S&P Global
Ratings

Research

Presale:

Porsche Financial Auto Securitization Trust 2023-2

October 26, 2023

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Preliminary ratings

Class	Preliminary rating	Type	Interest rate(i)	Amount (mil. $)(i)	Legal final maturity date
A-1	A-1+ (sf)	Senior	Fixed	166.52	Nov. 22, 2024
A-2a/A-2b(ii)	AAA (sf)	Senior	Fixed/floating	282.96	Nov. 23, 2026
A-3	AAA (sf)	Senior	Fixed	245.30	Jan. 22, 2029
A-4	AAA (sf)	Senior	Fixed	55.23	Nov. 24, 2031

Note: This presale report is based on information as of Oct. 26, 2023. The ratings shown are preliminary. This report does not constitute a recommendation to buy, hold, or sell securities. Subsequent information may result in the assignment of final ratings that differ from the preliminary ratings. (i)The interest rate and size of each class will be determined on the pricing date. (ii)The initial principal amount of the A-2a note will be determined during pricing, although the class A-2b note size will not exceed $100.00 million. The class A-2b notes will accrue interest at a floating rate indexed to a compounded SOFR (30-day average) plus a margin.

Profile

Expected closing date	Nov. 10, 2023.
Collateral	Prime auto loan receivables.
Issuer	Porsche Financial Auto Securitization Trust 2023-2.
Originator, sponsor, servicer, and administrator	Porsche Financial Services Inc.
Seller	Porsche Funding Ltd. Partnership.
Depositor	Porsche Auto Funding LLC.
Indenture trustee	U.S. Bank Trust Co. N.A. (A+/Stable/A-1).
Owner trustee	Wilmington Trust N.A. (A-/Stable/A-2).
Bank account provider	U.S. Bank N.A. (A+/Stable/A-1).

Rationale

The preliminary ratings assigned to Porsche Financial Auto Securitization Trust 2023-2's (PFAST 2023-2) asset-backed notes series 2023-2 reflect:

- The availability of approximately 6.1% credit support (hard credit enhancement and excess spread) for the class A (classes A-1, A-2a/A-2b, A-3, and A-4, collectively) notes based on stressed cash flow scenarios. This credit support level provides more than our 4.0% minimum credit enhancement level for a 'AAA' rating, as outlined in our global auto criteria (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 'A-1+ (sf)'/'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 collateral characteristics of the series' prime automobile loans, our view of the collateral's credit risk, 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 N.A., which do not constrain the preliminary ratings.
- Our operational risk assessment of Porsche Financial Services Inc. (PFS) as servicer and our view of the company's underwriting.
- Our assessment of the transaction's potential exposure to environmental, social, and governance credit factors that are in line with our sector benchmark.
- The transaction's payment and legal structures.

Our expected cumulative net loss (ECNL) for PFAST 2023-2 is 0.55%, which is unchanged from PFAST 2023-1. It reflects:

- Our view that series 2023-2 collateral characteristics are generally consistent with that of series 2023-1;
- The managed portfolio's performance and the origination static pool performance;
- The transaction's collateral characteristics relative to those of peers;
- The performance of the paid-off PFAST securitizations; and
- Our forward-looking view of the auto finance sector.

Environmental, Social, And Governance (ESG) Factors

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

The transaction's exposure to ESG credit factors is in line with our sector benchmark. We generally view environmental credit factors as above average because the collateral pool consists of vehicles with internal combustion engines (ICEs), which emit pollutants that contribute to climate transition risk. Although the adoption of electric vehicles and future regulation could lower ICE vehicle values over time, we believe our current approach to evaluating recovery and residual values adequately account for vehicle values over the transaction's relatively short expected life. As a result, we did not identify this as a separate material ESG credit factor in our analysis.

Key Rating Considerations

PFAST 2023-2 is PFS' fourth auto loan ABS transaction and the third rated by S&P Global Ratings. The previous two transactions rated by S&P Global Ratings were PFAST 2023-1 and 2014-1. In addition to the four auto loan transactions, PFS also issued five auto lease transactions between 2011 and 2015. Based on our review of PFS' operations and performance history, and securitization pool characteristics, we considered the following strengths in rating PFAST 2023-2:

- PFS has been directly servicing motor vehicle receivables originated by Porsche, Bentley, Lamborghini, and Bugatti dealerships since the early 1990s.
- Managed portfolio losses and delinquencies are trending at low levels.
- The collateral pool has a weighted average FICO score of 781, which reflects high obligor credit quality. This FICO score is in line with that of PFAST 2023-1 and is higher than most prime peer securitizations.

