UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2023

- OR -

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission file number:
001-37470

TransUnion

(Exact name of registrant as specified in its charter)

Delaware	**61-1678417**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**
555 West Adams, Chicago, Illinois	**60661**
(Address of principal executive offices)	**(Zip code)**

312-985-2000
(Registrants' telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value	TRU	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

☒ Large Accelerated Filer	☐ Accelerated Filer
☐ Non-Accelerated Filer	☐ Smaller Reporting Company
	☐ Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

☐ Yes ☒ No

As of March 31, 2023, there were 193.2 million shares of TransUnion common stock outstanding.

TRANSUNION
QUARTERLY REPORT ON FORM 10-Q
QUARTER ENDED MARCH 31, 2023
TABLE OF CONTENTS

	Page
PART I. FINANCIAL INFORMATION	4
ITEM 1. UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS	4
Consolidated Balance Sheets	4
Consolidated Statements of Income	5
Consolidated Statements of Comprehensive Income	6
Consolidated Statements of Cash Flows	7
Consolidated Statements of Stockholders' Equity	8
Notes to Unaudited Consolidated Financial Statements	9
ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	26
ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	44
ITEM 4. CONTROLS AND PROCEDURES	45
PART II. OTHER INFORMATION	46
ITEM 1. LEGAL PROCEEDINGS	46
ITEM 1A. RISK FACTORS	46
ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS	46
ITEM 6. EXHIBITS	47
SIGNATURES	48

PART I. FINANCIAL INFORMATION

ITEM 1. UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS

TRANSUNION AND SUBSIDIARIES
Consolidated Balance Sheets (Unaudited)
(in millions, except per share data)

	March 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 439.0	$ 585.3
Trade accounts receivable, net of allowance of $11.2 and $11.0	652.6	602.2
Other current assets	289.5	262.7
Total current assets	1,381.1	1,450.2
Property, plant and equipment, net of accumulated depreciation and amortization of $736.9 and $711.3	209.5	218.2
Goodwill	5,569.8	5,551.4
Other intangibles, net of accumulated amortization of $2,380.1 and $2,268.6	3,636.7	3,675.5
Other assets	766.0	771.0
Total assets	$ 11,563.1	$ 11,666.3
Liabilities and stockholders' equity		
Current liabilities:		
Trade accounts payable	$ 298.4	$ 250.4
Short-term debt and current portion of long-term debt	114.6	114.6
Other current liabilities	465.3	540.5
Total current liabilities	878.4	905.5
Long-term debt	5,455.0	5,555.5
Deferred taxes	726.7	762.0
Other liabilities	171.4	173.9
Total liabilities	7,231.6	7,396.9
Stockholders' equity:		
Common stock, $0.01 par value; 1.0 billion shares authorized at March 31, 2023 and December 31, 2022, 199.2 million and 198.7 million shares issued at March 31, 2023 and December 31, 2022, respectively, and 193.2 million shares and 192.7 million shares outstanding as of March 31, 2023 and December 31, 2022, respectively	2.0	2.0
Additional paid-in capital	2,322.3	2,290.3
Treasury stock at cost; 6.0 million and 6.0 million shares at March 31, 2023 and December 31, 2022, respectively	(292.1)	(284.5)
Retained earnings	2,478.4	2,446.6
Accumulated other comprehensive loss	(282.2)	(284.5)
Total TransUnion stockholders' equity	4,228.3	4,169.9
Noncontrolling interests	103.2	99.5
Total stockholders' equity	4,331.5	4,269.4
Total liabilities and stockholders' equity	$ 11,563.1	$ 11,666.3

See accompanying notes to unaudited consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Income (Unaudited)
(in millions, except per share data)

	Three Months Ended March 31,	
	2023	2022
Revenue	$ 940.3	$ 921.3
Operating expenses		
Cost of services (exclusive of depreciation and amortization below)	324.9	298.0
Selling, general and administrative	340.5	359.5
Depreciation and amortization	129.7	128.8
Total operating expenses	795.1	786.3
Operating income	145.2	135.0
Non-operating income and (expense)		
Interest expense	(71.8)	(50.2)
Interest income	5.8	0.7
Earnings from equity method investments	3.1	3.0
Other income and (expense), net	(6.8)	(11.8)
Total non-operating income and (expense)	(69.6)	(58.3)
Income from continuing operations before income taxes	75.6	76.7
Provision for income taxes	(18.6)	(24.4)
Income from continuing operations	57.0	52.3
Discontinued operations, net of tax	(0.1)	(0.4)
Net income	56.9	52.0
Less: net income attributable to the noncontrolling interests	(4.3)	(3.7)
Net income attributable to TransUnion	$ 52.6	$ 48.3
Income from continuing operations	$ 57.0	$ 52.3
Less: income from continuing operations attributable to noncontrolling interests	(4.3)	(3.7)
Income from continuing operations attributable to TransUnion	52.7	48.7
Discontinued operations, net of tax	(0.1)	(0.4)
Net income attributable to TransUnion	$ 52.6	$ 48.3
Basic earnings per common share from:		
Income from continuing operations attributable to TransUnion	$ 0.27	$ 0.25
Discontinued operations, net of tax	—	—
Net Income attributable to TransUnion	$ 0.27	$ 0.25
Diluted earnings per common share from:		
Income from continuing operations attributable to TransUnion	$ 0.27	$ 0.25
Discontinued operations, net of tax	—	—
Net Income attributable to TransUnion	$ 0.27	$ 0.25
Weighted-average shares outstanding:		
Basic	193.0	192.1
Diluted	193.9	193.2

See accompanying notes to unaudited consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Comprehensive Income (Unaudited)
(in millions)

	Three Months Ended March 31,	
	2023	2022
Net income	$ 56.9	$ 52.0
Other comprehensive (loss) income:		
Foreign currency translation:		
Foreign currency translation adjustment	38.0	(6.7)
Provision for income taxes	(0.7)	—
Foreign currency translation, net	37.3	(6.7)
Hedge instruments:		
Net change on interest rate swap	(47.4)	143.1
Benefit (Provision) for income taxes	11.8	(35.8)
Hedge instruments, net	(35.6)	107.3
Total other comprehensive income, net of tax	1.7	100.6
Comprehensive income	58.6	152.6
Less: comprehensive income attributable to noncontrolling interests	(3.7)	(3.7)
Comprehensive income attributable to TransUnion	$ 54.9	$ 148.9

See accompanying notes to unaudited consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Cash Flows (Unaudited)
(in millions)

	Three Months Ended March 31,	
	2023	2022
Cash flows from operating activities:		
Net income	$ 56.9	$ 52.0
Less: Discontinued operations, net of tax	(0.1)	(0.4)
Income from continuing operations	57.0	52.3
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	129.7	128.8
Loss on repayment of loans	1.0	6.5
Deferred taxes	(27.4)	(4.5)
Stock-based compensation	22.1	20.9
Other	(0.1)	2.8
Changes in assets and liabilities:		
Trade accounts receivable	(56.7)	(32.6)
Other current and long-term assets	(12.2)	(36.1)
Trade accounts payable	44.9	(10.3)
Other current and long-term liabilities	(80.9)	(116.2)
Cash provided by operating activities of continuing operations	77.4	11.6
Cash used in operating activities of discontinued operations	—	(0.4)
Cash provided by operating activities	77.4	11.2
Cash flows from investing activities:		
Capital expenditures	(66.5)	(58.6)
Proceeds from sale/maturities of other investments	17.5	37.1
Purchases of other investments	(23.1)	(53.0)
Investments in nonconsolidated affiliates	(31.9)	(14.8)
Other	0.4	(1.7)
Cash used in investing activities of continuing operations	(103.6)	(91.0)
Cash flows from financing activities:		
Repayments of debt	(103.6)	(428.6)
Proceeds from issuance of common stock and exercise of stock options	9.8	8.7
Dividends to shareholders	(20.6)	(19.0)
Employee taxes paid on restricted stock units recorded as treasury stock	(7.6)	(28.7)
Cash used in financing activities of continuing operations	(122.0)	(467.6)
Effect of exchange rate changes on cash and cash equivalents	1.9	1.8
Net change in cash and cash equivalents	(146.3)	(545.6)
Cash and cash equivalents, beginning of period	585.3	1,842.4
Cash and cash equivalents, end of period	$ 439.0	$ 1,296.8

See accompanying notes to unaudited consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Consolidated Statements of Stockholders' Equity (Unaudited)
(in millions)

