S&P Global
Ratings

Research

Presale:

Carvana Auto Receivables Trust 2024-P1

March 6, 2024

PRIMARY CREDIT ANALYST

Henry Thompson
Toronto
+1 416 507 3202
henry.thompson@spglobal.com

SECONDARY CONTACTS

Sanjay Narine, CFA
Toronto
+ 1 (416) 507 2548
sanjay.narine@spglobal.com

Jenna Cilento
New York
+ 1 (212) 438 1533
jenna.cilento@spglobal.com

Preliminary ratings

Class(i)	Preliminary rating	Type	Interest rate(ii)	Amount (mil. $)(ii)	Legal final maturity date
A-1	A-1+ (sf)	Senior	Fixed	43.97	April 10, 2025
A-2	AAA (sf)	Senior	Fixed	124.96	Aug. 10, 2027
A-3	AAA (sf)	Senior	Fixed	124.96	April 10, 2029
A-4	AAA (sf)	Senior	Fixed	72.78	March 11, 2030
B	AA (sf)	Subordinate	Fixed	13.79	May 10, 2030
C	A+ (sf)	Subordinate	Fixed	6.90	July 10, 2030
D	BBB+ (sf)	Subordinate	Fixed	6.70	March 10, 2031
N(iii)	BB+ (sf)	N/A	Fixed	11.00	March 10, 2031

Note: This presale report is based on information as of March 6, 2023. The ratings shown are preliminary. This report does not constitute a recommendation to buy, hold, or sell securities. Subsequent information may result in the assignment of final ratings that differ from the preliminary ratings. (i)Class XS notes will be issued, which are unrated and may be retained or sold in one or more private placements. (ii)The actual interest rate and amount for each class will be determined on the pricing date. (iii)The class N notes will be paid to the extent funds are available after the overcollateralization target is achieved, and they will not provide any enhancement to the senior classes. N/A--Not available.

Profile

Collateral	Prime auto loan receivables.
Originator, seller, administrator, and sponsor	Carvana LLC, indirectly owned by Carvana Co. (CCC+/Negative/--).
Depositor	Carvana Receivables Depositor LLC.
Issuer	Carvana Auto Receivables Trust 2024-P1.
Servicer	Bridgecrest Credit Co. LLC.
Backup servicer	Vervent Inc.
Grantor trust	Carvana Auto Receivables Grantor Trust 2024-P1.
Collateral custodian and indenture trustee	Computershare Trust Co. N.A. (BBB/Stable/--).
Owner trustee and grantor trust trustee	BNY Mellon Trust of Delaware.
Bank account provider	Wells Fargo Bank N.A. (A+/Stable/A-1).

Rationale

The preliminary ratings assigned to Carvana Auto Receivables Trust 2024-P1's (CRVNA 2024-P1) automobile asset-backed notes reflect:

- The availability of 13.94%, 11.15%, 9.33%, 5.99%, and 6.83% credit support (hard credit enhancement and haircut to excess spread) for the class A (class A-1, A-2, A-3, and A-4), B, C, D, and N notes, respectively, based on stressed cash flow scenarios. These credit support levels provide over 5.00x, 4.00x, 3.33x, 2.33x, and 1.73x coverage of our expected cumulative net loss (ECNL) of 2.30% for the class A, B, C, D, and N notes, respectively (see the Credit Enhancement And Collateral and the Cash Flow Modeling Assumptions And Results sections below).
- The expectation that under a moderate ('BBB') stress scenario (2.00x our expected loss level), all else being equal, our preliminary 'AAA (sf)', 'AA (sf)', 'A+ (sf)', 'BBB+ (sf)', and 'BB+ (sf)' ratings on the class A, B, C, D, and N notes, respectively, are within our credit stability limits (see the Cash Flow Modeling Assumptions And Results section below).
- The timely interest and principal payments by the designated legal final maturity dates under our stressed cash flow modeling scenarios, which we believe are appropriate for the assigned preliminary ratings.
- The collateral characteristics of the series' prime automobile loans, our view of the credit risk of the collateral, and our updated macroeconomic forecast and forward-looking view of the auto finance sector (see the Credit Enhancement And Collateral and the Macroeconomic And Auto Finance Sector Outlook sections below).
- The series' bank accounts at Wells Fargo Bank N.A. (Wells Fargo), which do not constrain the preliminary ratings.
- Our operational risk assessment of Bridgecrest Credit Co. LLC (Bridgecrest) as servicer, as well as the backup servicing agreement with Vervent Inc. (Vervent).
- Our assessment of the transaction's potential exposure to environmental, social, and governance (ESG) credit factors, which are in line with our sector benchmark.
- The transaction's payment and legal structures.

Our ECNL for CRVNA 2024-P1 is 2.30%, which is unchanged from CRVNA 2023-P5. It reflects:

- CRVNA's outstanding series, which continue to perform in line with or better than our initial expectations (see the Carvana transaction performance section below).
- Our view that the CRVNA 2024-P1 collateral characteristics are comparable to those of CRVNA 2023-P5 (see table 2).
- Our forward-looking view of the economy and auto finance sector, including our macroeconomic outlook for persistent inflation and slower economic growth.

Environmental, Social, And Governance

Our rating analysis considers a transaction's potential exposure to ESG credit factors. For the auto ABS sector, we view the exposure to environmental credit factors as above average, to social credit factors as average, and to governance credit factors as below average (see "ESG Industry Report Card: Auto Asset-Backed Securities," published March 31, 2021).

The transaction's exposure to ESG credit factors is in line with our sector benchmark. Environmental credit factors are generally viewed as above average, given that the collateral pool primarily comprises vehicles with internal combustion engines (ICEs), which emit pollutants that contribute to climate transition risks. While the adoption of electric vehicles and future regulation could in time lower ICE vehicle values, we believe that our current approach to evaluating recovery and residual values adequately account for vehicle values over the transaction's relatively short, expected life. As a result, we have not separately identified this as a material ESG credit factor in our analysis.

Credit Enhancement And Collateral

Structural changes from CRVNA 2023-P5

- Total initial hard credit enhancement decreased for the class A, B, and C notes to 7.45%, 3.95%, and 2.20%, respectively, from 8.05%, 4.70%, and 2.60%, and remains unchanged for the class D notes at 0.50%.
- Subordination decreased for the class A, B, and C notes to 6.95%, 3.45%, and 1.70%, respectively, from 7.55%, 4.20%, and 2.10%.
- Target overcollateralization decreased to 0.20% from 0.35%.
- Pre-pricing excess spread increased to an estimated 6.17% per annum, down from 6.10% post-pricing.

The change in initial hard credit enhancement, in part, reflects structural optimization by the issuer. Our stressed cash flow analysis results indicate that each of CRVNA 2024-P1's classes is enhanced to the degree consistent with the assigned preliminary ratings (see the Cash Flow Modeling Assumptions And Results section below).

Table 1

Credit enhancement summary (%)

	CRVNA				
	2024-P1	**2023-P5**	**2023-P4**	**2023-P3**	**2023-P2**
Subordination(i)					
Class A	6.95	7.55	7.04	7.00	8.30
Class B	3.45	4.20	3.80	4.25	4.90
Class C	1.70	2.10	2.10	1.50	2.10
Class D	0.00	0.00	0.00	0.00	0.00
Class N	0.00	0.00	0.00	0.00	0.00
Overcollateralization(i)					
Initial	0.00	0.00	0.00	0.00	0.00
Target	0.20	0.35	0.35	0.35	0.35
Floor	0.20	0.35	0.35	0.35	0.35
Reserve fund(i)					
Initial	0.50	0.50	0.50	0.50	0.50

Table 1

Credit enhancement summary (%) (cont.)