In addition to the strengths outlined above, we also considered the following factors:

- The percentage of loans in the PFAST 2023-2 pool with an original term of over 60 months is similar to PFAST 2023-1 but higher than that of PFAST 2014-1 and most peer ABS securitizations. PFS has been originating these longer-term loans for over a decade, and the loans' collateral characteristics are strong. Losses on these longer-term loans trend low for obligors with FICO scores over 740, which constitute the majority of the PFAST 2023-2 pool.
- The lack of recent securitization performance for Porsche transactions because the last paid off Porsche auto loan securitization was issued in 2014. PFAST 2023-1 has four months of performance as of the October distribution date. However, recent managed portfolio trends indicate stable performance compared to pre-Covid-19 pandemic levels (see the S&P Global Ratings' Expected Loss section below).

Credit Enhancement And Collateral

Structural changes from PFAST 2023-1

- PFAST 2023-2 will consist of fixed- and floating-rate tranches, while PFAST 2023-1 consists of only fixed-rate notes.
- The yield supplement overcollateralization (YSOC) discount rate increased to 9.55% from 8.40%, while the initial YSOC amount increased to 6.05% of the adjusted pool balance from 5.24%.

Table 1 shows the credit enhancement changes from recent PFAST transactions.

Table 1

Credit enhancement summary (%)

	PFAST		
	2023-2	2023-1	2014-1
Overcollateralization(i)			
Initial	2.50	2.50	2.50

Table 1

Credit enhancement summary (%) (cont.)

	PFAST		
	2023-2	2023-1	2014-1
Target	2.50	2.50	2.50
Floor	2.50	2.50	2.50
Reserve fund(i)			
Initial	0.25	0.25	0.25
Target	0.25	0.25	0.25
Floor	0.25	0.25	0.25
Total initial hard credit enhancement(i)	2.75	2.75	2.75
YSOC amount(i)	6.05	5.24	1.41
YSOC discount rate	9.55	8.40	4.10
Estimated YSOC-adjusted annual excess spread(ii)	2.38	2.39	2.73

(i)As a percentage of the initial adjusted receivables balance. (ii)Estimated excess spread before pricing. Assumes a 1.00% annual servicing fee. PFAST--Porsche Financial Auto Securitization Trust. YSOC--Yield supplement overcollateralization.

Collateral changes from PFAST 2023-1

As of the Sept. 30, 2023, cutoff date, the PFAST 2023-2 statistical pool receivables balance was $1.08 billion with a weighted average FICO score of 781 and a minimum FICO score of 660. The pool includes only Porsche vehicles and excludes all electric vehicles.

The significant collateral changes from PFAST 2023-1 include:

- The weighted average annual percentage rate (APR) increased to 6.40% from 6.06%.
- The weighted average seasoning increased to 13.28 months from 9.89 months.
- The minimum FICO score increased to 660 from 650.
- The percentage with a remaining term greater than 60 months decreased to 50.02% from 62.79%.
- The percentage of used vehicles increased to 43.66% from 35.96%.

PFAST 2023-2's collateral characteristics are generally comparable to PFAST 2023-1, in our view (see table 2).

Table 2

Collateral comparison(i)

	PFAST			
	2023-2	2023-1	2014-1	2011-1(ii)
Pool size (mil. $)	1,083.13	1,138.17	507.87	547.75
No. of receivables	16,098	14,404	11,721	13,321
Avg. principal balance ($)	67,283	79,017	43,330	41,119

Table 2

Collateral comparison(i) (cont.)

