S&P Global
Ratings

Research

Presale:

CarMax Auto Owner Trust 2023-2

April 13, 2023

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Preliminary ratings

Class	Preliminary rating	Type	Interest rate(i)	Base amount (mil. $)	Upsized amount (mil. $)	Final maturity
A-1	A-1+ (sf)	Senior	Fixed	239.00	300.00	May 15, 2024
A-2a/A-2b(ii)	AAA (sf)	Senior	Fixed/floating	424.00	529.00	June 15, 2026
A-3	AAA (sf)	Senior	Fixed	374.00	467.00	Jan. 18, 2028
A-4	AAA (sf)	Senior	Fixed	72.39	90.74	Nov. 15, 2028
B	AA (sf)	Subordinate	Fixed	32.45	40.56	Nov. 15, 2028
C	A (sf)	Subordinate	Fixed	33.67	42.09	Nov. 15, 2028
D	BBB+ (sf)	Subordinate	Fixed	24.49	30.61	Oct. 15, 2029

Note: This presale report is based on information as of April 13, 2023. 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 tranches' coupons will be determined on the pricing date. (ii)The class A-2 notes may be split into fixed-rate class A-2a notes and floating-rate class A-2b notes. The sizes of classes A-2a and A-2b will be determined at pricing, though the principal balance of the class A-2b notes is not expected to exceed $212.00 million ($264.50 million for the upsized pool). The class A-2b coupon will initially be expressed as a spread tied to the one-month SOFR. SOFR--Secured overnight financing rate.

Profile

Expected closing date	April 26, 2023.
Collateral	Prime auto loan receivables.
Issuer	CarMax Auto Owner Trust 2023-2.
Originator, sponsor, and servicer	CarMax Business Services LLC.
Depositor and seller	CarMax Auto Funding LLC.
Indenture trustee	Wilmington Trust N.A. (A-/Stable/A-2)
Owner trustee	U.S. Bank Trust N.A.
Bank account provider	Wilmington Trust N.A. (A-/Stable/A-2)

Rationale

The preliminary ratings assigned to CarMax Auto Owner Trust 2023-2's (CAOT 2023-2) auto receivables asset-backed notes reflect:

- The availability of approximately 11.82%, 9.56%, 7.29%, and 5.91% credit support--hard credit enhancement and excess spread--for the class A, 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 2.33x coverage of our expected net loss of 2.30% 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).
- 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 sections).
- The timely payment of interest and principal by the designated legal final maturity dates under our stressed cash flow modeling scenarios that 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).
- The series' bank accounts at Wilmington Trust N.A., which do not constrain the preliminary ratings.
- Our operational risk assessment of CarMax Business Services LLC as servicer.
- 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 structure.

Our expected cumulative net loss (ECNL) of CAOT's 2023-2 transaction is 2.30%, the same as series 2023-1's 2.30%. In our view, 2023-2's collateral quality is generally stronger to that of series 2023-1, but this is offset by recent portfolio and securitization delinquency and loss levels, which are increasing above pre-pandemic levels. Our analysis includes our most recent macroeconomic outlook, which incorporates an expectation for a shallow recession for the U.S. economy in the first half of 2023.

ESG Factors

Our rating analysis considers a transaction's potential exposure to ESG credit factors. For the auto asset-backed securities (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

CarMax started to utilize the secured overnight financing rate (SOFR) interest rate benchmark from CAOT 2022-3's floating-rate class A-2b notes. Prior to series 2022-3, CAOT transactions that contained floating-rate tranches used one-month LIBOR as the benchmark. However, due to the expected LIBOR cessation and regulatory guidance to transition away from using U.S. dollar LIBOR on newly executed contracts after December 2021, many issuers are evaluating alternative interest rate benchmarks for their securitizations.

The class A-2 notes will consist of two tranches: fixed-rate class A-2a and floating-rate class A-2b notes. The class A-2b notes are indexed to SOFR plus a spread and may constitute up to 50% of the class A-2 notes. The class A-2b coupons 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).

