S&P Global
Ratings

Research

Presale:

Verizon Master Trust (Series 2023-2)

April 13, 2023

PRIMARY CREDIT ANALYST

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Preliminary ratings

Class	Preliminary rating(i)	Interest rate(ii)	Preliminary amount (mil. $)	Expected legal final maturity date(iii)
A	AAA (sf)	Fixed	623.710	April 20, 2028
B	AA (sf)	Fixed	47.680	April 20, 2028
C	A+ (sf)	Fixed	28.610	April 20, 2028

Note: This presale report is based on information as of April 13, 2023. The ratings shown are preliminary. Subsequent information may result in the assignment of final ratings that differ from the preliminary ratings. Accordingly, the preliminary ratings should not be construed as evidence of final ratings. This report does not constitute a recommendation to buy, hold, or sell securities. (i)The classes have an additional interest component that will be paid on a subordinated basis if the classes are not redeemed by the anticipated redemption date. The preliminary ratings do not address the additional interest component. (ii)The actual interest rates will be determined on the pricing date. (iii)The expected legal final maturity date accounts for up to a two-year revolving period.

Profile

Expected closing date	April 25, 2023.
Collateral	An interest in a revolving pool of wireless device payment plan agreement receivables.
Sponsor, servicer, administrator, marketing agent, and custodian	Cellco Partnership (doing business as Verizon Wireless).
Depositor	Verizon ABS II LLC.
Originators	Cellco Partnership (doing business as Verizon Wireless) and other Verizon Communications Inc. affiliates.
Parent support provider	Verizon Communications Inc. (BBB+/Stable/A-2).
Owner trustee	Wilmington Trust N.A.
Indenture trustee and master collateral agent	U.S. Bank Trust Co. N.A. (AA-/Negative/A-1+).
Bank account provider	U.S. Bank N.A. (AA-/Negative/A-1+).
Issuer	Verizon Master Trust.
Lead underwriter	RBC Capital Markets LLC.

Credit enhancement summary

	VZMT							
	2023-2	2022-7	2022-6	2022-5	2022-4	2022-3	2022-2	2022-1
Subordination(i)								
Class A	10.00	10.00	10.26	10.26	10.25	10.26	10.25	10.25
Class B	3.75	3.75	3.25	3.25	3.27	3.28	3.75	3.75
Class C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reserve account(i)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Overcollateralization (i)(ii)	8.25	8.25	8.75	8.75	8.75	8.75	8.75	8.75
Total hard credit enhancement(i)								
Class A	19.25	19.25	20.01	20.01	20.00	20.01	20.00	20.00
Class B	13.00	13.00	13.00	13.00	13.02	13.04	13.50	13.50
Class C	9.25	9.25	9.75	9.75	9.75	9.75	9.75	9.75
Discount rate(i)(ii)	11.21	11.90	9.46	9.51	9.19	8.80	7.32	6.82

(i)Percent of the VZMT 2023-2 series invested amount. (ii)The actual series 2023-2 discount rate will be determined at note pricing.
VZMT--Verizon Master Trust.

Rationale

The preliminary ratings assigned to Verizon Master Trust's series 2023-2 wireless device payment plan agreement (DPPA)-backed notes reflect:

- The transaction's initial revolving phase (up to two years), during which, collections on the master trust pool may be used to purchase additional receivables. The series 2023-2 transaction documents include eligibility criteria, concentration limits, and amortization triggers, which are intended to ensure the series 2023-2 allocated pool balance includes sufficient credit enhancement to support the rated notes during this period (see the Eligibility Criteria And Concentration Limits section below for more information).
- If the transaction enters amortization, the availability of approximately 21.4%, 16.3%, and 13.6% credit support, on average, for the class A, B, and C notes, respectively, based on stressed break-even cash flow scenarios. These credit support levels provide coverage of approximately 5.3x, 4.1x, and 3.4x our expected loss of 4.00% for the class A, B, and C notes, respectively, assuming a hypothetical worst-case pool mix (see the S&P Global Ratings' Expected Loss Rates section below).
- Credit enhancement in the form of subordination (for the class A and B notes), overcollateralization, a reserve account, and excess spread (see the Credit Enhancement Summary table above).
- Our expectation that timely interest and full principal payments will be made under stressed cash flow modeling scenarios appropriate for the assigned preliminary ratings (see the Cash Flow Modeling Assumptions And Results section below).
- The transaction's underlying payment structure, cash flow mechanics, document mechanics, and legal structure.
- Our expectation that under a moderate ('BBB') stress scenario, within one year after closing,

the ratings would remain within one rating category of our 'AAA (sf)' and 'AA (sf)' ratings on the class A and B notes, respectively, and within two rating categories of our 'A+ (sf)' rating on the class C notes. These potential rating movements are consistent with the credit stability section in "S&P Global Ratings Definitions," published Nov. 10, 2021.

Our preliminary ratings on the notes are constrained by our view of the likelihood of cellular service being materially disrupted if the parent company's, Verizon Communications Inc.'s (Verizon), wireless network becomes disaggregated or is liquidated due to bankruptcy; or if the network experiences a prolonged and major disruption for reasons other than technology failure or natural hazard. To assess the maximum potential ratings on this ABS transaction, our analysis first considered our actual business risk profile (BRP) assessment of Verizon, which is "strong", and a theoretical financial risk profile (FRP) assessment, which is "minimal," to arrive at an anchor assessment using the business and FRP matrix (see "ABS: Global Framework For Assessing Operational Risks Specific To Wireless Device Payment Plan Agreements," published Dec. 6, 2017). We view Verizon's FRP as minimal because we believe the company's financial risk is less relevant to the wireless network's continuation in a post-bankruptcy scenario than the company's BRP, which we believe more adequately depicts the condition of the network.