	Common Stock		Paid-In Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interests	Total
	Shares	Amount						
Balance, December 31, 2021	191.8	$ 2.0	$ 2,188.9	$ (252.0)	$ 2,254.6	$ (285.4)	$ 98.1	$ 4,006.2
Net income	—	—	—	—	48.3	—	3.7	52.0
Other comprehensive income (loss)	—	—	—	—	—	100.7	(0.1)	100.6
Stock-based compensation	—	—	20.1	—	—	—	—	20.1
Employee share purchase plan	0.1	—	10.0	—	—	—	—	10.0
Exercise of stock options	—	—	0.2	—	—	—	—	0.2
Vesting of restricted stock units and performance stocks	0.8	—	—	—	—	—	—	—
Treasury stock purchased	(0.3)	—	—	(28.7)	—	—	—	(28.7)
Dividends to shareholders	—	—	—	—	(18.4)	—	—	(18.4)
Balance, March 31, 2022	192.4	$ 2.0	$ 2,219.2	$ (280.8)	$ 2,284.5	$ (184.7)	$ 101.7	$ 4,141.9

	Common Stock		Paid-In Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interests	Total
	Shares	Amount						
Balance, December 31, 2022	192.7	$ 2.0	$ 2,290.3	$ (284.5)	$ 2,446.6	$ (284.5)	$ 99.5	$ 4,269.4
Net income	—	—	—	—	52.6	—	4.3	56.9
Other comprehensive income (loss)	—	—	—	—	—	2.3	(0.6)	1.7
Distributions to noncontrolling interests	—	—	—	—	—	—	—	—
Stock-based compensation	—	—	20.7	—	—	—	—	20.7
Employee share purchase plan	0.2	—	10.7	—	—	—	—	10.7
Exercise of stock options	0.1	—	0.5	—	—	—	—	0.5
Vesting of restricted stock units and performance stocks	0.3	—	—	—	—	—	—	—
Treasury stock purchased	(0.1)	—	—	(7.6)	—	—	—	(7.6)
Dividends to shareholders	—	—	—	—	(20.8)	—	—	(20.8)
Balance, March 31, 2023	193.2	$ 2.0	$ 2,322.3	$ (292.1)	$ 2,478.4	$ (282.2)	$ 103.2	$ 4,331.5

See accompanying notes to unaudited consolidated financial statements.

TRANSUNION AND SUBSIDIARIES
Notes to Unaudited Consolidated Financial Statements

1. Significant Accounting and Reporting Policies

Basis of Presentation

The accompanying unaudited Condensed Consolidated Financial Statements of TransUnion and subsidiaries have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") for interim financial statements and, in our opinion, include all adjustments of a normal recurring nature necessary for a fair statement of the interim periods presented. All significant intercompany transactions and balances have been eliminated. As a result of displaying amounts in millions, rounding differences may exist in the financial statements and footnote tables. The interim results presented are not necessarily indicative of the results that may be expected for the full year ending December 31, 2023. The Company's year-end Consolidated Balance Sheet data was derived from audited financial statements. Therefore, these unaudited consolidated financial statements should be read in conjunction with our audited financial statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the Securities and Exchange Commission ("SEC") on February 14, 2023.

Unless the context indicates otherwise, any reference in this report to the "Company," "we," "our," "us," and "its" refers to TransUnion and its consolidated subsidiaries, collectively.

For the periods presented, TransUnion does not have any material assets, liabilities, revenues, expenses or operations of any kind other than its ownership investment in TransUnion Intermediate Holdings, Inc.

Principles of Consolidation

The consolidated financial statements of TransUnion include the accounts of TransUnion and all of its controlled subsidiaries. Investments in nonmarketable unconsolidated entities in which the Company is able to exercise significant influence are accounted for using the equity method. Investments in nonmarketable unconsolidated entities in which the Company is not able to exercise significant influence, our "Cost Method Investments," are accounted for at our initial cost, minus any impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

Use of Estimates

The preparation of consolidated financial statements and related disclosures in accordance with GAAP requires management to make estimates and judgments that affect the amounts reported. We believe that the estimates used in preparation of the accompanying consolidated financial statements are reasonable, based upon information available to management at this time. These estimates and judgments affect the reported amounts of assets, liabilities and disclosure of contingent assets and liabilities at the balance sheet date, as well as the amounts of revenue and expense during the reporting period. Estimates are inherently uncertain and actual results could differ materially from the estimated amounts.

Trade Accounts Receivable

We base our allowance for doubtful accounts estimate on our historical loss experience, our current expectations of future losses, current economic conditions, an analysis of the aging of outstanding receivables and customer payment patterns, and specific reserves for customers in adverse financial condition or for existing contractual disputes.

The following is a roll-forward of the allowance for doubtful accounts for the periods presented:

	Three Months Ended March 31,	
	2023	2022
Beginning Balance	$ 11.0	$ 10.7
Provision for losses on trade accounts receivable	1.3	2.1
Write-offs, net of recovered accounts	(1.1)	0.5
Ending balance	$ 11.2	$ 13.3

Long-Lived Assets and Goodwill

We review long-lived asset groups that are subject to amortization for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be recoverable. We test goodwill for impairment on an annual basis, in the fourth quarter, or more frequently if events or circumstances indicate that the carrying value of one or more of our reporting units exceeds its fair value. We continually monitor events and changes in circumstances such as changes in market conditions and other relevant factors that could indicate that the fair value of our reporting units may more likely than not have fallen below its respective carrying value. The ongoing uncertainty and the unpredictable nature of the macroeconomic environment could impact our estimates and assumptions utilized in our impairment tests, which may result in future impairments that could be material and negatively impact our results of operations.

See Note 5, “Goodwill” and Note 6, “Intangible Assets” for additional information about these assets.

Recently Adopted Accounting Pronouncements

There are no recent accounting pronouncements that have been adopted by TransUnion in the first quarter of 2023.

Recent Accounting Pronouncements Not Yet Adopted

There are no recent accounting pronouncements that apply to TransUnion that have not been adopted.

2. Business Acquisition

The following transaction was accounted for as a business combination under the acquisition method of accounting. The acquisition method requires, among other things, that assets acquired and liabilities assumed in a business combination generally be recognized at their fair values as of the acquisition date. The determination of fair value requires management to make significant estimates and assumptions. The excess of the purchase price over the fair value of the acquired net assets has been recorded as goodwill. The results of operations of this acquisition are included in our consolidated financial statements from the date of acquisition.

Verisk Financial Services

On April 8, 2022, we completed our acquisition of Verisk Financial Services (“VF”), the financial services business unit of Verisk Analytics, Inc. We acquired 100% of the outstanding equity interest of the entities that comprise VF for $505.7 million in cash, including a decrease of $2.3 million recorded subsequent to the acquisition date for certain customary purchase price adjustments. We have retained the leading core businesses of Argus Information and Advisory Services, Inc. and Commerce Signals, Inc. (collectively, “Argus”), and identified several non-core businesses that we classified as held-for-sale as of the acquisition date that we have subsequently divested. See Note 3, “Discontinued Operations,” for a further discussion of these discontinued operations.

Purchase Price Allocation

The purchase price for this acquisition was finalized as of December 31, 2022. During the three months ended March 31, 2023, we finalized the valuation of the assets acquired and liabilities assumed, with no significant changes in the amounts and related disclosures compared with December 31, 2022.

3. Discontinued Operations

Non-core businesses from the VF acquisition

As discussed in Note 2, "Business Acquisition," on April 8, 2022, we completed the acquisition of VF, which included Argus and several non-core businesses that we classified as held-for-sale as of the acquisition date. We sold these non-core businesses on December 30, 2022, and therefore have no assets or liabilities of these businesses on our consolidated balance sheet for the periods presented. The expenses related to these non-core businesses for the three months ended March 31, 2023, were not significant. The selling price of these non-core businesses is subject to customary post-closing adjustments to working capital, which we expect to finalize during 2023, and will be reflected as an adjustment to the gain on sale that will be included in discontinued operations, net of tax.

Healthcare business

On December 17, 2021, we completed the sale of our Healthcare business. During the three months ended March 31, 2022, the amount of operating expenses were $0.7 million, and we recorded a $0.5 million true-up to the selling price related to this business, which is reflected in the table below.

Discontinued operations, net of tax

Discontinued operations, net of tax, for our Healthcare business, as reported on our consolidated statements of income for the three months ended March 31, 2022, consisted of the following:

(in millions)	Three Months Ended March 31, 2022
Revenue	$ —
Operating expenses	
Cost of services (exclusive of depreciation and amortization below)	0.3
Selling, general and administrative	0.4
Depreciation and amortization	—
Total operating expenses	$ 0.7
Operating loss of discontinued operations	(0.7)
Non-operating income and (expense)	(0.3)
Loss before income taxes from discontinued operations	$ (1.0)
Provision for income taxes	0.1
Gain on sale of our Healthcare discontinued operations, net of tax	0.5
Discontinued operations, net of tax	$ (0.4)

4. Other Current Assets

Other current assets consisted of the following:

(in millions)	March 31, 2023	December 31, 2022
Prepaid expenses	$ 175.7	$ 145.1
Marketable securities (Note 16)	2.7	2.6
Other	111.1	115.0
Total other current assets	$ 289.5	$ 262.7

Other includes other investments in non-negotiable certificates of deposit that are recorded at their carrying value, which approximates fair value.