In addition, 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 criteria "Methodology To Derive Stressed Interest Rates In Structured Finance," published Oct. 18, 2019, and corresponding guidance.

Credit Enhancement And Collateral

Changes from CAOT 2023-1

Structure

- Total initial hard credit enhancement (consisting of subordination, overcollateralization, and the reserve account) decreased for class A, B, C, and D to 9.65%, 7.00%, 4.25%, and 2.25%, respectively, from 10.85%, 8.25%, 5.90%, and 2.65%.
- Subordination decreased for class A, B, and C to 7.40%, 4.75%, and 2.00%, respectively, from 8.20%, 5.60%, 3.25%.
- Initial and target overcollateralization decreased to 2.00%, from 2.40%
- The estimated excess spread increased to approximately 3.06% (pre-pricing) from 2.28% (pre-pricing) per annum.

The increase in excess spread partially offsets the reduction in initial hard credit enhancement that includes lower subordination for the class A, B, and C notes, and a lower initial and target overcollateralization balance. Our stressed cash flow results indicate that each class in the series 2023-2 transaction is enhanced to a degree consistent with the assigned preliminary ratings (see the Cash Flow Modeling Assumptions And Results section).

Table 1

CAOT credit enhancement summary (%)

	2023-2	2023-1	2022-4	2022-3	2022-2
Subordination(i)					
Class A	7.40	8.20	8.16	7.40	5.06
Class B	4.75	5.60	5.62	4.90	3.50
Class C	2.00	3.25	3.28	2.40	1.25
Overcollateralization(i)					
Initial	2.00	2.40	2.40	1.50	2.35
Target	2.00	2.40	2.40	1.50	2.35
Floor	2.00	2.40	2.40	1.50	2.35
Reserve(i)					
Initial	0.25	0.25	0.40	0.40	0.50
Target	0.25	0.25	0.40	0.40	0.50
Floor	0.25	0.25	0.40	0.40	0.50
Total initial hard credit enhancement					
Class A	9.65	10.85	10.96	9.30	7.91
Class B	7.00	8.25	8.42	6.80	6.35
Class C	4.25	5.90	6.07	4.30	4.10
Class D	2.25	2.65	2.80	1.90	2.85
Estimated annual excess spread(ii)	3.06	3.11	2.14	3.23	3.29

(i)As a percentage of the initial receivables balance. (ii)For 2023-2, excess spread is pre-pricing; it includes an annual servicing fee of 1%. CAOT--CarMax Auto Owner Trust. N/A--Not applicable.

Collateral

The collateral composition changes in the CAOT 2023-2 pool as of March 31, 2023, relative to the prior transaction, CAOT 2023-1, include that:

- The weighted seasoning increased to 7.1 from 6.7.
- The weighted average nonzero FICO score increased to 716 from 714.
- The percentage of the pool from the company's two highest internal credit score categories (tiers A and B) increased to 93.7% from 91.4%.
- The percentage of the pool with original terms greater than 60 months has decreased to 62.0% from 66.4%.
- The weighted average APR has increased to 9.56% from 9.09%.

In our view, the 2023-2 collateral is generally stronger to that of series 2023-1's. We have factored this and other qualitative factors into our expected loss for CAOT 2023-2 (see the S&P Global Ratings' Expected Loss section).

Table 2

Collateral comparison(i)