Our analysis concludes that the maximum potential ratings on the notes can be up to a full rating category (three notches) higher than the anchor assessment. In our analysis, we also considered factors that are most relevant to the cellular service provider's network survivability and the likelihood of the network's continued operation by either the original cellular service provider or another entity, whether public or private.

The 'AAA' maximum rating on the series 2023-2 notes is one rating category above the 'aa-' anchor assessment. This elevation above the anchor assessment reflects Verizon's:

- Position as the U.S. market leader in wireless services, which supports the strong likelihood that the company's network would remain operational following a bankruptcy and would not be disaggregated and absorbed by competitors.
- Network as one of the largest in the U.S. Its 4G LTE network is available to over 99% of the U.S. population, covering approximately 327 million people.
- Service area size and scale. Further, most of the company's network traffic is originated, transported, and terminated on-network, with minimal reliance on third-party carriage.
- Strong 5G network.
- Network technology, which is currently at the highest standards with a good mix of low-, mid-, and high-band spectrum per market (on average), 56,000 cell sites, and a national fiber backbone consisting of owned and leased fiber.

It also reflects our view that, given Verizon's scale and wireless market share, its network's continuous operation is critical to the telecommunications infrastructure in the U.S. over the next five years.

Changes to our anchor assessment (through potential changes in Verizon's BRP assessment) and/or our view of the factors relevant to Verizon's wireless network's continued operation could result in changes to the maximum potential ratings on the series 2023-2 notes. However, we do not expect any changes to the maximum ratings to fall outside the boundaries outlined in "S&P Global Ratings Definitions," published Nov. 10, 2021.

Environmental, Social, And Governance (ESG) Factors

Our rating analysis considered the transaction's potential exposure to ESG credit factors. The transaction's exposure to environmental credit factors is below average, in our view, reflecting the obligor and geographic diversity of the pool.

The exposure to social credit factors is below average, reflecting the characteristics of handset loans relative to other unsecured consumer assets. Handset loans carry smaller balances, relatively short terms, and do not have interest rates that might otherwise expose the transaction to regulatory lending scrutiny. In our view, handsets play a key role in promoting digital inclusion and Verizon's network is critical to the U.S. telecommunications infrastructure.

The exposure to governance credit factors is average, reflecting the revolving collateral pool and the servicer's active role managing the collateral pool during the transaction's revolving period. To account for revolving risk, we assumed that the pool's composition will migrate to the lowest credit quality allowable under the transaction's reinvestment criteria, resulting in a higher expected loss than that of a typical amortizing pool.

Transaction Overview

The Verizon Master Trust (VZMT) was established to hold an interest in a revolving pool of wireless DPPAs originated by Cellco Partnership (Cellco; doing business as Verizon Wireless) and other Verizon affiliates, and to issue multiple note and loan series. Although the master trust may contain multiple DPPA groups with the loans in all groups securing all the note series issued, for purposes of allocating cash flows to a particular series, the loans in the master trust are designated to particular groups. As of the series 2023-2 issuance, all DPPAs held by VZMT are designated to group 1 (the group). To date, VZMT has issued 11 other series of the group notes.

The series 2023-2 notes will be paid from the series' share of collections on and proceeds from the group DPPAs allocated to the series under the transaction documents. VZMT expects to issue other group-backed note and loan series, which would also be secured by all DPPAs to all groups but paid from collections on the related group's DPPAs. Generally, all note and loan series backed by group DPPAs are limited to collections and proceeds from only that group, except to the extent that those DPPAs are sold after an event of default and an acceleration of the series 2023-2 notes.

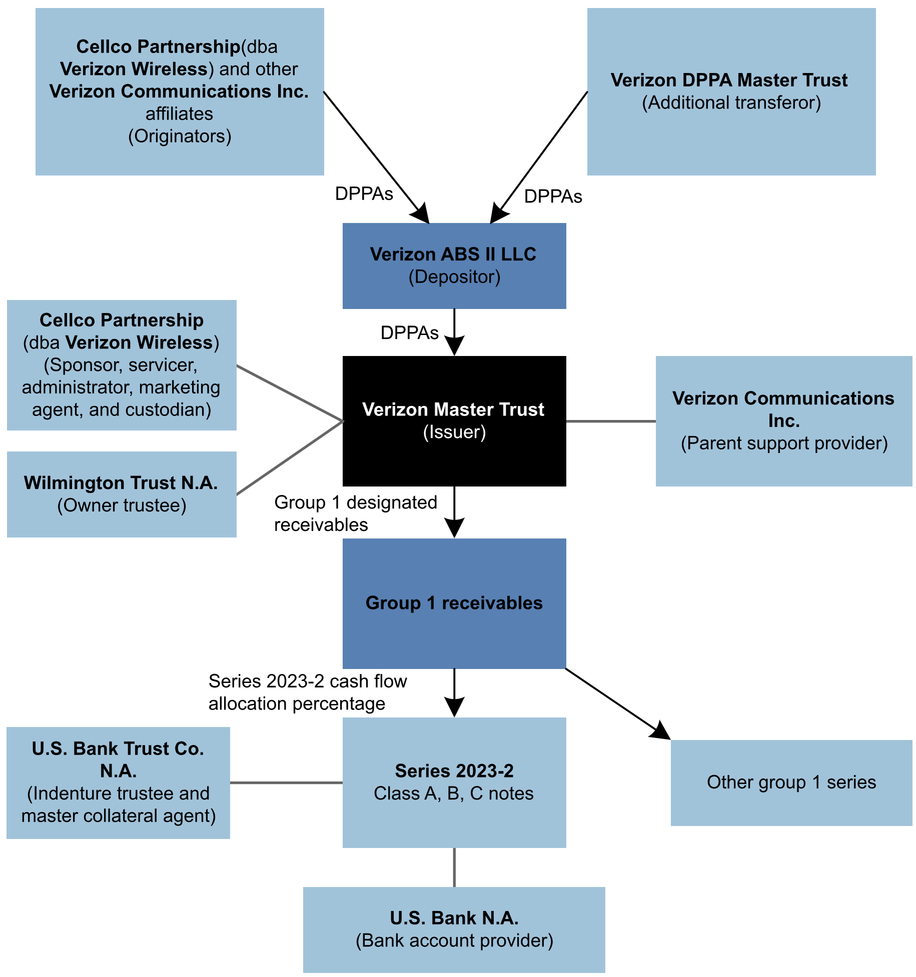
Each note series' allocation of cash flow from the group master trust pool balance may be subject to a particular discount rate, eligibility criteria, concentration limits, interest rates, required overcollateralization percentage, revolving period, amortization events, anticipated redemption date, final maturity dates, or other series-specific characteristics. Each group's series invested amount and required pool balance, reflects that series' specific credit and liquidity characteristics, and capital structure.

