Presale:

Mercedes-Benz Auto Receivables Trust 2024-1

January 10, 2024

PRIMARY CREDIT ANALYST

Ambika Garg
Chicago
+ 1 (312) 233 7034
ambika.garg
@spglobal.com

SECONDARY CONTACT

Jennie P Lam
New York
+ 1 (212) 438 2524
jennie.lam
@spglobal.com

Preliminary ratings

Class	Preliminary rating	Type	Interest rate(i)	Base amount (mil. $)	Upsized amount (mil. $)	Expected legal final maturity date
A-1(ii)	NR	Senior	Fixed	237.00	295.70	Feb. 18, 2025
A-2A/A-2B (iii)	AAA (sf)	Senior	Fixed/floating	392.00	489.00	May 17, 2027
A-3	AAA (sf)	Senior	Fixed	382.00	476.60	April 16, 2029
A-4	AAA (sf)	Senior	Fixed	78.55	98.01	July 15, 2031

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 interest rates will be determined on the pricing date. (ii)The class A-1 notes will be retained by the depositor or one or more of its affiliates. (iii)The allocation of the initial principal amount between the class A-2-A and A-2-B notes will be determined during pricing, although the class A-2-B principal amount will not exceed $196.00 million ($244.50 million if upsized). The class A-2-B notes, if issued at closing, will accrue interest at a floating rate indexed to a compounded SOFR (30-day average) plus a margin . NR--Not rated.

Profile

Expected closing date	Jan. 24, 2023.
Collateral	Prime auto loan receivables.
Sponsor, servicer, and administrator	Mercedes-Benz Financial Services USA LLC, a wholly owned indirect subsidiary of Mercedes-Benz Group AG (A/Stable/A-1).
Depositor	Mercedes-Benz Retail Receivables LLC, a wholly owned subsidiary of Mercedes-Benz Financial Services USA LLC.
Issuing entity	Mercedes-Benz Auto Receivables Trust 2024-1.
Indenture trustee and bank account provider	U.S. Bank Trust Co. N.A. (A+/Stable/A-1).
Owner trustee	Wilmington Trust N.A. (A-/Stable/A-2).
Lead underwriter	Citigroup Global Markets Inc. (A+/Stable/A-1).

Rationale

The preliminary ratings assigned to Mercedes-Benz Auto Receivables Trust 2024-1's (MBART 2024-1) automobile receivables-backed notes reflect:

- The availability of approximately 7.0% credit support (hard credit enhancement and excess spread) for the class A (A-2, A-3, and A-4, collectively) notes based on stressed cash flow scenarios with a haircut to excess spread. These credit support levels provide at least 5.00x coverage of our expected cumulative net loss (ECNL) of 1.30% for the class A notes (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 (2.0x our expected loss level), all else being equal, our preliminary 'AAA (sf)' ratings on the class A notes 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 transaction's credit enhancement in the form of a nonamortizing reserve account, overcollateralization, yield supplement overcollateralization amount (YSOA), and excess spread (see the Credit Enhancement And Collateral section below).
- 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 U.S. Bank Trust Co. N.A., which do not constrain the preliminary ratings.
- Our operational risk assessment of Mercedes-Benz Financial Services USA LLC (MBFS USA) as servicer and our view of the company's underwriting.
- Our assessment of the transaction's potential exposure to environmental, social, and governance (ESG) credit factors that are in line with our sector benchmark.
- The transaction's payment and legal structures.

Our ECNL for MBART 2024-1 is 1.30%, which is higher than our ECNL of 1.20% for MBART 2023-2. It reflects:

- Our view that MBART 2024-1's collateral characteristics are slightly weaker than those of MBART 2023-2.
- The managed portfolio data and its relative performance,
- Deteriorating performance of MBFS USA's outstanding MBART series.
- Our forward-looking view of the macroeconomy and auto finance sector.

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).

In our view, the exposure to ESG credit factors in this transaction is in line with our sector benchmark. Exposure to environmental credit factors is generally viewed as above average, given that the collateral pool primarily comprises vehicles with internal combustion engines (ICEs), which create emissions of pollutants including greenhouse gases. While the adoption of electric vehicles and future regulation could in time lower ICE vehicle values, we believe our current approach to evaluating recovery and residual values adequately accounts for vehicle values over the relatively short expected life of the transaction. 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 MBART 2023-2

Notable credit enhancement and structural changes for MBART 2024-1 from MBART 2023-2 include:

- The yield supplement overcollateralization amount (YSOA) decreased to 4.70% (4.68% if upsized) of the initial adjusted pool balance from 5.66%.
- The YSOA rate increased to 9.96% from 9.80%.
- The estimated excess spread per year increased to 3.47% from 3.06%, mainly due to increase in the assets' YSOA-adjusted weighted average APR and a slight decrease in weighted average cost of debt.

Table 1 shows the credit enhancement changes from recent transactions.

