S&P Global Ratings

Research

Presale:

CarMax Auto Owner Trust 2024-1

January 10, 2024

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Preliminary ratings

Class	Preliminary rating	Type	Interest rate(i)	Base amount (mil. $)	Upsized amount (mil. $)	Legal final maturity date
A-1	A-1+ (sf)	Senior	Fixed	213.00	275.10	Jan. 15, 2025
A-2a/A-2b(ii)	AAA (sf)	Senior	Fixed/floating	435.58	562.70	March 15, 2027
A-3	AAA (sf)	Senior	Fixed	387.34	500.32	Oct. 16, 2028
A-4	AAA (sf)	Senior	Fixed	67.11	86.68	Aug. 15, 2029
B	AA (sf)	Subordinate	Fixed	36.36	46.90	Aug. 15, 2029
C	A (sf)	Subordinate	Fixed	34.55	44.60	Aug. 15, 2029
D	BBB (sf)	Subordinate	Fixed	26.06	33.70	July 15, 2030

Note: This presale report is based on information as of Jan. 10, 2024. 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)The coupons will be determined on the pricing date. (ii)The class A-2 notes will either have a fixed interest rate or comprise a fixed-rate class A-2a portion and a floating-rate class A-2b portion that is indexed to a compounded SOFR (a 30-day average) plus a spread. The depositor does not expect the initial principal balance of the class A-2b notes to exceed $217.79 million ($281.35 million if upsized).

Profile

Collateral	Prime auto loan receivables.
Issuer	CarMax Auto Owner Trust 2024-1.
Originator, sponsor, and servicer	CarMax Business Services LLC.
Depositor and seller	CarMax Auto Funding LLC.
Indenture trustee	U.S. Bank Trust Co. N.A. (A+/Stable/A-1).
Owner trustee	Wilmington Trust N.A. (A-/Stable/A-2).
Bank account provider	U.S. Bank Trust Co. N.A.

Rationale

The preliminary ratings assigned to CarMax Auto Owner Trust 2024-1's (CAOT 2024-1) auto receivables asset-backed notes reflect:

- The availability of approximately 12.66%, 10.07%, 7.62%, and 5.75% credit support (hard credit enhancement and excess spread) for the class A (classes A-1, A-2a/A-2b, A-3, and A-4), B, C, and D notes in the base and upsized pools, respectively, based on our stressed cash flow scenarios. These credit support levels provide at least 5.00x, 4.00x, 3.00x, and 2.00x coverage of our expected cumulative net loss (ECNL) of 2.35% for the class A, B, C, and D 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 'A-1+ (sf)' and 'AAA (sf)', 'AA (sf)', 'A (sf)', and 'BBB (sf)' ratings on the class A, B, C, and D notes, respectively, are within our credit stability limits (see the Cash Flow Modeling Assumptions And Results section below).
- The timely payment of interest and principal 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 prime automobile loans securitized in this transaction, together with our view of the credit risk of the collateral, 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 U.S. Bank Trust Co. N.A., which do not constrain the preliminary ratings.
- Our operational risk assessment of CarMax Business Services LLC (CarMax) as servicer.
- Our assessment of the transaction's potential exposure to environmental, social, and governance credit factors, which are in line with our sector benchmark.
- The transaction's payment and legal structures.

Our ECNL for CAOT 2024-1 is 2.35%, which is higher than the 2.30% for CAOT 2023-4. It reflects:

- CAOT's more recent outstanding series performance, which are showing signs of deterioration with higher losses and delinquencies and lower recovery rates compared with the more seasoned CAOT transactions.
- Our view that CAOT 2024-1's collateral characteristics is slightly stronger than those of CAOT 2023-4. Furthermore, the CAOT 2024-1 collateral pool is more reflective of the tightened underwriting guidelines that the issuer implemented in late 2022 and early 2023.
- Our forward-looking view of the macroeconomic environment and auto finance sector.

Environmental, Social, And Governance (ESG) Factors

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).

In our view, the exposure to ESG credit factors in this transaction 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 our current approach to evaluating recovery adequately accounts 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.

SOFR Benchmark

The floating interest rate benchmark on the class A-2b tranche is SOFR, and the coupon will initially be based on compounded SOFR (a 30-day average SOFR calculated in advance by the calculation agent using the published rate on the Federal Reserve Bank of New York's website) plus a spread. Provisions have been incorporated into securitization documents that govern rate selection if SOFR becomes unavailable. For the floating-rate tranche, we applied our stressed interest rates for one-month SOFR as described in our "Methodology To Derive Stressed Interest Rates In Structured Finance" criteria, published Oct. 18, 2019.