	2023-2 (base)	2023-2 (upsize)	2023-1	2022-4	2022-3	2022-2
Receivable balance (bil. $)	1.224	1.531	1.491	1.430	1.421	1.432
No. of receivables	63,501	79,331	75,490	67,666	70,744	74,036
Avg. loan balance ($)	19,283	19,294	19,751	21,134	20,091	19,345
Weighted avg. APR (%)	9.56	9.57	9.09	8.84	8.28	7.8
Weighted avg. original term (mos.)	65.88	65.88	66.42	66.25	66.39	66.65
Weighted avg. remaining term (mos.)	58.75	58.76	59.74	61.83	60.63	60.4
Weighted avg. seasoning (mos.)	7.12	7.12	6.68	4.42	5.76	6.25
Weighted avg. FICO score	716	716	714	713	710	711
Original term 61–72 months (%)	62.09	62.18	66.44	65.57	66.03	66.49
New vehicles (%)	0.02	0.02	0.02	0.01	0.01	0.02
Used vehicles (%)	99.98	99.98	99.98	99.99	99.99	99.98
Top five state concentrations (%)						
	CA=16.63	CA=16.64	CA=16.48	CA=17.64	CA=18.69	CA=18.41
	TX=11.69	TX=11.69	TX=11.94	TX=12.36	TX=11.74	TX=11.50
	FL=8.38	FL=8.46	FL=8.16	FL=8.27	FL=9.29	FL=9.00
	GA=6.58	GA=6.54	GA=6.49	GA=6.77	GA=7.18	GA=6.80
	NC=5.19	NC=5.21	TN=5.32	NC=5.34	NC=5.25	VA=5.20

(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 view, changes to the unemployment rate are a key determinant of charge-offs in the auto finance industry. We have also observed that recovery values tend to weaken during recessionary periods.

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.

As the Federal Reserve's aggressive tightening of interest rates increases borrowing costs, we expect the economy to fall into a shallow recession later this year. We are forecasting slightly negative growth in the second and third quarters of this year with GDP averaging 0.7% growth for the year (see "Economic Outlook U.S. Q2 2023: Still Resilient, Downside Risks Rise," published March 27, 2023). With economic pressures worsening due to higher borrowing costs, businesses will be need to trim payrolls in interest rate-sensitive sectors. The recent banking sector disturbance may also lead to credit tightening and a softer jobs market. We expect the unemployment rate to rise and peak at 5.4% in second quarter of 2024 and then decline in late 2025.

Inflation remains a concern because it is eroding wage gains and the savings cushion that was built during the COVID-19 pandemic, particularly for those with lower incomes and smaller cushions.

Table 3

U.S. economic factors (%)

	Actual	Forecast			
	2022	2023	2024	2025	2026
Real GDP (% year over year growth)	2.1	0.7	1.2	1.8	2.0
Unemployment rate (% annual average)	3.7	4.1	5.0	5.1	4.6
Consumer Price Index (CPI) (% annual average)	8.0	4.2	2.4	1.6	1.5

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: 2.30%

We determined our expected loss for CAOT 2023-2 by analyzing:

- The collateral pool characteristics relative to those of outstanding series;
- CarMax's managed portfolio performance.
- Approximately 15 years of static pool performance data, which included segmentation by credit tiers; and
- CarMax's securitization performance.

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).

We expect the collateral backing the CAOT 2023-2 notes to experience lifetime CNLs of 2.30%, the same as that of series 2023-1.

Managed portfolio

CarMax's serviced portfolio under its primary underwriting program totaled approximately $16.177 billion as of Dec. 31, 2022--an approximately 5.84% year-over-year increase. The 31-plus-day delinquency rate, which had dipped to 3.75% as of year-end 2021, increased to 4.72% for the same period in 2022. Net charge-offs, as a percentage of the average outstanding, increased to 1.08% as of Dec. 31, 2022, from 0.54% for the same period in 2021 (see table 4). Furthermore, we have observed delinquencies and loss levels in CarMax's portfolio rise above pre-COVID-19 pandemic levels.

Table 4

Managed portfolio performance

	Year ended Dec. 31					
	2022	2021	2020	2019	2018	2017
Portfolio at end of period (bil. $)	16.177	15.285	13.431	13.211	12.238	11.372
No. of contracts	1,055,481	1,068,653	1,026,142	1,009,267	944,952	875,063

Table 4

Managed portfolio performance (cont.)

