S&P Global
Ratings

Research

Presale:

Hyundai Auto Receivables Trust 2024-A

March 6, 2024

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Preliminary ratings

Class	Preliminary rating	Type	Interest rate	Base amount (mil. $)(i)	Upsize amount (mil. $)(i)	Legal final maturity
A-1	A-1+ (sf)	Senior	Fixed	229.05	303.00	March 17, 2025
A-2-A/A-2-B(ii)	AAA (sf)	Senior	Fixed/floating(ii)	464.80	614.84	April 15, 2027
A-3	AAA (sf)	Senior	Fixed	434.80	575.16	Feb. 15, 2029
A-4	AAA (sf)	Senior	Fixed	55.12	72.93	Jan. 15, 2031
B	AA+ (sf)	Subordinate	Fixed	22.99	30.40	Jan. 15, 2031
C	AA (sf)	Subordinate	Fixed	38.31	50.68	July 15, 2031

Note: This presale report is based on information as of March 6, 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)Hyundai Capital America (HCA), or an affiliate thereof, may initially retain all or a portion of one or more classes of notes. (ii)At closing, the class A-2 notes may be split into a fixed-rate class A-2-A and a floating-rate class A-2-B. The sizes of these classes will be determined at pricing, although the principal balance of the class A-2-B notes, if issued, may not exceed 50.00% of the aggregate principal balance of the class A-2 notes. The class A-2-B interest rate will be a floating rate indexed to compounded SOFR plus a margin (to be determined).

Profile

Collateral	Prime auto loan receivables.
Issuer	Hyundai Auto Receivables Trust 2024-A.
Administrator, seller, sponsor, and servicer	Hyundai Capital America (BBB+/Positive/A-2).
Depositor	Hyundai ABS Funding LLC.
Indenture trustee	Citibank N.A. (A+/Stable/A-1).
Owner trustee	U.S. Bank Trust N.A.
Bank account provider	Citibank N.A. (A+/Stable/A-1).

Rationale

S&P Global Ratings' preliminary ratings assigned to Hyundai Auto Receivables Trust 2024-A's (HART 2024-A) asset-backed notes reflect:

- The availability of approximately 11.6%, 10.1%, and 7.5% (base and upsize) credit support (hard credit enhancement and excess spread) for the class A (A-1, A-2-A/A-2-B, A-3, and A-4, collectively), B, and C notes, respectively, based on stressed cash flow scenarios. These credit support levels provide at least 5.0x, 4.5x, and 4.0x coverage of our expected cumulative net loss (ECNL) of 1.35% for the class A, B, and C 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 (2.0x our expected loss level), all else being equal, our preliminary 'AAA (sf)', 'AA+ (sf)', and 'AA (sf)' ratings on the class A, B, and C notes, respectively, are within our credit stability limits (see the Cash Flow Modeling Assumptions And Results section below).
- The timely payment of interest each month and principal repayment by the designated legal final maturity dates under our stressed cash flow modeling scenarios for the assigned preliminary ratings.
- The collateral characteristics of the series' prime automobile loans, our view of the credit risk of the collateral, and our updated macroeconomic forecast and forward-looking view of the auto finance sector (see the Credit Enhancement And Collateral and the Macroeconomic And Auto Finance Sector Outlook sections below).
- The transaction's credit enhancement in the form of subordination, overcollateralization, yield supplement overcollateralization, a reserve account, and excess spread (see the Credit Enhancement and Collateral section).
- The series' bank accounts at Citibank N.A. (Citibank), which do not constrain the preliminary ratings.
- Our operational risk assessment of Hyundai Capital America (HCA) as servicer and our view of the company's underwriting and servicing.
- Our assessment of the transaction's potential exposure to environmental, social, and governance (ESG) credit factors, which are in line with our sector benchmark.
- The transaction's payment and legal structures.

Our ECNL for HART 2024-A is 1.35%, unchanged from HART 2023-C. It reflects:

- HCA's outstanding series, which continue to perform in line with or better than our initial expectations;
- HCA's tighter underwriting standards since 2016 (based on the performance data we received from HCA); and
- Our forward-looking view of the auto finance sector.

Environmental, Social, And Governance

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).

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 comprise vehicles with internal combustion engines (ICE), 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 and residual values adequately account 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 HART 2023-C

- The yield supplement overcollateralization amount (YSOA) discount rate decreased to 9.00% from 9.70%, mainly due to the expected lower cost of debt for series 2024-A compared to 2023-C. The YSOA helps protect against liquidity risk associated with the low interest rate loans that are included in the securitized pool.
- The initial YSOA as a percentage of the initial aggregate pool balance decreased to approximately 6.82% from 8.38%.
- The estimated per annum excess spread, adjusted for YSOA (pre-pricing) decreased to 2.57% from 3.08% (post-pricing).

Table 1 shows the credit enhancement changes from recent transactions.

Table 1

HART credit enhancement summary (%)

	2024-A | Base	2024-A | Upsize	2023-C	2023-B	2023-A
Subordination(i)					
Class A	4.80	4.80	4.80	4.80	4.80
Class B	3.00	3.00	3.00	3.00	3.00
Class C	N/A	N/A	N/A	N/A	N/A
Overcollateralization(i)					
Initial	2.50	2.50	2.50	2.50	2.50
Target	3.00	3.00	3.00	3.00	3.00
Floor	3.00	3.00	3.00	3.00	3.00
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

Table 1

HART credit enhancement summary (%) (cont.)

	2024-A | Base	2024-A | Upsize	2023-C	2023-B	2023-A
Total initial hard credit enhancement					
Class A	7.55	7.55	7.55	7.55	7.55
Class B	5.75	5.75	5.75	5.75	5.75
Class C	2.75	2.75	2.75	2.75	2.75
Total target hard credit enhancement					
Class A	8.05	8.05	8.05	8.05	8.05
Class B	6.25	6.25	6.25	6.25	6.25
Class C	3.25	3.25	3.25	3.25	3.25
Additional enhancement					
YSOA (% of aggregate pool)	6.82	6.82	8.38	9.04	9.89
YSOA discount rate	9.00	9.00	9.70	9.50	9.10
Estimated YSOA-adjusted annual excess spread(ii)	2.57	2.57	2.49	2.75	2.88

(i)Percentage of the initial adjusted receivables balance. (ii)Estimated excess spread before pricing. The post-pricing estimated YSOA-adjusted annual excess spread was approximately 3.08%, 3.00%, and 3.76%, for series 2023-C, 2023-B, and 2023-A, respectively. YSOC--Yield supplement overcollateralization amount. N/A--Not applicable.