Credit Enhancement And Collateral

Structural changes from CAOT 2023-4

The structural changes from CAOT 2023-4 include the following:

- Total initial hard credit enhancement (which consists of subordination, overcollateralization, and the reserve account) decreased to 9.25%, 6.25%, 3.40%, and 1.25% for classes A, B, C and D, respectively, from 9.65%, 6.70%, 3.90%, and 1.50%, respectively.
- Subordination decreased to 8.00% from 8.15% for the class A notes, decreased to 5.00% from 5.20% for the class B notes, and decreased to 2.15% from 2.40% the class C notes.
- Initial and target overcollateralization decreased to 1.00% from 1.25%.
- Pre-pricing excess spread is estimated at 4.14%, compared to 3.58% post-pricing.

The changes in initial hard credit enhancement from CAOT 2023-4, partially reflect the higher estimated excess spread (see table 1). Our stressed cash flow results indicate that each class in CAOT 2024-1 is enhanced to a degree consistent with the assigned preliminary ratings (see the Cash Flow Modeling Assumptions And Results section below).

Table 1

CAOT credit enhancement summary (%)

	2024-1	2023-4	2023-3	2023-2	2023-1
Subordination(i)					
Class A	8.00	8.15	8.00	7.40	8.20
Class B	5.00	5.20	5.40	4.75	5.60
Class C	2.15	2.40	2.40	2.00	3.25
Overcollateralization(i)					
Initial	1.00	1.25	1.50	2.00	2.40
Target	1.00	1.25	1.50	2.00	2.40
Floor	1.00	1.25	1.50	2.00	2.40

Table 1

CAOT credit enhancement summary (%) (cont.)

	2024-1	2023-4	2023-3	2023-2	2023-1
Reserve(i)					
Initial	0.25	0.25	0.25	0.25	0.25
Target	0.25	0.25	0.25	0.25	0.25
Floor	0.25	0.25	0.25	0.25	0.25
Total initial hard credit enhancement					
Class A	9.25	9.65	9.75	9.65	10.85
Class B	6.25	6.70	7.15	7.00	8.25
Class C	3.40	3.90	4.15	4.25	5.90
Class D	1.25	1.50	1.75	2.25	2.65
Estimated annual excess spread(ii)	4.14	3.58	3.89	3.30	3.11

(i)As a percentage of the initial receivables balance. (ii)For 2024-1, excess spread is pre-pricing; it includes an annual servicing fee of 1.00%. CAOT--CarMax Auto Owner Trust.

Collateral changes from CAOT 2023-4

The collateral composition changes in the CAOT 2024-1 base pool as of Dec. 31, 2023, relative to the CAOT 2023-4 final collateral pool, include:

- The company's two highest internal credit score categories (tiers A and B) increased to 92.97% of the pool from 91.95%.
- The percentage of collateral in the highest risk credit categories (tier C1) decreased to 6.15% from 6.99% (including tiers C1 and C2). This is the first transaction where tier C2 collateral is not included. This tier C2 percentage has decreased in the last few transactions due to CarMax's discontinuing its C2 credit tier as part of its tightened underwriting.
- The percentage of the pool with original terms greater than 60 months decreased to 56.95% from 57.16%.
- The weighted seasoning increased to 7.36 months from 6.82 months.
- The weighted average annual percentage rate increased to 10.90% from 10.71%.

In our view, the CAOT 2024-1 collateral pool is slightly stronger to that of CAOT 2023-4. In addition, the CAOT 2024-1 collateral pool is more reflective of the tightened underwriting guidelines that the issuer implemented in late 2022 and early 2023. We factored this and other qualitative factors, including the worsening performance on the more recent transactions, into our expected loss for CAOT 2024-1 (see the S&P Global Ratings' Expected Loss section below).

Table 2

Collateral comparison(i)

	CAOT					
	2024-1 (base)	2024-1 (upsized)	2023-4	2023-3	2023-2	2023-1
Receivable balance (bil. $)	1.212	1.566	1.519	1.523	1.531	1.491

Table 2

Collateral comparison(i) (cont.)