Table 1

Credit enhancement summary

	MBART				
	2024-1 (base)	2024-1 (upsize)	2023-2	2023-1	2022-1
Overcollateralization (%)(i)					
Initial	2.50	2.50	2.50	2.50	2.50
Target	2.50	2.50	2.50	2.50	2.50
Reserve account (%)(i)					
Initial	0.25	0.25	0.25	0.25	0.25
Target	0.25	0.25	0.25	0.25	0.25
After pool factor drops below 50.00%	0.25	0.25	0.25	0.25	0.25
Total initial hard credit enhancement (%)(i)	2.75	2.75	2.75	2.75	2.75
Total target hard credit enhancement (%)(i)	2.75	2.75	2.75	2.75	2.75
YSOA required rate (%)	9.96	9.96	9.80	9.75	9.75
Estimated annual excess spread (including YSOA) (%)(ii)	3.47	3.47	3.06	3.28	3.68
Initial aggregate gross receivables balance ($)	1,169,998,629	1,459,458,843	1,419,999,124	2,117,733,131	2,136,070,683
YSOA ($)	52,507,262	65,292,162	76,016,709	200,704,831	221,029,290

Table 1

Credit enhancement summary (cont.)

	MBART				
	2024-1 (base)	2024-1 (upsize)	2023-2	2023-1	2022-1
Initial adjusted receivables balance ($)	1,117,491,366	1,394,166,681	1,343,982,415	1,917,028,300	1,915,041,393
Initial overcollateralization ($)	27,941,366	34,856,681	33,622,415	47,928,300	47,871,393
Total securities issued ($)(iii)	852,550,000	1,063,610,000	1,018,350,000	1,433,600,000	1,474,000,000
YSOA as % of the initial aggregate gross principal balance	4.49	4.47	5.35	9.48	10.35
YSOA as % of the initial adjusted receivables balance	4.70	4.68	5.66	10.47	11.54

(i)As a percentage of the initial adjusted receivables balance. (ii)Estimated excess spread before pricing for MBART 2024-1 and post pricing for MBART 2023-2, 2023-1, and 2022-1. Assumes a 1.00% annual servicing fee. (iii)Excludes class A-1 for MBART 2024-1, 2023-2, 2023-1, and 2022-1. MBART--Mercedes-Benz Auto Receivables Trust. YSOA--Yield supplement overcollateralization amount.

Collateral Changes From MBART 2023-1

A comparison of the collateral for MBART 2024-1 and 2023-2 shows that:

- The weighted average FICO score increased slightly to 754 from 752.
- The average original amount financed increased to $61,311 ($61,314 if upsized) from $58,974.
- The weighted average loan-to-value (LTV) ratio increased to 105.91% (106.01% if upsized) from 104.8%, and the percentage of loans with LTV less than 90% decreased to 20.10% (19.97% if upsized) from 21.36%.
- The percentage of loans with an original term greater than 60 months increased to 85.06% (84.97% if upsized) from 80.25%, while the percentage of loans with and original term greater than 72 months increased to 6.39% (6.38% if upsized) from 2.94%.
- The weighted average remaining term increased to approximately 60.7 months from 58.1 months.
- Unlike prior MBART transactions, MBART 2024-1 includes 5.10% of loans backed by battery electric vehicles (BEV). These loans are generally issued to borrowers that have stronger credit characteristics and a higher weighted average FICO score of 771 compared to weighted average FICO score of 754 for the pool.
- The percentage of new vehicles increased to 57.2% from 51.6%.

Overall, we believe that the MBART 2024-1 pool is slightly weaker than the MBART 2023-2 pool. As a result, we increased our ECNL by 10 basis points to 1.30% for MBART 2024-1 (see table 2).

Table 2

Collateral comparison(i)