During the revolving period, the originators and the additional transferor will transfer DPPAs to the depositor, which will subsequently transfer those DPPAs to the master trust. The administrator will select each pool of DPPAs, which will then be transferred and assigned by each originator and the additional transferor, and then acquired by the depositor and, subsequently, VZMT on each acquisition date.

The group master trust pool balance may vary daily as new DPPAs are designated to the group; as they amortize; or are paid off, written-off, or released. Generally, if the group pool balance falls below the required pool balance, the series 2023-2 notes will begin to amortize and receive principal payments (see the Revolving And Amortization Periods section below).

The chart shows the transaction structure.

Transaction structure



DBA--Doing business as. DPPA—Device payment plan agreement.

On each payment date, the series 2023-2 notes will receive an allocation percentage of the group's available funds for the related collection period. The transaction document provisions are designed to size and allocate a sufficiently large pool balance and the associated cash flow to support the series 2023-2 notes' credit and liquidity profile and capital structure needs. On each payment date, the series 2023-2 portion of the group's available funds will be distributed according to the series 2023-2 payment priority.

The transaction will have up to a two-year revolving period from the closing date until the anticipated redemption date, which is the payment date in April 2025--unless the revolving period terminates early due to an amortization event. During the revolving period, no principal will be paid to the series 2023-2 notes. The notes are expected, but not required, to be redeemed by VZMT by the anticipated redemption date. Our preliminary ratings do not assume that the series 2023-2 notes will be redeemed by the anticipated redemption date. If the revolving period ends early or if the series 2023-2 notes are not redeemed by the anticipated redemption date, the series 2023-2 notes will begin to amortize. On each payment date during the amortization period, VZMT will make full-turbo, sequential principal payments to the class A, B, and C notes from the series 2023-2 allocation of the group available funds.

The series 2023-2 notes are also subject to redemption by certificateholders representing 100% of the certificates' voting interests, with the consent of the administrator, on or after the payment date in May 2024. If the notes are optionally redeemed more than two months before the anticipated redemption date, then VZMT must pay a make-whole payment to the noteholders.

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

- A revolving period of up to two years, subject to certain amortization events.
- Eligibility criteria and concentration limits, which operate in conjunction with the master trust mechanics to provide overcollateralization for the series 2023-2 notes.
- Overcollateralization of 8.25% of the series invested amount. Overcollateralization is calculated as the excess of a series' invested amount over the aggregate note balance on the notes.
- Subordination of 10.00% and 3.75% of the series 2023-2 invested amount for the class A and B notes, respectively.
- A nonamortizing reserve account equal to 1.00% of the series 2023-2 invested amount.
- Excess spread in the form of yield supplement overcollateralization calculated using a discount rate of approximately 11.21%. Excess spread is calculated as the excess of the discounted available funds over the interest, fees, and expenses that are allocated to the series 2023-2 notes for each payment date.
- Upon entering amortization, a full-turbo, sequential principal payment priority to the series 2023-2 class A, B, and C notes.

In rating this transaction, S&P Global Ratings will review the relevant legal matters outlined in its criteria.

Transaction Participants

Originators

Cellco and other Verizon affiliates have originated (or will originate) the DPPA receivables under contracts entered into by Verizon Wireless Services LLC or another Verizon affiliate as each originator's agent.

Parent support provider

Verizon is a holding company that, acting through its subsidiaries, provides technology, communications, information, and entertainment products and services to consumers, businesses, and government entities. Verizon has two reportable segments that it operates and manages as strategic business units: Verizon Consumer Group and Verizon Business Group. Verizon offers wireless services and equipment to customers from both segments, and provides extensive wireless services across the U.S. As of Dec. 31, 2022, Verizon Consumer Group and Verizon Business Group had approximately 91.9 million and 28.7 million wireless retail postpaid connections, respectively. Verizon had consolidated revenues of $136.8 billion in 2022 and approximately 117,100 employees as of Dec. 31, 2022.

Verizon will act as the parent support provider according to the parent support agreement and, as long as Cellco is the servicer, will guarantee the payment obligations of the originators, the marketing agent, and the servicer. Verizon will not guarantee any payments on the notes. The payment obligations guaranteed by Verizon include remittances related to the purchase or repurchase of receivables under the transaction documents. If the trust does not receive prepayment amounts due from the marketing agent in connection with an obligor accepting an upgrade offer, the marketing agent or the related originator (or Verizon on its behalf as parent support provider) must deposit those prepayment amounts into the collection account within five business days after notice from the master collateral agent, or it will constitute a servicer termination and amortization event.