	CAOT					
	2024-1 (base)	2024-1 (upsized)	2023-4	2023-3	2023-2	2023-1
No. of receivables	63,012	81,506	77,131	76,518	79,331	75,490
Avg. loan balance ($)	19,236	19,209	19,694	19,902	19,294	19,751
Weighted avg. APR (%)	10.90	10.90	10.71	10.38	9.57	9.09
Weighted avg. original term (mos.)	65.37	65.35	65.38	65.44	65.88	66.42
Weighted avg. remaining term (mos.)	58.02	57.96	58.56	59.20	58.76	59.74
Weighted avg. seasoning (mos.)	7.36	7.38	6.82	6.24	7.12	6.68
Weighted avg. FICO score	719	719	718	717	716	714
Original term 61–72 months (%)	56.95	56.68	57.16	58.08	62.18	66.44
New vehicles (%)	0.01	0.02	0.01	0.01	0.02	0.02
Used vehicles (%)	99.99	99.98	99.99	99.99	99.98	99.98
Top five state concentrations (%)						
	CA=16.44	CA=16.28	CA=16.83	CA=16.73	CA=16.64	CA=16.48
	TX=11.30	TX=11.42	TX=11.50	TX=11.80	TX=11.69	TX=11.94
	FL=8.09	FL=8.16	FL=8.37	FL=8.84	FL=8.46	FL=8.16
	GA=6.74	GA=6.84	GA=7.15	GA=6.98	GA=6.54	GA=6.49
	VA=5.24	VA=5.20	VA=5.40	NC=5.32	NC=5.21	TN=5.32

(i)All percentages are of the initial receivables balance. APR--Annual percentage rate. CAOT--CarMax Auto Owner Trust.

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 revise our 2024 U.S. GDP forecast upward by 0.2 percentage points to 1.5%. However, this is down from 2023's forecasted GDP growth of 2.4% because the market's resiliency will be tested going forward, as real interest rates stay relatively high in the coming year and the lags of tightened monetary policy feed through the economy. Other reasons for caution include: real disposable income has declined four months in a row, with the savings rate falling to a very low 3.4% in September (well below the pre-COVID-19 pandemic average) from the 5.1% average in the second quarter of 2023; consumers are showing signs of strain due to increased debt loads, and, according to the Federal Reserve Bank of New York/Equifax credit data, the ratio for seriously delinquent auto loans is already at its highest level outside of recessionary periods (driven primarily by the subprime segment, which is about one-seventh of the total outstanding auto loan balances); and student-loan payments have resumed, which will put upward pressure on debt service ratios and could negatively affect consumer spending.

It is estimated that 24 million borrowers whose student loan payments were suspended at the onset of the pandemic resumed payments in October 2023 with an average payment of approximately $300 per month. According to TransUnion, approximately one-third of those consumers with student loan debt took on new auto loan debt during the pandemic. The added student debt payment will be burdensome for those consumers who are financially stressed, which could negatively affect auto loan ABS performance. We believe, based on past economic cycles, that consumers for whom the vehicle is essential for work will continue to prioritize their auto loan/lease payments before their other consumer and student loan payments.

Weaker economic growth will cause demand for labor to decrease further and the unemployment rate to rise in the next two years--to 4.6% in 2025 from 3.9% in October 2023 (see "Economic Outlook U.S. Q1 2024: Cooling Off But Not Breaking," published Nov. 28, 2023). We're already seeing unemployment benefit claims continue to rise above the 2019 average, suggesting it has become more difficult to find jobs for people when they're laid off, and employment in the temporary help services sector was down 6.1% from a year ago, a decline whose magnitude has in the past been a harbinger of a recession.

Table 3

U.S. economic factors (%)

	Actual	Forecast			
	2022	2023	2024	2025	2026
Real GDP (% year-over-year growth)	2.1	2.4	1.5	1.4	1.8
Unemployment rate (% annual average)	3.6	3.7	4.3	4.6	4.5
Consumer Price Index (CPI) (% annual average)	8.0	4.1	2.4	2.1	2.1

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, and S&P Global Ratings Economics forecasts.

In the auto market, as new vehicle supply imbalances continue to ease and borrowing rates continue to rise, we would expect used vehicle values to normalize to historical levels.