	CRVNA				
	2024-P1	2023-P5	2023-P4	2023-P3	2023-P2
Target	0.50	0.50	0.50	0.50	0.50
Floor	0.50	0.50	0.50	0.50	0.50
Total initial hard credit enhancement(i)					
Class A	7.45	8.05	7.54	7.50	8.80
Class B	3.95	4.70	4.30	4.75	5.40
Class C	2.20	2.60	2.60	2.00	2.60
Class D	0.50	0.50	0.50	0.50	0.50
Class N(ii)	0.30	0.30	0.30	0.30	0.30
Estimated excess spread per year(iii)	6.17	6.10	5.85	6.15	6.12

Note: Class A represents classes A-1, A-2, A-3, and A-4, collectively. (i)Percentage of the initial collateral pool balance. (ii)For CRVNA 2024-P1 and the other series where the class N was issued, the class N enhancement is from the class N reserve account, which is 0.30% of the initial pool balance and is available solely to pay class N interest and principal. (iii)Pre-pricing for series 2024-P1 and post-pricing for all other series. CRVNA--Carvana Auto Receivables Trust. N/A--Not applicable.

Collateral changes

The collateral changes for CRVNA 2024-P1's pool (March 3, 2024, cutoff date) from CRVNA 2023-P5's pool include:

- The percentage of loans that have not made a payment decreased to 34.44% from 56.38%.
- The percentage of loans with deal scores of 80 to 100 increased to 45.32% from 43.24%.
- The percentage of loans with an original term of 73-75 months increased to 38.39% from 31.96%; those with 76-78 month term loans increased to 7.13% from 1.59%.

We believe the CRVNA 2024-P1 collateral pool is overall comparable to CRVNA 2023-P5 (see table 2). We have factored this into our expected loss for CRVNA 2024-P1 (see the S&P Global Ratings' Expected Loss section below).

Table 2

Collateral comparison(i)

	CRVNA				
	2024-P1	2023-P5	2023-P4	2023-P3	2023-P2
Collateral cutoff date	March 3, 2024	Dec. 3, 2023	Sept. 11, 2023	July 29, 2023	May 10, 2023
Pool size (mil. $)	394.06	212.97	237.63	310.32	412.77
No. of loans	16,267	8,859	9,808	12,758	17,881
Avg. principal balance ($)	24,225	24,040	24,228	24,323	23,084
WA APR (%)	13.05	12.95	13.11	13.03	12.74
WA LTV ratio (%)	94.69	94.98	93.64	94.15	93.92
WA down payment (%)	14.69	14.57	15.59	16.59	16.69

Table 2

Collateral comparison(i) (cont.)

	CRVNA				
	2024-P1	**2023-P5**	**2023-P4**	**2023-P3**	**2023-P2**
WA original term (mos.)	72.43	71.83	71.89	71.97	71.90
WA remaining term (mos.)	71.23	71.02	71.43	70.56	69.79
WA seasoning (mos.)	1.20	0.82	0.46	1.41	2.11
Loans with original terms of 61-72 months (%)	49.27	61.02	61.37	61.91	63.15
Loans with original terms of 73-75 months (%)	38.39	31.96	32.91	31.97	30.98
Loans with original terms of 76-78 months (%)	7.13	1.59	1.02	1.80	1.58
WA deal score	74.46	73.88	74.02	73.31	72.39
Non-zero WA original FICO score	703	704	704	705	704
Loans with no FICO score (%)	0.52	0.54	0.43	0.46	0.52
Top five state concentrations (%)					
	TX=11.04	TX=10.82	TX=10.47	TX=10.88	TX=10.61
	CA=7.70	CA=7.68	CA=6.92	CA=7.80	CA=8.94
	GA=6.16	FL=6.39	GA=6.41	GA=6.52	FL=7.24
	FL=5.67	GA=6.21	FL=5.79	FL=6.00	GA=5.87
	AZ=5.26	AZ=5.27	AZ=5.21	AZ=5.58	AZ=5.55
Originator's credit grades--deal score					
50-59	29.34	30.26	27.70	23.44	24.14
60-79	25.34	26.50	29.97	39.54	42.63
80-100	45.32	43.24	42.33	37.01	33.23
S&P Global Ratings' original ECNL (%)	2.30	2.30	2.30	2.30	2.75

(i)All percentages are of the initial gross receivables balance. CRVNA--Carvana Auto Receivables Trust. WA--Weighted average. APR--Annual percentage rate. LTV--Loan-to-value. ECNL--Expected cumulative net loss. N/A--Not applicable.

Macroeconomic And Auto Finance Sector Outlook

In our analysis, we considered the economic data and forecasts outlined in table 3 and their baseline effect on collateral credit quality in determining our base-case expected loss level. Historically, changes in the unemployment rate have been a key determinant of charge-offs in the auto finance industry.

The U.S. economy has continued to outperform expectations. Better-than-expected growth has led us to raise our 2024 U.S. GDP forecast to 2.4% from 1.5%. Although this is slightly weaker than the 2.5% growth the U.S saw in 2023, the labor market remains sturdy, with strong job gains in both December 2023 and January 2024 and wage gains in most industries remaining above the inflation rate. Nonetheless, we expect unemployment to increase slightly to 3.9% this year from 3.6% in 2023 (see "U.S. Economic Forecast Update: A Sturdy Job Market Keeps Growth Going," published Feb. 21, 2024).

We are also closely watching the following developments:

- Consumers are showing signs of strain due to increased debt loads. The ratio for seriously delinquent auto loans is already at its highest level outside of recessionary periods, according to the Federal Reserve Bank of New York/Equifax credit data. This is driven primarily by the subprime segment, which represents about one-seventh of the total outstanding auto loan balance.
- Employment in the temporary help services sector was down 7.0% in January from a year ago. A decline of this magnitude has been a harbinger of weaker future demand for permanent workers.
- Student loan payments resumed in October 2023 and is putting upward pressure on debt service ratios. This could lead to even higher consumer delinquencies and charge-offs.

We believe, based on past economic cycles, that consumers for whom the vehicle is essential for work, will continue to prioritize their auto loan and lease payments before their other consumer and student loan payments. Furthermore, in the auto market, as new vehicle supply imbalances continue to ease, inventory levels rebuild, and manufacturer incentives increase, we expect used vehicle values to continue to normalize to historical levels.

Table 3

U.S. economic factors

	Actual	Forecast			
	2023	2024	2025	2026	2027
Real GDP (% year-over-year growth)	2.5	2.4	1.5	1.6	1.8
Unemployment rate (% annual average)	3.6	3.9	4.2	4.3	4.2
Consumer Price Index (CPI) (% annual average)	4.1	2.8	2.0	2.4	2.4

GDP--Gross domestic product. Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, and S&P Global Ratings Economics forecasts.

S&P Global Ratings' Expected Loss: 2.30%

We determined our expected loss for CRVNA 2024-P1 by analyzing:

- The outstanding series' performance (see table 6 and charts 4-6) and relative performance to peers (see chart 1);
- The managed portfolio's performance and origination static pool data and their relative performances (see table 5 and charts 2 and 3); and
- The series collateral characteristics relative to those of outstanding series (see table 2) and to a peer (see table 4).

We placed more emphasis on the series' performance as well as the origination static pool analysis when determining the expected loss for this series. We complemented this analysis with our forward-looking view of the economy and the auto finance sector (see the Macroeconomic And Auto Finance Sector Outlook section above).

Overall, we expect CRVNA 2024-P1 to experience lifetime cumulative net losses (CNLs) of 2.30%, unchanged from CRVNA 2023-P5.

Peer analysis

We compared Carvana's series' collateral pools with peers in the prime auto loan sector for which we have a similar expected CNL range. Notwithstanding collateral characteristics differences, we believe Carmax Auto Owner Trust prime series are generally the closest peers for the Carvana's prime series (see table 4). Based on our recent review of Carvana's outstanding prime series (see "Twenty-One Ratings Raised And 19 Affirmed On Seven Carvana Auto Receivables Trust Prime Auto ABS Transactions," May 30, 2023, and Carvana transaction performance below), we believe that Carvana's 2021 and early 2022 series are demonstrating relatively better performance than CarMax's at a similar point in time. Even when adjusted for differential in original term and paydown speed, on a pool factor basis, the performance of Carvana's series' are relatively better (see chart 1). We factored this relative performance and our expectation for future performance into our assessment when determining our ECNL for CRVNA 2024-P1.