In addition, if the marketing agent (or Verizon on its behalf) doesn't remit any credit amounts granted to obligors that reduced any payment on a DPPA receivable to the trust within 10 business days after notice from the master collateral agent, a servicer termination and amortization event will occur. Further, if the servicer allows a DPPA to be transferred to a different account, the marketing agent or the related originator (or Verizon on its behalf) must purchase that receivable from the trust within 10 business days after notice from the master collateral agent, or it will constitute a servicer termination and amortization event.

Sponsor, servicer, custodian, administrator, marketing agent

Cellco is an indirect, wholly owned subsidiary of Verizon, which does business under the Verizon Wireless name. Cellco services all of its and other Verizon originators' wireless accounts, including the DPPAs in this master trust. Cellco has been the servicer for Verizon's securitization program since its inception in 2016. As of Dec. 31, 2022, Cellco serviced a portfolio of 52.1 million DPPAs totaling $26.1 billion.

As custodian for the master trust, Cellco will maintain an electronic receivable file for each DPPA, which will include originals or copies of the DPPA. As marketing agent, Cellco will remit, or ensure the related originators remit, certain payments to the master trust or take certain actions with respect to the DPPAs.

As administrator of the master trust, Cellco may (on behalf of the master trust) identify:

- DPPAs to be transferred by each originator or the additional transferor to the depositor, and by the depositor to the master trust;
- Master trust DPPAs to be designated to a group; and
- With the consent of the servicer, master trust DPPAs previously designated to a group that do not relate to any outstanding series to be redesignated to another group.

Cellco will also perform other administrative activities.

DPPA Receivables

The group receivables, which presently constitute 100% of the master trust pool, are a revolving pool of consumer and business DPPAs for wireless devices sold or financed by Verizon Wireless and other Verizon-affiliated originators. The wireless devices financed include a variety of new or certified pre-owned smartphones and other handsets, wireless-enabled internet devices (such as tablets), and other connected devices (such as smart watches).

Historically, Verizon customers purchased wireless devices at subsidized prices and paid for wireless service according to a fixed-term, two-year service plan, which required the payment of an early termination fee if service was cancelled during the two-year term. As of January 2017, Verizon stopped offering consumer customers new fixed-term subsidized service plans for devices. However, Verizon continues to offer subsidized plans to business customers.

In 2016, Verizon began offering the Device Payment Program to business customers. Under the Device Payment Program, customers purchase devices at unsubsidized prices under a DPPA, which includes the following terms:

- The customer pays the device's total retail price, less any applicable down payment, over a 24- to 36-month period;
- The annual percentage rate is 0%;
- The customer must maintain service with Verizon;
- Payments from customers are applied first to service, then to the oldest DPPA, then to more recent DPPAs, in order of origination;
- The customer may prepay in full at any time without penalty;
- For consumer customers, since May 2019, the grant of a purchase money security interest in the device is included;
- Risk of loss, theft, or damage remains with the customer and insurance is recommended, but not required;
- Upon a customer default, to the extent permitted by applicable law, Verizon has the right to require the customer to pay the entire remaining balance in full; and
- Customers have a 30-day cancellation right.

Collateral Analysis

Table 1 shows a summary of the master trust DPPA receivables as of the March 6, 2023, statistical calculation date.

Table 1

VZMT collateral pool(i)

No. of receivables	38,230,435
Aggregate principal balance ($)	21, 549,487,283
Average principal balance ($)	563.67
Average monthly payment ($)	24.97
WA remaining installments (mos.)(ii)	27
WA FICO score of consumers(ii)(iii)(iv)	723
WA customer tenure (mos.)(ii)	114
Consumer DPPAs (%)	90.06
Business DPPAs (%)	9.94
DPPA obligors with less than 12 mos. of customer tenure (%)	14.22

Table 1

VZMT collateral pool(i) (cont.)

DPPA obligors with 60 mos. or more of customer tenure (%)	63.87
DPPAs with original term of 24 mos. (%)	5.15
DPPAs with original term of 30 mos. (%)	12.50
DPPAs with original term of 36 mos. (%)	82.34
DPPAs with original term of six mos. (%)(v)	0.00

(i)As of March 6, 2023. (ii)Weighted averages are weighted by the aggregate principal balance of the applicable receivables as of the statistical calculation date. (iii)Excludes consumer receivables that have consumer obligors who did not have FICO scores because they are individuals with minimal or no recent credit history. (iv)Reflects the FICO score of the related consumer obligor under a consumer receivable, calculated on or around the date the receivable was originated. (v)Represents a number greater than 0.00% but less than 0.01%. VZMT--Verizon Master Trust. WA--Weighted average. Mos.—Months.

Revolving And Amortization Periods

The series 2023-2 transaction permits a revolving period of up to two years from the closing date, unless the transaction terminates early due to an amortization event. During the revolving period, no principal payments will be made on the series 2023-2 notes.