	PFAST			
	2023-2	2023-1	2014-1	2011-1(ii)
WA APR, excluding the YSOC amount (%)	6.40	6.07	3.84	4.63
WA original term (mos.)	69.61	69.50	62.38	62.43
WA remaining term (mos.)	56.33	59.62	45.68	46.82
WA seasoning (mos.)	13.28	9.88	16.70	15.61
WA FICO score	781	781	781	764
% of pool balance with FICO score greater than or equal to 700	92.39	93.81	93.05	89.03
% of pool balance with FICO score less than 700	7.61	6.19	6.95	10.97
% of pool balance with an original term of 61-72 months (%)	77.75	77.56	9.64	5.41
% of pool balance with an original term of 73-84 months (%)	2.43	2.18	8.91	10.48
% of pool balance with an original term greater than 60 months (%)	80.18	79.74	18.55	15.89
New vehicles (%)	56.34	63.84	64.30	70.01
Used vehicles (%)	43.66	36.16	35.70	29.99
Porsche vehicles (%)	100.00	100.00	88.01	100.00
Bentley/Lamborghini vehicles (%)	--	--	11.99	--
Top three model concentrations (%)				
	911=42.40	911=39.50	911=34.08	911=44.46
	Cayenne=24.14	Cayenne=27.99	Cayenne= 28.18	Cayenne= 21.10
	Macan=15.48	Macan=15.83	Panamera=14.78	Panamera=10.29
Top three state concentrations (%)				
	CA=22.38	CA=26.45	CA=21.82	CA=20.50
	FL= 18.21	FL= 19.50	FL= 14.30	FL=12.86
	TX=10.64	TX=9.93	TX=10.04	TX=9.69

(i)All percentages are of the initial gross receivables balance. (ii)Not rated by S&P Global Ratings. PFAST--Porsche Financial Auto Securitization Trust. WA--Weighted average. APR--Annual percentage rate. YSOC--Yield supplement overcollateralization.

We also compared the PFAST 2023-2 collateral pool with that of some peers within the prime auto loan sector that have similar initial ECNLs (see table 3). Overall, we believe that the PFAST 2023-2 pool characteristics are comparable to those of these peer transactions. PFAST 2023-2 has a higher average outstanding principal balance compared to its peers and a greater percentage of longer-term loans. However, the transaction's weighted average FICO score is relatively high, indicating the strong credit quality of the obligors.

Table 3

Collateral peer comparison(i)

	PFAST 2023-2	TAOT 2023-C	HAROT 2023-3	BMWOT 2023-A
Pool size (mil. $)	1,083.13	1,781.68	1,889.36	1,670.09
No. of receivables	16,098	65,736	84,946	45,857
Avg. principal balance ($)	67,283	27,104	22,242	36,420
WA APR, excluding the YSOC amount (%)	6.40	4.64	4.00	4.37
WA original term (mos.)	69.61	66.03	61.62	64.56
WA remaining term (mos.)	56.33	55.40	49.25	51.78
WA seasoning (mos.)	13.28	10.63	12.36	12.78
WA FICO score	781	766	769	787
% of pool balance with an original term greater than 60 months (%)	80.18	63.31	39.12	45.66
New vehicles (%)	56.34	81.25	85.71	80.52
Used vehicles (%)	43.66	18.75	14.29	19.48
Top three state concentrations (%)				
	CA=22.38	CA=23.59	CA=17.29	CA=18.14
	FL=18.21	TX=14.89	TX=9.88	TX=12.21
	TX=10.64	PA=4.03	PA=7.44	FL=10.54
Initial ECNL (%)	0.55	0.60	0.55	0.55

(i)All percentages are of the initial gross receivables balance. PFAST--Porsche Financial Auto Securitization Trust. TAOT--Toyota Auto Receivables Owner Trust. HAROT--Honda Auto Receivables Owner Trust. BMWOT--BMW Vehicle Owner Trust. WA--Weighted average. APR--Annual percentage rate. YSOC--Yield supplement overcollateralization. ECNL--Expected cumulative net loss.

Macroeconomic And Auto Finance Sector Outlook

In our analysis, we considered the economic data and forecasts outlined in table 4, 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.

U.S. economic data has been coming in stronger than expected, thus suggesting that an ever-elusive soft landing is still possible. Better-than-expected growth has led us to revise our U.S. GDP forecast for 2023 upwards by 0.5 percentage points to 2.3%. However, we believe the current momentum is unsustainable as the 10-year Treasury yield and the 30-year mortgage rate have recently risen to levels not seen since before the Great Financial Crisis (GFC) of 2008, and COVID-19 pandemic-related excess savings have been largely depleted. With higher interest rates, increases in house prices, and higher prices for new and used automobiles, recent and new debt origination, coupled with the resumption of student-loan payments, will put upward pressure on debt service ratios and negatively affect consumer spending. As such, we see growth slowing to 1.3% in 2024 and 1.4% in 2025, before converging to trend-like growth of 1.8% in 2026 (after multiple rate cuts in 2025 and 2026).