Collateral changes from HART 2023-C

- The weighted average seasoning increased to approximately 8.72 months (base and upsize) from 7.05 months.
- Series 2024-A is the first HART transaction to include loans with an original term of up to 84 months, comprising 4.90% (4.85% if upsized) of the pool. Prior HART transactions had a maximum loan term of 75 months. The 84-month loans in the 2024-A pool have a weighted average FICO of 781, higher than the aggregate pool's weighted average FICO of 766, and are approximately 15 months seasoned.
- Overall, the percentage of loans greater than 60 months increased to 67.87% (67.85% if upsized) from 64.42%; the concentration of 73-plus month loans increased slightly to 5.01% (4.99% if upsized), compared to 4.84% prior.
- The percentage of loans with a FICO score of 700 or below decreased to 17.88% (17.83% if upsized) from 19.24%, while loans with a FICO score greater than 750 increased to 61.29% (61.14% if upsized) from 59.40%.
- The percentage of Hyundai-branded vehicles increased to 55.91% (55.72% if upsized) from 53.39%, while the percentage of Kia-branded vehicles decreased to 38.81% (39.02% if upsized) from 41.54%. Based on the data provided, we have observed that loans on Hyundai-branded vehicles generally experience lower net credit losses than loans backed by Kia vehicles.
- The average original amount financed increased to $31,013 ($31,000 if upsized) from $29,531.
- The percentage of crossover utility vehicles (CUVs) and SUVs increased slightly to 65.84% (65.87% if upsized) from 65.08%, and the percentage of cars in the pool decreased to 27.41%

(27.43% if upsized) compared with 28.32%.

Overall, we believe the HART 2024-A collateral pool is generally comparable to HART 2023-C (see tables 2-4).

Table 2

Collateral comparison(i)

	HART				
	2024-A (base)	2024-A (upsize)	2023-C	2023-B	2023-A
Pool balance (mil. $)	1,370.39	1,812.80	1,822.50	1,865.30	1,829.75
No. of receivables	51,568	68,239	70,494	75,796	84,779
Avg. loan balance ($)	26,574	26,565	25,853	24,609	21,583
Avg. original amount financed ($)	31,013	31,000	29,531	30,090	28,589
WA APR (without YSOA) (%)	5.70	5.70	5.63	4.96	3.72
WA original term (mos.)	66.59	66.59	65.55	66.16	66.60
WA remaining term (mos.)	57.87	57.87	58.50	57.01	50.68
WA seasoning (mos.)	8.72	8.72	7.05	9.15	15.92
WA FICO score	766	766	768	767	767
FICO score less than 701(ii)	17.88	17.83	19.24	17.08	16.56
FICO score 701-750	20.83	21.03	21.36	18.49	19.98
FICO score greater than 750	61.29	61.14	59.40	64.43	63.46
Original term 61-72 months	62.86	62.87	59.58	59.54	60.02
Original term 73-75 months	0.11	0.13	4.84	5.04	5.06
Original term 76-84 months	4.90	4.85	0	0	0
Total greater than 60-month term	67.87	67.85	64.42	64.58	65.08
New vehicles (%)	95.77	95.75	94.31	96.47	95.58
Used vehicles (%)	4.23	4.25	5.69	3.53	4.42
Hyundai receivables (%)	55.91	55.72	53.39	50.86	55.55
Kia receivables (%)	38.81	39.02	41.54	43.62	39.64
Genesis receivables (%)	4.92	4.89	4.05	5.04	3.87
Other receivables (%)	0.36	0.37	1.02	0.49	0.95
Vehicle type (%)					
Car	27.41	27.43	28.32	30.32	33.68
CUV/SUV	65.84	65.87	65.08	64.11	62.78
Minivan	3.87	3.84	1.82	1.63	1.45
Truck	2.51	2.49	3.76	3.45	1.14
Other	0.36	0.37	1.02	0.49	0.95
Top five state concentrations (%)					
	TX=12.89	TX=13.00	TX=12.00	CA=12.50	FL=12.03
	FL=11.49	FL=11.52	FL=11.66	TX=12.40	CA=11.94

Table 2

Collateral comparison(i) (cont.)

	HART				
	2024-A (base)	2024-A (upsize)	2023-C	2023-B	2023-A
	CA=6.42	CA=6.37	CA=10.96	FL=11.32	TX=11.04
	IL=4.92	IL=4.96	IL=4.95	IL=5.17	NY=5.71
	GA=4.39	GA=4.35	GA=4.55	GA=4.34	IL=5.46

(i)All percentages are of the initial collateral pool balance. (ii)Excludes accounts for which no FICO score is available. HART--Hyundai Auto Receivables Trust. WA--Weighted average. APR--Annual percentage rate. YSOA--Yield supplement overcollateralization amount. CUV--Crossover utility vehicle.

Table 3

Collateral comparison(i)

	HART 2024-A (base)			HART 2024-A (upsize)			HART 2023-C		
	Hyundai	Kia	Total	Hyundai	Kia	Total	Hyundai	Kia	Total
Pool balance (mil. $)	766.21	531.83	1,370.39	1010.16	707.29	1,812.80	973.03	757.13	1,822.50
No. of receivables	30,350	19,338	51,568	40,060	25,714	68,239	41,077	26,617	70,494
Avg. loan balance ($)	25,246	27,502	26,575	25,216	27,506	26,566	23,688	28,445	25,853
Avg. original amount financed ($)	29,933	31,321	31,013	29.894	31,329	31,000	27,695	31,619	29,531
WA APR (without YSOA) (%)	5.02	6.71	5.70	5.01	6.71	5.70	4.40	7.07	5.63
WA original term (mos.)	65.61	68.22	66.59	65.57	68.26	66.59	62.10	70.13	65.55
WA remaining term (mos.)	56.23	60.52	57.87	56.19	60.55	57.87	54.47	63.71	58.50
WA seasoning (mos.)	9.38	7.69	8.72	9.37	7.71	8.72	7.63	6.42	7.05
WA FICO score	767	762	766	767	761	766	782	752	768
New vehicles (%)	96.74	95.36	95.77	96.72	95.37	95.75	96.09	94.97	94.31
Used vehicles (%)	3.26	4.64	4.23	3.28	4.63	4.25	3.91	5.03	5.69
Hyundai receivables (%)	100.00	0.00	55.91	100.00	0.00	55.72	100.00	0.00	53.39
Kia receivables (%)	0.00	100.00	38.81	0.00	100.00	39.02	0.00	100.00	41.54
Other receivables (%)(ii)	N/A	N/A	5.28	N/A	N/A	5.26	N/A	N/A	5.07

(i)All percentages are of the initial collateral pool balance. (ii)Includes Genesis receivables. HART--Hyundai Auto Receivables Trust. WA--Weighted average. APR--Annual percentage rate. YSOA--Yield supplement overcollateralization amount. N/A--Not applicable.