S&P Global Ratings' Expected Loss: 2.35%

We determined our expected loss for CAOT 2024-1 by analyzing:

- The series' collateral characteristics relative to those of outstanding series (see table 2);
- CarMax's managed portfolio performance (see table 4) and origination static pool data; and
- CarMax's rated series performance with emphasis on recent transactions' performance (see table 5 and charts 1-2).

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).

We expect the collateral backing the CAOT 2024-1 notes to experience lifetime CNLs of 2.35%, which is higher than 2.30% for CAOT 2023-4.

Managed portfolio

CarMax's serviced portfolio under its primary underwriting program totaled approximately $16.92 billion as of Nov. 30, 2023--an approximately 4.47% year-over-year increase. The 31-plus-day delinquency rate increased to 5.09% from 4.40% a year earlier, and net charge-offs, as a percentage of the average outstanding, increased to 1.37% from 1.02% (see table 4). Furthermore, delinquencies and loss levels in CarMax's portfolio have risen above pre-pandemic levels. We attribute this performance to ongoing normalization to pre-pandemic levels and the inflationary pressures and other economic headwinds affecting consumers.

Table 4

Managed portfolio performance

	Eleven months ended Nov.30		Year ended Dec. 31				
	2023	2022	2022	2021	2020	2019	2018
Portfolio at end of period (bil. $)	16.921	16.198	16.177	15.285	13.431	13.211	12.238
No. of contracts	1,073,676	1,057,503	1,055,481	1,068,653	1,026,142	1,009,267	944,952
Delinquencies (%)							
31-60 days	2.80	2.54	2.81	2.35	1.81	2.31	2.3
61-90 days	1.89	1.52	1.54	1.09	0.82	1.08	1.03
91 days or more	0.40	0.34	0.37	0.3	0.2	0.27	0.27
Total delinquencies (% of the portfolio)	5.09	4.40	4.72	3.75	2.83	3.66	3.61
Avg. month-end amount outstanding during the period (bil. $)	16.654	15.703	15.744	14.387	13.216	12.728	11.828
Net charge-offs (mil. $)	209.725	146.409	169.573	77.829	86.473	128.056	118.881
Net charge-offs (% of avg. month-end amount outstanding)(i)	1.37	1.02	1.08	0.54	0.65	1.01	1.01

(i)Annualized for period ended values.

Origination static pool analysis

To derive our base-case loss for the CAOT 2024-1 transaction, we analyzed static pool performance data since 2007. The data we received were segmented by credit tiers. We developed expected net loss projections based on the collateral composition. We relied on originations that had at least 12 months of performance data when determining our net loss projections. Our loss projection analysis focused on quarterly vintages that were originated from 2008 to 2022. We then weighted these projections based on the actual concentration of the various segments in the CAOT 2024-1 pool while also being mindful of the beneficial impact of COVID-19-related federal assistance in the better-than-expected performance in recent years.

CAOT series' performance

We currently maintain ratings on 17 CAOT transactions that closed in 2019 through 2023 (see table 5). On Oct. 13, 2023, we revised our lifetime loss expectations on 13 transactions (see Twenty Ratings Raised, 49 Affirmed On 13 CarMax Auto Owner Trust Transactions"). These rating actions were consistent with collateral performance to date and our expectations regarding future collateral performance compared with each transaction's structure and the respective credit enhancement levels (see charts 1 and 2).

Table 5

CarMax Auto Owner Trust series collateral performance and CNL expectations(i)

Series	Month	Pool factor (%)	Current CNL (%)	60+ day delinq. (%)	Original lifetime CNL exp. (%)	Revised lifetime CNL exp. (%)(ii)
2019-4	50	9.44	1.33	3.14	2.20-2.30	Up to 1.40
2020-1	47	11.71	1.18	2.55	2.15-2.25	Up to 1.30
2020-2	44	13.66	0.93	2.38	2.80-3.00	Up to 1.10
2020-3	41	15.97	1.06	2.77	2.80-3.00	1.25
2020-4	38	21.61	0.94	2.27	2.80-3.00	1.20
2021-1	35	25.09	1.23	2.60	2.65-2.85	1.55
2021-2	32	27.23	1.10	2.56	2.35-2.45	1.50
2021-3	29	34.10	1.57	3.58	2.15-2.25	2.20
2021-4	27	38.64	1.63	3.40	2.15-2.25	2.35
2022-1	23	42.74	1.51	2.76	2.15-2.25	2.35
2022-2	20	48.68	1.45	2.48	2.15-2.25	2.60
2022-3	17	56.08	1.43	2.71	2.20-2.30	2.70
2022-4	14	64.02	1.07	2.27	2.20-2.30	2.70
2023-1	11	69.34	0.97	2.10	2.25-2.35	N/A
2023-2	8	76.62	0.64	1.62	2.25-2.35	N/A
2023-3	5	85.43	0.33	1.33	2.30	N/A
2023-4	2	94.23	0.01	0.40	2.30	N/A