Given the usual lags between GDP growth and unemployment levels, we don't expect a significant deterioration in labor markets until 2024. With growth expected to slow below trend after 2023, we forecast the unemployment rate rising to an average of 4.1% in 2024 and 4.7% in 2025 (see "Economic Outlook U.S. Q4 2023: Slowdown Delayed, Not Averted," published Sept. 25, 2023).

Separately, inflation and the expected increase--albeit slow--in the broader consumer financial obligations' payment ratio as a percent of disposable income, with the resumption of student loan payments in October 2023, are potential headwinds. While the CPI has declined significantly since 2022, energy prices have jumped recently and have had a disproportion impact on those with lower incomes. In addition, it is estimated that 24 million borrowers whose student loan payments were suspended at the onset of the pandemic will resume payments in October with an average monthly payment of approximately $300. According to TransUnion, approximately one-third of consumers with student loan debt took on new auto loan debt during the pandemic. The added student debt payment will be burdensome for consumers who are financially stressed, which could negatively impact auto loan ABS performance. However, 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.

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.

Table 4

U.S. economic factors

	Actual	Forecast			
	2022	2023	2024	2025	2026
Real GDP (% year-over-year growth)	2.1	2.3	1.3	1.4	1.8
Unemployment rate (% annual average)	3.6	3.6	4.1	4.7	4.8
Consumer Price Index (% annual average)	8.0	4.1	2.4	1.9	2.3

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

S&P Global Ratings' Expected Loss: 0.55%

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

- The series' collateral characteristics relative to those of PFAST 2023-1, paid-off series, and prime peers (see tables 2 and 3 above);
- The managed portfolio performance, and origination static pool data and their relative performances (see table 5 below); and
- The paid-off series' performance (see chart 1).

Given the lack of recent paid-off securitization performance, we placed more emphasis on origination static pool analysis, managed portfolio trends, and collateral comparison. We complemented this analysis with our forward-looking view of the economy and the auto finance sector (see the Macroeconomic And Auto Finance Sector Outlook section above).

Overall, we expect PFAST 2023-2 to experience lifetime cumulative net losses (CNLs) of 0.55%.

Managed portfolio

Porsche's managed portfolio grew approximately 8.19% as of Sept. 30, 2023, from a year earlier (see table 5). As of Sept. 30, 2023, total delinquencies as a percentage of the principal balance outstanding and as a percentage of the number of contracts outstanding were 1.12% and 0.91%, respectively, up from 0.52% and 0.52% as of Sept. 30, 2022. Annualized net losses were 0.37% for the nine months ended Sept. 30, 2023, up from 0.11% in the prior year period. Total delinquencies and losses as of Dec. 31, 2022, were higher year-over-year but lower compared to pre-COVID-19 levels. This managed portfolio data includes loans with FICO scores below 660, which are excluded from the PFAST 2023-2 collateral pool.

Table 5

Managed portfolio

	Nine months ended Sept. 30		Year ended Dec. 31				
	2023	**2022**	**2022**	**2021**	**2020**	**2019**	**2018**
No. of retail contracts outstanding	37,829	34,511	35,589	29,989	21,514	8,479	8,270
Retail contracts outstanding (mil. $)	2,590.28	2,394.23	2,464.98	2,018.48	1,387.97	515.54	503.17
Average retail contracts outstanding (mil. $)	2,512.27	2,263.61	2,304.89	1,717.69	912.21	518.61	463.57
Delinquencies as a % of the principal balance outstanding							
31-60 days	0.71	0.38	0.58	0.29	0.52	1.00	0.73
61-90 days	0.23	0.09	0.12	0.04	0.05	0.38	0.21
90-plus days	0.18	0.05	0.07	0.04	0.08	0.14	0.22
Total delinquencies	1.12	0.52	0.76	0.36	0.66	1.52	1.15
Delinquencies as a % of the number of contracts outstanding							
31-60 days	0.58	0.39	0.55	0.30	0.43	0.75	0.71
61-90 days	0.18	0.04	0.10	0.04	0.05	0.21	0.24
90-plus days	0.14	0.09	0.06	0.05	0.07	0.19	0.11
Total delinquencies	0.91	0.52	0.72	0.40	0.54	1.16	1.06
Net losses as a % of the average principal balance outstanding (i)	0.37	0.11	0.18	0.14	0.24	0.36	0.34

(i)Annualized if not based on a full year.