Table 4

Carvana collateral comparison with peers(i)

	Series	
	CRVNA 2024-P1	**CarMax 2024-1**
Collateral cutoff date	March 3, 2024	Dec. 31, 2023
Pool size (mil. $)	394.06	1,565.66
No. of loans	16,267	81,506
Avg. principal balance ($)	24,225	19,209
WA APR (%)	13.05	10.90
WA original term (mos.)	72.43	65.35
WA remaining term (mos.)	71.23	57.96
WA seasoning (mos.)	1.20	7.38
Loans with original terms of 61-72 months (%)	49.27	56.68
Loans with original terms of 73-78 months (%)	45.52	0.00
Non-zero WA original FICO score	703	719
FICO score distribution (%)		
801+	13.05	19.94
701-800	34.43	36.23
601-700	45.82	35.86
Less than 601(ii)	6.70	7.96
Top five state concentrations (%)		
	TX=11.04	CA=16.28
	CA=7.70	TX=11.42
	GA=6.16	FL=8.16
	FL=5.67	GA=6.84
	AZ=5.26	VA=5.20

Table 4

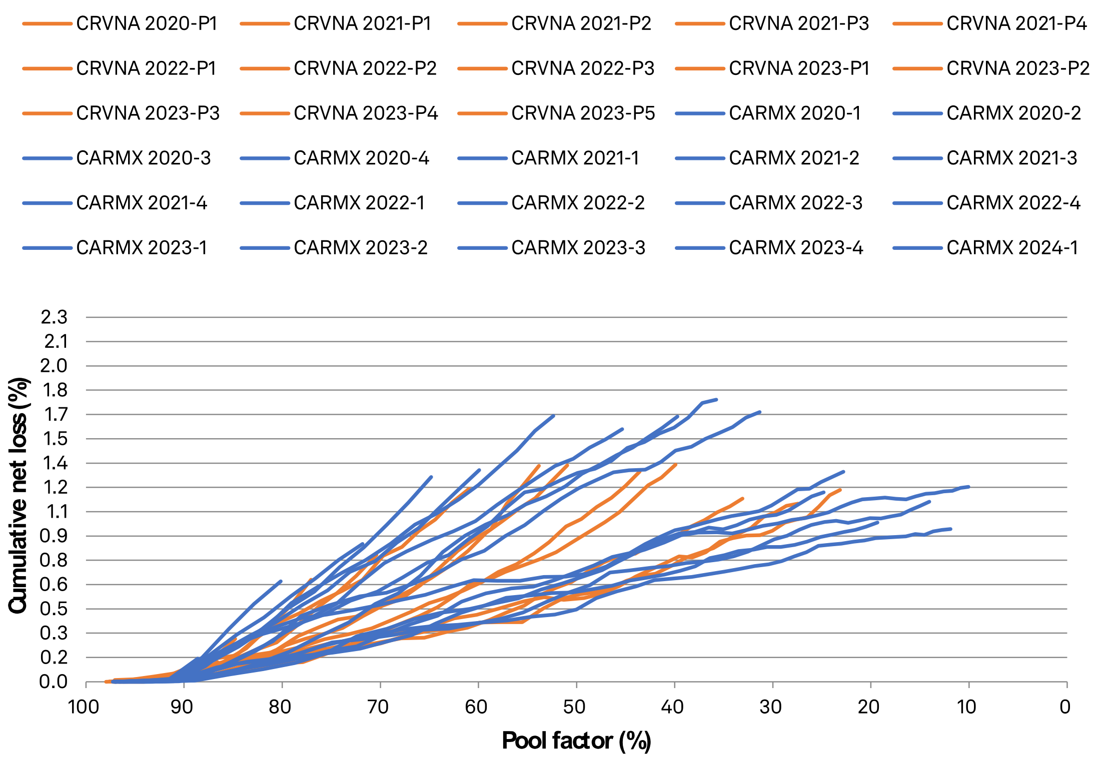
Carvana collateral comparison with peers(i) (cont.)

	Series	
	CRVNA 2024-P1	CarMax 2024-1
S&P Global Ratings' ECNL (%)	2.30	2.35

(i)All percentages are of the initial gross receivables balance. (ii)Includes loans without a FICO Score. CRVNA--Carvana Auto Receivables Trust. CarMax--CarMax Auto Owner Trust. WA--Weighted average. APR--Annual percentage rate. LTV--Loan-to-value. ECNL--Expected cumulative net loss. N/A--Not applicable.

Chart 1

Cumulative net losses by pool factor CRVNA vs. CarMax



Managed portfolio

As of Dec. 31, 2023, Carvana's prime portfolio comprised contracts totaling approximately $8.01 billion, a year-over-year increase of approximately 7.61% (see table 5). Total 31-plus-day delinquencies increased to 3.01% as of Dec. 31, 2023, from 1.83% for the same period the year prior. Net charge-offs as of Dec. 31, 2023, were 1.08%, up from 0.30% for the same period the year prior.

The managed portfolio performance is attributable to a normalization, given the expiration of federal stimulus programs, weaker recovery rates, and competitive conditions in auto sector, as well as recent economic headwinds including inflation.

Table 5

Managed portfolio data

	As of Dec. 31					
	2023	2022	2021	2020	2019	2018
Principal outstanding at end of period (mil. $)	8,012.29	7,446.00	5,690.53	2,719.22	1,532.86	731.52
Average month-end principal amount (mil. $)	7,725.21	6,851.67	4,200.05	2,094.89	1,144.66	516.05
Net charge-offs (mil. $)(i)	83.49	38.49	12.45	11.77	9.15	3.48
Net charge-offs (% average month-end principal)	1.08	0.56	0.30	0.56	0.80	0.67
Delinquencies (%)						
31-60 days	1.92	1.30	0.64	0.67	0.97	0.85
61-90 days	0.85	0.42	0.22	0.23	0.29	0.24
91-plus days	0.24	0.11	0.06	0.06	0.11	0.12
Total	3.01	1.83	0.92	0.96	1.37	1.21

(i)Does not include all repossession-related expenses.

Origination static pool analysis

To derive our base-case expected losses for CRVNA 2024-P1, we analyzed Carvana's static pool quarterly originations data from 2014 to 2023 by gross loss and net loss on the aggregate portfolio, and by deal score and FICO score. We developed a variety of loss timing curves based on different quarterly vintages to estimate potential losses on outstanding vintages.

We then calculated weighted average projected loss proxies by weighting each outstanding vintage month's projected loss by the origination dollar volume for the respective vintage. Then we computed a weighted average projected loss for the pool by weighting the loss proxies by the respective percentage of the current pool balance.