5. Goodwill

Goodwill is allocated to our reporting units, which are an operating segment or one level below an operating segment. Our reporting units consist of U.S. Markets, Consumer Interactive, and the geographic regions of the United Kingdom, Africa, Canada, Latin America, India and Asia Pacific within our International reportable segment.

We test goodwill for impairment on an annual basis in the fourth quarter, and monitor throughout the year for impairment triggering events that indicate that the carrying value of one or more of our reporting units exceeds its fair value. During the

first quarter of 2023, there were no triggering events, that required us to re-evaluate whether any of our reporting units are impaired. This assessment includes our United Kingdom reporting unit which we are continuing to monitor given the calculated excess fair value over carrying value was less than 10% of its carrying value as of October 31, 2022, our annual assessment date.

Goodwill allocated to our reportable segments and the changes in the carrying amount of goodwill during the first quarter of 2023, consisted of the following:

(in millions)	U.S. Markets	International	Consumer Interactive	Total
Balance, December 31, 2022	$ 3,602.7	$ 1,269.6	$ 679.1	$ 5,551.4
Purchase accounting measurement period adjustments	(0.4)	—	—	(0.4)
Foreign exchange rate adjustment	—	18.7	—	18.7
Balance, March 31, 2023	$ 3,602.3	$ 1,288.3	$ 679.1	$ 5,569.8

6. Intangible Assets

Intangible assets are initially recorded at their acquisition cost, or fair value if acquired as part of a business combination, and amortized over their estimated useful lives. Intangible assets consisted of the following:

	March 31, 2023			December 31, 2022		
(in millions)	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Customer relationships	$ 2,052.6	$ (361.8)	$ 1,690.8	$ 2,048.6	$ (330.9)	$ 1,717.7
Internal use software	2,015.5	(1,079.4)	936.2	1,959.8	(1,029.8)	930.0
Database and credit files	1,350.4	(751.8)	598.6	1,337.7	(725.6)	612.1
Trademarks, copyrights and patents	587.8	(177.6)	410.2	587.7	(173.2)	414.5
Noncompete and other agreements	10.5	(9.6)	0.9	10.5	(9.1)	1.4
Total intangible assets	$ 6,016.8	$ (2,380.1)	$ 3,636.7	$ 5,944.1	$ (2,268.6)	$ 3,675.5

Changes in the carrying amount of intangible assets between periods consisted of the following:

(in millions)	Gross	Accumulated Amortization	Net
Balance, December 31, 2022	$ 5,944.1	$ (2,268.6)	$ 3,675.5
Developed internal use software	53.4	—	53.4
Amortization	—	(104.7)	(104.7)
Foreign exchange rate adjustment	19.3	(6.7)	12.5
Balance, March 31, 2023	$ 6,016.8	$ (2,380.1)	$ 3,636.7

All amortizable intangible assets are amortized on a straight-line basis, which approximates the pattern of benefit, over their estimated useful lives.

7. Other Assets

Other assets consisted of the following:

(in millions)	March 31, 2023	December 31, 2022
Investments in affiliated companies (Note 8)	$ 302.4	$ 265.9
Right-of-use lease assets	119.8	127.4
Interest rate swaps (Notes 11 and 16)	193.7	237.7
Note Receivable (Note 16)	72.4	70.3
Other	77.7	69.7
Total other assets	$ 766.0	$ 771.0

The decrease in the interest rate swaps asset was due primarily to changes in the forward LIBOR curve during the period.

8. Investments in Affiliated Companies

Investments in affiliated companies represent our investment in non-consolidated domestic and foreign entities. These entities are in businesses similar to ours.

We use the equity method to account for investments in affiliates where we are able to exercise significant influence. For these investments, we adjust the carrying value for our proportionate share of the affiliates' earnings, losses and distributions, as well as for purchases and sales of our ownership interest.

We account for nonmarketable investments in equity securities in which we are not able to exercise significant influence, our Cost Method Investments, at our initial cost, minus any impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. For these investments, we adjust the carrying value for any purchases or sales of our ownership interests. We record any dividends received from these investments as other income in non-operating income and expense.

We have elected to account for our investment in a limited partnership, which is not material, using the net asset value fair value practical expedient. Gains and losses on this investment, which are not material, are included in other income and expense in the consolidated statements of income.

Investments in affiliated companies consisted of the following:

(in millions)	March 31, 2023	December 31, 2022
Cost Method Investments	$ 243.1	$ 213.1
Equity Method investments	56.2	49.8
Limited Partnership investment	3.1	3.0
Total investments in affiliated companies (Note 7)	$ 302.4	$ 265.9

These balances are included in other assets in the consolidated balance sheets. During the first quarter of 2023, we acquired three Cost Method Investments, two of which are recorded in our U.S. Markets segment and one in our International segment.

Earnings from equity method investments, which are included in other non-operating income and expense, and dividends received from equity method investments consisted of the following:

	Three Months Ended March 31,	
(in millions)	2023	2022
Earnings from equity method investments (Note 17)	$ 3.1	$ 3.0
Dividends received from equity method investments	—	0.5

9. Other Current Liabilities

Other current liabilities consisted of the following:

(in millions)	March 31, 2023	December 31, 2022
Accrued payroll and employee benefits	$ 105.2	$ 208.5
Accrued legal and regulatory matters (Note 18)	120.7	125.0
Deferred revenue (Note 13)	121.9	111.9
Operating lease liabilities	34.1	33.7
Income taxes payable	24.2	8.0
Other	59.3	53.5
Total other current liabilities	$ 465.3	$ 540.5

The decrease in accrued payroll and employee benefits is due primarily to bonus, commissions and salaries paid during the first quarter of 2023 that were earned in 2022.

10. Other Liabilities

Other liabilities consisted of the following:

(in millions)	March 31, 2023	December 31, 2022
Operating lease liabilities	$ 93.3	$ 102.0
Unrecognized tax benefits, net of indirect tax effects (Note 15)	40.9	40.1
Put option (Note 16)	10.7	10.0
Deferred revenue (Note 13)	6.2	5.3
Interest rate swaps (Notes 11 and 16)	3.3	—
Other	16.9	16.5
Total other liabilities	$ 171.4	$ 173.9

The increase in the interest rate swaps liability was due primarily to changes in the forward LIBOR curve during the period.

11. Debt

Debt outstanding consisted of the following:

(in millions)	March 31, 2023	December 31, 2022
Senior Secured Term Loan B-6, payable in quarterly installments through December 1, 2028, with periodic variable interest at LIBOR or alternate base rate, plus applicable margin (7.09% at March 31, 2023, and 6.63% at December 31, 2022), net of original issue discount and deferred financing fees of $5.0 million and $28.0 million, respectively, at March 31, 2023, and original issue discount and deferred financing fees of $5.3 million and $29.9 million, respectively, at December 31, 2022	$ 2,353.3	$ 2,433.7
Senior Secured Term Loan B-5, payable in quarterly installments through November 15, 2026, with periodic variable interest at LIBOR or alternate base rate, plus applicable margin (6.59% at March 31, 2023, and 6.13% at December 31, 2022), net of original issue discount and deferred financing fees of $2.4 million and $5.8 million, respectively, at March 31, 2023, and original issue discount and deferred financing fees of $2.5 million and $6.2 million, respectively, at December 31, 2022	2,197.3	2,203.3
Senior Secured Term Loan A-3, payable in quarterly installments through December 10, 2024, with periodic variable interest at LIBOR or alternate base rate, plus applicable margin (6.34% at March 31, 2023, and 6.13% at December 31, 2022), net of original issue discount and deferred financing fees of $1.1 million and $0.7 million, respectively, at March 31, 2023, and original issue discount and deferred financing fees of $1.3 million and $0.8 million, respectively, at December 31, 2022	1,018.9	1,033.0
Finance leases	0.1	0.1
Senior Secured Revolving Credit Facility	—	—
Total debt	5,569.6	5,670.1
Less short-term debt and current portion of long-term debt	(114.6)	(114.6)
Total long-term debt	$ 5,455.0	$ 5,555.5

Senior Secured Credit Facility

On June 15, 2010, we entered into a Senior Secured Credit Facility with various lenders. This facility has been amended several times and currently consists of the Senior Secured Term Loan B-6, Senior Secured Term Loan B-5, Senior Secured Term Loan A-3 (collectively, the "Senior Secured Term Loans"), and the Senior Secured Revolving Credit Facility.

On December 1, 2021, we entered into an agreement to amend certain provisions of the Senior Secured Credit Facility and exercise our right to draw additional debt in an amount of $3,100.0 million, less original issue discount and deferred financing fees of $7.8 million and $43.6 million, respectively. Proceeds from the incremental loan on the Senior Secured Credit Facility were used to fund the acquisition of Neustar, Inc. ("Neustar").