Origination static pool analysis

To derive our base-case loss for the PFAST 2023-2 transaction, we analyzed quarterly origination static pool data going back to 2004. The data we received was segmented by FICO band, original term, and new and used vehicle mix. We used historical loss curves to develop expected net loss projections for each of the outstanding vintages with at least 12 months of performance. We then weighted these projections based on the actual concentration of the various cohorts in the PFAST 2023-2 pool to determine a base-case loss expectation.

PFAST series performance

PFAST 2011-1 paid off with a CNL of 0.17% at 35 months of performance, and PFAST 2014-1 paid off with a CNL of 0.26% at 34 months of performance (see chart 1). We currently rate one outstanding PFAST transaction--PFAST 2023-1--and it remains adequately enhanced at this time (see table 6). 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 cumulative net loss (CNL) expectations under our stress scenarios for each of the rated classes.

Table 6

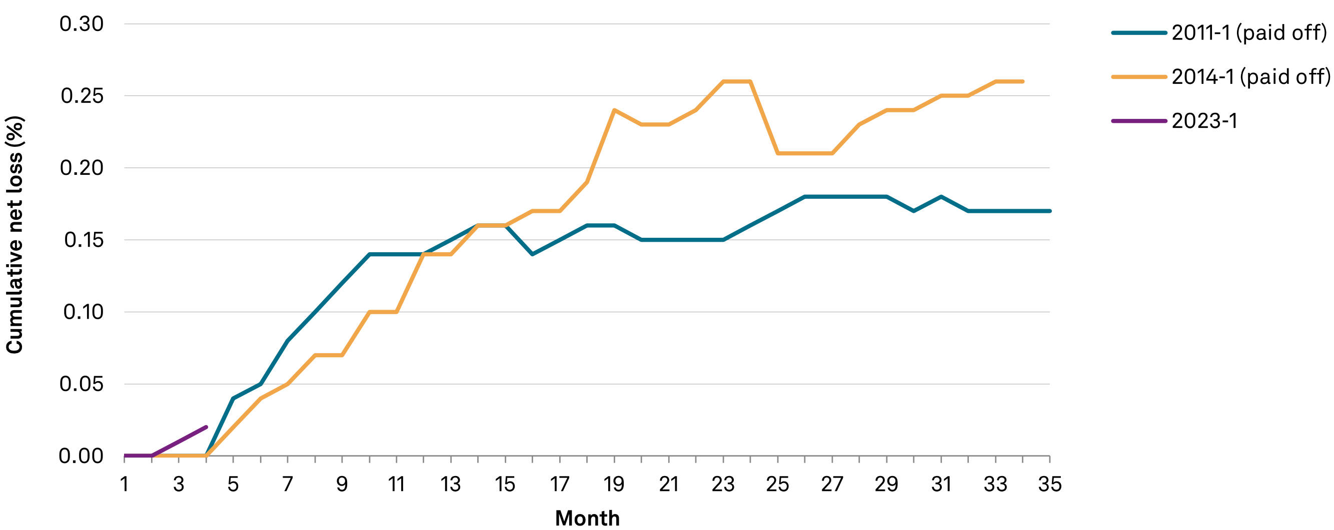
Performance data for outstanding S&P Global Ratings-rated PFAST transaction(i)

Transaction/series	Month	Pool factor (%)	CNL (%)	60+ day delinquency (%)	Initial lifetime expected CNL (%)	Revised lifetime expected CNL (%)
2023-1	4	79.87	0.02	0.21	0.55	N/A

(i)As of the October 2023 distribution. PFAST--Porsche Financial Auto Securitization Trust. CNL--Cumulative net loss. N/A--Not applicable.

Chart 1

Cumulative net losses



PFAST--Porsche Financial Asset Securitization Trust.