Chart 2

Origination cumulative net loss performance | deal score of 50+ | 2016-2018

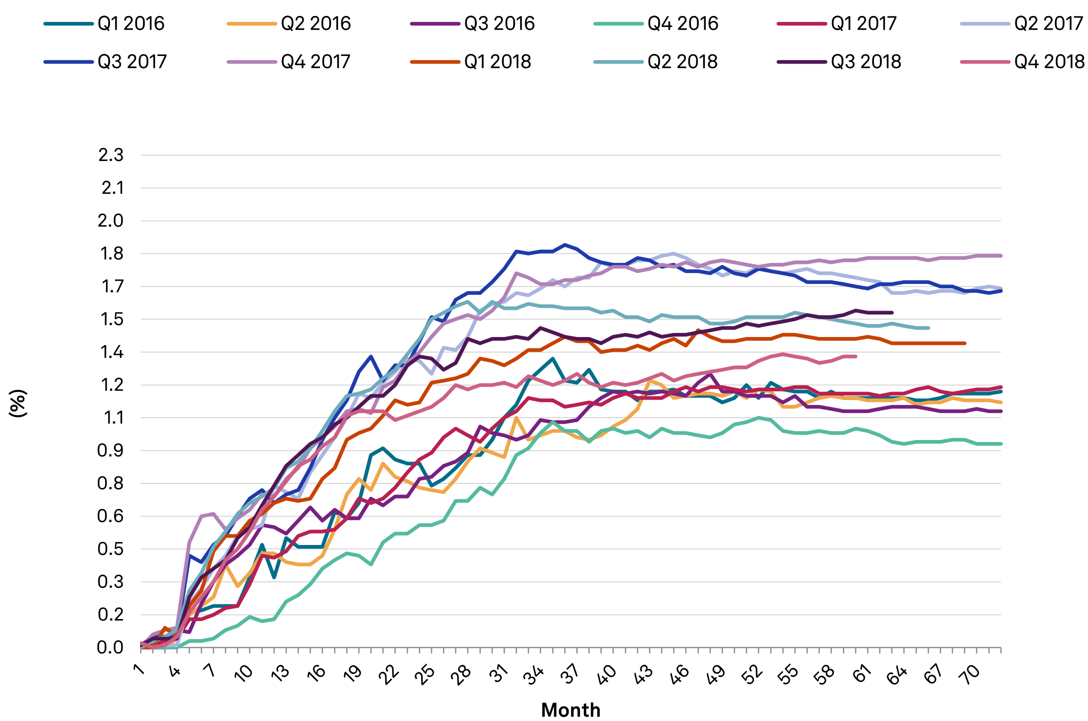
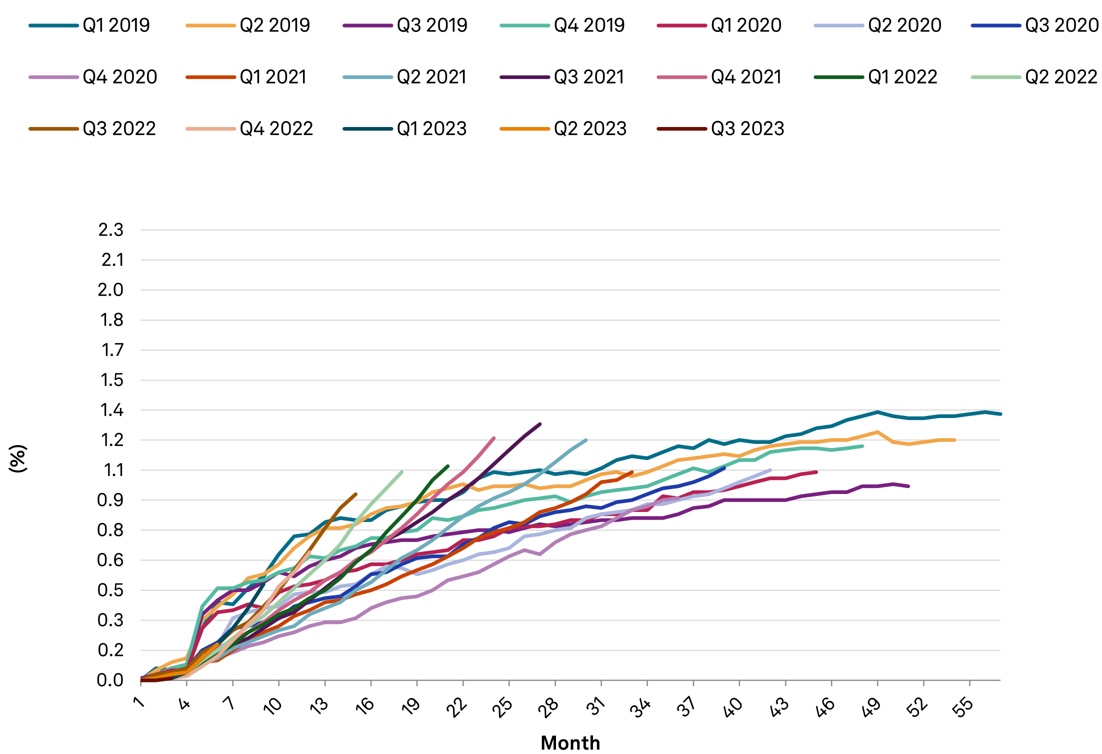


Chart 3

Origination cumulative net loss performance | deal score of 50+ | 2019-2023



Carvana transaction performance

S&P Global Ratings has outstanding ratings on 13 Carvana prime securitizations.. On May 30, 2023, we raised our ratings on 21 classes and affirmed our ratings on 19 classes from Carvana prime transactions (see "Twenty-One Ratings Raised And 19 Affirmed On Seven Carvana Auto Receivables Trust Prime Auto ABS Transactions," published May 30, 2023). Additionally, on Oct. 19, 2023, we raised our ratings on two classes and affirmed our ratings on four classes on one Carvana prime transaction (see "Carvana Auto Receivables Trust 2022-P3 Ratings Raised On Two Classes; Four Others Affirmed").

We believe that our revised or initial ECNLs for outstanding series continue to reflect our expectations for these transactions' future performance.

Table 6

CRVNA prime collateral performance and CNL expectations(i)

Series	Month	Pool factor (%)	Current CNL (%)	Current CRR (%)	60-plus-day delinq. (%)	Extension rate (%)	Initial expected CNL (%)	Revised expected CNL (%)(ii)
2020-P1	38	23.15	1.18	43.78	1.95	0.42	3.75	1.25

Table 6

CRVNA prime collateral performance and CNL expectations(i) (cont.)

Series	Month	Pool factor (%)	Current CNL (%)	Current CRR (%)	60-plus-day delinq. (%)	Extension rate (%)	Initial expected CNL (%)	Revised expected CNL (%)(ii)
2021-P1	35	27.43	1.10	45.16	1.70	0.35	3.60	1.25
2021-P2	32	33.08	1.13	44.24	1.83	0.45	3.60	1.50
2021-P3	29	39.91	1.34	38.42	1.86	0.51	2.75	1.75
2021-P4	26	43.57	1.30	36.62	1.70	0.43	2.75	1.75
2022-P1	23	50.95	1.34	34.49	1.52	0.38	2.75	2.15
2022-P2	21	53.84	1.33	30.26	1.60	0.40	2.75	2.15
2022-P3	17	60.96	1.19	30.63	1.25	0.34	2.75	2.75 (iii)
2023-P1	12	70.40	0.78	28.05	0.81	0.33	2.75	N/A
2023-P2	9	77.06	0.63	25.52	0.91	0.33	2.75	N/A
2023-P3	6	84.79	0.26	23.13	0.65	0.07	2.30	N/A
2023-P4	5	86.62	0.12	28.03	0.28	0.01	2.30	N/A
2023-P5	2	94.30	0.02	32.87	0.05	0.00	2.30	N/A

(i)Distribution as of February 2024. (ii)Revised in May 2023. (iii) revised in Oct. 2023. CNL--Cumulative net loss. CRR--Cumulative recovery rate. Delinq.--Delinquency. N/A--Not applicable.