During the three months ended March 31, 2023 and March 31, 2022, we expensed $1.1 million and $6.5 million, respectively, of our unamortized original issue discount and deferred financing fees to other income and expense in our consolidated statement of income due to the prepayment of $75.0 million and $400.0 million, respectively, of our Senior Secured Term Loan B-6, funded from our cash-on-hand.

As of March 31, 2023, we had no outstanding balance under the Senior Secured Revolving Credit Facility and $1.2 million of outstanding letters of credit, and could have borrowed up to the remaining $298.8 million available.

TransUnion also has the ability to request incremental loans on the same terms under the Senior Secured Credit Facility up to the sum of the greater of $1,000.0 million and 100% of Consolidated EBITDA, minus the amount of secured indebtedness and the amount incurred prior to the incremental loan, and may incur additional incremental loans so long as the senior secured net leverage ratio does not exceed 4.25-to-1, subject to certain additional conditions and commitments by existing or new lenders to fund any additional borrowings.

With certain exceptions, the Senior Secured Credit Facility obligations are secured by a first-priority security interest in substantially all of the assets of Trans Union LLC, including its investment in subsidiaries. The Senior Secured Credit Facility contains various restrictions and nonfinancial covenants, along with a senior secured net leverage ratio test. The nonfinancial covenants include restrictions on dividends, investments, dispositions, future borrowings and other specified payments, as well as additional reporting and disclosure requirements. The senior secured net leverage test must be met as a condition to incur

additional indebtedness, make certain investments, and may be required to make certain restricted payments. The senior secured net leverage ratio must not exceed 5.5-to-1 at any such measurement date. Under the terms of the Senior Secured Credit Facility, TransUnion may make dividend payments up to the greater of $100 million or 10.0% of Consolidated EBITDA per year, or an unlimited amount provided that no default or event of default exists and so long as the total net leverage ratio does not exceed 4.75-to-1. As of March 31, 2023, we were in compliance with all debt covenants.

Interest Rate Hedging

On November 16, 2022, we entered into interest rate swap agreements with various counterparties that effectively fix our LIBOR exposure on a portion of our Senior Secured Term Loan or similar replacement debt. The new swaps commenced on December 30, 2022, and expire on December 31, 2024, with a current aggregate notional amount of $1,315.0 million that amortizes each quarter. The new swaps require us to pay fixed rates varying between 4.4105% and 4.4465% in exchange for receiving a variable rate that matches the variable rate on our loans. We have designated these swap agreements as cash flow hedges.

On December 23, 2021, we entered into interest rate swap agreements with various counterparties that effectively fix our LIBOR exposure on a portion of our Senior Secured Term Loan or similar replacement debt. The new swaps commenced on December 31, 2021, and expire on December 31, 2026, with a current aggregate notional amount of $1,580.0 million that amortizes each quarter. The tranche requires us to pay fixed rates varying between 1.4280% and 1.4360% in exchange for receiving a variable rate that matches the variable rate on our loans. We have designated these swap agreements as cash flow hedges.

On March 10, 2020, we entered into two interest rate swap agreements with various counterparties that effectively fix our LIBOR exposure on a portion of our Senior Secured Term Loans or similar replacement debt. The first swap commenced on June 30, 2020, and expired on June 30, 2022. The second swap commenced on June 30, 2022, and expires on June 30, 2025, with a current aggregate notional amount of $1,095.0 million that amortizes each quarter after it commences. The second swap requires us to pay fixed rates varying between 0.9125% and 0.9280% in exchange for receiving a variable rate that matches the variable rate on our loans. We have designated these swap agreements as cash flow hedges.

On December 17, 2018, we entered into interest rate swap agreements with various counterparties that effectively fixed our LIBOR exposure on a portion of our Senior Secured Term Loans or similar replacement debt at 2.702% and 2.706%. These swap agreements expired on December 30, 2022.

The change in the fair value of our hedging instruments, included in our assessment of hedge effectiveness, is recorded in other comprehensive income, and reclassified to interest expense when the corresponding hedged debt affects earnings.

The net change in the fair value of the swaps resulted in unrealized loss of $47.4 million ($35.6 million, net of tax) and unrealized gain of $143.1 million ($107.3 million, net of tax) for the three months ended March 31, 2023 and 2022, respectively, recorded in other comprehensive income. Interest income on the swaps in the three months ended March 31, 2023 was $22.6 million ($16.9 million, net of tax). Interest expense on the swaps in the three months ended March 31, 2022 was $13.7 million ($10.3 million, net of tax). We currently expect to recognize a loss of approximately $95.0 million as interest expense due to our expectation that the variable rate that we receive will exceed the fixed rates of interest over the next twelve months.

Fair Value of Debt

As of March 31, 2023 and December 31, 2022, the fair value of our Senior Secured Term Loan B-6, excluding original issue discounts and deferred fees was approximately $2,374.3 million and $2,450.5 million, respectively. As of March 31, 2023 and December 31, 2022, the fair value of our Senior Secured Term Loan B-5, excluding original issue discounts and deferred fees was approximately $2,189.0 million and $2,184.4 million, respectively. As of March 31, 2023 and December 31, 2022, the fair value of our Senior Secured Term Loan A-3, excluding original issue discounts and deferred fees, was approximately $1,020.6 million and $1,026.6 million, respectively. The fair values of our variable-rate term loans are determined using Level 2 inputs, based on quoted market prices for the publicly traded instruments.

12. Stockholders' Equity

Common Stock Dividends

In the first quarter of 2023 and 2022, we paid dividends of $0.105 and $0.095 per share totaling $20.8 million and $18.3 million, respectively. Dividends declared accrue to outstanding restricted stock units and are paid to employees as dividend equivalents when the restricted stock units vest.

Any determination to pay dividends in the future will be at the discretion of our board of directors and will depend on a number of factors, including our liquidity, results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law and other factors our board of directors deems appropriate. We currently have capacity and intend to continue to pay a quarterly dividend, subject to approval by our board.

Treasury Stock

On February 13, 2017, our board of directors authorized the repurchase of up to $300.0 million of our common stock over the next 3 years. Our board of directors removed the three-year time limitation on February 8, 2018. To date, we have repurchased $133.5 million of our common stock and have the ability to repurchase the remaining $166.5 million.

We have no obligation to repurchase additional shares. Any determination to repurchase additional shares will be at the discretion of management and will depend on a number of factors, including our liquidity, results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law, market conditions, the cost of repurchasing shares, the availability of alternative investment opportunities, and other factors management deems appropriate. Any repurchased shares will have the status of treasury shares and may be used, if and when needed, for general corporate purposes.

For the three months ended March 31, 2023 and 2022, 0.3 million and 0.8 million outstanding employee restricted stock units vested and became taxable to the employees, respectively. Employees satisfy their payroll tax withholding obligations in a net share settlement arrangement.

Preferred Stock

As of March 31, 2023 and December 31, 2022, we had 100.0 million shares of preferred stock authorized, and no preferred stock issued or outstanding.

13. Revenue

We have contracts with two general groups of performance obligations: Stand Ready Performance Obligations and Other Performance Obligations. Our Stand Ready Performance Obligations include obligations to stand ready to provide data, process transactions, access our databases, software-as-a-service and direct-to-consumer products, provide rights to use our intellectual property and other services. Our Other Performance Obligations include the sale of certain batch data sets and various professional and other services.

Most of our Stand Ready Performance Obligations consist of a series of distinct goods and services that are substantially the same and have the same monthly pattern of transfer to our customers. We consider each month of service in this time series to be a distinct performance obligation and, accordingly, recognize revenue over time. For a majority of these Stand Ready Performance Obligations, the total contractual price is variable because our obligation is to process an unknown quantity of transactions, as and when requested by our customers, over the contract period. We allocate the variable price to each month of service using the time-series concept and recognize revenue based on the most likely amount of consideration to which we will be entitled**,** which is generally the amount we have the right to invoice. This monthly amount can be based on the actual volume of units delivered or a guaranteed minimum, if higher. Occasionally we have contracts where the amount we will be entitled to for the transactions processed is uncertain, in which case we estimate the revenue based on what we consider to be the most likely amount of consideration we will be entitled to, and adjust any estimates as facts and circumstances evolve.

For all contracts that include a Stand Ready Performance Obligation with variable pricing, we are unable to estimate the variable price attributable to future performance obligations because the number of units to be purchased is not known. As a result, we use the exception available to forgo disclosures about revenue attributable to the future performance obligations where we recognize revenue using the time-series concept as discussed above, including those qualifying for the right to invoice practical expedient. We also use the exception available to forgo disclosures about revenue attributable to contracts with expected durations of one year or less.

Certain of our Other Performance Obligations, including certain batch data sets and certain professional and other services, are delivered at a point in time. Accordingly, we recognize revenue upon delivery, once we have satisfied that obligation. For

certain Other Performance Obligations, including certain professional and other services, we recognize revenue over time, based on an estimate of progress towards completion of that obligation. These contracts are not material.