	MBART				
	2024-1 (base)	2024-1 (upsized)	2023-2	2023-1	2022-1
Pool size (mil. $)	1,170.00	1,459.46	1,420.00	2,117.73	2,136.07
No. of receivables	23,827	29,733	29,224	52,827	55,476
Avg. original principal balance ($)	61,311	61,314	58,974	52,741	51,156
Avg. current principal balance ($)	49,104	49,085	48,590	40,088	38,504
WA APR, excluding the YSOA (%)	7.74	7.74	7.07	4.85	4.40
WA original term (mos.)	69.63	69.62	68.23	67.48	67.02
WA remaining term (mos.)	60.71	60.69	58.10	54.32	53.57
WA seasoning (mos.)	8.92	8.92	10.12	13.16	13.45
WA LTV (%)	105.91	106.01	104.82	103.42	102.62
% of pool balance with an original term of 61-72 months	78.67	78.58	77.31	79.29	77.62
% of pool balance with an original term of 73-84 months	6.39	6.38	2.94	0.00	0.00
% of pool balance with a remaining term of 61-72 months	61.75	61.67	55.15	39.12	36.96
% of pool balance with a remaining term of 73-84 months	5.92	5.91	2.90	0.00	0.00
New vehicles (%)	57.18	57.17	51.64	50.14	48.13
Pre-owned vehicles (%)	42.82	42.83	48.36	49.86	51.87
WA original FICO score	754	754	752	759	761
% of pool balance with FICO score greater than or equal to 700	77.57	77.62	76.2	78.16	78.89
% of pool balance with FICO score less than 700	22.4	22.4	23.8	21.84	21.11
Minimum FICO score	650	650	650	650	600
Top five models (%)					
	GLE class=23.20	GLE class=23.42	ML/GLE class=19.26	ML/GLE class=20.89	ML/GLE class=19.99
	GLC class=12.80	GLC class=12.78	G class=13.60	GLK/GL C class=15.58	GLK/GLC class=16.31
	G class=12.64	G class=12.46	GLK/GLC class=13.47	C class=11.54	C class=11.42
	C class=9.34	C class=9.19	C class=10.56	E class=9.72	E class=10.71
	GLS class=8.21	GLS class=8.20	GLS class=9.19	S class=8.98	S class=9.03

Table 2

Collateral comparison(i) (cont.)

	MBART				
	2024-1 (base)	2024-1 (upsized)	2023-2	2023-1	2022-1
Top five state concentrations (%)					
	CA=21.59	CA=21.54	CA=21.53	CA=21.75	CA=22.47
	FL=15.30	FL=15.40	FL=15.26	FL=15.29	FL=13.49
	TX=14.26	TX=14.11	TX=13.49	TX=14.80	TX=12.68
	NY=7.87	NY=7.80	NY=8.21	NY=9.01	NY=8.30
	GA=4.57	GA=4.63	NJ=4.79	NJ=5.61	NJ=5.23

(i)All percentages are of the initial aggregate receivables balance. MBART--Mercedes-Benz Auto Receivables Trust. WA--Weighted average. APR--Annual percentage rate. YSOA--Yield supplement overcollateralization amount. LTV--Loan to value ratio.

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 continues 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 our 2023 forecasted GDP growth of 2.4% because we believe the market's resiliency will be tested going forward as real interest rates stay relatively high in 2024 and the lags of tightened monetary policy feed through the economy. Other reasons for caution include:

- Real disposable income has declined for four consecutive months, with the savings rate falling to a very low 3.4% in September 2023 (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. 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 represents about 14.0% 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 and lease payments before their other consumer and student loan payments.

We also expect weaker economic growth will cause demand for labor to decrease further and forecast unemployment rate rising 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). Unemployment benefit claims continue to rise above the 2019 average, which suggests that it has become more difficult for people to find jobs 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 been a harbinger of a recession.

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 continue to normalize to historical levels.

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 (% 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.

S&P Global Ratings' Expected Loss: 1.30%

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

- The transaction's collateral characteristics relative to those of outstanding series (see table 2 above),
- The managed portfolio performance and origination static pool data and their relative performances (see tables 4 and 5), and
- The outstanding series' performance (see table 5 and charts 1 and 2).

Given MBFS USA's established performance track record as a consistent issuer, we placed more emphasis on the outstanding series' performance when determining the expected loss for MBART 2024-1. We complemented this analysis with our forward-looking view of the U.S. economy and the auto finance sector (see the Macroeconomic And Auto Finance Sector Outlook section above).

Overall, we expect MBART 2024-1 to experience lifetime cumulative net losses (CNLs) of 1.30%, which is higher than our initial ECNL expectation of 1.20% for MBART 2023-2.

Managed Portfolio

MBFS USA's serviced retail portfolio grew approximately 19.2% to $13.4 billion as of Sept. 30, 2023, from $11.3 billion a year prior (see table 4). As of the nine months ended Sept. 30, 2023, the company's retail portfolio performance shows a worsening performance, while the annualized net losses were 0.91%, versus 0.43% a year earlier. Net losses for the retail portfolio for 2019 (pre-pandemic) were 0.50%. Further, the total delinquencies increased to 2.28% for the nine months ending Sept. 30, 2023, from 1.39% the year earlier.

MBFS USA attributes the rise in losses and delinquencies to current macroeconomic conditions, inflationary pressures, and rising interest rates that continue to affect customers' ability to pay.

Nevertheless, the company maintains that it has robust collection policies in place and the macroeconomic impact on collections continues to be a top priority. In addition, the 2022 vintage exhibits slightly weaker credit quality compared with historical vintages. Further, the industrywide shortage of repossession vendors created challenges that resulted in a lower-than-typical recovery experience. The company stated that it has put plans in place to rectify the situation.