The series 2023-2 transaction documents contain the following amortization events, which, if they occur, will terminate the revolving period and cause the series 2023-2 notes to amortize:

- Failure to pay series 2023-2 note interest due on a payment date.
- During the revolving period, failure to maintain the required reserve amount by the fifth business day after a payment date between the reserve deposit amount and any letter of credit.
- The master trust's failure to redeem the series 2023-2 notes by the anticipated redemption date.
- A group pool balance deficit occurs on any payment date after giving effect to distributions, including principal funding account deposits.
- The annualized, three-month average charge-off rate for the master trust loan pool exceeds 10.00%.
- The three-month average 91-plus day delinquencies for the master trust loan pool exceed 2.00%.
- The series 2023-2 allocated pool balance is less than 50.00% of the aggregate series 2023-2 note balance minus the amount on deposit in the principal funding account.
- A servicer termination event occurs and is continuing.
- The discounted series 2023-2 invested amount is greater than the excess of the group pool balance over the series 2023-2 ineligible and excess concentration amounts.
- An event of default for the loan group has occurred and is continuing.

Payment Structure

Before the beginning of the amortization period, principal payments will not be made on the series 2023-2 notes, except in connection with an optional redemption. If priority principal payments arise during the revolving period, those payments will be made to the principal funding account.

If the notes are not optionally redeemed by the anticipated redemption date, which is the payment date in April 2025 (up to a two-year revolving period), then the series 2023-2 notes will begin to amortize. Our ratings assume that the series 2023-2 notes are not optionally redeemed. On each payment date during the amortization period, the trust will make full-turbo, sequential principal payments to the series 2023-2 notes (see item 10 in table 2).

On each payment date prior to an event of default, the series 2023-2 available funds will be used to make payments and deposits in the order of the priority listed below. In addition, on any payment date, the funds in the reserve account will be available to cover payment items 1-8 below.

Table 2

Payment waterfall

Priority	Payment
1	The fees, expenses, and indemnities of the master collateral agent, owner trustee, asset representations reviewer, and indenture trustee, all capped, unless a monetary event of default or insolvency of the trust has occurred.
2	The series 2023-2 allocation percentage of the 0.75% annual servicing fee and a one-time servicing engagement fee of the series 2023-2 group's allocated percentage of $150,000 to a successor servicer.
3	Class A note interest.
4	The first-priority principal payment (if the class A notes' balance is greater than the series 2023-2 allocated pool balance) to the principal funding account if during the revolving period; and, if during the amortization period, to pay note principal down sequentially by class to the noteholders.
5	Class B note interest.
6	The second-priority principal payment (if the class A and B notes' balance is greater than the series 2023-2 allocated pool balance) to the principal funding account if during the revolving period; and, if during the amortization period, to pay note principal down sequentially by class to the noteholders.
7	Class C note interest.
8	The third-priority principal payment (if the class A, B, and C notes' balance is greater than the series 2023-2 allocated pool balance) to the principal funding account if during the revolving period; and, if during the amortization period, to pay note principal down sequentially by class to the noteholders.
9	To the letter of credit provider (if applicable) and then to restore the reserve account to its required amount.
10	To the principal funding account, if during the revolving period; and, if during the amortization period, to pay the regular priority principal payment sequentially (and full turbo) by note class.
11	The series 2023-2 group allocated percentage of the excess, if any, of $425,000 over the servicing fee (see item 2 above) to a successor servicer.
12	Accrued and unpaid additional interest sequentially by class to the noteholders.
13	Make-whole payments due sequentially by class to the noteholders.
14	Unpaid trustee, master collateral agent, owner trustee, asset representations reviewer, and administrator fees, expenses, and reimbursements.
15	Remaining expenses identified by the administrator.
16	Letter of credit provider (if applicable) fees and expenses.

Table 2

Payment waterfall (cont.)

Priority	Payment
17	Remainder to the residual interest holder.

In amortization, the regular priority principal payment in item 10 above is a full-turbo sequential payment of principal by class to the noteholders.

Eligibility Criteria And Concentration Limits

The series 2023-2 transaction documents contain eligibility criteria and concentration limits, which we used to create a hypothetical worst-case pool balance and derive an expected loss rate. We then applied multiples to determine stressed levels of loss for the hypothetical pool, which we compared to the credit enhancement levels achieved in our breakeven loss cash flow scenarios.

Most of the applicable credit-related factors that define the composition of our hypothetical worst-case pool are in the concentration limits outlined in the series 2023-2 transaction documents. These concentration limits include the following:

- DPPA obligors that have customer tenure of less than one year and have not made at least one payment on their loan are effectively ineligible under the series 2023-2 eligibility criteria. Verizon's historical loss performance data shows that the less-than-12-month customer tenure segment has a higher percentage of first-payment defaults than other customer tenure segments. To determine an expected loss and create a hypothetical worst-case scenario, the static pool loss data we reviewed for the less-than-12-month customer segment included only obligors that had made at least one payment (see the S&P Global Ratings' Expected Loss Rate section below for more detail).

The concentration limits also include three types of excess concentration amounts:

- The amount by which the group pool balance of DPPA obligors with less than 12 months of customer tenure exceeds 22.00% of the group pool balance. This effectively limits the amount of the poorer performing (relatively higher loss) less-than-12-month customer tenure obligors in our hypothetical worst-case pool balance to 22.00%.
- The amount by which the group pool balance of DPPA obligors with less than 60 months of customer tenure exceeds 45.00% of the group pool balance. This effectively limits the amount of the poorer performing (relatively higher loss) less-than-60-month customer tenure obligors in our hypothetical worst-case pool balance to 45.00%. In addition, because there is only one customer tenure segment for all greater-than-60-month obligors, it effectively ensures that the better performing (relatively lower loss), greater-than-60-month customer tenure segment will constitute at least 55.00% of our hypothetical worst-case pool balance.
- The amount by which the group pool balance of DPPA obligors that are business DPPAs exceeds 10.00% of the group pool balance. This effectively limits the amount of business DPPA obligors in our hypothetical worst-case pool balance to 10.00%.

The excess concentration limits also effectively provide credit enhancement coverage for up to 10.00% of the DPPA balance exposed to cancellation dilution.