The HART 2024-A transaction, unlike prior HART transactions, will include contracts with original terms of 76-84 months. Contracts with original terms of 73-75 months were the longest-term collateral in HART 2023-C and prior HART transactions. These 73-75 month contracts have been largely replaced by 76-84 month contract in the 2024-A transaction (see table 4). The inclusion of longer-term contracts is typically viewed as a negative credit factor from a collateral analysis perspective, but the 76-84 month contracts in the HART 2024-A transaction compare very favorably to the previous 73-75 month contracts:

- A weighted average seasoning of 14.66 months (14.81 months if upsized) compared to 12.03 months prior.
- A weighted average of FICO of 781 compared to 769 prior.
- A concentration of Hyundai-branded vehicles increased to 51.81% (51.09% if upsized) from 13.14%, and a concentration of Kia-branded vehicles decreased to 45.07% (46.09% if upsized) from 86.45%. Based on the data provided, we have observed that loans on Hyundai-branded vehicles generally experience lower net credit losses than loans backed by Kia vehicles.

Table 4

Collateral characteristics by term(i)

	HART 2024-A (base)		HART 2024-A (upsize)		HART 2023-C		HART 2023-B		HART 2023-A	
	0-72 mos.	73-84 mos.	0-72 mos.	73-84 mos.	0-72 mos.	73-75 mos.	0-72 mos.	73-75 mos.	0-72 mos.	73-75 mos.
% of total pool balance	94.99	5.01	95.02	4.98	95.16	4.84	94.96	5.04	94.94	5.06
WA seasoning (mos.)	8.39	15.08	8.37	15.31	6.80	12.03	8.70	17.66	15.64	21.24
WA FICO score	766	780	765	780	768	769	767	769	767	770
New vehicles (%)	95.55	100.00	95.53	100.00	94.02	100.00	96.29	100.00	95.34	100.00
Hyundai receivables (%)	56.13	51.81	55.97	51.09	55.44	13.14	53.26	5.60	57.03	27.71
Kia receivables (%)	38.48	45.07	38.64	46.09	39.26	86.45	40.94	94.16	37.92	71.84
Other receivables (%)(ii)	5.39	3.12	5.39	2.81	5.30	0.41	5.81	0.24	5.05	0.45
Original term 73-75 months (%)	N/A	2.16	N/A	2.70	N/A	100	N/A	100	N/A	100
Original term 76-84 months (%)	N/A	97.84	N/A	97.30	N/A	0	N/A	0	N/A	0

(i)All percentages are of the initial collateral pool balance. (ii)Includes Genesis receivables. HART--Hyundai Auto Receivables Trust. WA--Weighted average. Mos.--Months.

Macroeconomic And Auto Finance Sector Outlook

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

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

We are also closely watching the following developments:

Consumers are showing signs of strain due to increased debt loads. The ratio for seriously delinquent auto loans is already at its highest level outside of recessionary periods, according to the Federal Reserve Bank of New York/Equifax credit data. This is driven primarily by the subprime segment, which represents about one-seventh of the total outstanding auto loan balance.

Employment in the temporary help services sector was down 7.0% in January from a year ago. A decline of this magnitude has been a harbinger of weaker future demand for permanent workers.

Student loan payments resumed in October 2023 and are putting upward pressure on debt service ratios. This could lead to even higher consumer delinquencies and charge-offs.

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

Table 5

U.S. economic factors

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

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

S&P Global Ratings' Expected Loss: 1.35%

We determined our expected loss for HART 2024-A by analyzing:

- The transaction's collateral characteristics relative to those of outstanding series (see tables 2-4);
- The managed portfolio performance and origination static pool data and their relative performances (see tables 6-8); and
- The outstanding series' performance (see table 9 and charts 1-4).

Based on our analysis of the HART 2024-A pool's credit quality and origination static pool, HCA's securitization performance, and our views regarding current and future macroeconomic and industry-specific conditions, we expect HART 2024-A to experience lifetime CNLs of 1.35%, which is the same as HART 2023-C.

In determining our ECNL for 2024-A, we also considered HCA's established performance track record as a frequent issuer, their origination static pool performance, and outstanding series 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 above).

Managed portfolio

As of Dec. 31, 2023:

- HCA managed a serviced portfolio of $38.94 billion, up approximately 30.0% year over year (see table 6).
- Total delinquencies as a percentage of the portfolio outstanding decreased slightly to 2.60%, from 2.66% as of the same period in 2022.
- The serviced portfolio's net losses as a percentage of the average principal outstanding increased to 0.80% for the 12 months ended Dec. 31, 2023, from 0.60% a year earlier.

The delinquency and net charge-off percentages for the Hyundai and Kia portions of the total pool are shown in tables 7 and 8. Both portfolios' delinquencies have increased, primarily driven by higher 30- to 60-day delinquencies. Similar to the overall portfolio, Hyundai and Kia are exhibiting slightly higher net charge-offs year over year but remain below pre-pandemic net charge-offs (2019 and prior).

Table 6

Total managed portfolio

	Year ended Dec. 31				
	2023	2022	2021	2020	2019
Portfolio outstanding (mil. $)	38,936.96	29,955.18	28,414.46	22,211.63	16,370.04
Avg. principal balance outstanding (mil. $)	34,585.98	28,860.86	24,654.96	17,226.90	13,667.40
Delinquency (%)(i)					
30-60 days	1.91	1.93	1.40	1.54	2.23
61-90 days	0.55	0.55	0.37	0.44	0.59
91-120 days	0.14	0.16	0.10	0.11	0.13
Over 120 days	0.00	0.01	0.00	0.00	0.00
Total delinquencies as a % of the portfolio outstanding	2.60	2.66	1.87	2.09	2.96
Net charge-off as a % of the avg. outstanding(ii)	0.80	0.60	0.42	1.14	1.47

(i)Excludes repossessed vehicles. (ii)Annualized if not based on a full year.

Table 7

Hyundai managed portfolio

	Year ended Dec. 31				
	2023	2022	2021	2020	2019
Portfolio outstanding (mil. $)	21,386.20	15,879.55	14,321.22	10,898.83	7,230.34
Avg. principal balance outstanding (mil. $)	18,750.61	14,801.89	12,234.53	7,863.57	5,685.25
Delinquency (%)(i)					
30-60 days	1.46	1.43	1.08	1.19	1.91
61-90 days	0.41	0.41	0.29	0.32	0.50

Table 7

Hyundai managed portfolio (cont.)

	Year ended Dec. 31				
	2023	**2022**	**2021**	**2020**	**2019**
91-120 days	0.11	0.11	0.08	0.08	0.11
Over 120 days	0.00	0.01	0.00	0.00	0.00
Total delinquencies as a % of the portfolio outstanding	1.98	1.96	1.45	1.59	2.52
Net charge-off as a % of the avg. outstanding(ii)	0.62	0.43	0.29	0.91	1.22

(i)Excludes repossessed vehicles. (ii)Annualized if not based on a full year.