Peer analysis

We compared Porsche's transaction performance and collateral composition with its peers, and determined that Porsche's overall performance reflects its target focus in the prime auto loan sector and remains stable relative to the benchmark and its peers (see "U.S. Auto Loan ABS Tracker: August 2023 Performance," published Oct. 12, 2023).

Legal Overview And Transaction Structure

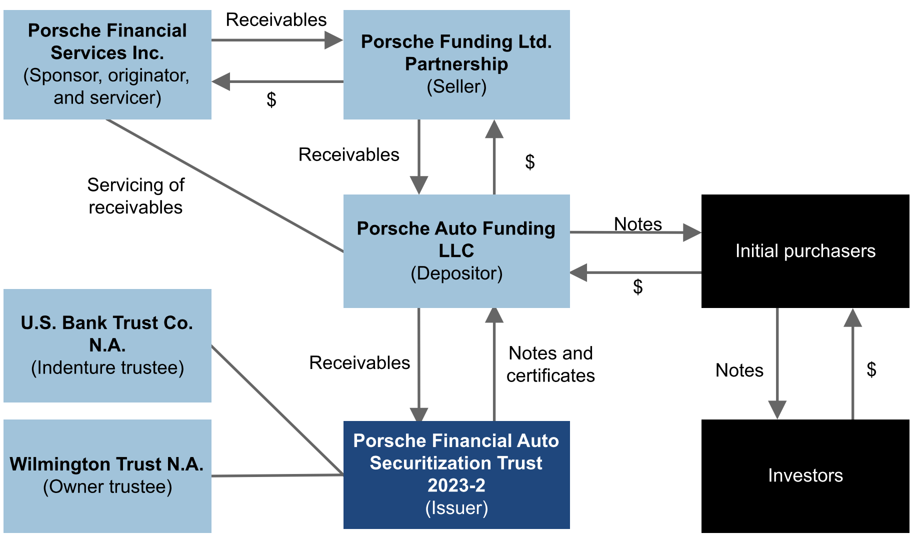
Legal overview

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.

On or prior to the closing date, Porsche Funding Ltd. Partnership (the seller), will acquire the PFAST 2023-2 receivables from PFS (the sponsor, servicer, originator, and administrator). The PFAST 2023-2 transaction is structured as a true sale of the receivables from the seller to Porsche Auto Funding LLC (the depositor and bankruptcy-remote, special-purpose entity). The depositor will then assign the rights, title, and interest in the receivables to PFAST 2023-2, the issuing entity. PFAST 2023-2 will, in turn, pledge the rights to the receivables to the indenture trustee, on the noteholders' behalf (see chart 2).

Chart 2

Transaction structure



Transaction structure

The PFAST 2023-2 transaction incorporates the following structural features:

- A sequential-pay mechanism that will retire the class with the earliest maturity before paying the class with the next-earliest maturity.
- Nonamortizing overcollateralization that will be maintained at a target of 2.50% of initial adjusted receivables balance. As a result, the overcollateralization will grow as a percentage of the current receivables balance as the pool amortizes.
- A nonamortizing reserve account that equals 0.25% of the initial adjusted receivables balance.
- A YSOC amount that will initially be approximately 6.05% of the initial adjusted receivables balance. The YSOC amount is sized so that the yield on the contracts with APRs below the YSOC

required rate of 9.55% will increase to the required rate to generate excess spread for the transaction. The YSOC amount for each distribution date will be calculated as of the cutoff date and will amortize according to a schedule.

- Excess spread, adjusted for YSOC, of 2.38% per year (pre-pricing).

PFAST 2023-2 will be the first transaction under the shelf to utilize the SOFR interest rate benchmark for the floating-rate class A-2b notes. The class A-2b coupons will initially be based on a compounded SOFR (a 30-day average SOFR determined by the calculation agent using the published rate on the Federal Reserve Bank of New York's website) to calculate the interest rate for the floating-rate notes. In addition, provisions have been incorporated into securitization documents that govern rate selection if SOFR becomes unavailable.

Payment Priority

Payment distributions before an event of default

Before an event of default, distributions will be made from available funds on each payment date according to the priority shown (see table 7).