Dilution

The series 2023-2 allocation of cash flow from the DPPAs held by the master trust is subject to payment credit and cancellation dilution.

Payment credit dilution

Cellco, as the servicer, may grant credits to Verizon Wireless customer accounts as incentives to promote phone sales and to establish or maintain accounts and service with Verizon Wireless. These credits typically take the form of contingent recurring credits that are applied to an obligor's account according to the account payment priority (see the DPPA Receivables section above).

To the extent payment credits reduce an obligor's monthly DPPA payment, the transaction documents require that either the marketing agent, related originator, or parent support provider reimburses the master trust. Because we do not assume any of these parties will reimburse the trust, the payment credits granted will reduce the cash flow to the master trust and the series 2023-2 allocation of cash flow. The transaction documents provide that failure to reimburse the master trust will constitute a servicer termination event and the subsequent removal of the servicer, after which no further payment credits because be granted. We believe the failure to reimburse the trust and the servicer's removal would occur in approximately one month.

We analyzed historical payment credit dilution data for monthly static pools of consumer and business loans provided by Verizon. The data showed the periodic and cumulative dollar amount of account credits granted, as a percentage of the monthly DPPA dollar originations from January 2017 through May 2022. Based on these data, we assumed that 0.25% of the series 2023-2 allocated pool balance could be granted as an account payment credit in a given month before the servicer was removed for its (or the marketing agent's or parent support provider's) failure to make the payment and reimburse the trust. We then stressed this expected level of payment credit dilution using appropriate rating multiples based on our criteria and modeled this exposure as a reduction in the starting pool balance at each rating level in the cash flows (see the Cash Flow Assumptions section below).

Cancellation dilution

Consumer and business DPPA obligors generally have the right to cancel a DPPA for up to 30 days after origination. We assumed that cancelled DPPAs result in the master trust's loss of that DPPA balance.

We analyzed monthly historical cancellation dilution data for the Verizon portfolio from January 2017 through December 2022. The data showed the total amount of DPPA loan balance cancelled, as a percent of the DPPA pool balance exposed to cancellation (less than 30 days elapsed from origination). The data excluded cancellations by obligors unless they had made at least one payment (see the S&P Global Ratings' Expected Loss Rate section below). Based on the historical data, we assumed that 25.00% of the series 2023-2 allocated pool balance could be exposed to cancellation and 4.50% of the exposed obligor balance would cancel. These assumptions equated to an expected loss of 1.13% (25.00% times 4.50%) of the pool balance from cancellations. We then stressed this expected amount using appropriate rating multiples based on our criteria.

The series 2023-2 transaction documents provide that 10.00% of DPPAs exposed to cancellation will be considered excess concentrations, which will be overcollateralized at 100% from the group pool balance. Thus, this 10.00% coverage of our assumed 25.00% of the pool exposed to cancellation provides loss coverage of 2.50% of the total pool balance for cancellations. Accordingly, in each of our cash flow scenarios, we modeled the stressed levels of cancellation dilution in excess of 2.50% as a reduction in the starting pool balance at each rating level (see the Cash Flow Assumptions section below).

Business DPPAs

In 2016, Verizon began offering DPPAs to primary obligors that were businesses (business DPPAs). The series 2023-2 excess concentration limits permit business DPPAs to comprise up to 10.00% of the group pool balance, regardless of obligor tenure.

Verizon underwrites business DPPAs similarly to consumer DPPAs, considering personal business principal information, if provided, along with commercial credit bureau scores. In the absence of credit score information, Verizon will conduct a manual review of a business obligor.

Since no individual obligor accounts for more than 1.50% of the group pool balance, we did not incorporate any obligor default risk as an additive factor in our stressed loss analysis. There are no significant business DPPA obligor concentrations in the series 2023-2 allocated pool balance. Therefore, we focused primarily on the monthly static pool business DPPA loss performance data by customer tenure that Verizon provided to determine our expected business DPPA loss rates.

S&P Global Ratings' Expected Loss Rate: 4.00%

Verizon provided approximately six years of portfolio static pool loss data for monthly originations of consumer and business DPPAs, divided into seven customer tenure segments that approximate the length of time an obligor has been a Verizon customer. The data primarily consisted of 24-month loans but also included loans with terms of up to 36-months because Verizon has been transitioning its portfolio to these longer loans.

We derived cumulative expected loss rates (CELRs) for each of the seven consumer and business loan tenure segments, consistent with our approach to prior Verizon transactions we have rated. We then increased those loss rates by approximately one-third to account for the higher loss severity that could occur when a longer-term loan with a higher remaining balance, defaults at the same point in time as a shorter-term, lower remaining balance loan (see table 3).

Table 3

Cumulative expected loss rate

	24-month term CELR (% of original DPPA balance)	36-month term CELR (% of original DPPA balance)
Consumer DPPA obligor tenure obligor (mos.)(i)		
1-7(ii)	9.00	12.00
8-12(ii)	8.50	11.33
13-24	6.50	8.67
25-36	4.25	5.67
37-48	3.00	4.00
49-60	2.50	3.33
61 or more	1.00	1.33

Table 3

Cumulative expected loss rate (cont.)