Table 8

Kia managed portfolio

	Year ended Dec. 31				
	2023	**2022**	**2021**	**2020**	**2019**
Portfolio outstanding (mil. $)	17,550.77	14,075.63	14,093.24	11,312.80	9,139.70
Avg. principal balance outstanding (mil. $)	15,825.37	14,058.97	12,420.43	9,363.32	7,982.15
Delinquency (%)(i)					
30-60 days	2.47	2.50	1.72	1.87	2.48
61-90 days	0.71	0.71	0.45	0.55	0.67
91-120 days	0.18	0.22	0.13	0.14	0.14
Over 120 days	0.00	0.02	0.00	0.00	0.00
Total delinquencies as a % of the portfolio outstanding	3.36	3.45	2.30	2.56	3.30
Net charge-off as a % of the avg. outstanding(ii)	1.03	0.79	0.55	1.34	1.65

(i)Excludes repossessed vehicles. (ii)Annualized if not based on a full year.

Origination static pool analysis

To derive the base-case expected loss for the series 2024-A transaction, we analyzed performance data on the origination static pools by cohorts (i.e., by make Hyundai/Kia, FICO score band, and original term) consistent with this series' pool. We used historical loss curves to develop expected net loss projections for each of the outstanding cohorts with at least 12 months of performance. Then, we weighted these projections based on the various attributes' concentrations in the series 2024-A pool to determine a base-case loss expectation.

HART series performance

We currently maintain ratings on 12 HART transactions that were issued between 2019 and 2023 (see table 9).

Table 9

HART collateral performance and CNL expectations(i)

Series	Month	Pool factor (%)	CNL (%)	60-plus-day delinquency (%)	Initial lifetime ECNL (%)(ii)	Current revised lifetime ECNL (%)(iii)
2020-A	46	9.92	0.92	0.67	1.80-2.00	1.00
2020-B	43	9.13	0.78	0.82	1.80-2.00	0.90
2020-C	40	16.43	0.78	0.73	1.80-2.00	0.95
2021-A	34	23.48	0.63	0.64	1.55-1.75	0.90
2021-B	31	28.94	0.78	0.71	1.40-1.60	1.10
2021-C	27	35.40	0.78	0.65	1.40-1.60	1.20
2022-A	23	42.00	0.70	0.61	1.30-1.50	1.20
2022-B	19	49.05	0.58	0.49	1.30-1.50	1.30
2022-C	15	59.59	0.46	0.46	1.40	1.30
2023-A	10	68.05	0.33	0.40	1.35	N/A
2023-B	7	79.04	0.30	0.37	1.35	N/A
2023-C	3	90.07	0.07	0.30	1.35	N/A

(i)As of the February 2024 distribution date. (ii)Each of the initial loss expectations for series 2020-A, 2020-B, 2020-C, and 2021-A included an adjustment to account for the potential impact of the COVID-19 pandemic. (iii)For series 2020-A through 2022-C, we revised our ECNLs in November 2023. CNL--Cumulative net loss. ECNL--Expected cumulative net loss. N/A--Not applicable.

On Nov. 7, 2023, we raised our ratings on eight classes and affirmed our ratings on 34 classes from 10 HART series due to better or in-line performance with our initial ECNL expectations (see "Eight Ratings Raised and 34 Affirmed From 10 Hyundai Auto Receivables Trust Transactions").

We believe the outstanding transactions 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 revised CNL expectations under our stress scenarios for each of the rated classes.

The paid-off transactions, HART 2000-A through 2019-B, experienced CNLs ranging from approximately 0.6% (series 2011-A) to 5.1% (series 2002-A). The 2000-2002 securitizations experienced the highest losses, ranging from 4.1% to 5.1% (see charts 1 and 2). These earlier vintages had low weighted average FICO scores of less than 680, while the later vintages (2009-2011) exhibited strong credit quality, with weighted average FICO scores between 742 and 751.

Chart 1

Hyundai paid off securitization cumulative net losses | 2000-2009

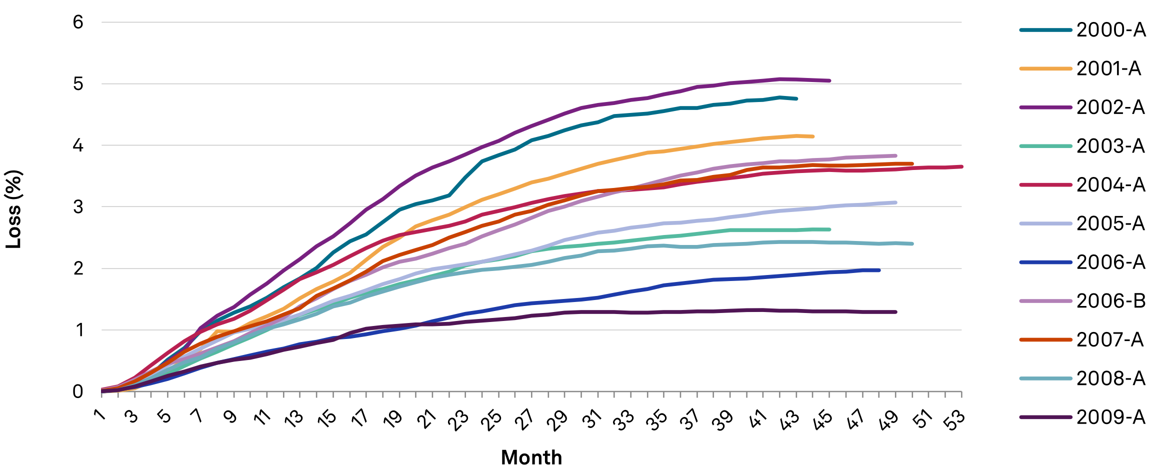
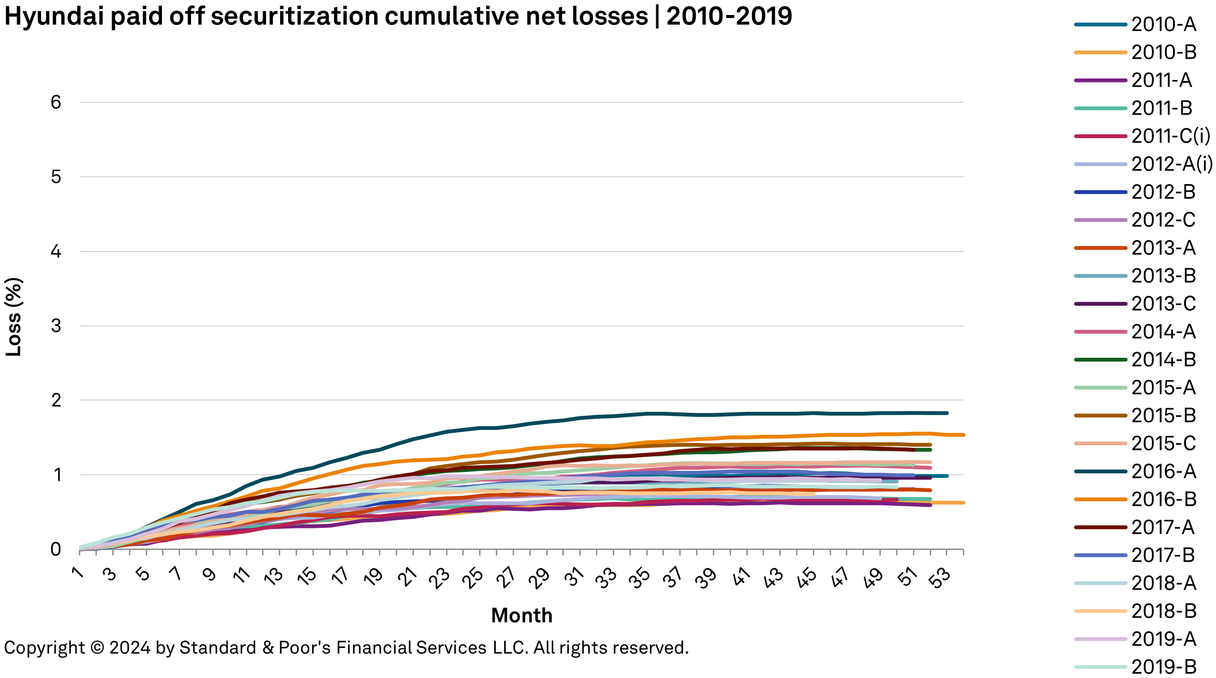


