Moody's Analytics

ANALYSIS
DECEMBER 2022

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Increased Uncertainty for Auto Leases

Introduction

Used-car prices in the U.S. are falling thanks to multiple factors: Car-supply shortages have eased, gas prices have risen, and high interest rates make it difficult to buy a car with credit. Further, on the supply side, U.S. production is almost at its pre-pandemic level, lagging only 5% from its 2019 average. However, one important part of vehicle supply—lease returns—will remain suppressed.

Increased Uncertainty for Auto Leases

BY ARMAN MKHITARYAN AND DAVID FIELDHOUSE

Used-car prices in the U.S. are falling thanks to multiple factors: Car-supply shortages have eased, gas prices have risen, and high interest rates make it difficult to buy a car with credit. Further, on the supply side, U.S. production is almost at its pre-pandemic level, lagging only 5% from its 2019 average. However, one important part of vehicle supply—lease returns—will remain suppressed.

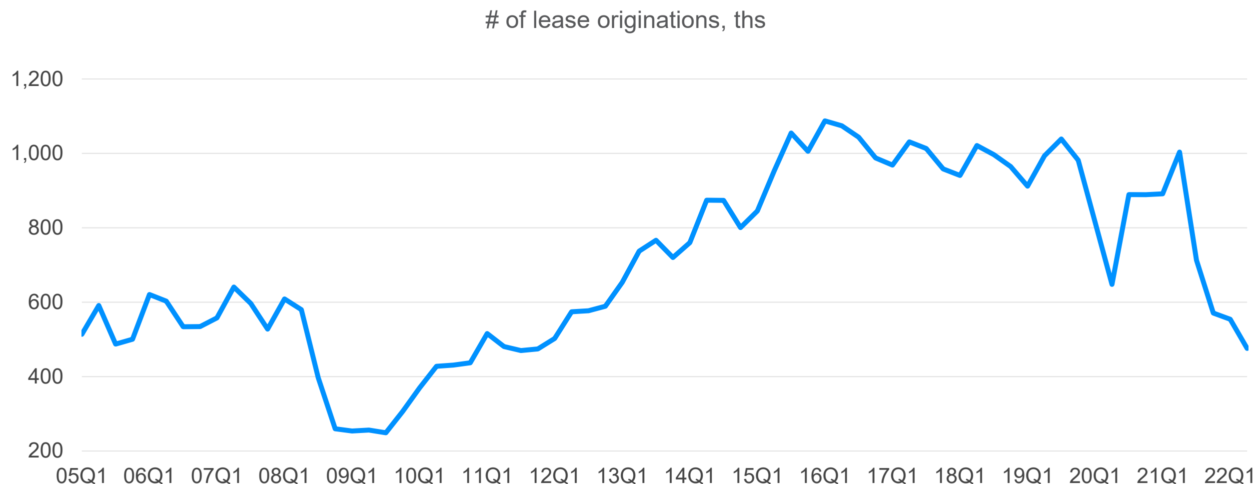
Unbalanced supply and demand increase the risk that a contract might be mispriced. Pre-pandemic, lease returns were a reliable source of vehicles as lessees typically opted to return vehicles. In the onset of the pandemic, return rates dropped dramatically for all types of leases as borrowers decided to buy vehicles at a substantial discount. With prices decreasing, lessors need to be cautious to avoid a flood of returns. If prices depreciate too quickly for one brand, lessors will be stuck with too much inventory, putting downward price pressure for that brand.

With high prices, manufacturers dramatically reduced lease supply, as they found it more profitable to sell the vehicles outright. During the pandemic, the lease market share in all retail vehicle sales declined as captives stopped the practice of lease subvention. According to Fleet Financials, the share dropped from its peak of 34% in February 2019 and is forecast to be around 19% or lower based on current trends in 2022. The number of lease maturities from 2023 to 2025 is expected to be 2.5 million fewer than the total maturities in the previous three years (see Chart 1).