Chart 4

CRVNA series cumulative net losses

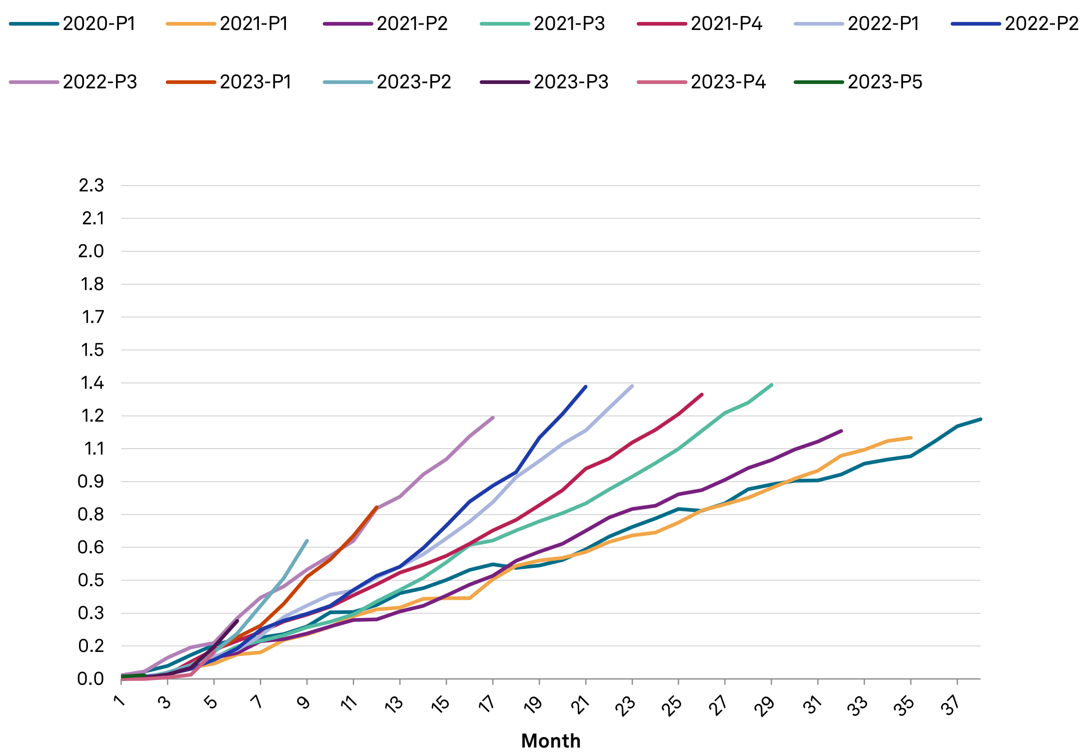


Chart 5

CRVNA series cumulative gross losses

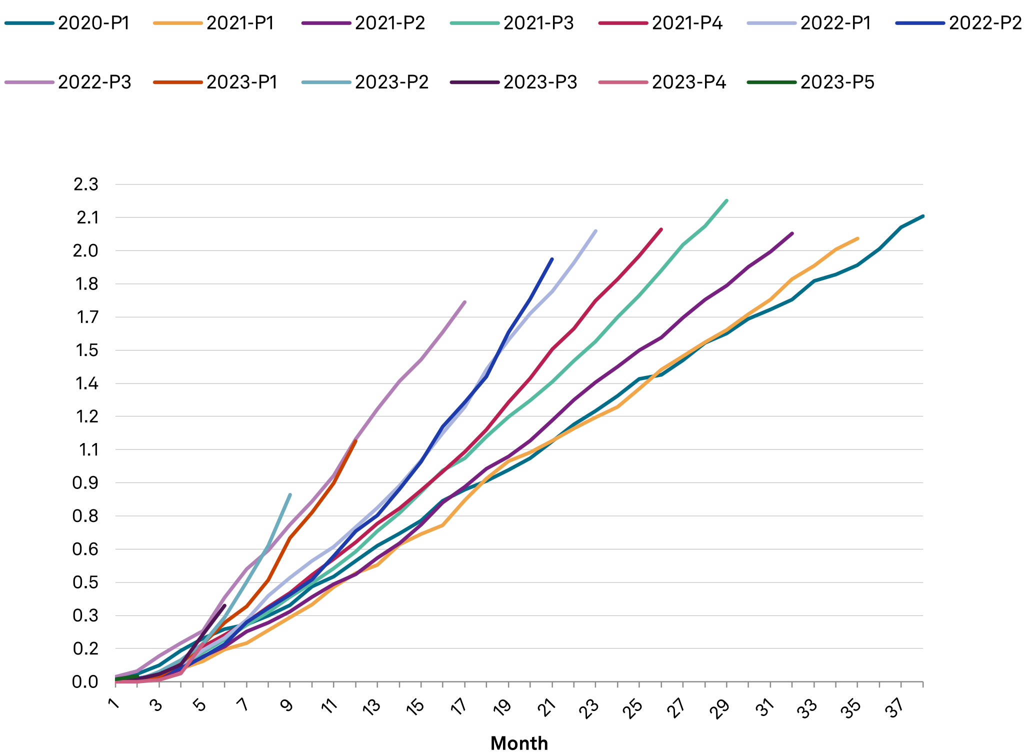
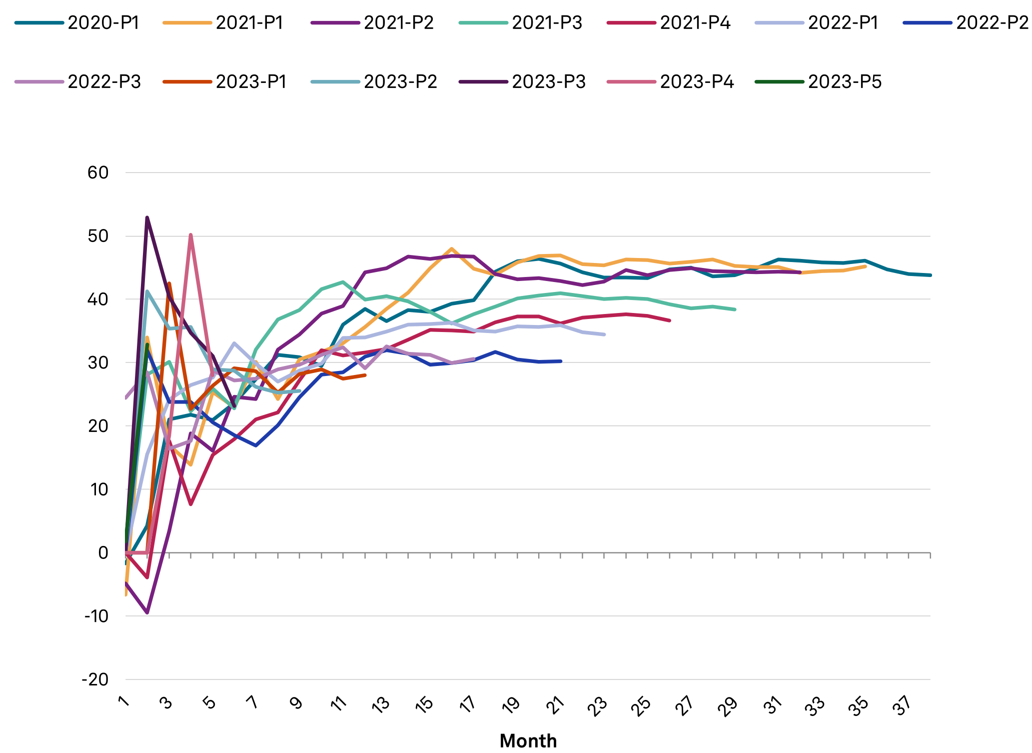


Chart 6

CRVNA series cumulative recovery rates



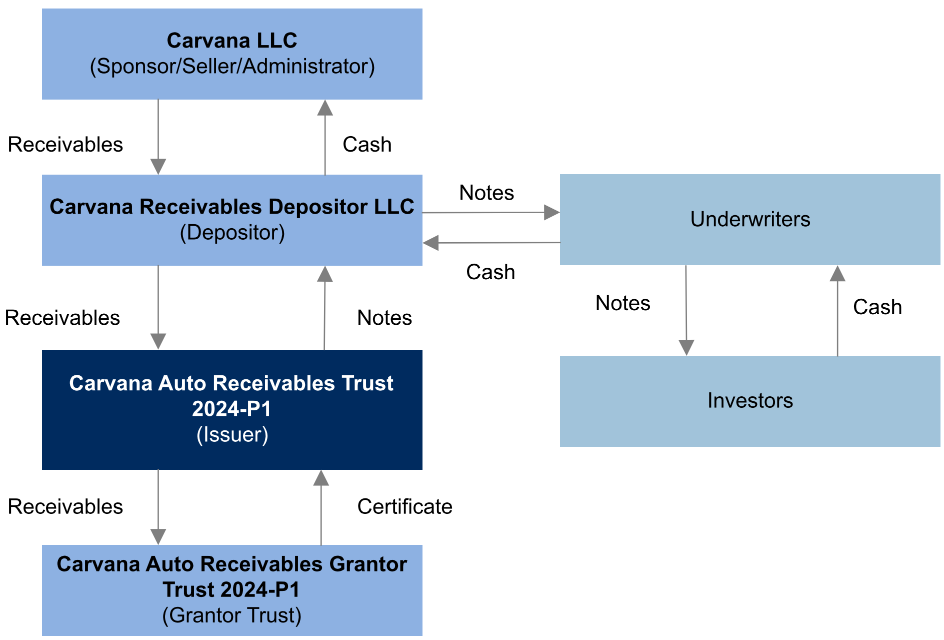
Legal Overview And Transaction Structure

Legal overview

CRVNA 2024-P1 is structured as a true sale of the receivables from Carvana to Carvana Receivables Depositor LLC, a Delaware limited liability company, which is a wholly owned subsidiary of the sponsor. The depositor will transfer the receivables to the issuing trust, CRVNA 2024-P1, in return for the notes and a certificate evidencing an undivided beneficial ownership in the issuing trust. The issuing trust will transfer its rights in the receivables to the grantor trust, Carvana Auto Receivables Grantor Trust 2024-P1, in return for a certificate of undivided beneficial ownership in the grantor trust. The grantor trust will pledge its rights in the receivables in favor of the indenture trustee for the noteholders' benefit. The depositor will sell the offered notes to the underwriters minus 5.00% of each class of notes, which will be retained by Carvana to satisfy its credit risk retention obligations, as sponsor.