Table 4

Managed portfolio

	Nine months ended Sept. 30		Year ended Dec. 31				
	2023	2022	2022	2021	2020	2019	2018
No. of receivables serviced	360,563	359,000	356,457	368,111	339,023	289,039	263,997
Principal balance at end of period (mil. $)	13.417	11.253	11.377	11.082	9.568	7.649	6.570
Avg. balance during the period (mil. $)	12.871	11.123	11.174	10.555	8.595	7.094	6.237
Delinquencies (%)(i)							
31-60 days	1.49	0.92	1.05	0.79	0.82	0.98	0.94
61-90 days	0.44	0.27	0.32	0.22	0.22	0.25	0.25
90-plus days	0.35	0.20	0.25	0.13	0.14	0.17	0.17
Total delinquencies	2.28	1.39	1.62	1.14	1.18	1.40	1.36
Net losses as a % of avg. principal amount outstanding (annualized)	0.91	0.43	0.49	0.27	0.50	0.50	0.40

(i)The number of delinquent receivables as a percentage of the number of receivables outstanding.

Origination Static Pool Analysis

To derive the base-case expected loss for the MBART 2024-1 transaction, we analyzed MBFS USA's origination static pool performance since 2006, segmented by original loan term (greater than, less than, or equal to 60 months), new and pre-owned vehicle mix, and FICO score band. We used the weighted average loss curve from 2006 to 2010 to project losses for each cohort on more recent originations that have more than 12 months of performance data. These projections were then weighted based on the MBART 2024-1 pool composition. We also noted that the loss expectations based on the most recent originations, specifically 2021 and 2022, were higher than the previous vintage, which we incorporated in our expected loss analysis.

MBART Transaction Performance

S&P Global Ratings currently maintains ratings on five outstanding MBART transactions: MBART 2020-1, 2021-1, 2022-1, 2023-1, and 2023-2. MBFS USA has issued 15 MBART transactions since 2009; 13 of which were rated by S&P Global Ratings. The paid-off transactions, MBART 2009-1 through 2019-1, incurred CNLs in the 0.21%-0.66% range (see chart 1).

On Sept. 29, 2023, we reviewed our lifetime loss expectations for MBART 2020-1, 2021-1, 2022-1, and 2023-1 and affirmed our ratings on 10 classes from the transactions (see "Ratings On 10 Classes From Mercedes-Benz Auto Receivables Trust 2020-1, 2021-1, 2022-1, And 2023-1 Affirmed," published Sept. 29, 2023).

Table 5 and chart 2 show the performance of outstanding MBART transactions as of the December

2023 distribution date. The transactions are performing in line with our revised lifetime loss expectations.

In our view, the classes currently have adequate credit enhancement at their current rating levels. We will continue to monitor the performance of the outstanding transactions to ensure that the credit enhancement remains sufficient, in our view, to cover our CNL expectations under our stress scenarios for each of the rated classes.

Table 5

Performance data for outstanding MBART transactions rated by S&P Global Ratings(i)

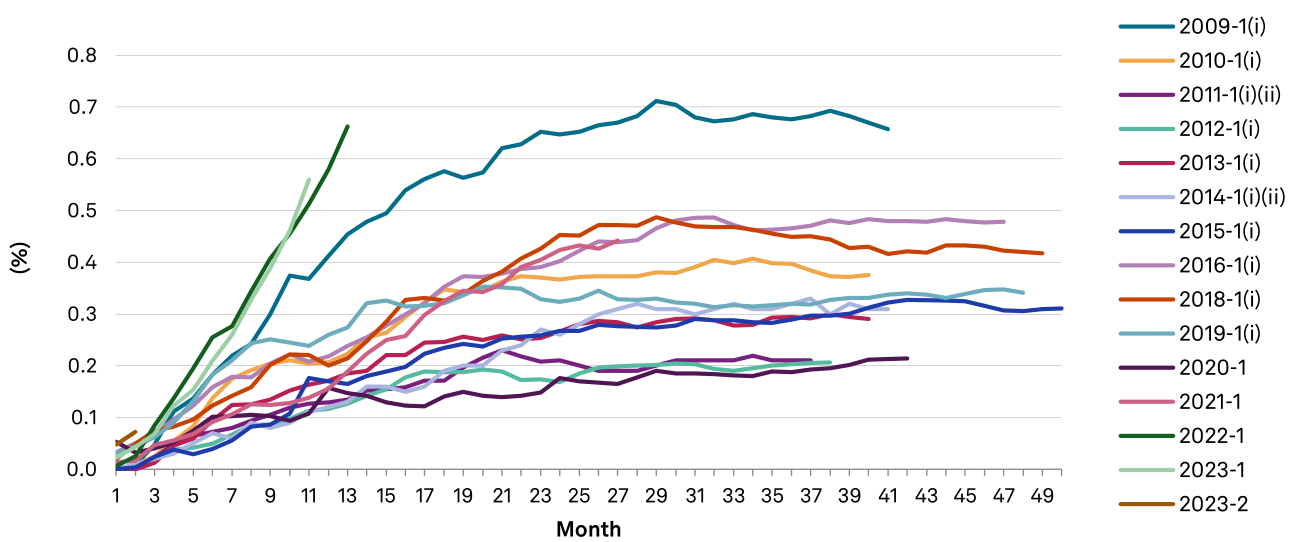
Transaction/series	Month	Pool factor (%)	CNL (%)	60-plus-day delinquency (%)	Original lifetime expected CNL (%)	Revised lifetime expected CNL (%)(ii)
2020-1	42	9.12	0.21	0.21	0.90-1.10	0.25
2021-1	27	29.69	0.44	0.39	0.60-0.70	0.65
2022-1	13	58.33	0.66	0.45	0.60-0.70	1.20
2023-1	11	63.44	0.56	0.60	0.60-0.70	1.20
2023-2	2	90.64	0.07	0.19	1.20	N/A