	Year ended Dec. 31					
	2022	2021	2020	2019	2018	2017
Delinquencies (%)						
31-60 days	2.81	2.35	1.81	2.31	2.3	2.15
61-90 days	1.54	1.09	0.82	1.08	1.03	0.93
91 days or more	0.37	0.3	0.2	0.27	0.27	0.27
Total delinquencies (% of the portfolio)	4.72	3.75	2.83	3.66	3.61	3.35
Avg. month-end amount outstanding during the period (bil. $)	15.744	14.387	13.216	12.728	11.828	10.907
Net charge-offs (mil. $)	169.573	77.829	86.473	128.056	118.881	111.189
Net charge-offs (% of avg. month-end amount outstanding)	1.08	0.54	0.65	1.01	1.01	1.02

Origination static pool analysis

To derive our base-case loss for the CAOT 2023-2 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 2021. We then weighted these projections based on the actual concentration of the various segments in the CAOT 2023-2 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 rate 17 CAOT transactions that closed in 2019 through 2023 (see table 5). On Sept. 13, 2022, we revised our lifetime loss expectations on 13 transactions (see "Twenty-Four Ratings Raised, 43 Affirmed on 13 CarMax Auto Owner Trust Transactions"). The outstanding classes all have adequate credit enhancement at their current rating levels, in our view. We will continue to monitor the performance of the outstanding transactions to ensure that the credit enhancement remains sufficient to cover our revised cumulative net loss expectations under our stress scenarios for each of the rated classes (see charts 1 and 2).

Table 5

Performance data for outstanding CarMax Auto Owner Trust series as of the March 2023 distribution date

Series	Month	Pool factor (%)	CNL (%)	60+ day delinq. (%)	Original lifetime CNL exp. (%)	Revised lifetime CNL exp. (%)(i)
2019-1	50	9.25	1.66	2.96	2.20-2.30	1.60-1.70
2019-2	47	11.41	1.47	2.64	2.15-2.25	1.45-1.55
2019-3	44	15.03	1.38	2.33	2.20-2.30	1.40-1.50

Table 5

Performance data for outstanding CarMax Auto Owner Trust series as of the March 2023 distribution date (cont.)

Series	Month	Pool factor (%)	CNL (%)	60+ day delinq. (%)	Original lifetime CNL exp. (%)	Revised lifetime CNL exp. (%)(i)
2019-4	41	17.70	1.25	2.24	2.20-2.30	1.35-1.45
2020-1	38	20.87	1.13	1.99	2.15-2.25	1.30-1.40
2020-2	35	22.99	0.85	1.80	2.80-3.00	1.15-1.25
2020-3	32	26.06	0.97	1.82	2.80-3.00	1.30-1.40
2020-4	29	33.49	0.81	1.51	2.80-3.00	1.30-1.40
2021-1	26	37.18	0.98	1.83	2.65-2.85	1.60-1.70
2021-2	23	39.53	0.92	1.80	2.35-2.45	1.60-1.70
2021-3	20	48.10	1.24	2.32	2.15-2.25	2.15-2.25
2021-4	18	53.52	1.19	2.38	2.15-2.25	N/A
2022-1	14	59.27	0.97	2.13	2.15-2.25	N/A
2022-2	11	67.33	0.81	1.82	2.15-2.25	N/A
2022-3	8	76.58	0.58	1.54	2.20-2.30	N/A
2022-4	5	86.13	0.19	0.86	2.20-2.30	N/A
2023-1	2	94.11	0.00	0.34	2.25-2.35	N/A

(i)Revised in September 2022. 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 | 2007-2018