Chart 2

Hyundai paid off securitization cumulative net losses | 2010-2019



CNLs for the outstanding series 2020-A through 2023-C securitizations are generally trending low relative to those of earlier deals (see chart 3). We believe the strong performance is partly attributable to higher weighted average FICO scores (approximately 740-770).

Chart 3

Hyundai 2019-2023 securitization cumulative net losses

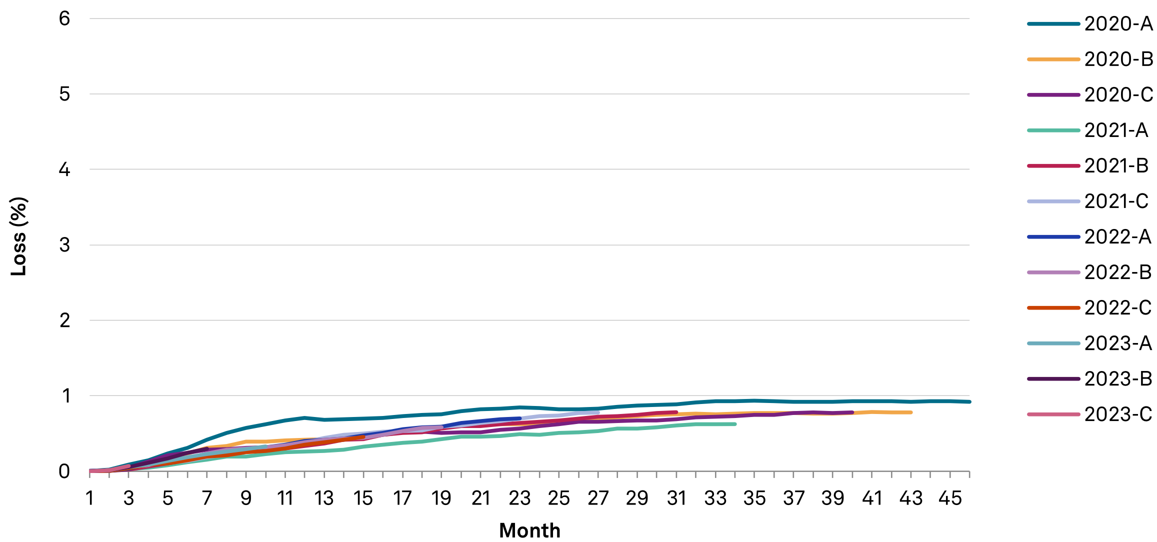
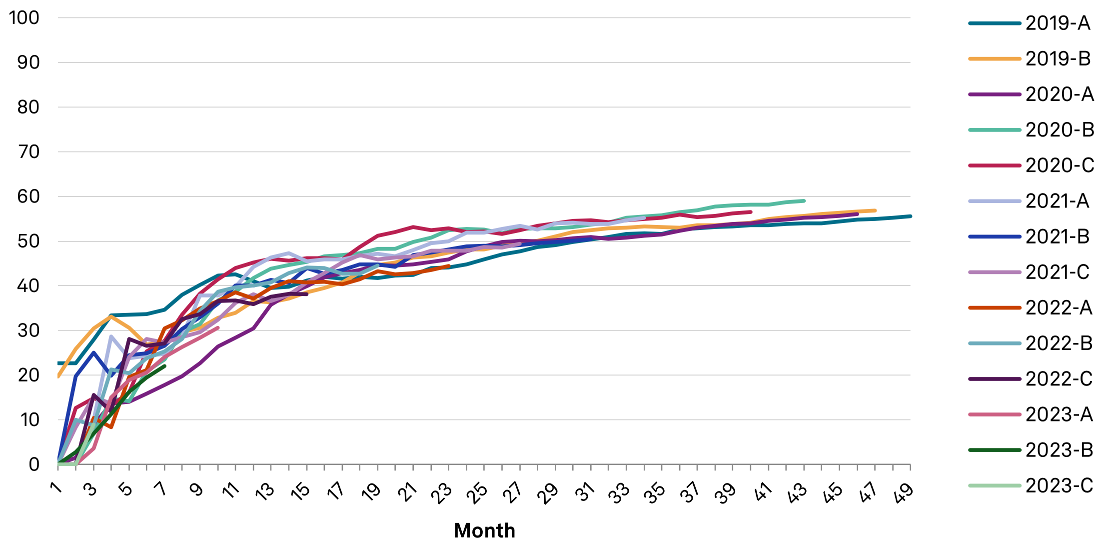


Chart 4 shows the cumulative recovery rates on each outstanding securitization. Recovery rates on the paid-off series 2016-2019 transactions ranged from approximately 56% to 61%. The outstanding series 2020 transactions currently range between 56% and 59%, while the series 2021 transactions, with fewer datapoints, are around 50%, on average. As of March 1, 2020, proceeds from the disposition of vehicles charged-off and sold in the same day are subtracted from gross charge-offs. This has started to result in a decrease in gross charge-offs and a corresponding decrease in recoveries, although net losses should ultimately remain unaffected.