(i)As of the December 2023 distribution. (ii)Revised in September 2023. MBART--Mercedes-Benz Auto Receivables Trust. CNL--Cumulative net loss. N/A-Not applicable.

Chart 1

Mercedes-Benz Auto Receivables Trust cumulative net losses

As of the December 2023 distribution date

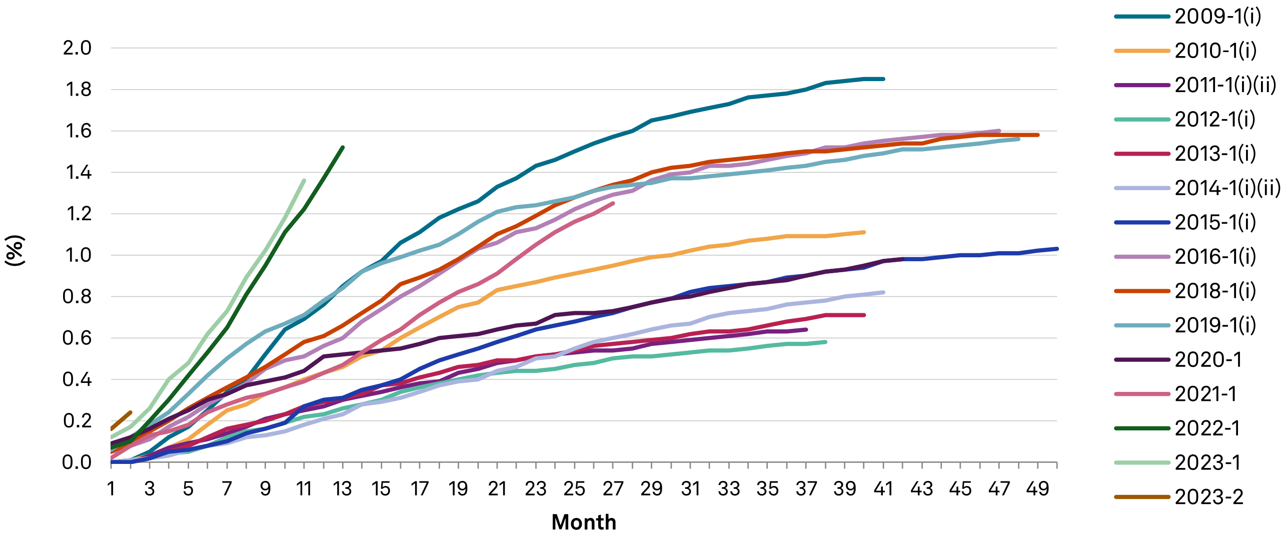


(i)Paid off. (ii)Not rated by S&P Global Ratings.

Chart 2

Mercedes-Benz Auto Receivables Trust cumulative gross losses

As of the December 2023 distribution date



(i)Paid off. (ii)Not rated by S&P Global Ratings.