One factor affecting lessees' decisions is the contractual residual value of the vehicle. As shown in Chart 2, contractual residual values hardly moved. Residual values of leased cars declined to 56% in 2016 and increased to only 63% in 2022. Since the magnitude of changes in residual values (around 17% since 2019) does not keep up with changes in used-car prices (around 50%), it suggests that lessors have a conservative approach to predicting future car prices. Also, if they increase contractual values too much, used-car prices may not rise to those levels. Thus, lessees would return the cars at the end of the lease contract and lessors would have to liquidate those vehicles at lower-than-expected prices and incur losses. If used-vehicle prices fall more quickly than expected, lessors would be encouraged to decrease their contractual residual values to minimize the return rate and, hence, their losses.

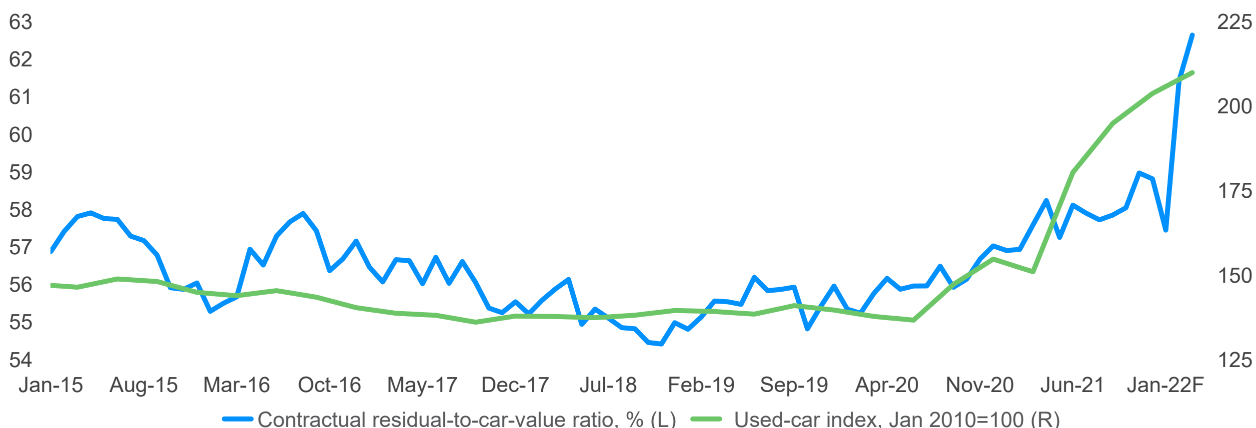
Chart 3 depicts the forecast of the Moody's Vehicle Retention Value Index, which represents the actual value of vehicles relative to the MSRP. The index shows how well the vehicle retains its initially assessed value. We see that the index resembles the used-car price index, which jumped more than 50% in the past two