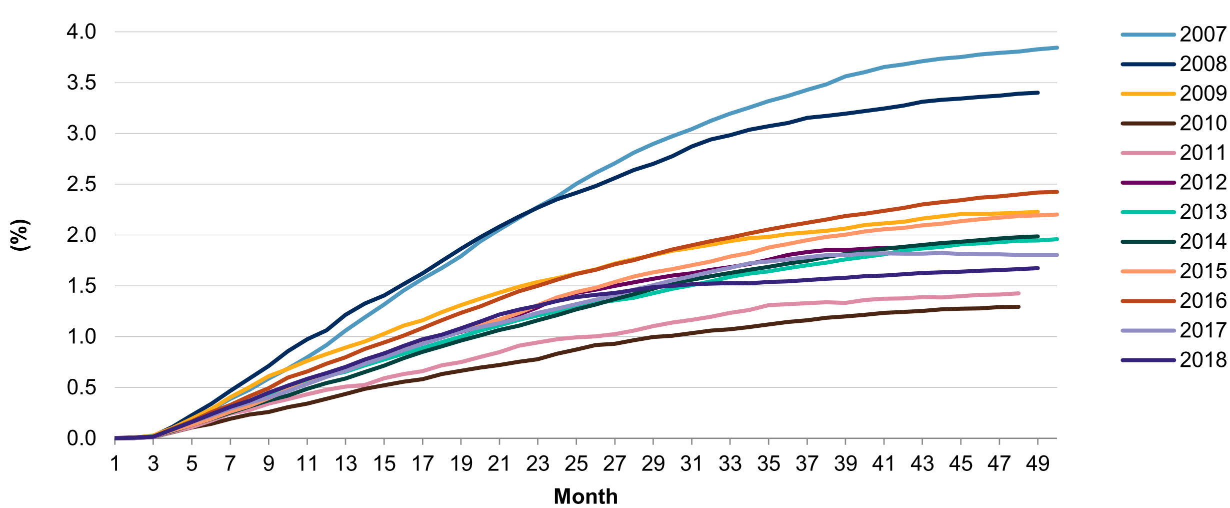
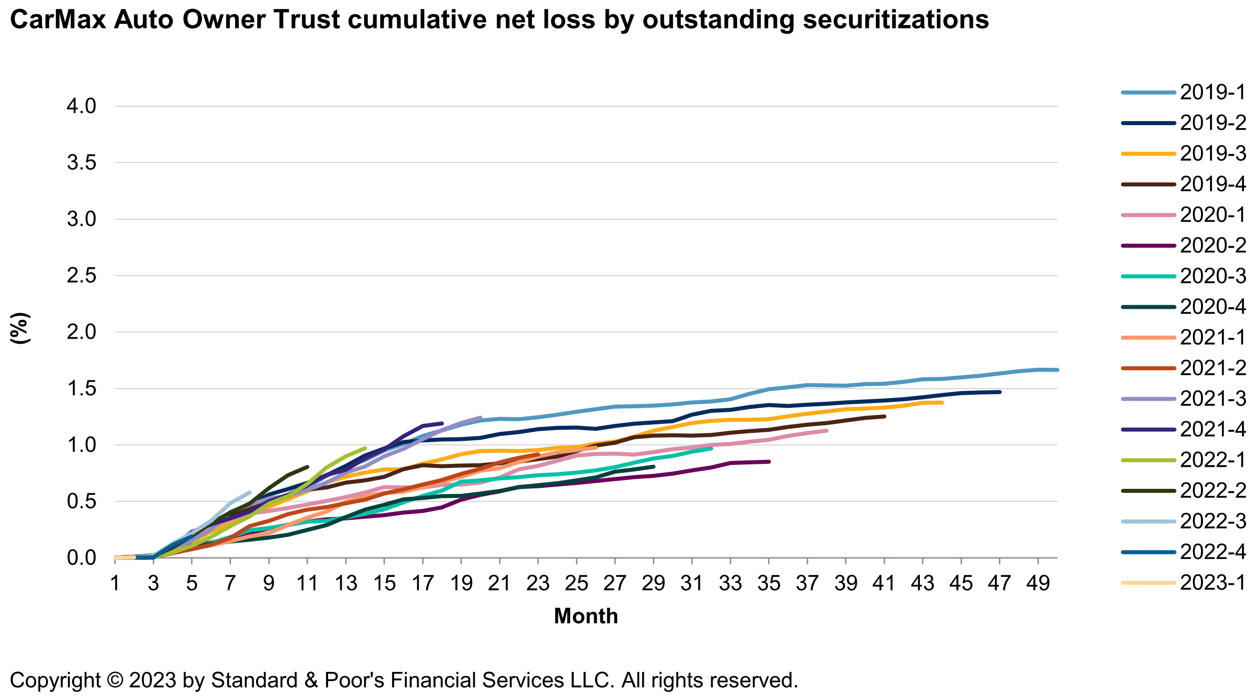