Chart 4

Hyundai securitizations | cumulative recovery rates



Legal Overview And Transaction Structure

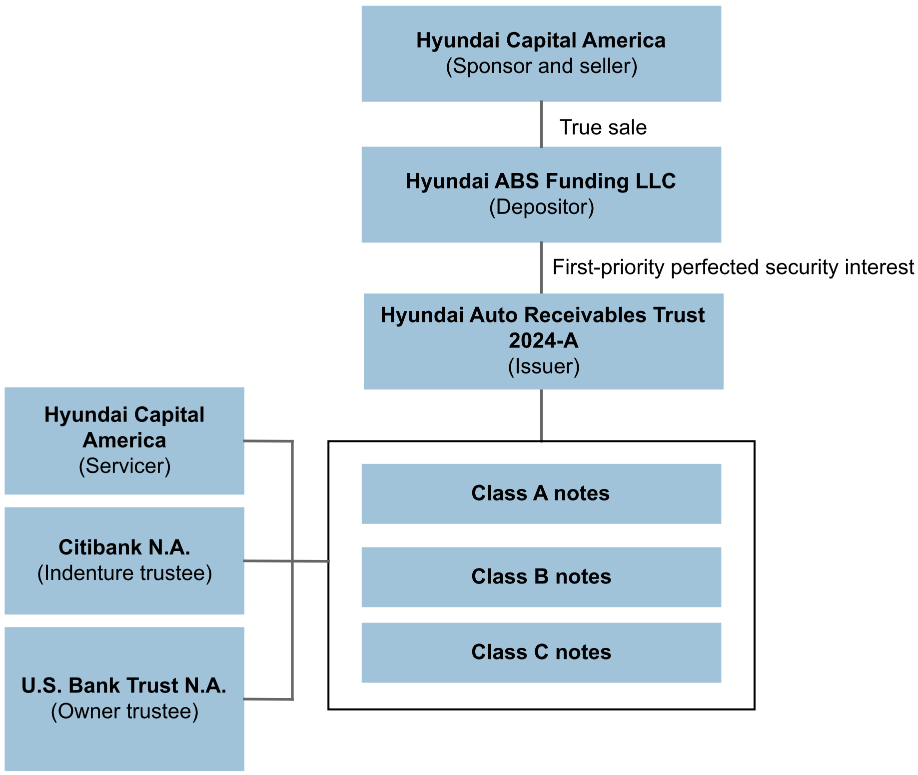
Legal overview

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 series 2024-A transaction is structured as a true sale of the receivables to Hyundai ABS Funding LLC from HCA. Through this true sale, Hyundai ABS Funding LLC will sell the acquired assets to the trust, a bankruptcy-remote special-purpose entity, which will then pledge its interest in the receivables to the trustee on the noteholders' behalf (see chart 5).

Chart 5

Transaction structure



Transaction structure

HART 2024-A incorporates the following structural features:

- A sequential principal payment structure among the class A, B, and C notes, which is expected to result in increasing credit enhancement for the senior notes as the pool amortizes.
- Subordination of 4.80% and 3.00% for classes A and B, respectively.
- A fully funded nonamortizing reserve account that will equal 0.25% of the initial adjusted pool balance.
- Initial overcollateralization of 2.50% that will grow to 3.00% of the initial adjusted pool balance.
- A YSOA that initially will equal 6.82% of the initial aggregate pool balance and will amortize based on a set schedule. The YSOA is sized so that the yield on the contracts with an annual percentage rate (APR) below the YSOA discount rate is raised to the required rate, which is 9.00%. The YSOA is included to address the liquidity risk associated with the low interest rate loans in the securitized pool.
- Excess spread, adjusted for YSOA, of 2.57% per year (pre-pricing).

The class A-2 notes may consist of two tranches: the class A-2-A fixed-rate notes and the class A-2-B floating-rate notes. The class A-2-B notes, if issued, will be indexed to SOFR plus a spread and may constitute up to 50.00% of the class A-2 notes. The class A-2-B coupons will initially be based on a 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, the transaction documents include provisions that govern alternative rate selection if SOFR becomes unavailable.

Payment Priority

Payment distributions before an event of default

Distributions will be made from the available funds according to the priority shown in table 10 as long as an event of default has not occurred.

Table 10

Payment waterfall

Priority	Payment
1	The 1.00% annual servicing fee and all unpaid servicing fees and reimbursements for any servicer advances.
2	To the class A noteholders, accrued and unpaid interest on the class A notes.
3	To the principal distribution account, the first-priority principal distribution amount, which will generally be an amount equal to the excess of the class A outstanding principal amount over the adjusted pool balance.
4	To the class B noteholders, accrued and unpaid interest on the class B notes.
5	To the principal distribution account, the second-priority principal distribution amount, which will generally be an amount equal to the excess of the sum of the aggregate class A and B outstanding principal amount over the adjusted pool balance, provided this amount will be reduced by any amounts previously deposited in the principal distribution account according to item 3 above.
6	To the class C noteholders, accrued and unpaid interest on the class C notes.
7	To the principal distribution account, the regular principal distribution amount, which will generally be an amount equal to the excess of the aggregate class A, B, and C outstanding principal amount over the adjusted pool balance, minus the target overcollateralization amount, provided that this amount will be reduced by any amounts previously deposited in the principal distribution account according to items 3 and 5 above.
8	To the reserve account, up to its required level.
9	To the trustees, pro rata, and then to the asset representations reviewer, reimbursements, expenses, and indemnities not previously paid.
10	Any remaining funds to the certificateholders.

Events of default

The payment priority can change if certain events of default occur and continue, including a failure to pay interest on the controlling note class; a failure to pay principal at final maturity; a breach of a representation, warranty, or covenant; or the trust's involuntary or voluntary bankruptcy.

If an event of default occurs and continues, the indenture trustee or a majority of the noteholders of the controlling class's outstanding amount may accelerate the notes. The trust estate may be liquidated as a result, but only under three circumstances:

- If the event of default is a failure to pay timely interest or principal at final maturity, the trust estate may be liquidated without further caveat.
- If the event of default is a breach of a representation, warranty, or covenant, the trust estate may be liquidated if all noteholders and certificateholders consent or if the sale or liquidation proceeds are sufficient to ensure all noteholders and certificateholders are paid in full.
- If a bankruptcy event of default occurs, the trust estate may be liquidated if all of the controlling class's noteholders consent, if the sale or liquidation proceeds are sufficient to ensure all notes are paid in full, or if the indenture trustee determines that the trust estate will not provide sufficient funds to pay the noteholders in full and obtains the consent of noteholders holding two-thirds of the principal amount of the controlling class.

Payment distributions after an event of default

If the notes are accelerated following a failure to pay timely interest or principal at final maturity or a bankruptcy event of default, or if there is a representation, warranty, or covenant breach following one of the other events of default and the trust estate's liquidation, then distributions will be made from the available funds according to the priority shown in table 11.