Chart 1: Lease Originations Plummet



Sources: CreditForecast, Moody's Analytics

Chart 2: Contractual Residual Values Barely Budge

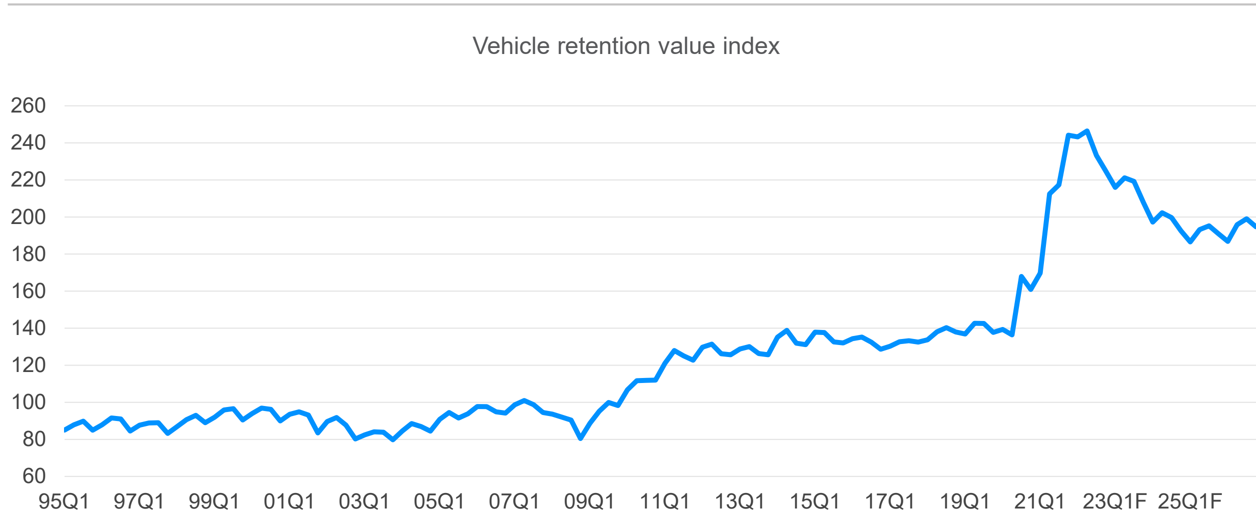


Source: Moody's Analytics

years. However, we expect the index to revert to its pre-pandemic trend under our baseline scenario. This scenario assumes a balanced oil market with dropping oil prices and the U.S. economy reaching a 3.5% unemployment rate, with the inflation rate being persistently higher than its pre-pandemic level. We assume car prices will decline by 13% by the end of 2023.

Moody's Analytics Auto Portfolio Analyzer for Auto Leases is an analytical platform to measure the credit and residual value risk of auto lease portfolios using quantitative models. We used Auto Portfolio Analyzer to perform the analysis and forecasting of the risk metrics in this paper. The auto lease data used to conduct the analysis comprise structured auto lease contracts spanning March 2017 to June 2022.

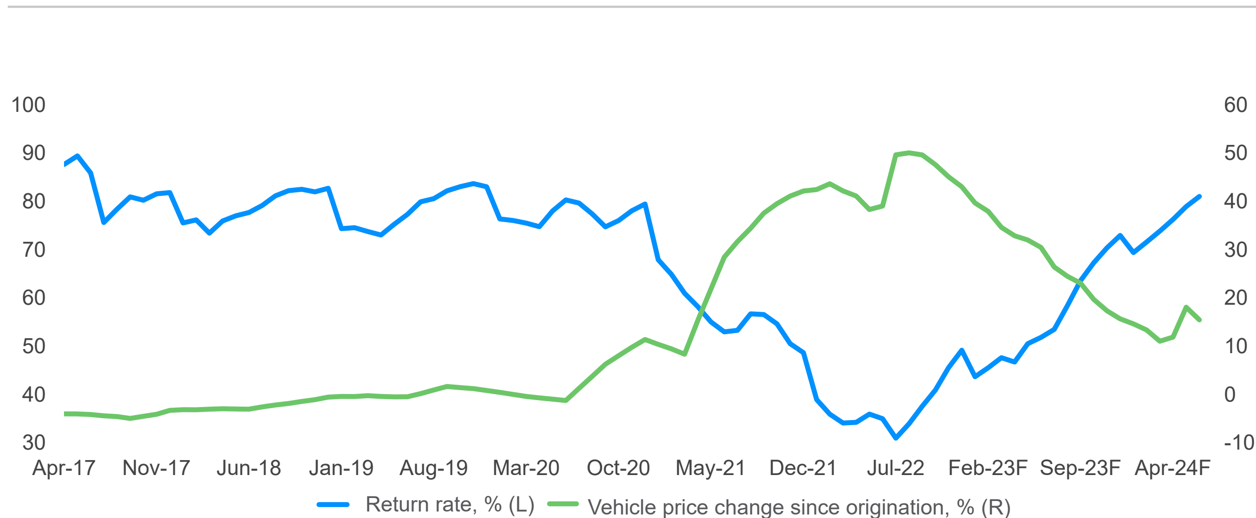
Chart 3: Vehicle Retention Values Returning to Normal