	24-month term CELR (% of original DPPA balance)	36-month term CELR (% of original DPPA balance)
Business DPPA obligor tenure obligor (mos.)(i)		
1-7(ii)	5.25	7.00
8-12(ii)	5.25	7.00
13-24	5.25	7.00
25-36	2.50	3.33
37-48	1.50	2.00
49-60	1.00	1.33
61 or more	0.75	1.00

(i)Tenure reflects the number of months the customer or obligor has had a Verizon Wireless account, based on their oldest active account establishment date, which may include up to 50 days of disconnected service, up to 90 days of suspended service, or longer service suspensions due to the Servicemembers Civil Relief Act. (ii)The base-case expected loss was derived from static pool loss data, excluding first payment defaulters, which are more prevalent in the one- to seven-month and eight- to 12-month obligor tenure buckets because the transaction's eligibility criteria effectively require DPPA obligors in these two tenure segments to have made at least one loan payment. DPPA--Device payment plan agreement. CELR—Cumulative expected loss rate. Mos.--Months.

We also applied the relevant series 2023-2 eligibility criteria and concentration limits to create a hypothetical, worst-case, series 2023-2 allocated pool balance (see the Eligibility Criteria And Concentration Limits section above). To do so, we first populated the hypothetical pool with the maximum amount (22.00%) of poorer performing less-than-12-month customer tenure segment consumer loans. Then we populated the hypothetical pool with the maximum amount (10.00%) of business DPPAs in the 13-24-month customer tenure segment. Next, we populated the hypothetical pool with the minimum amount (55.00%) of better performing greater-than-60-month customer tenure segment consumer loans. Finally, we assumed the remainder of the pool (13.00%) consisted of 13-24-month customer tenure segment consumer loans (see table 4).

Applying our longer-term-adjusted CELRs to our hypothetical worst-case loss pool, the Verizon portfolio static pool data suggests a weighted average CELR of approximately 5.20% for the series 2023-2 notes (see table 4).

Table 4

CELRs versus worst-case loss pool

	36-month term CELR (% of original DPPA balance)	Allocation assumption for hypothetical worst-case pool mix (%)	WA hypothetical worst-case pool mix (%)
Consumer DPPA obligor tenure (mos.)			
1-7	12.00	22.0	2.64%
8-12	11.33	0.0	0.00%
13-24	8.67	13.0	1.13%
25-36	5.67	0.0	0.00%
37-48	4.00	0.0	0.00%
49-60	3.33	0.0	0.00%
61 or more	1.33	55.0	0.73%

Table 4

CELRs versus worst-case loss pool (cont.)

	36-month term CELR (% of original DPPA balance)	Allocation assumption for hypothetical worst-case pool mix (%)	WA hypothetical worst-case pool mix (%)
Business DPPA obligor tenure (mos.)			
1-7	7.00	0.0	0.00%
8-12	7.00	0.0	0.00%
13-24	7.00	10.0	0.70%
25-36	3.33	0.0	0.00%
37-48	2.00	0.0	0.00%
49-60	1.33	0.0	0.00%
61 or more	1.00	0.0	0.00%
WA cumulative expected loss rate	--	--	5.20%

DPPA--Device payment plan agreement. CELR—Cumulative expected loss rate. Mos.--Months. WA--Weighted average.

In deriving our cumulative expected loss rate for the transaction, we considered the performance of Verizon's discrete securitization transactions from 2016 to 2020. Although those trusts contained only 24-month term loans, their performance was very consistent. We believe this transaction's loan pool composition would be very similar during amortization. We also considered that our hypothetical pool assumes a worst-case scenario. The pools in the discrete VZOT transactions that entered amortization were of better credit quality and experienced lower actual loss rates than the assumed worst-case pools. Based on Verizon's portfolio static pool loss data and its very consistent securitization performance over five years in transactions with nearly identical eligibility to this transaction, and adjusting for the inclusion of longer-term loans, our cumulative expected loss rate for the series 2023-2 notes is 4.00%.

Upgrade Program

Verizon Wireless may offer promotions that allow customers to upgrade their current wireless devices, subject to the terms of the related offer. We expect that cellphone upgrades will be offered to, and accepted by, DPPA obligors in the master trust. Accordingly, we ran a cash flow scenario to simulate a portion of the pool upgrading, which constitutes prepayment to the trust (see the Cash Flow Modeling Assumptions And Results section below).

Verizon Wireless may offer new upgrade offers at any time, with terms and conditions to be determined at the time of the offer, and retains the option to terminate the offers at any time. If an obligor accepts an upgrade offer and satisfies all of the upgrade contract's terms and conditions, and the upgrade program has not been terminated, then the marketing agent (Cellco) is required to pay off, or cause the related originator to pay off, the remaining original DPPA balance.

The transaction documents provide that, as long as Cellco is the servicer, the failure of an originator, the marketing agent, or the parent support provider (Verizon) to pay the remaining balance of the original DPPA (or any upgrade payment) for five business days will constitute a servicer termination event. This failure to pay will also cause the servicer and the marketing agent to terminate the upgrade program within 10 business days of the parent support provider receiving notice from the master collateral agent that an upgrade payment was due. Our analysis does not rely on the originator's, marketing agent's, or parent support provider's ability to pay the upgrading obligor's original DPPA remaining balance, nor does it rely on the upgrade program's termination. However, we acknowledge that such a consequence to nonpayment helps to mitigate and limit the program's risks. To assess the potential risks the upgrade program poses to this transaction, we considered three hypothetical upgrade nonpayment scenarios, as discussed below.

The first hypothetical scenario we analyzed is one in which the DPPA obligor accepts an upgrade offer, but subsequently fails to pay off the remaining original DPPA balance after the phone is deemed unsatisfactory by Verizon Wireless. Because upgrades that occur at a Verizon Wireless store are only completed if the phone is found to be satisfactory, this scenario focuses on a DPPA upgrade sought through an indirect channel, such as online. In this scenario, the obligor mails the phone to Verizon Wireless for inspection, the phone is found to be unsatisfactory, and the obligor is notified as such but fails to pay the remaining balance of their DPPA, which is due in full on the next monthly bill.