Table 11

Event of default payment waterfall

Priority	Payment
1	All amounts owed to the trustees not previously paid.
2	All amounts owed to the servicer not previously paid.
3	All amounts owed to the asset representations reviewer not previously paid.
4	To the class A noteholders, pro rata, for amounts due and unpaid on the class A notes in respect of interest, ratably, without preference or priority of any kind, according to the amounts due and payable on the notes in respect of interest.
5	To the class A-1 noteholders, principal owed until the class A-1 notes are reduced to zero.
6	Principal amounts due and unpaid on the class A-2, A-3, and A-4 notes, ratably, without preference or priority of any kind until each class's outstanding amount is reduced to zero; provided that if there are insufficient funds to pay each class's outstanding principal amount, the amounts available will be applied to pay principal on the notes, pro rata.
7	Any accrued and unpaid interest on the class B notes.
8	To the class B noteholders, principal owed until the class B notes are reduced to zero.
9	Any accrued and unpaid interest on the class C notes.
10	To the class C noteholders, principal owed until the class C notes are reduced to zero.
11	Any remaining funds 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. 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 HART 2024-A transaction structure, we used a bifurcated-pool method and applied the assumptions outlined in table 12 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 (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 subvened loans and nonsubvened loans using an APR of 5.00% and applied different prepayment and default assumptions between the two pools. For nonsubvened loans (with APRs of 5.00% or greater), we ran faster voluntary prepayments, disproportionately higher losses, and faster loss timing than for the subvened loans (with APRs less than 5.00%). Conversely, we ran a slower voluntary prepay speed, disproportionately lower losses, and slower loss timing on the subvened 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.

For the class A-2-B floating-rate tranche, we applied our stressed interest rates for one-month SOFR as described in our criteria and corresponding guidance, "Methodology To Derive Stressed Interest Rates In Structured Finance," published Oct. 18, 2019. We modeled the maximum potential size of the class A-2-B note balance (50.00% of the class A-2 notes) indexed to SOFR.

Based on our stressed cash flows, the break-even net loss results show that the class A, B, and C notes are credit-enhanced to the degree appropriate for the assigned preliminary ratings (see tables 13 and 14).

Table 12

Break-even cash flow assumptions

Servicing fee (%)	1
Recovery rate (%)	50
Charge-off and recovery lag (mos.)	4
Bifurcated pool (%)	
Subvened	34
Nonsubvened	66
Loss allocation (% of total losses)	
Subvened	20
Nonsubvened	80
Voluntary ABS (%)	
Subvened	0.25
Nonsubvened	1.50

Table 12

Break-even cash flow assumptions (cont.)

CNL timing mos.: front-loaded (12/24/36/48) (%)	
Subvened	40/70/90/100
Nonsubvened	50/85/95/100
CNL timing mos.: back-loaded (12/24/36/48) (%)	
Subvened	20/50/80/100
Nonsubvened	30/65/90/100

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

Table 13

Break-even cash flow results | base

	Class		
	A	B	C
Preliminary rating	AAA (sf)	AA+ (sf)	AA (sf)
CNL timing mos.: front-loaded (12/24/36/48) (%)			
Aggregate	48/83/95/100	48/83/95/100	48/83/95/100
Subvened/underwater	42/73/93/100	42/73/93/100	42/73/93/100
Nonsubvened/above water	50/85/95/100	50/85/95/100	50/85/95/100
CNL timing mos.: back-loaded (12/24/36/48) (%)			
Aggregate	28/63/89/100	28/63/89/100	28/63/89/100
Subvened/underwater	23/56/86/100	23/56/86/100	23/56/86/100
Nonsubvened/above water	30/65/90/100	30/65/90/100	30/65/90/100
Approximate break-even CNL levels (%)(i)			
Required	6.8	6.1	5.4
Available (front-loaded)	11.7	10.1	7.5
Available (back-loaded)	11.6	10.1	7.6

(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. Mos.--Months.

Table 14

Break-even cash flow results | upsize

	Class		
	A	B	C
Preliminary rating	AAA (sf)	AA+ (sf)	AA (sf)
CNL timing mos.: front-loaded (12/24/36/48) (%)			
Aggregate	48/83/95/100	48/83/95/100	48/83/95/100
Subvened/underwater	42/73/93/100	42/73/93/100	42/73/93/100
Nonsubvened/above water	50/85/95/100	50/85/95/100	50/85/95/100

Table 14

Break-even cash flow results | upsize (cont.)

	Class		
	A	B	C
CNL timing mos.: back-loaded (12/24/36/48) (%)			
Aggregate	28/63/89/100	28/63/89/100	28/63/89/100
Subvened/underwater	23/56/86/100	23/56/86/100	23/56/86/100
Nonsubvened/above water	30/65/90/100	30/65/90/100	30/65/90/100
Approximate break-even CNL levels(%)(i)			
Required	6.8	6.1	5.4
Available (front-loaded)	11.7	10.1	7.5
Available (back-loaded)	11.6	10.1	7.6

(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. Mos.--Months.

Although the break-even levels for classes B and C satisfy our minimum requirement for the preliminary ratings assigned to the classes immediately above, given their relative subordinated position and distribution of losses within the transaction's structure, class B and C's assigned ratings are structurally constrained (see "S&P Global Ratings Definitions," published June 9, 2023).

Sensitivity analysis

In addition to running break-even cash flows, we undertook sensitivity analyses using the assumptions in table 12. We believe that under a moderate ('BBB') stress scenario (2.00x of our 1.35% expected loss level) and with 100% credit to any excess spread, all else being equal, our preliminary ratings will be within the credit stability limits specified by section A.4 of the Appendix of "S&P Global Ratings Definitions," published June 9, 2023 (see table 15 and charts 6-9).

Table 15

Credit stability as a limiting factor on ratings

	Maximum projected deterioration associated with rating levels for one- and three-year horizons under moderate stress conditions					
Horizon	**AAA**	**AA**	**A**	**BBB**	**BB**	**B**
One year	AA	A	BB	B	CCC	D
Three years	BBB	BB	B	CCC	D	D

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 6

Sensitivity analysis | coverage multiples (front-loaded two-pool approach) | base pool

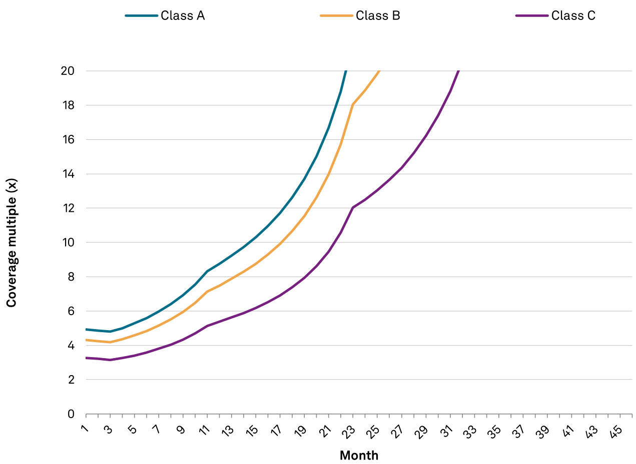


Chart 7

Sensitivity analysis | coverage multiples (front-loaded two-pool approach) | upsize pool