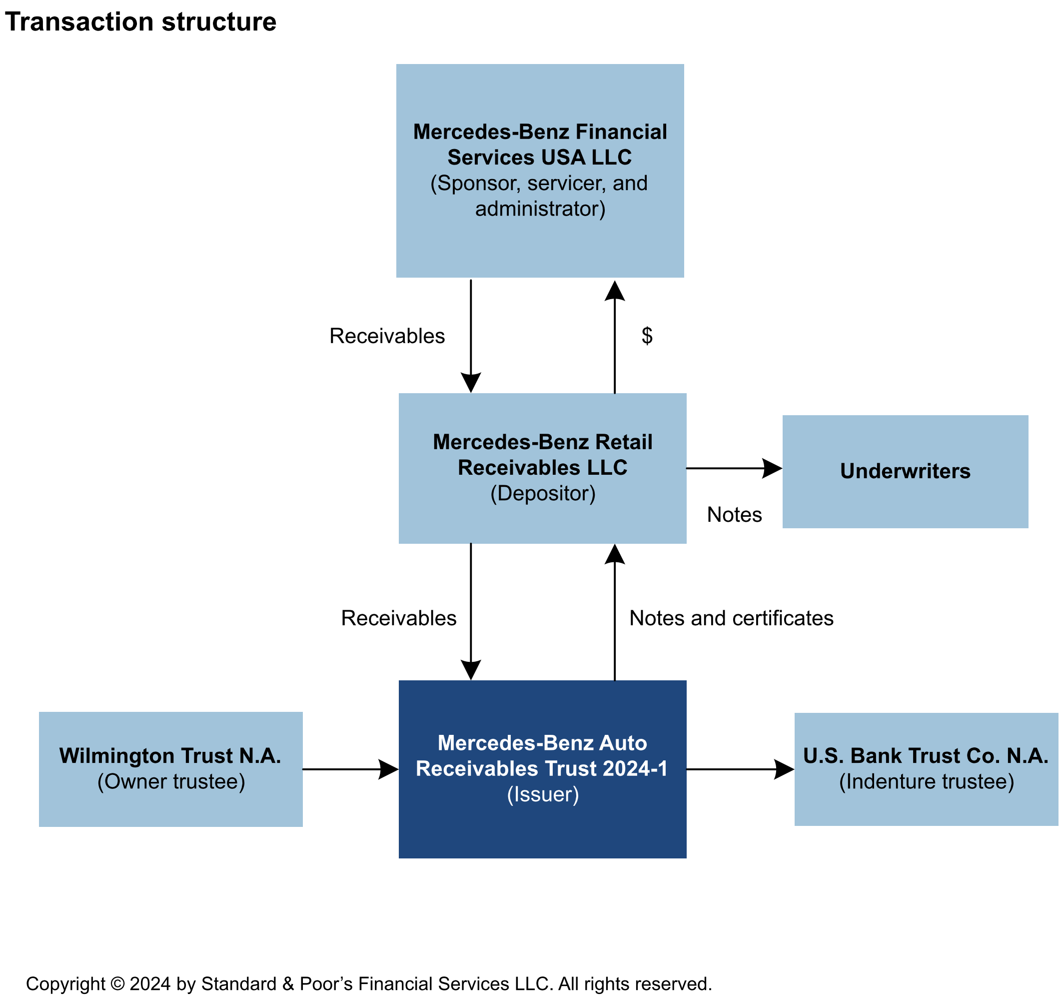
Legal Overview And Transaction Structure

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 MBART 2024-1 transaction is structured as a true sale of the receivables to Mercedes-Benz Retail Receivables LLC (the depositor and a bankruptcy-remote, special-purpose entity) from MBFS USA (the sponsor and servicer). Mercedes-Benz Retail Receivables LLC will then assign the rights, title, and interest in the receivables to MBART 2024-1, the issuing entity. MBART 2024-1 will, in turn, pledge the rights to the receivables to U.S. Bank Trust Co. N.A., the indenture trustee, on the noteholders' behalf (see chart 3 for transaction structure).

Chart 3



Transaction structure

MBART 2024-1 incorporates the following structural features:

- A YSOA that will initially be approximately 4.70% (4.68% if upsized) of the initial adjusted receivables balance. The YSOA is sized so that the yield on the contracts with annual percentage rates (APRs) below the YSOA required rate of 9.96% will increase to the required rate to generate excess spread for the transaction. The YSOA for each distribution date will be calculated as of the cutoff date and will amortize according to a schedule.
- A sequential-pay mechanism that will retire the class with the earliest maturity before paying the class with the next-earliest maturity.
- A reserve account that will equal at least 0.25% of the initial adjusted receivables balance.
- Nonamortizing overcollateralization that will be maintained at a target of 2.50% of the initial

adjusted receivables balance. As a result, the overcollateralization will grow as a percentage of the current collateral balance as the pool amortizes.

- Excess spread of approximately 3.47% (pre-pricing) per year.

Payment Priority

Interest and principal are scheduled to be paid on the rated notes on each monthly distribution date, beginning Feb. 15, 2024. The funds in the reserve account are intended to cover interest shortfalls, make priority principal payments, and make principal payments at the notes' final maturity dates. Distributions will be made from available funds in the priority shown in table 6.

Table 6

Payment waterfall

Priority	Payment
1	The 1.00% servicing fee, plus any unpaid servicing fees for any previous collection periods.
2	Trustee/asset representations reviewer fees, expenses, and indemnified amounts capped at $250,000 per year.
3	Class A note interest, ratably to the class A noteholders.
4	Priority principal distributable amount (if the class A notes' balance is greater than the adjusted pool balance).
5	Reserve account deposit up to its required amount.
6	Regular principal distributable amount(i).
7	Any unpaid transition expenses and any traditional servicing fees if Mercedes-Benz Financial Services USA LLC has been replaced as the servicer.
8	Any unpaid trustee/asset representations reviewer fees and indemnified amounts.
9	Any remaining amounts to the certificateholders.