(i)As of the December 2023 distribution date. (ii)Revised in October 2023 for series 2019-4 through 2022-4. CNL--Cumulative net loss. Delinq.--Delinquency. CNL exp.--Cumulative net loss expectation. N/A--Not applicable.

Chart 1

CarMax Auto Owner Trust cumulative net loss by paid-off vintages | 2007-2019

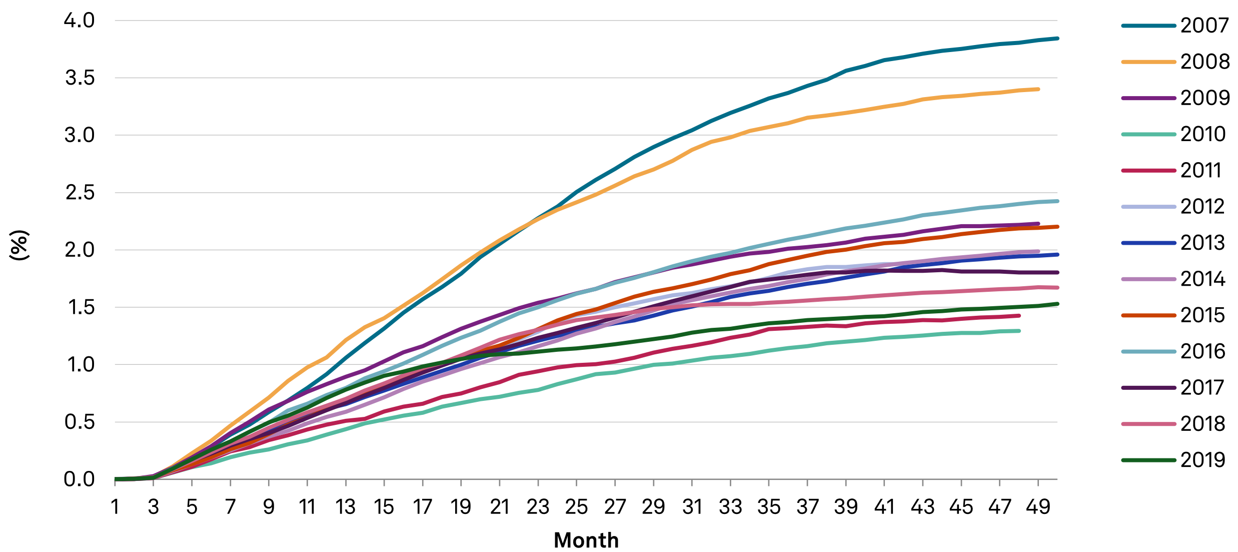
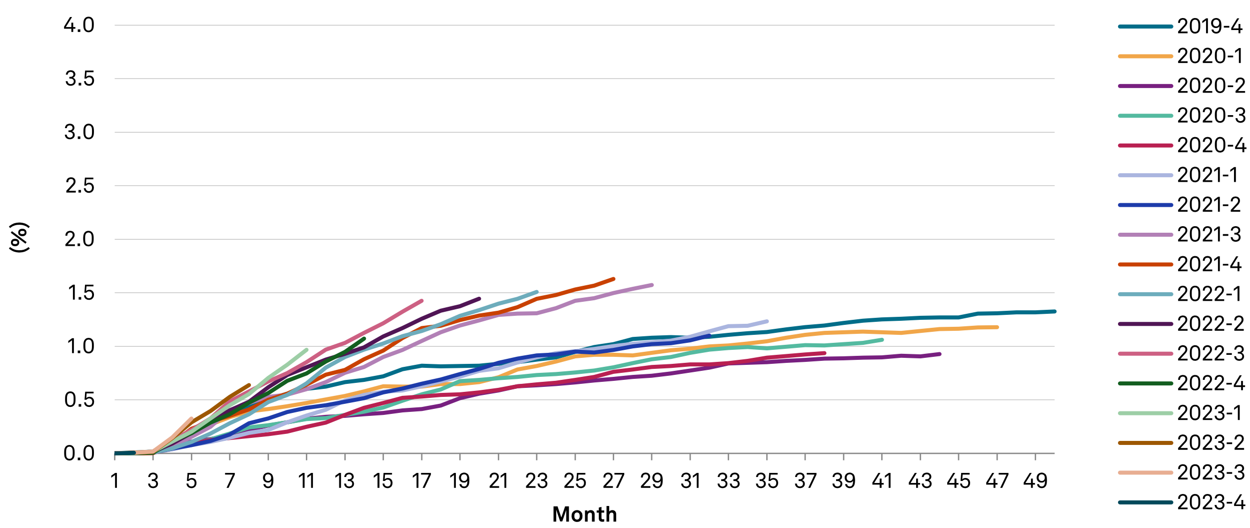