Chart 2



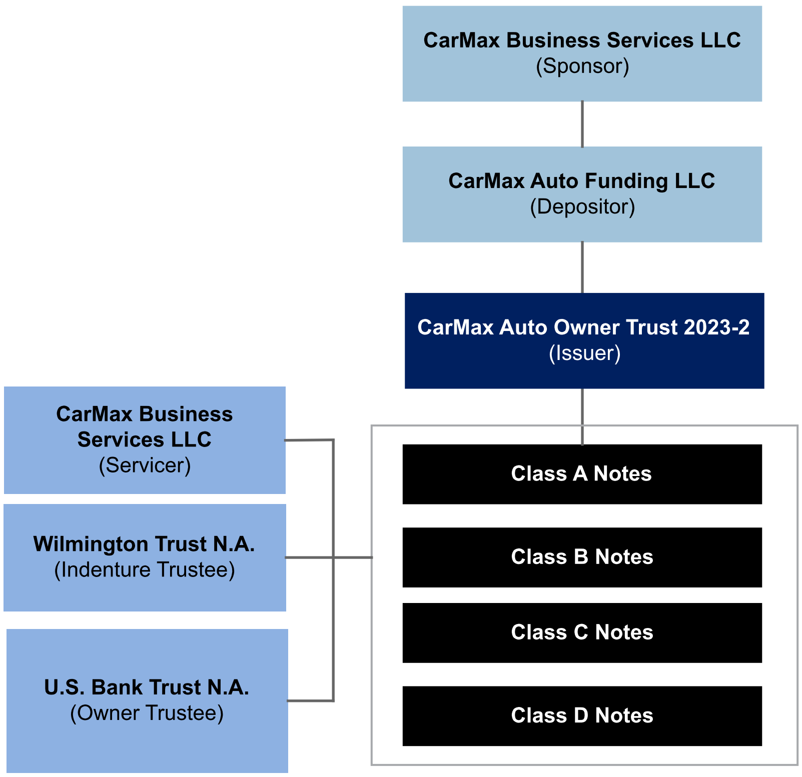
Transaction: Legal Overview And Structure

In rating this transaction, S&P Global Ratings will review the legal matters that 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 2023-2, 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 2023-2 transaction incorporates the following structural features:

- A sequential-pay mechanism among the class A, B, C, and D notes, which 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 pay a floating interest rate tied to one-month SOFR. The exact amounts of the class A-2a and A-2b notes will be determined at pricing, though the principal balance of the class A-2b notes is not expected to exceed $ 212 million ($264.5 million for the upsized structure).
- Subordination of approximately 7.40%, 4.75%, and 2.00% 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 2.00% of the initial pool balance.
- Excess spread of approximately 3.06% (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.
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 in the event of a servicer termination, any 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 because 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.

Breakeven analysis

For the CAOT 2023-2 transaction structure, we used a bifurcated-pool method and 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 breakeven (maximum net losses the class can withstand without defaulting) and generally expect such breakeven level to be equal to or greater than the rating stressed scenario breakeven requirement.

Under this approach, we bifurcated the pool between underwater loans and above-water loans using a 5% rate (accounting for the cost of debt) and applied different prepayment and default assumptions between the two pools. For above-water loans, we ran faster voluntary prepayments, disproportionately higher losses, and faster loss timing than for the underwater loans-–at most the market rate. Conversely, we ran a slower voluntary prepay speed, disproportionately lower losses, and slower loss timing on the underwater loans.

These combined assumptions caused the weighted average APR of the pool to decrease faster over time and increases the likelihood that the overcollateralization will be used for yield enhancement, thereby decreasing breakeven levels.