In certain circumstances we apply the revenue recognition guidance to a portfolio of contracts with similar characteristics. We use estimates and assumptions when accounting for a portfolio that reflect the size and composition of the portfolio of contracts.

Our contracts include standard commercial payment terms generally acceptable in each region, and do not include financing with extended payment terms. We have no significant obligations for refunds, warranties, or similar obligations. Our revenue does not include taxes collected from our customers.

Accounts receivable are shown separately on our balance sheet. Contract assets and liabilities result due to the timing of revenue recognition, billings and cash collections. Contract assets include our right to payment for goods and services already transferred to a customer when the right to payment is conditional on something other than the passage of time, for example, contracts pursuant to which we recognize revenue over time but do not have a contractual right to payment until we complete the contract. Contract assets are included in our other current assets and are not material as of March 31, 2023 and December 31, 2022.

As our contracts with customers generally have a duration of one year or less, our contract liabilities consist of deferred revenue that is primarily short-term in nature. Contract liabilities include current and long-term deferred revenue that is included in other current liabilities and other liabilities. We expect to recognize the December 31, 2022, current deferred revenue balance as revenue during 2023. The majority of our long-term deferred revenue, which is not material, is expected to be recognized in less than two years.

We have certain contracts that have a duration of more than one year. For these contracts, the transaction price allocable to the future performance obligations is primarily fixed but contains a variable component. There is one material fixed fee contract with a duration of more than one year, and for this contract, we expect to recognize revenue of approximately $117.0 million over the next two years and $63.4 million thereafter.

For additional disclosures about the disaggregation of our revenue see Note 17, “Reportable Segments.”

14. Earnings Per Share

Basic earnings per share represents income available to common stockholders divided by the weighted-average number of common shares outstanding during the reported period. Diluted earnings per share reflects the effect of the increase in shares outstanding determined by using the treasury stock method for awards issued under our incentive stock plans.

As of March 31, 2023, there were 0.9 million anti-dilutive weighted stock-based awards outstanding, compared with less than 0.1 million as of March 31, 2022. As of March 31, 2023 and March 31, 2022, there were approximately 0.1 million contingently-issuable performance-based stock awards outstanding that were excluded from the diluted earnings per share calculation, because the contingencies had not been met.

Basic and diluted weighted average shares outstanding and earnings per share were as follows:

(in millions, except per share data)	Three Months Ended March 31, 2023	2022
Income from continuing operations	$ 57.0	$ 52.3
Less: income from continuing operations attributable to noncontrolling interests	(4.3)	(3.7)
Income from continuing operations attributable to TransUnion	$ 52.7	$ 48.7
Discontinued operations, net of tax	(0.1)	(0.4)
Net income attributable to TransUnion	$ 52.6	$ 48.3
Basic earnings per common share from:		
Income from continuing operations attributable to TransUnion	$ 0.27	$ 0.25
Discontinued operations, net of tax	—	—
Net Income attributable to TransUnion	$ 0.27	$ 0.25
Diluted earnings per common share from:		
Income from continuing operations attributable to TransUnion	$ 0.27	$ 0.25
Discontinued operations, net of tax	—	—
Net Income attributable to TransUnion	$ 0.27	$ 0.25
Weighted-average shares outstanding:		
Basic	193.0	192.1
Dilutive impact of stock based awards	0.8	1.1
Diluted	193.9	193.2

15. Income Taxes

For the three months ended March 31, 2023, we reported an effective tax rate of 24.6%, which was higher than the 21.0% U.S. federal corporate statutory rate due primarily to the impact of increases for foreign withholding taxes, uncertain tax positions, nondeductible expenses primarily in connection with executive compensation limitations, and excess tax expenses for stock-based compensation, partially offset by benefits from the foreign rate differential and the research and development credit.

For the three months ended March 31, 2022, we reported an effective tax rate of 31.8%, which was higher than the 21.0% U.S. federal statutory rate due primarily to nondeductible expenses in connection with certain legal and regulatory matters, state taxes and other rate-impacting items, partially offset by excess tax benefits on stock-based compensation.

The gross amount of unrecognized tax benefits, which excludes indirect tax effects, was $46.0 million as of March 31, 2023, and $45.1 million as of December 31, 2022. The amounts that would affect the effective tax rate if recognized are $31.1 million and $30.5 million, respectively. We classify interest and penalties as income tax expense in the consolidated statements of income and their associated liabilities as other liabilities in the consolidated balance sheets. Interest and penalties on unrecognized tax benefits were $11.0 million as of March 31, 2023, and $10.1 million as of December 31, 2022. We are regularly audited by federal, state and foreign taxing authorities. Given the uncertainties inherent in the audit process, it is reasonably possible that certain audits could result in a significant increase or decrease in the total amounts of unrecognized tax benefits. An estimate of the range of the increase or decrease in unrecognized tax benefits due to audit results cannot be made at this time. Tax years 2009 and forward remain open for examination in some foreign jurisdictions, 2012 and forward for U.S. federal income tax purposes and 2015 and forward in some state jurisdictions.

16. Fair Value

The following table summarizes financial instruments measured at fair value, on a recurring basis, as of March 31, 2023:

(in millions)	Total	Level 1	Level 2	Level 3
Assets				
Interest rate swaps (Notes 7 and 11)	$ 193.7	$ —	$ 193.7	$ —
Notes Receivable (Note 7)	72.4	—	72.4	—
Available-for-sale marketable securities (Note 4)	2.7	—	2.7	—
Total	$ 268.8	$ —	$ 268.8	$ —
Liabilities				
Interest rate swaps (Notes 7 and 11)	$ 3.3	$ —	$ —	$ 3.3
Put option on Cost Method Investment (Note 10)	10.7	—	—	10.7
Total	$ 14.0	$ —	$ —	$ 14.0

The following table summarizes financial instruments measured at fair value, on a recurring basis, as of December 31, 2022:

(in millions)	Total	Level 1	Level 2	Level 3
Assets				
Interest rate swaps (Notes 7 and 11)	$ 237.7	$ —	$ 237.7	$ —
Notes Receivable (Note 7)	70.3	—	70.3	—
Available-for-sale marketable securities (Note 4)	2.6	—	2.6	—
Total	$ 310.6	$ —	$ 310.6	$ —
Liabilities				
Put option on Cost Method Investment (Note 10)	$ 10.0	$ —	$ —	$ 10.0
Total	$ 10.0	$ —	$ —	$ 10.0

Level 2 instruments consist of foreign exchange-traded corporate bonds, interest rate swaps and notes receivable. Foreign exchange-traded corporate bonds are available-for-sale debt securities valued at their current quoted prices. These securities mature between 2027 and 2033. Unrealized gains and losses on available-for-sale debt securities, which are not material, are included in other comprehensive income. The interest rate swaps fair values are determined using the market standard methodology of discounting the future expected net cash receipts or payments that would occur if variable interest rates rise above or fall below the fixed rates of the swaps. The variable interest rates used in the calculations of projected receipts on the swaps are based on an expectation of future interest rates derived from observable market interest rate curves and volatilities. As discussed in Note 11, “Debt,” there are two tranches of interest rate swaps that we entered into in 2020. In December 2022, we sold the non-core businesses of our VF acquisition. A portion of the consideration was in the form of a $72.0 million note receivable. The note receivable accrues interest semiannually at a per annum rate of 10.6% and is payable at maturity. The note matures on June 30, 2025, subject to an option of the note issuer to extend the maturity date for two successive terms of three months each, at an increased rate of interest at each extension. The note was initially recorded at fair value of $70.3 million using an income approach for fixed income securities, where contractual cash flows were discounted to present value at a risk-adjusted rate of return in a lattice model framework. The fair value of the note is determined each period by applying the same approach, considering changes to the risk-adjusted rate of return given observed changes to the interest rate environment, market pricing of credit risk, and issuer-specific credit risk.

Level 3 instruments consist of a put option on a Cost Method Investment. The put option allows the owners of the remaining shares to compel TransUnion to purchase their shares, subject to the fulfillment of certain conditions. The fair value of the put option is determined using a Monte Carlo analysis with assumptions that include revenue projections, volatility rates, discount rates and the option period, among others.

17. Reportable Segments

We have three reportable segments, U.S. Markets, International, and Consumer Interactive, and the Corporate unit, which provides support services to each of the segments. Our chief operating decision maker ("CODM") uses the profit measure of Adjusted EBITDA, on both a consolidated and a segment basis, to allocate resources and assess performance of our businesses. We use Adjusted EBITDA as our profit measure because it eliminates the impact of certain items that we do not consider indicative of operating performance, which is useful to compare operating results between periods. Our board of directors and executive management team also use Adjusted EBITDA as a compensation measure for both segment and corporate management under our incentive compensation plans. Adjusted EBITDA is also a measure frequently used by securities analysts, investors and other interested parties in their evaluation of the operating performance of companies similar to ours.