Chart 2

CarMax Auto Owner Trust cumulative net loss by outstanding securitizations



Legal Overview And Transaction Structure

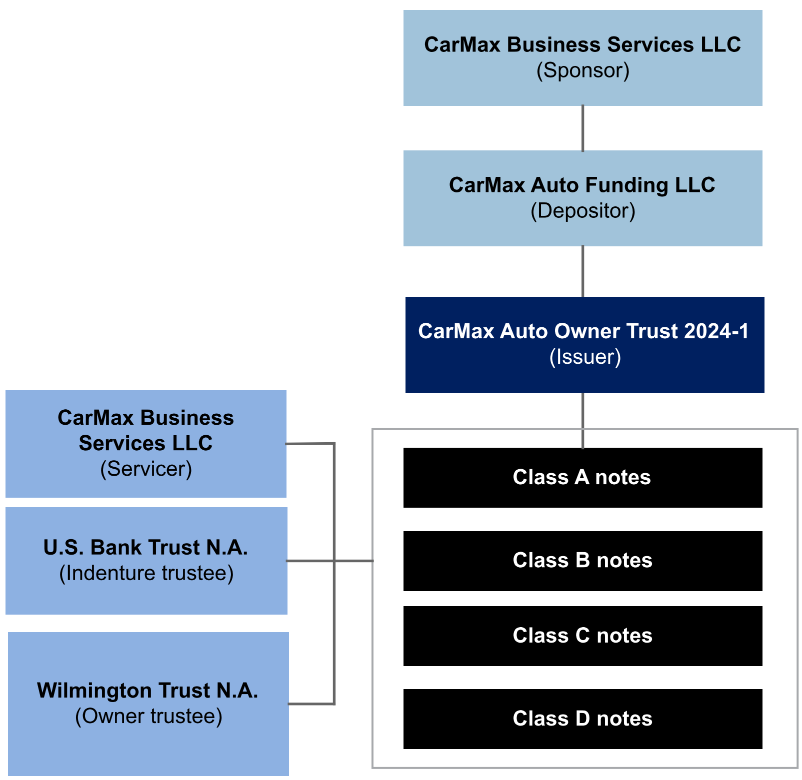
Legal overview

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.

The transaction is structured as a true sale of the receivables to CarMax Auto Funding LLC from CarMax (see chart 3). CarMax Auto Funding LLC will then sell the receivables to CAOT 2024-1, the transaction's issuing trust. The issuer will pledge its interest in the receivables and its security interests in the financed vehicles to the trustee on the noteholders' behalf. The trust will issue the class A, B, C, and D notes.

Chart 3

Transaction structure



Structure

CAOT 2024-1 incorporates the following structural features:

- A senior-subordinated sequential-pay mechanism in which the senior-most class outstanding is paid first. This is expected to result in more credit enhancement, as a percentage of the current pool balance, for the more-senior classes as the pool amortizes.
- Notes that pay a fixed interest rate except for the class A-2b notes, which will pay a floating interest rate tied to one-month SOFR.
- Subordination of approximately 8.00%, 5.00%, and 2.15% for classes A, B, and C, respectively.
- A nonamortizing reserve account that will equal 0.25% of the initial pool balance.
- Initial and target overcollateralization of 1.00% of the initial pool balance.
- Excess spread of approximately 4.14% (pre-pricing) per year.