Based on our stressed cash flows, the breakeven 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

Breakeven cash flow assumptions

Servicing fee (%)	1
Recovery rate (%)	50
Charge-off and recovery lag (mos.)	3
Bifurcated pool (%)	
Underwater	18
Above water	82
Loss allocation (% of total losses)	
Underwater	5
Above water	95
Voluntary ABS (%)	
Underwater	0.50
Above water	1.50
CNL timing mos. (12/24/36/48) (%)	
Underwater	25/55/85/100
Above water	35/70/95/100

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

Table 8

Breakeven 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) (%)				
Aggregate	37/71/95/100	37/71/95/100	37/71/95/100	37/71/95/100
Underwater	28/58/86/100	28/58/86/100	28/58/86/100	28/58/86/100
Above water	38/72/96/100	38/72/96/100	38/72/96/100	38/72/96/100
Approximate breakeven CNL levels (%)(i)				
Required	11.50	9.20	6.90	5.36
Available	11.82	9.56	7.29	5.91

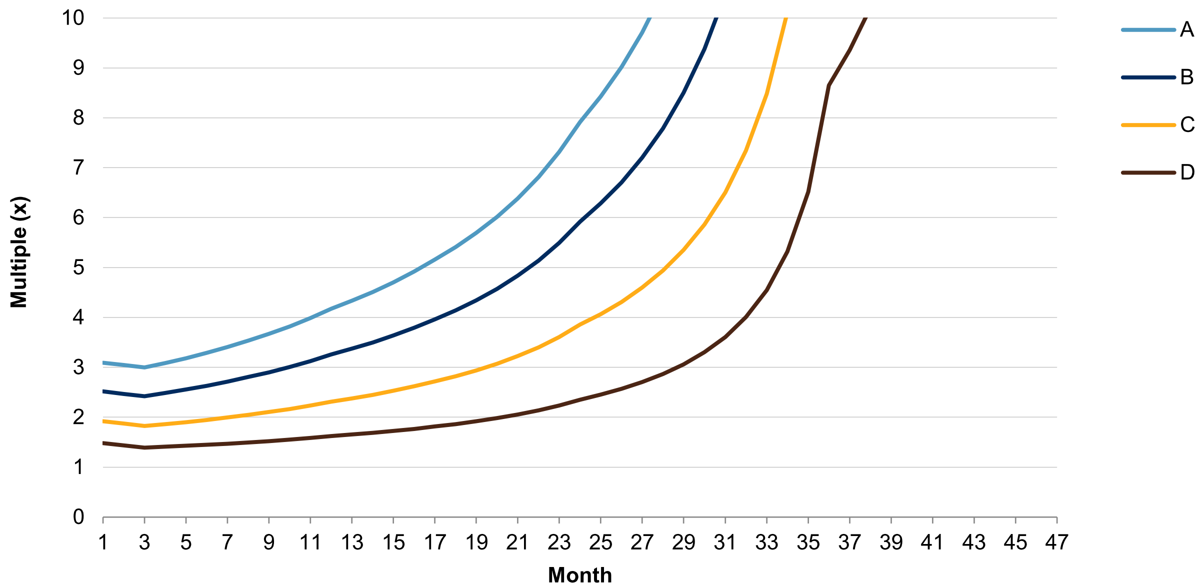
(i)The maximum cumulative net losses, with 100% credit to any excess spread, the transaction can withstand without triggering a payment default on the relevant class of notes. CNL--Cumulative net loss.

Sensitivity analysis

In addition to running breakeven cash flows, we undertook sensitivity analysis using the assumptions in table 8. We believe that under a moderate ('BBB') stress scenario and with 100% credit to any stressed 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 Nov. 10, 2021.

Chart 4

CarMax Auto Owner Trust 2023-2 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 breakeven 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 May 15, 2024. 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 as well as a 0.0% voluntary absolute prepayment speed for underwater loans and a 0.5% absolute prepayment speed for above-water loans in our cash flow run, and we checked that 12 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, Wilmington Trust 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 234 used-car stores in 108 television markets as of Aug. 31, 2022. 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: January 2023 Performance, March 13, 2023
- Credit Conditions North America Q2 2023: Coalescing Stresses, March 28, 2023
- Economic Outlook U.S. Q2 2023: Still Resilient, Downside Risks Rise, March 27, 2023
- Twenty-Four Ratings Raised, 43 Affirmed On 13 CarMax Auto Owner Trust Transactions, Sept. 15, 2022