The segment financial information below aligns with how we report information to our CODM to assess operating performance and how we manage the business. The accounting policies of the segments are the same as described in Note 1, "Significant Accounting and Reporting Policies" and Note 13, "Revenue."

The following is a more detailed description of our reportable segments and the Corporate unit, which provides support services to each segment:

U.S. Markets

The U.S. Markets segment provides consumer reports, actionable insights and analytics to businesses. These businesses use our services to acquire customers, assess consumers' ability to pay for services, identify cross-selling opportunities, measure and manage debt portfolio risk, collect debt, verify consumer identities and mitigate fraud risk. The core capabilities and delivery methods in our U.S. Markets segment allow us to serve a broad set of customers across industries. We report disaggregated revenue of our U.S. Markets segment for Financial Services and Emerging Verticals.

- ***Financial Services:*** The Financial Services vertical consists of our consumer lending, mortgage, auto and cards and payments lines of business. Our Financial Services clients consist of most banks, credit unions, finance companies, auto lenders, mortgage lenders, FinTechs, and other consumer lenders in the United States. We also distribute our solutions through most major resellers, secondary market players and sales agents. Beyond traditional lenders, we work with a variety of credit arrangers, such as auto dealers and peer-to-peer lenders. We provide solutions across every aspect of the lending lifecycle; customer acquisition and engagement, fraud and ID management, retention and recovery. Our products are focused on mitigating risk and include credit reporting, credit marketing, analytics and consulting, identity verification and authentication and debt recovery solutions. The revenue of Argus is included in Financial Services since the date of the acquisition.

- ***Emerging Verticals:*** Emerging Verticals include Technology, Commerce & Communications, Insurance, Media, Services & Collections, Tenant & Employment, and Public Sector. Our solutions in these verticals are also data-driven and address the entire customer lifecycle. We offer onboarding and transaction processing products, scoring and analytic products, marketing solutions, fraud and identity management solutions and customer retention solutions.

International

The International segment provides services similar to our U.S. Markets segment to businesses in select regions outside the United States. Depending on the maturity of the credit economy in each country, services may include credit reports, analytics and solutions services, and other value-added risk management services. In addition, we have insurance, business and automotive databases in select geographies. These services are offered to customers in a number of industries including financial services, insurance, automotive, collections, and communications, and are delivered through both direct and indirect channels. The International segment also provides consumer services similar to those offered by our Consumer Interactive segment that help consumers proactively manage their personal finances and take precautions against identity theft.

We report disaggregated revenue of our International segment for the following regions: Canada, Latin America, the United Kingdom, Africa, India, and Asia Pacific.

Consumer Interactive

The Consumer Interactive segment provides solutions that help consumers manage their personal finances and take precautions against identity theft. Services in this segment include paid and free credit reports, scores and freezes, credit monitoring, identity protection and resolution, and financial management for consumers. The segment also provides solutions that help businesses respond to data breach events. Our products are provided through user-friendly online and mobile interfaces and are supported by educational content and customer support. Our Consumer Interactive segment serves consumers through both direct and indirect channels.

Corporate

Corporate provides support services for each of the segments, holds investments, and conducts enterprise functions. Certain costs incurred in Corporate that are not directly attributable to one or more of the segments remain in Corporate. These costs are typically enterprise-level costs and are primarily administrative in nature.

Selected segment financial information and disaggregated revenue consisted of the following:

	Three Months Ended March 31,	
(in millions)	2023	2022
Gross Revenue:		
U.S. Markets:		
Financial Services	$ 320.6	$ 304.2
Emerging Verticals	299.8	295.7
Total U.S. Markets	$ 620.4	$ 599.9
International:		
Canada	$ 31.4	$ 30.7
Latin America	28.6	27.3
United Kingdom	47.2	56.4
Africa	14.6	14.7
India	54.7	45.2
Asia Pacific	20.8	16.9
Total International	$ 197.2	$ 191.2
Total Consumer Interactive	$ 142.3	$ 149.6
Total revenue, gross	$ 960.0	$ 940.7
Intersegment revenue eliminations:		
U.S. Markets	$ (17.9)	$ (17.7)
International	(1.4)	(1.5)
Consumer Interactive	(0.4)	(0.2)
Total intersegment eliminations	$ (19.7)	$ (19.4)
Total revenue as reported	$ 940.3	$ 921.3

A reconciliation of Segment Adjusted EBITDA to income from continuing operations before income taxes for the periods presented is as follows:

(in millions)	Three Months Ended March 31, 2023	2022
U.S. Markets Adjusted EBITDA	$ 200.0	$ 216.7
International Adjusted EBITDA	86.0	82.0
Consumer Interactive Adjusted EBITDA	70.0	68.9
Total	$ 356.1	$ 367.6
Adjustments to reconcile to income from continuing operations before income taxes:		
Corporate expenses[1]	$ (33.8)	$ (33.4)
Net interest expense	(66.0)	(49.5)
Depreciation and amortization	(129.7)	(128.8)
Stock-based compensation[2]	(22.2)	(20.6)
Mergers and acquisitions, divestitures and business optimization[3]	(8.9)	(14.6)
Accelerated technology investment[4]	(19.7)	(12.0)
Net other[5]	(4.6)	(35.7)
Net income attributable to non-controlling interests	4.3	3.7
Total adjustments	$ (280.5)	$ (290.9)
Income from continuing operations before income taxes	$ 75.6	$ 76.7

1. Certain costs that are not directly attributable to one or more of the segments remain in Corporate. These costs are typically enterprise-level costs and are primarily administrative in nature.
2. Consisted of stock-based compensation and cash-settled stock-based compensation.
3. Mergers and acquisitions, divestitures and business optimization consisted of the following adjustments:

   For the three months ended March 31, 2023, $(6.0) million of Neustar integration costs; a $(2.5) million adjustment to a liability from a recent acquisition; $(1.4) million of acquisition expenses; a $(0.4) million adjustment to the fair value of a put option liability related to a minority investment; a $0.8 million gain on a settlement of a Cost Method Investment; and $0.6 million of reimbursements for transition services related to divested businesses, net of separation expenses.

   For the three months ended March 31, 2022, consisted of the following adjustments: $(9.0) million of Neustar integration costs; $(8.9) million of acquisition expenses; a $(0.2) million adjustment to fair value of put options; and a $3.5 million reimbursement for transition services related to divested businesses, net of separation expenses.
4. Represents expenses associated with our accelerated technology investment to migrate to the cloud.
5. Net other consisted of the following adjustments:

   For the three months ended March 31, 2023, $(1.1) million of deferred loan fees written off as a result of the prepayment on our debt; and a $(3.5) million net loss from currency remeasurement of our foreign operations, loan fees and other.

   For the three months ended March 31, 2022, net other consisted of the following adjustments: $(28.4) million for certain legal and regulatory expenses; $(6.5) million of deferred loan fees written off as a result of the prepayments on our debt; and $(0.7) million of net other, which includes net losses from currency remeasurement of our foreign operations, loan fees and other.

Earnings from equity method investments included in non-operating income and expense was as follows:

(in millions)	Three Months Ended March 31, 2023	2022
U.S. Markets	$ 0.1	$ 0.4
International	3.0	2.6
Total	$ 3.1	$ 3.0

18. Contingencies

Legal and Regulatory Matters

We are routinely named as defendants in, or parties to, various legal actions and proceedings relating to our current or past business operations. These actions generally assert claims for violations of federal or state credit reporting, consumer protection or privacy laws, or common law claims related to the unfair treatment of consumers, and may include claims for substantial or indeterminate compensatory or punitive damages, or injunctive relief, and may seek business practice changes. We believe that most of these claims are either without merit or we have valid defenses to the claims, and we vigorously defend these matters or seek non-monetary or small monetary settlements, if possible. However, due to the uncertainties inherent in litigation, we cannot predict the outcome of each claim in each instance.

In the ordinary course of business, we also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In connection with formal and informal investigations and inquiries by regulators, we sometimes receive civil investigative demands, requests, subpoenas and orders seeking documents, testimony, and other information in connection with various aspects of our activities.