Chart 7

Transaction structure



In rating this transaction, S&P Global Ratings will review the legal matters it believes are relevant to its analysis, as outlined in its criteria (see, "U.S. Structured Finance Asset Isolation And Special-Purpose Entity Criteria," published May 15, 2019). Specifically, in addition to certain other opinions, we request opinions of counsel that address risks related to insolvency in order to determine (A) that the transfer of receivables from Carvana LLC (Carvana) to Carvana Receivables Depositor LLC constitute a true sale of the assets as opposed to a secured loan and that (i) the receivables would not be the property of the Carvana bankruptcy estate under Title 11 Section 541 of the U.S. Bankruptcy Code and (ii) Section 362(a) of the Bankruptcy Code would not operate to stay payments by the servicer of collections on the receivables in accordance with the transaction's agreements; and (B) whether a court exercising bankruptcy jurisdiction would order substantive consolidation of the assets and liabilities of Carvana, and those of Carvana Receivables Depositor LLC, CRVNA 2024-P1, or Carvana Auto Receivables Grantor Trust 2024-P1. In reliance on these opinions, S&P Global Ratings bases its ratings of this transaction on the creditworthiness of the isolated assets, without regard to the current or future creditworthiness of the original owner of the assets, Carvana, indirectly owned by Carvana Co. (CCC+/Negative/--).

Transaction structure

CRVNA 2024-P1 incorporates the following structural features:

- A senior-subordinated sequential-pay structure in which the senior-most notes outstanding are paid first;
- Initial overcollateralization that starts at 0.00% and builds to a target of 0.20% of the initial

pool balance by using excess spread available after covering net losses, subject to a floor of 0.20% of the initial collateral pool balance;

- A non-amortizing reserve account amount that will equal 0.50% of the cutoff date pool balance as of the closing date; and
- Excess spread of approximately 6.17% (pre-pricing) per year.
- An optional clean-up call of 2.00% of the initial pool balance.

Class XS notes

The class XS notes are structured to receive payments based on the excess servicing strip amount--the difference between the servicing strip amount (1.00% times the pool balance on the first day of the collection period times 1/12) and the servicing fee (0.58% times the pool balance on the first day of the collection period times 1/12).

Class N notes

The class N notes are structured to receive interest and principal payments from available funds remaining after paying senior fees, interest, and principal to maintain the overcollateralization for the class A through D notes. The class N notes will have their own reserve account, which will be 0.30% of the initial pool balance and will be funded by an initial deposit from the depositor. The reserve will be used solely to pay the class N notes to the extent there are no available funds to pay interest and, in the case of the class N notes' final scheduled distribution date, principal on the class.

Payment Priority

Payment distributions before an event of default

On each payment date, before an acceleration of the notes, distributions will be made from available funds according to the payment priority outlined in table 7. In addition, the funds in the reserve account will be available to cover fees, expenses, and interest shortfalls and pay parity principal and principal due on the notes' final maturity date.

Table 7

Payment waterfall

Priority	Payment
1	The servicing strip amount (1.00% times the beginning pool balance times 1/12) for the related collection period will be used to pay the servicing fee, and any excess servicing strip amount will be distributed to the class XS notes.
2	Pro rata to the backup servicer, if it has replaced Bridgecrest Credit Co. LLC as servicer, any unpaid indemnity amounts and unpaid transition expenses capped at $150,000 for the calendar year; and to the indenture trustee, owner trustee, grantor trust trustee, administrator, collateral custodian, and independent accountant, any accrued and unpaid fees, expenses, and indemnities then due to each entity, provided that, in aggregate in any calendar year, those fees and expenses do not exceed $125,000 to the indenture trustee and collateral custodian, $75,000 combined to the owner trustee and grantor trust trustee, and $9,000 to the independent accountant and that, in any calendar year, and rating agency surveillance fees, paid pro rata, not to exceed $27,750 in the aggregate.

Table 7

Payment waterfall (cont.)

Priority	Payment
3	To the backup servicer, the backup servicing fee.
4	To the class A notes, the aggregate class A interest distributable amount for that distribution date.
5	The first-priority principal payment (if the class A notes' aggregate note principal balance is greater than the aggregate principal balance).
6	To the class B notes, the aggregate class B interest distributable amount for that distribution date.
7	The second-priority principal payment (if the class A and B notes' aggregate note principal balance is greater than the aggregate principal balance after making any first-priority principal payments).
8	To the class C notes, the aggregate class C interest distributable amount for that distribution date.
9	The third-priority principal payment (if the class A, B, and C notes' aggregate principal balance is greater than the aggregate principal balance after making any first- and second-priority principal payments).
10	To the class D notes, the aggregate class D interest distributable amount for that distribution date.
11	The fourth-priority principal payment (if the class A, B, C, and D notes' aggregate principal balance is greater than the aggregate principal balance after making any first-, second-, and third-priority principal payments).
12	To the reserve account, the amount necessary to fund the reserve account up to the reserve account required amount.
13	To the note distribution account, the noteholders' regular principal distributable amount for that distribution date to pay principal on the notes (other than the class N and XS notes).
14	To the class N notes, the aggregate class N interest distributable amount for that distribution date.
15	To the class N reserve account, the amount necessary to fund the class N reserve account up to the class N reserve account's required amount.
16	To pay the class N note principal distribution amount until it is paid in full.
17	Pro rata to the backup servicer, indenture trustee, collateral custodian, administrator, owner trustee, grantor trust trustee, rating agencies, and the independent accountant, any fees and expenses and indemnities then due and payable to each party that exceed the cap or annual limitation specified in item 2 above.
18	All remaining amounts to the certificateholders.

Class A--Collectively, class A-1, A-2, A-3, and A-4.

On each payment date, principal distributions will be made sequentially to the class A-1, A-2, A-3, A-4, B, C, and D notes until each class is paid in full, and then the amount deposited into the note distribution account according to item 16 in table 1 above will be applied to the class N notes until they are paid in full.

Events of default

The payment priorities outlined in table 7 can change if certain events of default occur and continue, including:

- A failure to pay interest on the controlling class;
- A failure to pay principal at final maturity (other than the class XS notes);
- The issuer's involuntary and voluntary bankruptcy; and

- A material breach of a covenant, agreement, representation, or warranty.

The senior-most outstanding class of notes is the controlling class. The class N and XS notes will never be the controlling class, as per the transaction documents.

Payment distributions after an event of default

If an event of default occurs, distributions will be made from available funds according to the payment priority outlined in table 8.