Source: Moody's Analytics

In an environment of decreasing used-car prices, lessors face residual value risk, which occurs when the car is returned at the end of the lease term and the lessor incurs losses when liquidating the car at lower prices. The return rates are usually quite high, around 75%. But with used-car prices jumping in the past 18 months, lessors have experienced much lower return rates, reaching 10% in mid-2022, as lessees exercise their option to purchase the car at a much lower price compared with current market prices (see Chart 4). Those numbers are expected to reverse, reaching 80% to 90% under our baseline scenario, as used-car prices decline.

Chart 4: Return Rates Bottom Out

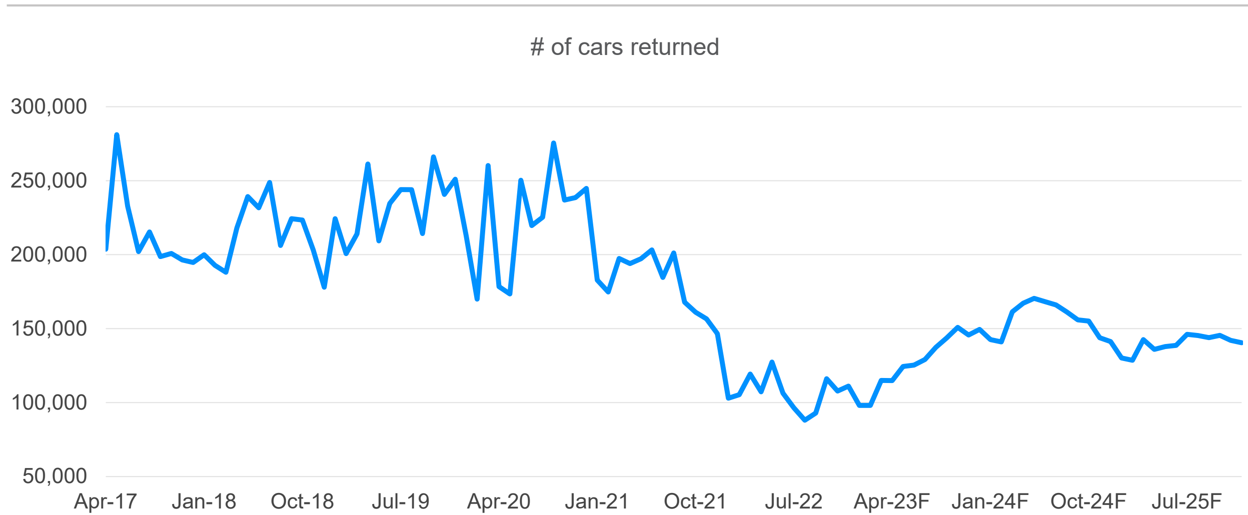


Source: Moody's Analytics

To get a better view of how those return rates translate into the number of cars returned monthly, we apply the return rate to the number of projected terminated leases in the U.S. from CreditForecast.com. Chart 5 shows that the pre-pandemic level of vehicle returns was quite high, reaching 2.8 million units in 2019.

The number of returned cars is expected to reach 1.8 million in 2024 after bottoming at 1.2 million as of November 2022. Because CreditForecast.com covers consumer leases, the true number of returned cars is expected to be higher when fleet and commercial leases are included.