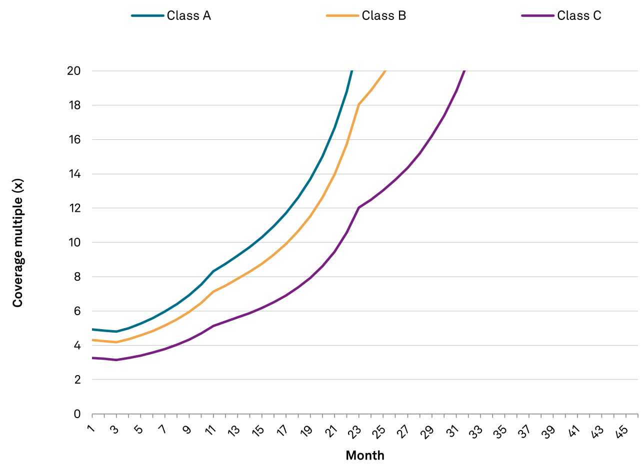


Chart 8

Sensitivity analysis | coverage multiples (back-loaded two-pool approach) | base pool

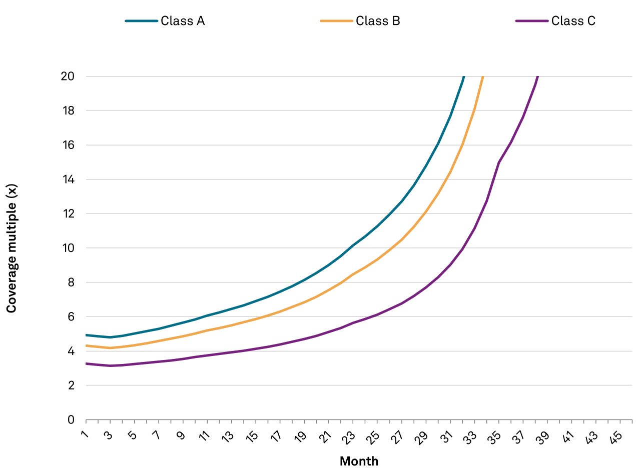
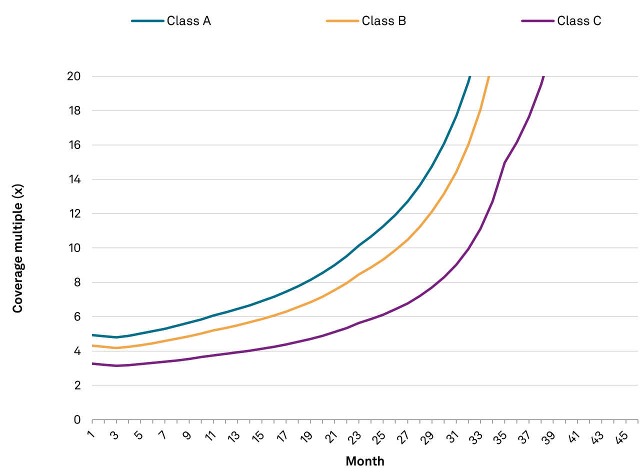


Chart 9

Sensitivity analysis | coverage multiples (back-loaded two-pool approach) | upsize pool



Money market tranche sizing

The proposed class A-1 money market tranche has a final maturity date of March 17, 2025. To test whether the money market tranche can be repaid by then, we ran cash flows using assumptions to delay the principal collections during the that time. In addition to zero defaults, we assumed a zero absolute prepayment speed for the subvened collateral and 0.50% absolute prepayment speed for the nonsubvened collateral in our cash flow scenario. Based on our cash flow scenario, approximately 10 months of collections would be sufficient to pay off the money market tranche.

Legal final maturity

To test the legal final maturity dates set for classes A and B, we determined the date when the respective notes were fully amortized in a zero-loss, zero-prepayment scenario and then added three months to the result. Furthermore, in the break-even scenario for each respective preliminary rating level, we confirmed that there was sufficient credit enhancement to cover losses and to repay the related notes in full by the legal final maturity date. We calculated the legal final maturity for the class C notes by adding at least six months to accommodate recoveries and extensions to the longest loan term in the pool as of the cutoff date.

Counterparty And Operational Risks

Bank account providers

On or before the closing date, the HART 2024-A bank accounts will be established with the bank account provider, Citibank N.A. 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).

Servicer

HCA has a long history in the prime auto finance business. As servicer, HCA has an experienced management team that oversees origination, underwriting, servicing, collections, and general operational practices. HCA is rated by S&P Global Ratings (BBB+/Positive/A-2) and commingling risk is addressed by the requirement that all collections are deposited into the series collections account within two business days of collection. Our operational risk assessment of HCA as servicer does not constrain the ratings (see "Global Framework For Assessing Operational Risk In Structured Finance Transactions," published Oct. 9, 2014).

HCA

HCA (BBB+/Positive/A-2) is an 80.00%-owned subsidiary of Hyundai Motor America, which, in turn, is a wholly owned subsidiary of South Korea-based automaker Hyundai Motor Co. (BBB+/Positive/--). The remaining 20.00% is owned by Kia America Inc. (formerly known as Kia Motors America Inc.), an affiliate of HCA and a wholly owned subsidiary of Kia Corp. (BBB+/Positive/--). HCA offers both retail and lease products to its customers. HCA is a full-service auto finance company that provides services to Hyundai dealers across the country and arranges financing for facilities refurbishment, real estate purchases, construction, working capital requirements, and dealer inventory. On Jan. 25, 2024, we revised our rating outlook on HCA to positive and affirmed our 'BBB+' issuer credit rating on the company after taking similar rating action on its parent Hyundai Motor Co. (see "Research Update: Hyundai Capital America and Hyundai Capital Canada Inc. Outlooks Revised to Positive After Same Action on Group," published Jan. 25, 2024).

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. Economic Forecast Update: A Sturdy Job Market Keeps Growth Going, Feb. 21, 2024
- U.S. Auto Loan ABS Tracker: Full-Year and December 2023 Performance, Feb. 13, 2024
- Research Update: Hyundai Capital America and Hyundai Capital Canada Inc. Outlooks Revised to Positive After Same Action on Group, Jan. 25, 2024
- Research Update: Hyundai Motor Co. and Kia Corp. Outlook Revised to Positive on Strong Profitability; Ratings Affirmed, Jan. 24, 2024
- Credit Conditions North America Q1 2024: A Cluster of Stresses, Nov. 28, 2023
- Eight Ratings Raised And 34 Affirmed from 10 Hyundai Auto Receivables Trust Transactions, Nov. 9, 2023