(i)The regular principal distributable amount is designed to maintain the overcollateralization at the target amount of 2.50% of the initial adjusted receivables balance.

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.

In a stressed scenario, liquidity risk could arise due to interest shortfalls from the yield on the loans being lower than the yield on the bonds (negative carry risk). This could occur 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 the YSOA.

Break-even analysis

For the MBART 2024-1 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 lower break-even level (maximum net losses the class can withstand without defaulting) and generally expect it to be equal to or greater than the rating stressed scenario break-even requirement.

Under this approach, we bifurcated the pool between low-APR loans (underwater) and high-APR loans (above-water) using an APR of 5.00% and applied different prepayment and default assumptions between the two pools. For high-APR loans (with APRs greater than 5.00%), we ran faster voluntary prepayments, disproportionately higher losses, and faster loss timing than for the low-APR loans (with APRs of 5.00% or less). Conversely, we ran a slower voluntary prepay speed, disproportionately lower losses, and slower loss timing on the low-APR loans.

These combined assumptions caused the weighted average APR of the pool to decrease faster over time and increases the likelihood that the YSOA will be used for yield enhancement rather than credit enhancement, thus decreasing the break-even levels.

The class A-2 notes may consist of fixed-rate class A-2-A notes and floating-rate class A-2-B notes, which will accrue interest at a floating rate benchmarked to 30-day average SOFR plus a spread. We modeled the scenarios assuming the class A-2-B notes are issued at 50% of the maximum total A-2 class (collectively, class A-2-A and A-2-B). For the floating-rate tranche A-2-B, 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, using a SOFR curve starting at 5.50%.

Based on our stressed cash flows, the break-even net loss results show that the class A notes are credit-enhanced to the degree appropriate for the assigned preliminary ratings (see table 7).

Table 7

Cash flow assumptions and results (bifurcated-pool approach)

Class	A	A
Scenario (preliminary rating)	AAA (sf)	AAA (sf)
Loss curve	Front-loaded	Back-loaded
CNL timing by months outstanding (actual) (12/24/36/48) (%)(i)		
Underwater	53/87/96/100	48/83/96/100
Above-water	50/90/100	50/85/95/100
Aggregate CNL	50/89/100	50/85/95/100
Allocation of losses (%)(i)		
Underwater	10	10
Above-water	90	90
ABS voluntary prepayments (%)(i)		
Underwater	0.25	0.25
Above-water	1.50	1.50
Recoveries (%)	50	50
Recovery lag (months)	4	4
Servicing fee (%)	1.00	1.00
Approximate break-even levels available (%)(ii)	7.01	7.05

Table 7

Cash flow assumptions and results (bifurcated-pool approach) (cont.)

Approximate break-even levels required (%)(ii)	6.50	6.50

(i)The pool bifurcation APR is 5.0%. Underwater--Loans with APRs less than or equal to 5.0%. Above-water--Loans with APRs greater than 5.0%.
(ii)The maximum CNLs on the pool that the transaction can withstand without triggering a payment default on the relevant class of notes.
CNL--Cumulative net loss. ABS--Absolute prepayment speed. APR--Annual percentage rate.

Sensitivity analysis

In addition to running break-even cash flows, we undertook sensitivity analyses using the assumptions in table 7. We believe that under a moderate ('BBB') stress scenario (2.0x our minimum 'B' credit enhancement level, based on a 1.30% ECNL) and with 90% credit to any excess spread, all else being equal, our ratings will remain within the credit stability limits specified in section A.4 of the Appendix in "S&P Global Ratings Definitions," published Nov. 10, 2021 (see table 8 and chart 4).

Table 8

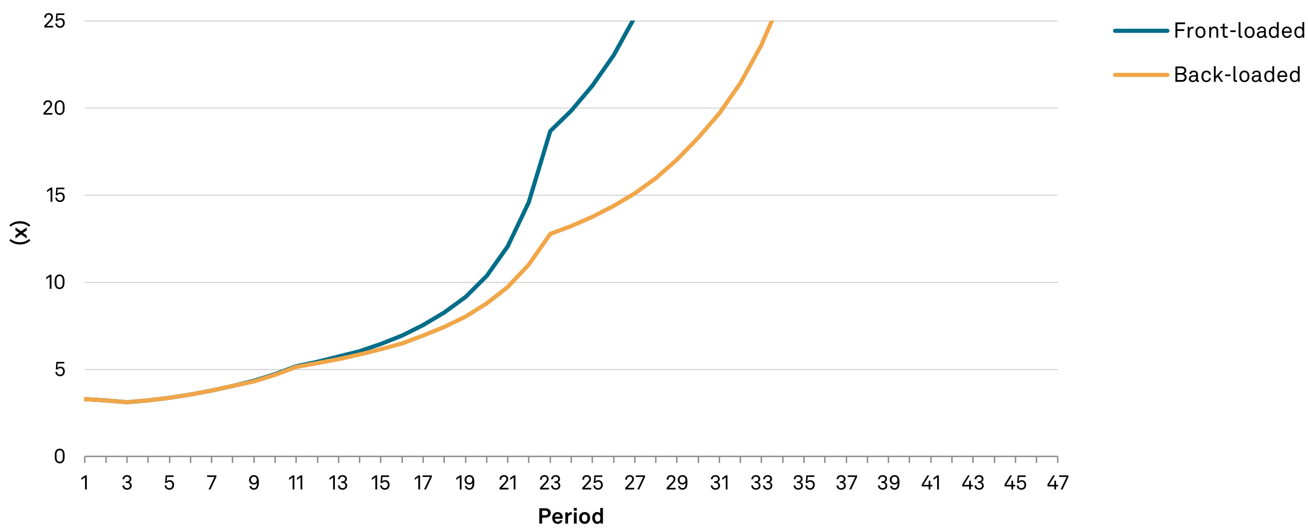
Maximum projected deterioration under moderate stress conditions(i)