Table 8

Payment waterfall after an event of default

Priority	Payment
1	The servicing strip amount (1.00% times the beginning pool balance times 1/12) for the related collection period will be used to pay the servicing fee, and any excess servicing strip amount will be distributed to the class XS note.
2	Pro rata, to the backup servicer, indenture trustee, owner trustee, collateral custodian, administrator, and grantor trust trustee, any amount due to each entity, disregarding any caps or annual limitations.
3	To the backup servicer, the backup servicing fee.
4	To the class A notes, the aggregate class A interest distributable amount for that distribution date.
5	Principal to the extent necessary to reduce the class A-1 note balance to zero.
6	Pro rata, principal to the extent necessary to reduce the class A-2, A-3, and A-4 note balance to zero.
7	To the class B notes, the aggregate class B interest distributable amount for that distribution date.
8	Principal to the extent necessary to reduce the class B note balance to zero.
9	To the class C notes, the aggregate class C interest distributable amount for that distribution date.
10	Principal to the extent necessary to reduce the class C note balance to zero.
11	To the class D notes, the aggregate class D interest distributable amount for that distribution date.
12	Principal to the extent necessary to reduce the class D note balance to zero.
13	To the class N notes, the aggregate class N interest distributable amount for that distribution date.
14	Principal to the extent necessary to reduce the class N note balance to zero.
15	All remaining amounts to the certificateholders.

Class A--Collectively, class A-1, A-2, A-3, and A-4.

Cash Flow Modeling Assumptions And Results

In our cash flow analysis, we assess the availability of asset cash flows to meet the transaction's promised obligations under a variety of stress assumptions, while considering the transaction structure and available credit support. We also use our cash flow analysis in other aspects of our ratings analysis, including the testing of credit stability (sensitivity analysis) and legal final analysis.

Break-even analysis

For the CRVNA 2024-P1 transaction structure, we applied the assumptions outlined in table 9 in our cash flow analysis to simulate stress scenarios that we believe are appropriate for the assigned preliminary ratings. To assign a rating to a class, we consider the class's lower breakeven levels (the maximum net losses the class can withstand without defaulting) and generally expect it to be equal to or greater than the rating stressed scenario breakeven requirement.

Based on our stressed cash flows, the breakeven net loss results show that the class A, B, C, D, and N notes are credit-enhanced to the degree appropriate for the assigned preliminary ratings (see table 10).

Table 9

Breakeven cash flow assumptions

Voluntary ABS (%)	1.50
Servicing fee (%)	1.00
Recovery rate (%)	45.00
Charge-off and recovery lag (mos.)	4
CNL timing mos. (12/24/36/48)(%)	
Front-loaded loss curve	35/65/85/100
Back-loaded loss curve	25/55/75/90/100
Class N	
Voluntary ABS (%)	1.60
Loss timing curve	40/80/100

ABS--Absolute prepayment speed. Mos.--Months.

Table 10

Breakeven cash flow results

	Class				
	A	**B**	**C**	**D**	**N**
Preliminary rating	AAA (sf)	AA (sf)	A+ (sf)	BBB+ (sf)	BB+ (sf)
CNL timing mos. (12/24/36/48) (%)					
Front-loaded loss curve	35/65/85/100	35/65/85/100	35/65/85/100	35/65/85/100	N/A
Back-loaded loss curve	25/55/75/90/100	25/55/75/90/100	25/55/75/90/100	25/55/75/90/100	40/80/100
Approximate break-even CNL levels (%)(i)					
Required	11.50	9.20	7.66	5.36	3.98
Available: front-loaded loss curve	13.94	11.15	9.71	8.25	N/A
Available: back-loaded loss curve	14.18	11.27	9.33	5.99	6.83

(i)The maximum CNLs, with 90.00% credit to any excess spread, the transaction can withstand without triggering a payment default on the relevant class of notes. CNL--Cumulative net loss.

Sensitivity analysis

In addition to running breakeven cash flows, we undertook sensitivity analysis using the assumptions outlined in table 9. We believe that under a moderate ('BBB') stress scenario (2.00x of 2.30% expected loss level) and with 90.00% credit to any excess spread, all else being equal, our preliminary ratings will be within the credit stability limits specified by section A.4 of the Appendix of "S&P Global Ratings Definitions," published June 9, 2023 (see table 11).

Table 11

Maximum projected deterioration under moderate stress conditions

Horizon	AAA	AA	A	BBB	BB
One-year	AA	A	BB	B	CCC
Three-year	BBB	BB	B	CCC	D

Chart 8

2.00x cumulative net loss - coverage multiples (front-loaded loss curve)

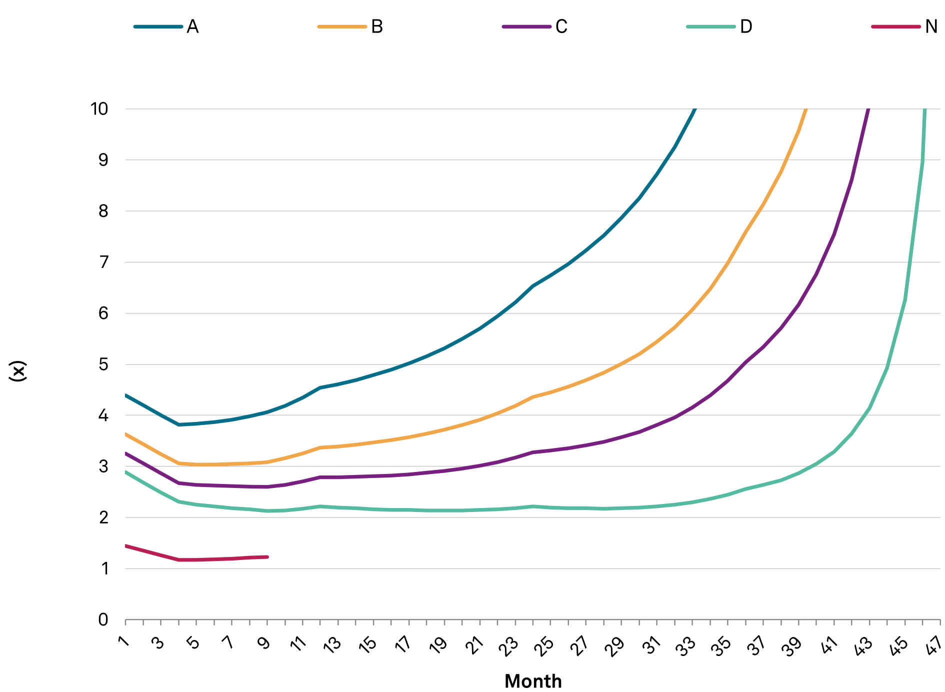
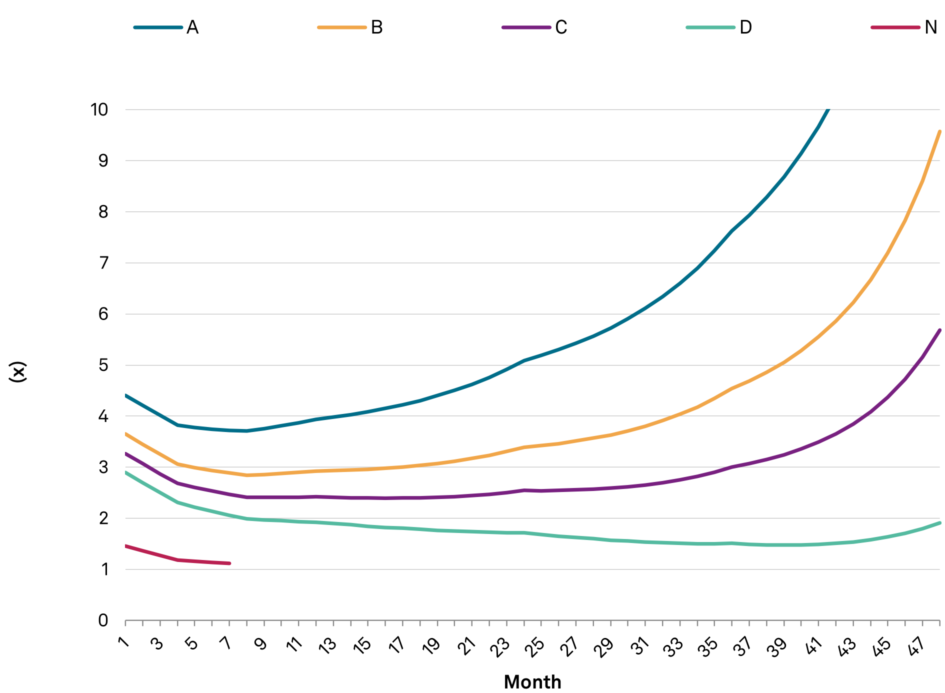


Chart 9

2.00x cumulative net loss - coverage multiples (back-loaded loss curve)



Money market tranche sizing

The proposed money market tranche (class A-1) has a legal final maturity date of April 10, 2025. To test whether the money market tranche can be repaid by its legal final maturity date, we ran cash flows using assumptions to delay the principal collections. We assumed zero defaults and zero prepayments for our cash flow analysis, and we checked that approximately 12 months of principal collections would be sufficient to pay off the money market tranche.