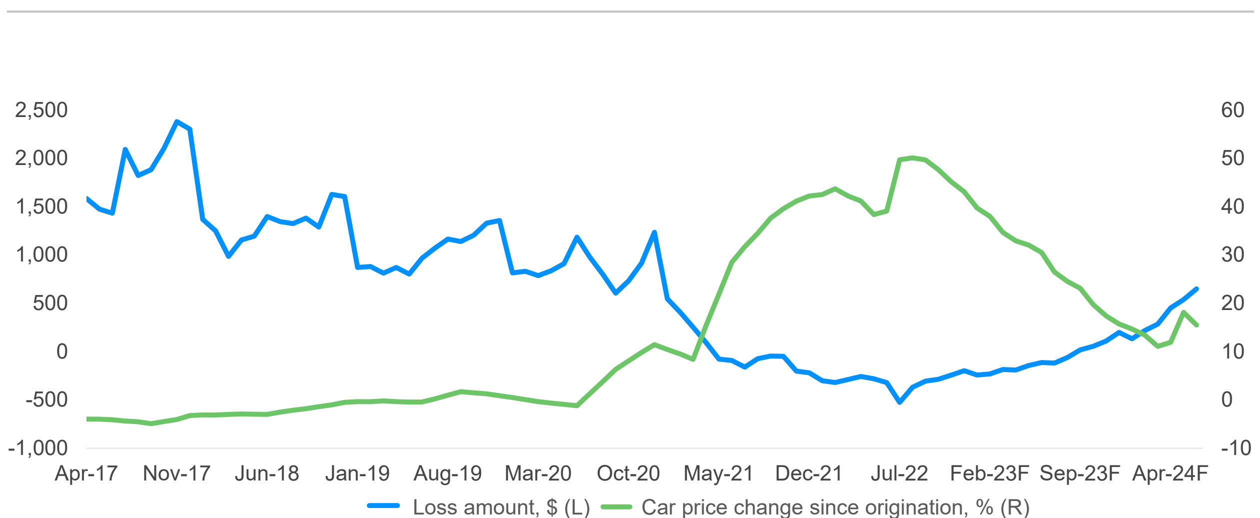
Chart 5: Lease Returns Set to Grow



Sources: CreditForecast, Moody's Analytics

When return rates increase, so do car loss amounts, which account for residual value risk in addition to credit risk. Chart 6 shows that, historically, loss rates decreased because of increasing car prices, even reaching negative values in recent quarters, which translated into gains for lessors. This means lessors were able to liquidate returned vehicles for prices higher than their residual values. However, as car prices are expected to decrease in upcoming years, the trend will reverse and losses will start to accumulate. These losses are forecast to be just below their pre-pandemic levels on average in the next three years.