	Stress scenario					
Horizon	**AAA**	**AA**	**A**	**BBB**	**BB**	**B**
One year	AA	A	BB	B	CCC	D
Three years	BBB	BB	B	CCC	D	D

(i)These credit-quality transitions do not reflect our view of the expected degree of deterioration that rated issuers or obligations could experience over the specified time horizons, nor do they reflect the typical historical levels of deterioration among rated issuers and securities.

Chart 4

Sensitivity analysis | 2.40% cumulative net loss | loss multiple coverage



Legal final maturity

To test the legal final maturity dates set for the long-dated rated tranches (i.e., classes A-2 and A-3), we determined the date on which the respective notes were fully amortized in a zero-loss, zero-prepayment scenario and then added three months to the result. For the longest-dated security (class A-4), we added at least eight months to the tenor of the pool's longest receivable to accommodate possible extensions on the receivables. Furthermore, in the break-even cash flow scenarios for the preliminary ratings, 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.

Counterparty And Operational Risks

On or before the closing date, the series bank accounts will be established with U.S. Bank Trust Co. N.A., the indenture trustee and bank account provider, 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, MBFS USA has an experienced team that oversees servicing and collections practices. MBFS USA is not rated by S&P Global Ratings but is a wholly owned indirect subsidiary of Mercedes-Benz Group AG 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 MBFS USA as servicer does not constrain the ratings (see "Global Framework For Assessing Operational Risk In Structured Finance Transactions," published Oct. 9, 2014).

MBFS USA

MBFS USA is a wholly owned indirect subsidiary of Mercedes-Benz Group AG (A/Stable/A-1), a German corporation that is a global producer of premium passenger cars and vans. MBFS USA was formed in 2007 doing business as Mercedes-Benz Financial Services and Daimler Truck Financial. In 2021, in connection with the launch of Daimler Truck Holding AG as an independent company, MBFS USA spun off its commercial vehicle financing business into a separate financial services company that became an indirect subsidiary of Daimler Truck Holding AG. MBFS USA is a Delaware limited liability company with principal executive offices located in Farmington Hills, Mich., and its operating division located in Fort Worth, Texas.

MBFS USA provides indirect automobile and commercial vehicle installment sales contracts, installment lending, and lease financing. It purchases both retail and commercial installment sales contracts and leases from Mercedes-Benz retail dealers in Puerto Rico and all U.S. states except Wyoming. MBFS USA purchases installment sales contract and installment loans relating to retail sales of new and pre-owned automobiles from dealers in accordance with underwriting standards. MBFS USA provides financing for direct installment sales contracts and installment loans for the purchase by lessees of leased Mercedes-Benz automobiles in accordance with the same underwriting standards. MBFS USA also provides direct wholesale financing to many dealers by financing inventories and other dealer activities, such as business acquisitions, facilities refurbishment, real estate purchases, and working capital requirements. MBFS USA's managed retail portfolio has grown to $13.4 billion as of Sept. 30, 2023, up from $2.7 billion as of Dec. 31, 2007.

MBFS USA services all contracts that it purchases or originates. MBFS USA frequently purchases contracts with contract rates that are lower than it would otherwise require based on its targeted rates of return, according to incentive finance programs intended to increase sales of new and pre-owned Mercedes-Benz automobiles.

Related Criteria

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- Criteria | Structured Finance | General: Global Framework For Payment Structure And Cash Flow Analysis Of Structured Finance Securities, Dec. 22, 2020
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- Criteria | Structured Finance | General: Methodology For Servicer Risk Assessment, May 28, 2009

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- 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
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- Ratings On 10 Classes From Mercedes-Benz Auto Receivables Trust 2020-1, 2021-1, 2022-1, And 2023-1 Affirmed, Sept. 29, 2023
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