Legal final maturity

To test the legal final maturity dates set for classes A through C, we determined the date when the respective notes would be fully amortized in a zero-loss, zero-prepayment scenario, and then added three months to the result. For the longest-dated security (classes D and N), we added six months to the tenor of the longest-dated receivable in the pool accommodate extensions on the receivables. Further, in the break-even scenario for each respective rating level, we confirmed that the credit enhancement was sufficient to both cover losses and repay the related notes in full by the legal final maturity date.

Counterparty And Operational Risks

Bank account provider

On or before the closing date, the CRVNA 2024-P1 bank accounts will be established with the bank account provider, Wells Fargo. The bank account provider is consistent with our counterparty criteria for a 'AAA' supported transaction (see "Counterparty Risk Framework: Methodology And Assumptions," published March 8, 2019).

Servicers

Bridgecrest, an affiliate of DriveTime, is the servicer of all Carvana loans with centralized servicing and collections in Mesa, Ariz. and Dallas. Bridgecrest has over 30 years of experience in servicing auto loans and a current portfolio of $18 billion. Bridgecrest has a team dedicated to servicing only Carvana loans. The company is responsible for all aspects of onboarding, servicing, and collections, including coordinating repossession and remarketing of the vehicles--similar to its approach for DriveTime loans. Bridgecrest's onboarding includes a welcome call, an introductory letter and/or email with its letter brands, and instructions regarding payment. As a third-party servicer, all contact with the obligor after loan inception is through Bridgecrest, which significantly reduces the risks of delayed payments, increases in delinquencies, and losses in the event of the originator bankruptcy.

Bridgecrest is not rated by S&P Global Ratings, and commingling risk is addressed by the requirement that all collections are deposited to the series collections account within two business days of collection. Our operational risk assessment of Bridgecrest as servicer does not constrain the ratings (see "Global Framework For Assessing Operational Risk In Structured Finance Transactions," published Oct. 9, 2014).

Vervent is the series back-up servicer. Vervent has been in business for over 30 years and has extensive experience in servicing auto loans. Vervent has been the backup servicer for Carvana transactions for over two years and new backup servicing agreements are created for each issuing trust. Vervent is expected to transition to servicing with 30 days' notice. In the event that servicing duties were to be transferred from Bridgecrest to Vervent, we believe that the transition may be smoother given that Vervent receives monthly data files from Bridgecrest to reconcile related activities.

Regulatory

Carvana and the key transaction parties could be subject to various regulatory investigation and or legal proceedings that may arise in their ordinary course of business. We will assess any such events and outcomes as they become available to us to determine any impact on our counterparty and operational risk assessments.

Carvana

Carvana, indirectly owned by Carvana Co. (CCC+/Negative/--), is a used-vehicle retailer that sells 100% online with direct delivery to customers or for pickup at one of its vending machines. On Carvana's website, customers can purchase used vehicles, arrange financing, purchase service plans, and sell cars to Carvana (as a trade-in or independently). Carvana owns and manages its inventory and distribution network. The company sources its inventory from auction channels or directly from customers and reconditions them internally for sale. While its primary business is selling cars, Carvana also offers financing to its customers (they finance approximately 70.00%-80.00% of all sales). As such, Carvana is a direct lender that originates prime, nonprime, and subprime auto loans.

The company was initially formed as a subsidiary of DriveTime in 2012 and became public in 2017. The founder and CEO, Ernie Garcia III, is the son of the CEO and founder of DriveTime. As a result, Carvana developed its processes, policies, and procedures using those of DriveTime as a starting point. The company has been rapidly growing since its inception, and it continues to expand its market penetration. As of fourth-quarter 2023, Carvana had operations in more than 300 markets and added an additional 76,090 units sold.

Originations and underwriting

Originations and underwriting are all centralized at Carvana's headquarters in Tempe, Ariz., and all applications are processed online through Carvana's website. Through the website, customers have access to thousands of combinations of down payment, annual percentage rate, term, and monthly payments that are calculated for a specific vehicle.

Carvana has multiple proprietary risk scoring models, which it uses to predict performance of Carvana loans. Carvana's deal score is calculated after loan origination and is used for portfolio monitoring purposes. The deal score produces a score ranging from 0 to 100, where a higher score indicates a lower risk of default. This score incorporates the CarvanaScore (its first-generation scorecard) and specific attributes of a loan. Carvana considers a deal score of 50 or above to be prime originations.

Carvana offers ancillary products to customers through DriveTime. Carvana itself does not provide any vehicle service contracts and/or warranty products to the customer that are included in the loan balance. We believe this reduces the risk of non-payment by customers in the event of a Carvana bankruptcy because there are no contractual service/product obligations that Carvana is required to provide to the customer.

The Ally Financial Inc. (Ally) flow arrangement, in place since 2016, imposes Ally's underwriting review and due diligence--as if Ally is underwriting the loans--which can reduce deterioration of credit quality in the underwriting process.

For fiscal year 2023, the company reported a net income of $150.0 million, an improvement from a $2.9 billion net loss reported in 2022. Carvana's liquidity includes a $1.5 billion floorplan facility, a $4.0 billion flow program with Ally, and five short-term credit revolving facilities with bank lenders totaling about $2.7 billion.

Related Criteria

- Criteria | Structured Finance | ABS: Global Auto ABS Methodology And Assumptions, March 31, 2022
- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- Criteria | Structured Finance | General: Global Framework For Payment Structure And Cash Flow Analysis Of Structured Finance Securities, Dec. 22, 2020

- Criteria | Structured Finance | Legal: U.S. Structured Finance Asset Isolation And Special-Purpose Entity Criteria, May 15, 2019
- Criteria | Structured Finance | General: Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019
- Criteria | Structured Finance | General: Incorporating Sovereign Risk In Rating Structured Finance Securities: Methodology And Assumptions, Jan. 30, 2019
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria | Structured Finance | General: Global Framework For Assessing Operational Risk In Structured Finance Transactions, Oct. 9, 2014
- General Criteria: Global Investment Criteria For Temporary Investments In Transaction Accounts, May 31, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011
- Criteria | Structured Finance | General: Methodology For Servicer Risk Assessment, May 28, 2009

Related Research

- U.S. Auto Loan ABS Tracker: Full-Year And December 2023 Performance, Feb. 13, 2024
- Economic Outlook U.S. Q1 2024: Cooling Off But Not Breaking, Nov. 28, 2023
- Credit Conditions North America Q1 2024: A Cluster of Stresses, Nov. 28, 2023
- Carvana Auto Receivables Trust 2022-P3 Ratings Raised On Two Classes; Four Others Affirmed, Oct. 19, 2023
- Carvana Co. Upgraded To 'CCC+' From 'D' Following Distressed Exchange; Outlook Negative, Sept. 11, 2023
- Carvana Co. Downgraded To ‘D’ From ‘CC’ On Completion Of Distressed Exchange; Senior Notes Rating Lowered To ‘D’, Sept. 1, 2023
- Carvana Co. Downgraded To 'CC' From 'CCC' On Announced Transaction Support Agreement; Outlook Negative, July 19, 2023
- Twenty-One Ratings Raised And 19 Affirmed On Seven Carvana Auto Receivables Trust Prime Auto ABS Transactions, May 30, 2023
- Carvana Co., May 19, 2020