We believe the risk of nonpayment to the trust under this scenario is addressed because this failure to pay is already reflected in the historical static pool loss data we reviewed and used to size expected losses for the pool. In addition, the actual level of phone rejections through the indirect upgrade channel is low. Further, even if the returned phone is rejected, Verizon Wireless retains all of its servicing and collection tools to compel payment of the original outstanding loan balance, up to and including the suspension of phone service.

The second hypothetical scenario we analyzed is one in which the DPPA obligor satisfactorily completes all conditions of the upgrade offer, but the applicable originator or marketing agent by itself, or on behalf of the applicable originator that made the offer, fails to pay off the original DPPA's outstanding balance. Because Verizon guarantees the marketing agent's payment obligations, we extended this scenario to include Verizon's failure to pay on the marketing agent's behalf. For this hypothetical scenario, we received legal comfort from an opinion provided by Verizon's counsel. The opinion concludes that when upgrading, a DPPA obligor's obligation to make the payments required by the applicable DPPA, remains enforceable against that DPPA obligor even if the obligor satisfactorily completes all of the conditions to an upgrade offer, but the applicable originator or the marketing agent fails to perform the originator's obligation under the upgrade contract to pay off the receivable's then-outstanding balance.

In the third hypothetical scenario, Cellco or another originator, as debtor-in-possession after a Chapter 11 bankruptcy case commences, continues the upgrade program, enters into an upgrade contract with a DPPA obligor, and the DPPA obligor satisfies its obligations under the upgrade contract. However, the originator (as opposed to the obligor) fails to make the upgrade payment for the outstanding balance of the DPPA obligor's loan. For this hypothetical scenario, we received legal comfort from a bankruptcy opinion provided by Verizon's counsel. The opinion concludes that the securitization trust could enforce the original DPPA against the obligor, and the obligor, in turn, would have a claim in recoupment against the originator for damages resulting from the originator's failure to perform, which the obligor could use to offset payments it owed to the originator on the new DPPA.

The transaction documents contain originator representations that new DPPAs acquired by the master trust will not be subject to recoupment and offset by the obligor if the marketing agent failed to pay off the remaining balance of the obligor's prior upgrade.

Based on the above analysis and the fact that the transaction documents include provisions to facilitate the recoupment process described in the opinion, we believe the risks associated with the upgrade program have been appropriately addressed.

Cash Flow Modeling Assumptions And Results

We modeled the series 2023-2 transaction to simulate 'AAA', 'AA', and 'A' rating stress scenarios (see table 5). The pool balance and capital structure reflected the 8.25% overcollateralization, 1.00% reserve account, and discount rate of approximately 11.21%. For each rating stress scenario, we reduced the initial pool balance by the payment credit dilution and the balance of the cancellation dilution not covered by the excess concentration amount of 2.50% of the pool balance.

For the hypothetical worst-case pool, and at each rating category, we ran one prepayment scenario and two loss curves and two different interest rate curves.

Table 5

Cash flow assumptions and results: 4.0% CELR

	Class		
	A	**B**	**C**
Scenario	AAA	AA	A
Prepayment scenarios			
No voluntary prepayments	No voluntary prepayments; no upgrade prepayments	No voluntary prepayments; no upgrade prepayments	No voluntary prepayments; no upgrade prepayments
Loss timing (%)			
Fast loss curve (% per six mos.)	40/35/20/5	40/35/20/5	40/35/20/5
Slow loss curve (% per six mos.)	10/35/35/20	10/35/35/20	10/35/35/20
Dilution (% of initial pool balance reduction)	1.63	0.94	0.50
Approximate break-even loss levels (%)(i)	21.4	16.3	13.6

(i)The maximum cumulative losses on the pool that the transaction can withstand without triggering a payment default on the relevant class of notes. CELR--Cumulative expected loss rate. Mos.--Months.

After applying the above stresses in our internal cash flow runs, the break-even results showed that the notes are enhanced to the degree necessary to withstand a stressed loss level that is consistent with the assigned preliminary ratings.

Sensitivity Analysis

In addition to running break-even cash flows, we conducted a sensitivity analysis using the loss coverage multiples of the class A, B, and C notes to assess the stability of the preliminary ratings given a moderate ('BBB') stress (see table 6). As with the break-even analysis, we ran the sensitivity cash flows at the beginning of the amortization period.

Table 6

Sensitivity analysis summary: moderate loss scenario

Loss level (multiple)	2.0x hypothetical worst-case expected loss
Sensitivity loss level (%)	8.0
Prepayment scenarios	
No voluntary prepayments	No voluntary prepayments; no upgrade prepayments
Loss timing (%)	
Fast loss curve (% per six months)	40/35/20/5
Slow loss curve (% per six months)	10/35/35/20
Dilution (% of initial pool balance reduction)	0.38

Under the moderate stress loss scenario, we assumed losses of approximately 2.0x our expected loss level, assuming a hypothetical worst-case pool mix and slightly lower dilution stress. All other assumptions remained the same as the break-even cash flow runs. In each case, the scenario results indicated a coverage multiple for each cash flow scenario and for each rated class, consistent with the credit stability section of "S&P Global Ratings Definitions," published Nov. 10, 2021.

Related Criteria

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- Economic Outlook U.S. Q2 2023: Still Resilient, Downside Risks Rise, March 27, 2023
- Global Structured Finance 2023 Outlook, Jan. 11, 2023
- S&P Global Ratings Expects The Russia-Ukraine Conflict To Have Limited Direct Impact On Global Structured Finance, March 3, 2022
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