In view of the inherent unpredictability of legal and regulatory matters, particularly where the damages sought are substantial or indeterminate or when the proceedings or investigations are in the early stages, we cannot determine with any degree of certainty the timing or ultimate resolution of legal and regulatory matters or the eventual loss, fines or penalties, if any, that may result from such matters. We establish reserves for legal and regulatory matters when those matters present loss contingencies that are both probable and can be reasonably estimated. However, for certain of the matters, we are not able to reasonably estimate our exposure because damages or penalties have not been specified and (i) the proceedings are in early stages, (ii) there is uncertainty as to the likelihood of a class being certified or the ultimate size of the class, (iii) there is uncertainty as to the outcome of similar matters pending against our competitors, (iv) there are significant factual issues to be resolved, and/or (v) there are legal issues of a first impression being presented. The actual costs of resolving legal and regulatory matters, however, may be substantially higher than the amounts reserved for those matters, and an adverse outcome in certain of these matters could have a material adverse effect on our consolidated financial statements in particular quarterly or annual periods. We accrue amounts for certain legal and regulatory matters for which losses were considered to be probable of occurring based on our best estimate of the most likely outcome. It is reasonably possible actual losses could be significantly different from our current estimates. In addition, there are some matters for which it is reasonably possible that a loss will occur, however we cannot estimate a range of the potential losses for these matters.

To reduce our exposure to an unexpected significant monetary award resulting from an adverse judicial decision, we maintain insurance that we believe is appropriate and adequate based on our historical experience. We regularly advise our insurance carriers of the claims, threatened or pending, against us in legal and regulatory matters and generally receive a reservation of rights letter from the carriers when such claims exceed applicable deductibles. We are not aware of any significant monetary claim that has been asserted against us, except for the lawsuit filed by the Consumer Financial Protection Bureau (the "CFPB") referenced below, that would not have some level of coverage by insurance after the relevant deductible, if any, is met.

As of March 31, 2023 and December 31, 2022, we have accrued $120.7 million and $125.0 million, respectively, for legal and regulatory matters. These amounts were recorded in other accrued liabilities in the consolidated balance sheets and the associated expenses were recorded in selling, general and administrative expenses in the consolidated statements of income. Legal fees incurred in connection with ongoing litigation are considered period costs and are expensed as incurred.

CFPB Matters

In June 2021, we received a Notice and Opportunity to Respond and Advise ("NORA") letter from the Consumer Financial Protection Bureau ("CFPB"), informing us that the CFPB's Enforcement Division was considering whether to recommend that the CFPB take legal action against us and certain of our executive officers. The NORA letter alleged that we failed to comply with and timely implement a Consent Order issued by the CFPB in January 2017 (the "Consent Order"), and further alleged additional violations related to Consumer Interactive's marketing practices. On September 27, 2021, the Enforcement Division advised us that it had obtained authority to pursue an enforcement action. On April 12, 2022, after failed settlement negotiations with the CFPB related to the matter, the CFPB filed a lawsuit against us, Trans Union LLC, TransUnion Interactive, Inc. (collectively, the "TU Entities") and the former President of Consumer Interactive, John Danaher, in the United States District Court for the Northern District of Illinois seeking restitution, civil money penalties, and injunctive relief, among other remedies, and alleging that the TU Entities violated the Consent Order, engaged in deceptive acts and practices in marketing the TransUnion Credit Monitoring product, failed to obtain signed written authorizations from consumers before debiting their bank accounts for the TransUnion Credit Monitoring product and diverted consumers from their free annual file disclosure into

paid subscription products. The CFPB further alleges that Mr. Danaher violated the Consent Order and that we and Trans Union LLC provided substantial assistance to TransUnion Interactive, Inc. in violating the Consent Order and the law. We continue to believe that our marketing practices are lawful and appropriate and that we have been, and remain, in compliance with the Consent Order, and we will vigorously defend against allegations to the contrary in such proceedings. We continue to be in active litigation on this matter.

As of March 31, 2023 and December 31, 2022, we have an accrued liability of $56.0 million in connection with this matter and there is a reasonable possibility that a loss in excess of the amount accrued may be incurred, and such an outcome could have a material adverse effect on our results of operations and financial condition. However, any possible loss or range of loss in excess of the amount accrued is not reasonably estimable at this time. In addition, we will incur increased costs litigating this matter.

In March 2022, we received a NORA letter from the CFPB, informing us that the CFPB's Enforcement Division is considering whether to recommend that the CFPB take legal action against us related to our tenant and employment screening business, TransUnion Rental Screening Solutions, Inc. ("TURSS"). The NORA letter alleges that Trans Union LLC and TURSS violated the Fair Credit Reporting Act by failing to (i) follow reasonable procedures to assure maximum possible accuracy of information in consumer reports and (ii) disclose to consumers the sources of such information. On July 27, 2022, the CFPB's Enforcement Division advised us that it had obtained authority to pursue an enforcement action jointly with the Federal Trade Commission ("FTC"). We are currently progressing towards a settlement with the CFPB and the FTC regarding this matter, which may include redress, civil monetary penalties and certain business process changes. We continue to believe that our acts and practices are lawful. As of March 31, 2023, we have recorded an accrued liability for an immaterial amount in connection with this matter.

In June 2022, the CFPB informed Trans Union LLC that it intended to issue a NORA letter following an investigation relating to alleged violations of law in connection with the placement and lifting of security freezes resulting from certain system issues. We have corrected associated system issues and have processes in place to monitor and address issues going forward. In August 2022, the TU Entities received a NORA letter from the CFPB, informing us that the CFPB's Enforcement Division is considering whether to recommend that the CFPB take legal action against us. On April 14, 2023, the CFPB's Enforcement Division advised us that it had obtained authority to pursue an enforcement action. We have engaged in initial settlement discussions. We cannot provide assurance that the CFPB will not ultimately commence a legal action against us in this matter, nor are we able to predict the likely outcome, which could have a material adverse effect on our results of operations and financial condition. As of March 31, 2023, we are not able to reasonably estimate our potential loss or range of loss related to this matter.

Argus Department of Justice Matter

We are cooperating with an investigation originating from the civil division of the United States Attorney's Office for the Eastern District of Virginia related to Argus's use of certain data it collected under certain government contracts. We acquired Argus in connection with our acquisition of VF in April 2022. This matter pertains to alleged conduct that commenced before we acquired Argus, and we are cooperating with Verisk Analytics, Inc. to respond to the Department of Justice's investigation. We cannot predict the timing, outcome, or potential impact of this matter, financial or otherwise. Under the stock purchase agreement Trans Union LLC entered into with Verisk Analytics, Inc. (the "Seller") pursuant to which we acquired VF, including Argus, the Seller agreed to indemnify us for certain losses with respect to this matter, including all losses directly resulting from any settlement agreement in connection with this matter, including civil monetary penalties, remediation costs and fees and expenses.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of TransUnion's financial condition and results of operations is provided as a supplement to, and should be read in conjunction with, TransUnion's audited consolidated financial statements, the accompanying notes, "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Annual Report on Form 10-K for the year ended December 31, 2022, as well as the unaudited consolidated financial statements and the related notes presented in Part I, Item 1, of this Quarterly Report on Form 10-Q.

In addition to historical data, this discussion contains forward-looking statements about our business, operations and financial performance based on current expectations that involve risks, uncertainties and assumptions. Our actual results may differ materially from those discussed in the forward-looking statements as a result of various factors, including but not limited to those discussed in "Cautionary Notice Regarding Forward-Looking Statements," and Part II, Item 1A, "Risk Factors."

References in this discussion and analysis to the "Company," "we,", "us," and "our" refer to TransUnion and its direct and indirect subsidiaries, including TransUnion Intermediate Holdings, Inc., collectively.

Overview

TransUnion is a leading global information and insights company that makes trust possible between businesses and consumers, working to help people around the world access opportunities that can lead to a higher quality of life. That trust is built on TransUnion's ability to deliver safe, innovative solutions with credibility and consistency. We call this Information for Good.

Grounded in our heritage as a credit reporting agency, we have built robust and accurate databases of information for a large portion of the adult population in the markets we serve. We use our data fusion methodology to link and match an increasing set of disparate data to further enrich our database. We use this enriched data, combined with our expertise, to continuously develop more insightful solutions for our customers, all in accordance with global laws and regulations. Because of our work, organizations can better understand consumers in order to make more informed decisions, and earn consumer trust through great, personalized experiences, and the proactive extension of the right opportunities, tools and offers. In turn, we believe consumers can be confident that their data identities will result in better offers and opportunities.

We provide solutions that enable businesses to manage and measure credit risk, market to new and existing customers, verify consumer identities, mitigate fraud, and effectively manage call center operations. Businesses embed our solutions into their process workflows to deliver critical insights and enable effective actions. Consumers use our solutions to view their credit profiles and access analytical tools that help them understand and manage their personal financial information and take precautions against identity theft. Our solutions are based on a foundation of data assets across financial, credit, alternative credit, identity, phone activity, digital device information, marketing, bankruptcy, lien, judgment, insurance claims, automotive and other relevant information obtained from thousands of sources including financial institutions, private databases and public records repositories.

Our addressable market includes the global data and analytics market, which continues to grow as companies around the world increasingly recognize the benefits of data and analytics-based decision making, and as consumers recognize the important role that their data identities play in their ability to procure goods and services. We leverage our differentiated capabilities in order to serve a global customer base across multiple geographies and industry verticals.