Payment Priority

The trust will pay scheduled interest and principal on the rated notes on each monthly distribution date. The payment priority that CarMax presented to S&P Global Ratings indicated that the trust will use the auto loan collections to make the distributions shown in table 6. In addition, the reserve account's funds are intended to be available to pay interest shortfalls and make priority principal payments.

Table 6

Payment waterfall

Priority	Payment
1	Servicer fee (1.00% per year).
2	Pro rata, the successor servicer fees (if the servicer has been replaced) and transition expenses, capped at $175,000; and any asset representation reviewer fees and expenses, capped at $175,000 per annum.
3	Class A note interest, pro rata.
4	The first-priority principal distributable amount to the class A noteholders sequentially to maintain the class A notes' parity with the receivables.
5	Class B note interest.
6	The second-priority principal distributable amount sequentially to maintain the class A and B notes' parity with the receivables.
7	Class C note interest.
8	The third-priority principal distributable amount sequentially to maintain the class A, B, and C notes' parity with the receivables.
9	Class D note interest.
10	The fourth-priority principal distributable amount sequentially to maintain the class A, B, C, and D notes' parity with the receivables.
11	To the reserve account until the required amount is met.
12	The regular principal distributable amount sequentially to the class A-1, A-2, A-3, A-4, B, C, and D notes until each class is paid in full. This will also maintain overcollateralization to the target amount.
13	Pro rata, unpaid transition expenses exceeding the cap amounts listed in item 2 above that are due to a servicer termination, additional servicing fees that are to be paid to the successor servicer, and any unpaid fees; any unpaid indemnity amounts due to the successor servicer that exceed the cap amounts listed in item 2; any expenses due to the asset representations reviewer that exceed the related cap amounts listed in item 2; and any amounts due and owing to the indenture trustee under the indenture that have not been paid in full.
14	Any remainder to the certificateholders.

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. In addition, we use our cash flow analysis in other aspects of our ratings analysis, including the testing of credit stability (sensitivity analysis) and legal final analysis.

In a stressed scenario, liquidity risk could arise due to interest shortfalls resulting from the yield on the loans being lower than the yield on the bonds (negative carry risk) especially since the bonds pay sequentially, leading to higher-coupon debt remaining outstanding at the tail end of the transaction. In this transaction, negative carry risk is being addressed through overcollateralization.

Break-even analysis

For the CAOT 2024-1 transaction structure, we applied the assumptions outlined in table 7 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 break-even point (maximum net losses the class can withstand without defaulting) and generally expect it to be greater than or equal to that rating's stressed scenario break-even requirement.

Based on our stressed cash flows, the break-even net loss results show that the class A, B, C, and D notes are credit-enhanced to the degree appropriate for the assigned preliminary ratings (see table 8).

Table 7

Break-even cash flow assumptions

Servicing fee (%)	1.00
Recovery rate (%)	50
Charge-off and recovery lag (mos.)	3
Voluntary ABS (%)	1.50
CNL timing mos. (12/24/36/48) (%)	
Front-loaded loss curve	35/70/95/100
Back-loaded loss curve	25/55/85/100

ABS--Absolute prepayment speed. Mos.--Months. CNL--Cumulative net loss.

Table 8

Break-even cash flow results

	Class			
	A	B	C	D
Preliminary rating	AAA (sf)	AA (sf)	A (sf)	BBB (sf)
CNL timing mos. (12/24/36/48) (%)				
Front-loaded loss curve	37/71/95/100	37/71/95/100	37/71/95/100	37/71/95/100
Back-loaded loss curve	28/58/87/100	28/58/87/100	28/58/87/100	28/58/87/100

Table 8

Break-even cash flow results (cont.)

	Class			
	A	B	C	D
Approximate break-even CNL levels (%)				
Required	11.75	9.40	7.05	4.70
Available front-loaded loss curve(i)	12.66	10.07	7.62	6.14
Available back-loaded loss curve(i)	12.76	10.20	7.78	5.75