Table 7

Payment waterfall

Priority	Payment
1	Reimburse the servicer for any outstanding advances.
2	The 1.00% servicing fee, any investment earnings, plus any unpaid servicing fees for any previous collection periods.
3	Transaction fees, expenses, and indemnification amounts to the indenture trustee and the owner trustee in an aggregate amount that doesn't exceed $175,000 per year.
4	Class A(i) note interest.
5	Principal distribution amount (the excess, if any, of the class A(i) notes' balance over the adjusted pool balance), paid sequentially.
6	Reserve account deposit up to its required amount.
7	Any unpaid trustee fees, expenses, and indemnification amounts.
8	Any remaining amounts to the certificateholder.

Classes A-1, A-2a/A-2b, A-3, and A-4, collectively.

Events of default

Any of the following will constitute an event of default under the indenture:

- A default in the interest payment due on any note that continues for five or more business days;
- A default in the principal payment of any note on its final scheduled payment or redemption date;
- A breach of certain representations, warranties, or covenants that continues for 90 days; and
- The issuer files for bankruptcy.

Payment distributions after an event of default

Following an acceleration of the notes after an event of default, all amounts will be distributed and applied according to the payment priority shown in table 8.

Table 8

Payment waterfall after an event of default

Priority	Payment
1	Trustee fees, expenses, and indemnity amounts, pro rata.
2	Reimburse the servicer for any outstanding advances.
3	The 1.00% servicing fee, investment earnings, plus any unpaid servicing fees for any previous collection periods.
4	Class A(i) note interest.
5	Class A-1 note principal until paid in full.
6	Principal payment to the class A-2, A-3, and A-4 noteholders, pro rata, until the notes have been paid in full.
7	Any remaining amounts to the certificateholders.

Class A-1, A-2a/A-2b, A-3, and A-4, collectively.

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). 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 YSOC amount.

Break-even analysis

For the PFAST 2023-2 transaction structure, we used a bifurcated-pool method and applied the assumptions outlined in table 9 in our cash flow analysis to simulate stress scenarios that we believe are appropriate for the assigned preliminary ratings. To assign a rating to a class, we consider the class's 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 YSOC amount will be used for yield enhancement rather than credit enhancement, thus decreasing the break-even levels.

Our criteria establish rating-specific minimum credit enhancement levels based on our view that there are limits on the predictability of auto receivable performance. For 'AAA' ratings, the minimum level is 4.00%, of which 2.50% must be in the form of hard credit support. In our stress cash flow scenarios for the transaction, we assessed the level of available credit enhancement relative to the minimum required.

For the class A-2b 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. We modeled the maximum potential size of the class A-2b note balance (up to $100 million) indexed to SOFR.

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 10).

Table 9

Break-even cash flow assumptions

Servicing fee (%)	1
Recovery rate (%)	50
Charge-off and recovery lag (mos.)	4
Bifurcated pool (%)	
Subvened	36
Nonsubvened	64
Loss allocation (% of total losses)	
Subvened	20
Nonsubvened	80
Voluntary ABS (%)	
Subvened	0.25
Nonsubvened	1.50
CNL timing mos.: (12/24/36/48/60) (%)	
Subvened	30/70/90/95/100
Nonsubvened	55/85/95/100

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

Table 10

Break-even cash flow results

	Class A(i)
Preliminary rating	AAA (sf)
CNL timing mos.: (12/24/36/48) (%)	
Aggregate	51/84/96/100

Table 10

Break-even cash flow results (cont.)

Subvened	35/79/98/100
Nonsubvened	55/85/95/100
Approximate break-even CNL levels (%)(ii)	
Required	4.0
Available	6.1

(i)Classes A-1, A-2a/A-2b, A-3, and A-4, collectively. (ii)The maximum CNLs, 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.

Sensitivity analysis

In addition to running break-even cash flows, we undertook sensitivity analysis using the assumptions outlined in table 9. We believe that under a moderate ('BBB') stress scenario (2.0x our minimum 'B' credit enhancement level, based on 0.80% ECNL) and with 100% credit to any excess spread, all else being equal, our preliminary ratings will be within the credit stability limits specified in section A.4 of the Appendix in "S&P Global Ratings Definitions," published June 9, 2023 (see table 11 and chart 3).