Chart 6: Lessors Will Soon Lose Out on Returns

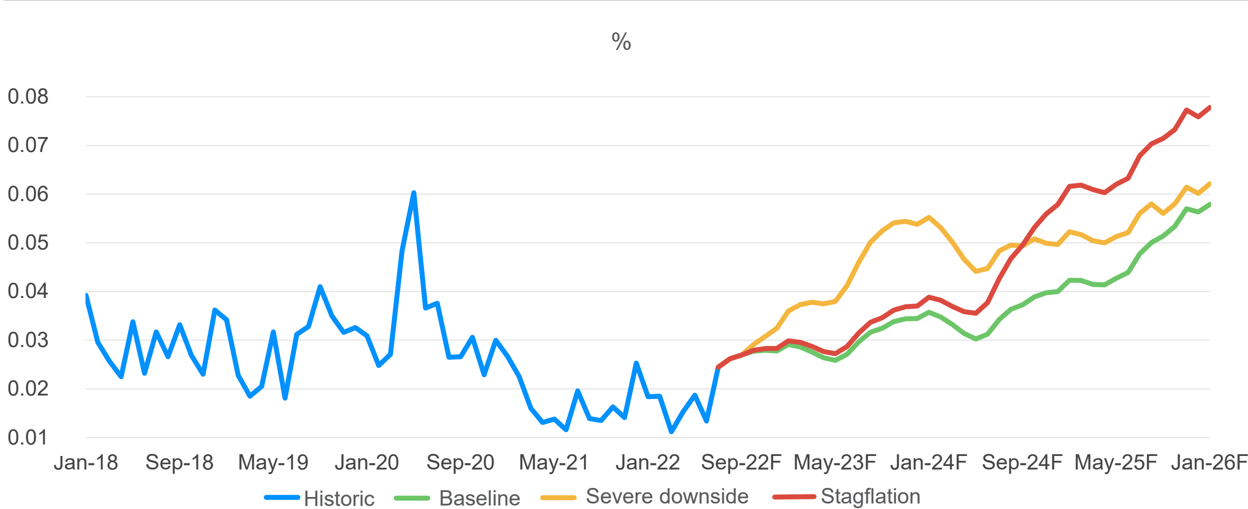


Source: Moody's Analytics

Lessors can reduce their losses with a residual value insurance contract that covers lessors' losses at the end of the lease contract when vehicle prices are much lower than at the beginning of the contract. This allows lessors to be immune to used-car price shifts when liquidating a vehicle. Since the beginning of 2022, RVI claims are rising, indicating that lessors are bearing losses and covering them with RVI insurance contracts.

In addition to residual value risk, lessors also bear credit risk when lessees default on the monthly payment terms of their lease. Lessors, in this case, need to liquidate the vehicle to cover their losses. Using the Moody's Analytics Auto Portfolio Analyzer platform, we provide default rate predictions for the upcoming years in Chart 7. Our severe downside scenario assumes unemployment peaks at 9% by early 2024 with rising inflation due to shortages of many goods. Here, we assume car prices decline 18% by the end of 2023. Our stagflation scenario assumes that the Russian invasion of Ukraine will persist, keeping oil prices elevated and inflation climbing; the unemployment rate reaches 4% in 2023; and the Federal Reserve continues interest rate hikes, reaching 100 basis points above the baseline level by early 2024. In this scenario, car prices are expected to drop at a faster rate than in the baseline scenario, dropping 5% by the end of 2024.

Chart 7: Default Rates Projected to Rise



Source: Moody's Analytics

Historical default rates for leased vehicles are around 0.03%, with their peak in mid-2020 at 0.06%. The default rate forecast is gloomy for the lease market; even under the baseline scenario, the default rate is expected to reach 0.06% within the next four years. Under the stress scenarios that assume a severe downturn and stagflation, the values are much higher, reaching 0.08%.

Economic and financial growth has been turbulent in recent years. With rising oil prices, unprecedented high inflation, and future uncertainty, global financial markets are being put to the test. For the auto lease market, influencing factors have included tightening monetary policy, higher prices for oil, and escalating vehicle prices. Those factors shifted the auto lease market, affecting both credit and residual value risks.

Residual value risk—driven by losses incurred at the end of a lease contract—looked promising in the past few quarters because increasing vehicle prices meant fewer cars were returned and lessors were able to

liquidate them at higher prices, locking in profits. However, because this trend is expected to reverse, as car prices drop, lessors may bear more losses.

In addition, default losses may put lessors under more pressure. As the Fed hikes interest rates to combat inflation, default risk may become of greater concern to lessors. Lessors should try to minimize their credit risk by, for example, tightening lending to only highly creditworthy lessees to avoid lease contract default, especially given the possibility of a recession. To reduce residual value risk, lessors should align contractual residual values with anticipated economic and market conditions. This will induce fewer returns at the end of contracts and reduced financial losses for lessors.

About the Author

Arman Mkhitaryan is an associate economist for Moody's Analytics in the Prague office. Arman contributes to projects focused on IFRS 9 and stress-testing including data preparation, model development, validation and documentation. After graduation from Russian-Armenian University in 2016 with a bachelor's degree in economics, Arman began work as a financial analyst at SCDM Armenia. While working there he passed the CFA Level I exam. Afterwards he moved to Prague to pursue his master's studies at Charles University with a major in economics and finance. During his studies, Arman worked at WOOD & Company as an equity intern and at Eurex Clearing as a risk analyst.

David Fieldhouse is a Director in the Content, Economics and Structured Analytics Division of Moody's Analytics. His responsibilities include developing and validating models of retail loan performance for financial institutions. He also provides regular analysis and commentary on consumer credit markets. David has a PhD from the University of Western Ontario.

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