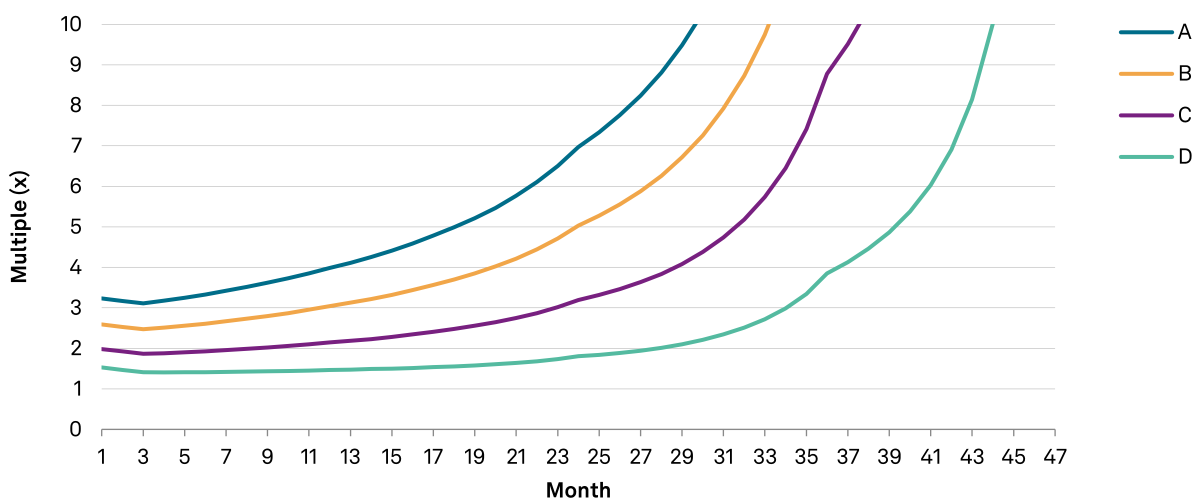
(i)The maximum cumulative net losses, with 90% credit to any excess spread, the transaction can withstand without triggering a payment default on the relevant class of notes. CNL--Cumulative net loss.

Sensitivity analysis

In addition to running break-even cash flows, we undertook sensitivity analysis using the assumptions in table 8. We believe that under a moderate ('BBB') stress scenario (2.0x the 2.35% expected loss level) and with 90% credit to any stressed excess spread, all else being equal, our preliminary ratings will be within the credit stability limits specified in section A.4 of the Appendix in "S&P Global Ratings Definitions," published June 9, 2023.

Chart 4

CarMax Auto Owner Trust 2024-1 sensitivity coverage multiple
Base



Legal final maturity

To test the legal final maturity dates set for classes A-2 through C, we determined when the respective notes would be fully amortized in a zero-loss and zero-prepayment scenario and then added three months to the result. To test the legal final maturity date for the class D notes, which is the longest-dated security, we determined the latest maturing loan's distribution date and then added at least six months to accommodate extensions. Furthermore, in the break-even scenario for each respective rating level, we confirmed that there was sufficient credit enhancement to both cover losses and repay the related notes in full by the legal final maturity date.

Money market tranche sizing

The proposed money market tranche's (class A-1) legal final maturity date is Jan. 15, 2025. To test whether the money market tranche can be repaid its maturity date, we ran cash flows using assumptions to delay the principal collections. We assumed zero defaults and 0.50% voluntary absolute prepayment speed for our cash flow run, and we checked that 11 months or less of principal collections would be sufficient to pay off the money market tranche.

Counterparty And Operational Risks

On or before the closing date, the series bank accounts will be established in the name of the account bank, U.S. Bank Trust Co. N.A., as segregated trusts accounts. 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).

As servicer, CarMax Business Services LLC has an experienced management team that oversees origination, underwriting, servicing, collections, and general operational practices. 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 CarMax Business Services LLC as servicer does not constrain the ratings (see "Global Framework For Assessing Operational Risk In Structured Finance Transactions," published Oct. 9, 2014).

CarMax

CarMax is the largest retailer of used cars in the U.S., with 241 used-car stores in 109 television markets as of Nov. 31, 2023. The company primarily purchases, reconditions, and sells used vehicles under various franchise agreements. CarMax also provides a range of related products and services, including financing, extended service contracts, accessories, and repair service. The company has employed the used-car store concept since 1993.

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 | General: Methodology To Derive Stressed Interest Rates In Structured Finance, Oct. 18, 2019
- 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: October 2023 Performance, Dec. 11, 2023
- Credit Conditions North America Q1 2024: A Cluster Of Stresses, Nov. 28, 2023
- Economic Outlook U.S. Q1 2024: Cooling Off But Not Breaking, Nov. 27, 2023
- Twenty Ratings Raised, 49 Affirmed On 13 CarMax Auto Owner Trust Transactions, Oct. 13, 2023