Table 11

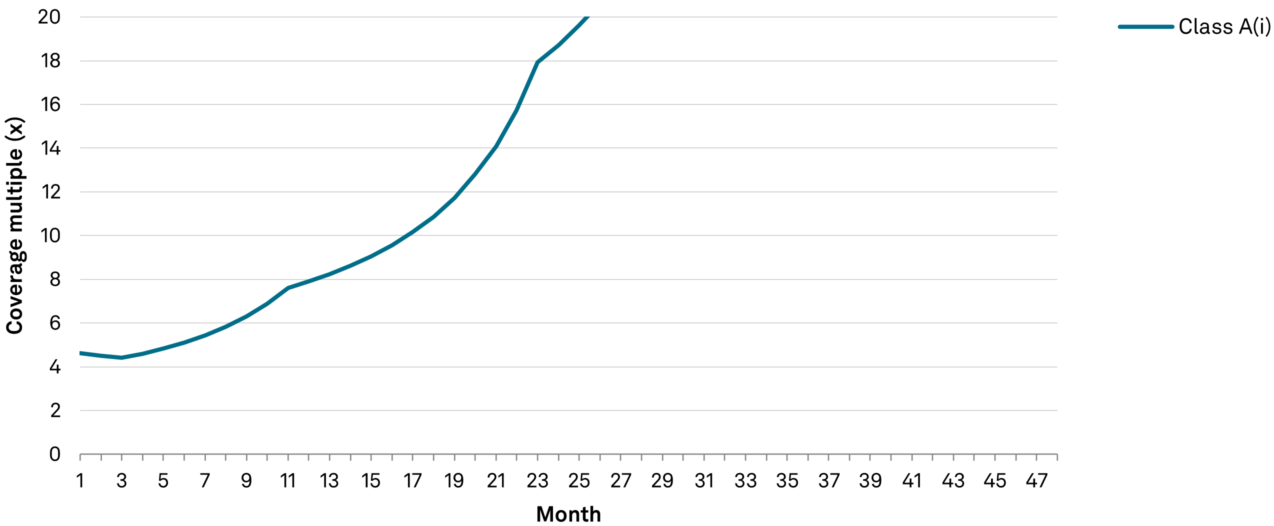
Credit stability as a limiting factor on ratings

	Maximum projected deterioration associated with rating levels for one-year 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

(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 3

'BBB' sensitivity loss coverage multiples



(i)Collectively, classes A-1, A-2, A-3, and A-4.

Money market tranche sizing

The proposed money market tranche (class A-1) has a final maturity date of Nov. 22, 2024. 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. We assumed zero defaults, and we found that the money market tranche would be paid off in full before the legal final maturity date, assuming a zero absolute prepayment speed for the subvened collateral and 0.50% absolute prepayment speed for the nonsubvened collateral.

Legal final maturity

To test the legal final maturity dates for class A-2a, A-2b, and A-3 notes, we determined when the respective notes would be fully amortized in a zero-loss, zero-prepayment scenario and then added three months to the result. For the longest-dated security (class A-4), at least 12 months were added to the tenor of the longest receivable in the pool to accommodate potential extensions on the receivables. Furthermore, in our break-even cash flow scenario for each respective preliminary 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.

Counterparty And Operational Risks

Bank account provider

On or before the closing date, the PFAST 2023-2 bank accounts will be established with the account bank, U.S. Bank N.A. (an affiliate of the indenture trustee), as segregated trust 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).

Servicer

As servicer, PFS has an experienced team that oversees servicing and collections practices. PFS and its parent company, Porsche AG, are not rated by S&P Global Ratings. 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 PFS as servicer does not constrain the ratings (see "Global Framework For Assessing Operational Risk In Structured Finance Transactions," published Oct. 9, 2014).

PFS

PFS is a wholly owned indirect subsidiary of Porsche AG. PFS was incorporated in Delaware in 1991 and is an affiliate of Porsche Cars North America Inc. (PCNA), the exclusive importer of Porsche vehicles for the U.S. PCNA is also a wholly owned indirect subsidiary of Porsche AG. PFS provides consumer loan and lease financing, and direct dealer financing through and to U.S. Porsche, Bentley, Lamborghini, and Bugatti dealers. PFS has been directly servicing motor vehicle receivables since the early 1990s. PFS is headquartered in Atlanta.

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: August 2023 Performance, Oct. 12, 2023
- Credit Conditions North America Q4 2023: Shift to Low Gear, Sept. 26, 2023
- Economic Outlook U.S. Q4 2023: Slowdown Delayed, Not Averted, Sept. 25, 2023