longer in this downside case even if the peak level is modest relative to pandemic experience.
- Other leading segments of consumer ABS, such as auto loan and credit card sectors, appear well positioned entering a weaker economy forecast under the downside case. Consumer balance sheets are generally healthy heading into weaker economic environment.
- While speculative grade ratings are most exposed to higher unemployment and economic weakness, they are largely confined to the subprime auto loan sector, in which historically high recovery rates are likely to offset a material portion of higher losses over the next 12 months.

Analytical Contacts

James Manzi

james.manzi@spglobal.com

+1-202-383-2028

Tom Schopflocher

tom.schopflocher@spglobal.com

+1-212-438-6722



Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output thereform) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED, OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses, and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw, or suspend such acknowledgement at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal, or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.spglobal.com/ratings (free of charge) and www.spglobal.com/ratings (subscription) and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.spglobal.com/ratings/usratingsfees.

Australia: S&P Global Ratings Australia Pty Ltd holds Australian financial services license number 337565 under the Corporations Act 2001. S&P Global Ratings' credit ratings and related research are not intended for and must not be distributed to any person in Australia other than a wholesale client (as defined in Chapter 7 of the Corporations Act).

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.

spglobal.com/ratings