Segments

We manage our business and report our financial results in three reportable segments: U.S. Markets, International and Consumer Interactive. See Part I, Item 1 "Notes to Consolidated Financial Statements," Note 17, "Reportable Segments" for additional information.

U.S. Markets

The U.S. Markets segment provides consumer reports, actionable insights and analytics to businesses. These businesses use our services to acquire customers, assess consumers' ability to pay for services, identify cross-selling opportunities, measure and manage debt portfolio risk, collect debt, verify consumer identities and mitigate fraud risk. The core capabilities and delivery methods in our U.S. Markets segment allow us to serve a broad set of customers across industries.

International

The International segment provides services similar to our U.S. Markets segment to businesses in select regions outside the United States. Depending on the maturity of the credit economy in each country, services may include credit reports, analytics and solutions services, and other value-added risk management services. In addition, we have insurance, business and automotive databases in select geographies. These services are offered to customers in a number of industries including financial services, insurance, automotive, collections, and communications, and are delivered through both direct and indirect channels. The International segment also provides consumer services similar to those offered by our Consumer Interactive segment that help consumers proactively manage their personal finances and take precautions against identity theft.

Consumer Interactive

The Consumer Interactive segment provides solutions that help consumers manage their personal finances and take precautions against identity theft. Services in this segment include paid and free credit reports, scores and freezes, credit monitoring, identity protection and resolution, and financial management for consumers. The segment also provides solutions that help businesses respond to data breach events. Our products are provided through user-friendly online and mobile interfaces and are supported by educational content and customer support. Our Consumer Interactive segment serves consumers through both direct and indirect channels.

Corporate

In addition, Corporate provides support services for each of the segments, holds investments, and conducts enterprise functions. Certain costs incurred in Corporate that are not directly attributable to one or more of the segments remain in Corporate. These costs are typically enterprise-level costs and are primarily administrative in nature.

Factors Affecting Our Results of Operations

The following are certain key factors that affect, or have recently affected, our results of operations:

Macroeconomic and Industry Trends

Our revenues and results of operations have been and can be significantly influenced by general macroeconomic conditions, including but not limited to, interest rates, inflation, housing demand, the availability of credit and capital, employment levels, consumer confidence and the impact of the global COVID-19 pandemic.

During the first three months of 2023, the U.S. labor market remained steady with low unemployment, and supply chain constraints continued to ease. However, subsiding but still elevated inflation, high energy prices, and consecutive interest rate increases by the Federal Reserve have all contributed to constrained economic activity. In addition, liquidity challenges within the banking sector, a slowing housing market, lower GDP growth, softening consumer confidence and global geopolitical events, all added to the deterioration of global macroeconomic conditions and increasing recession fears compared with the post-pandemic rebound of 2021 and 2022. These slowing macroeconomic conditions had a more pronounced impact in our developed markets compared with our emerging markets, although the impact of exchange rates had a continuing significant impact on our international segment. The impact of higher interest rates has been particularly acute in the housing sector, where higher borrowing rates significantly impacts both home affordability, driving down purchase activity, and demand for mortgage loan refinancing. The impact of higher interest rates on slowing aggregate demand is expected to result in increased unemployment levels over the next year, which is likely to reduce consumer demand for credit. These dynamics impact the comparability of our results of operations, including our revenue and expense, between the periods presented below.

The ongoing uncertainty and the unpredictable nature of the macroeconomic environment could have a material adverse impact on various aspects of our business in the future, including our stock price, results of operations and financial condition, including the carrying value of our long-lived assets such as goodwill and intangible assets.

Effects of Inflation

We believe that inflation has had a significant negative impact on our business and results of operations, including decreased demand for our services resulting from the Federal Reserve and other central banks consistently raising interest rates to combat inflation, slowing consumer spending on non-essential goods and services, and consequently lower demand for credit. The impact of continued elevated levels of inflation and the resulting response by the Federal Reserve and other central banks to raise interest rates could have a material adverse impact on various aspects of our business in the future.

Developments that Impact Comparability Between Periods

The following developments impact the comparability of our balance sheets, results of operations and cash flows between periods:

On March 31, 2023, December 30, 2022 and January 31, 2022, we prepaid $75.0 million, $200.0 million and $400.0 million, respectively, of our Senior Secured Term Loan B-6, funded from our cash-on-hand. These transactions affect the comparability

of interest expense between 2023 and 2022, as further discussed in "Results of Operations - Non-Operating Income and (Expense) - Interest Expense" below.

On November 16, 2022, we entered into new interest rate swap agreements with various counterparties that effectively fix our LIBOR exposure on a portion of our Senior Secured Term Loan or similar replacement debt. These swaps replaced other swaps that expired in December 30, 2022. The new swaps commenced on December 30, 2022, and expire on December 31, 2024, with a current aggregate notional amount of $1,315.0 million that amortizes each quarter. The swaps require us to pay fixed rates varying between 4.4105% and 4.4465% in exchange for receiving a variable rate that matches the variable rate on our loans. We have designated these swap agreements as cash flow hedges.

On April 12, 2022, after failed settlement negotiations with the Consumer Financial Protection Bureau ("CFPB") regarding a certain regulatory matter, the CFPB filed a lawsuit against us, Trans Union, LLC, TransUnion Interactive, Inc. and our former President of Consumer Interactive. During the first quarter of 2022, we recorded an incremental $29.5 million of expense related to this matter. See Part I, Item 1, "Notes to Unaudited Consolidated Financial Statements," Note 18, "Contingencies," for further information about this matter.

On April 8, 2022, we acquired 100% of the equity of the entities that comprised Verisk Financial Services ("VF"). We retained the leading core businesses of Argus, and divested the remaining non-core businesses on December 30, 2022. The results of operations of Argus are included in the U.S. Markets segment in our consolidated statements of income since the date of the acquisition. See Part I, Item 1, "Notes to Consolidated Financial Statements," Note 2, "Business Acquisition," and Note 3 "Discontinued Operations," for additional information.

Key Components of Our Results of Operations

Revenue

We report revenue for our three reportable segments, U.S. Markets, International and Consumer Interactive. Within the U.S. Markets segments, we report and disaggregate revenue by vertical, which consists of our Financial Services vertical and Emerging vertical. Revenue from our acquisition of Argus is included in the Financial Services vertical. Within the International segment, we disaggregate revenue by regions, which consists of Canada, Latin America, the United Kingdom, Africa, India, and Asia Pacific. For our Consumer Interactive segment, we do not disaggregate revenue.

Cost of Services

Costs of services include data acquisition and royalty fees, personnel costs related to our databases and software applications, consumer and call center support costs, hardware and software maintenance costs, telecommunication expenses and occupancy costs associated with the facilities where these functions are performed.

Selling, General and Administrative

Selling, general and administrative expenses include personnel-related costs for sales, administrative and management employees, costs for professional and consulting services, advertising and occupancy and facilities expense of these functions.

Non-Operating Income and Expense

Non-operating income and expense includes interest expense, interest income, earnings from equity-method investments, dividends from cost-method investments, fair-value adjustments of equity-method and Cost Method Investments, if any, expenses related to successful and unsuccessful business acquisitions, loan fees, debt refinancing expenses, certain acquisition-related gains and losses and other non-operating income and expenses.

Results of Operations —Three Months Ended March 31, 2023 and 2022

For the three months ended March 31, 2023 and 2022, our results of operations were as follows:

	Three months ended March 31,		Change 2023 vs. 2022	
	2023	2022	$	%
Revenue	$ 940.3	$ 921.3	$ 19.0	2.1 %
Operating expenses				
Cost of services (exclusive of depreciation and amortization below)	324.9	298.0	26.8	9.0 %
Selling, general and administrative	340.5	359.5	(19.0)	(5.3)%
Depreciation and amortization	129.7	128.8	0.9	0.7 %
Total operating expenses	795.1	786.3	8.8	1.1 %
Operating income	145.2	135.0	10.2	7.6 %
Non-operating income and (expense)				
Interest expense	(71.8)	(50.2)	(21.6)	43.1 %
Interest income	5.8	0.7	5.1	nm
Earnings from equity method investments	3.1	3.0	0.1	3.9 %
Other income and (expense), net	(6.8)	(11.8)	5.0	(42.4)%
Total non-operating income and (expense)	(69.6)	(58.3)	(11.4)	19.5 %
Income from continuing operations before income taxes	75.6	76.7	(1.1)	(1.5)%
Provision for income taxes	(18.6)	(24.4)	5.8	(23.8)%
Income from continuing operations	57.0	52.3	4.7	8.9 %
Discontinued operations, net of tax	(0.1)	(0.4)	0.3	(76.9)%
Net income	56.9	52.0	4.9	9.5 %
Less: net income attributable to noncontrolling interests	(4.3)	(3.7)	(0.6)	17.3 %
Net income attributable to TransUnion	$ 52.6	$ 48.3	$ 4.3	8.9 %

nm: not meaningful
As a result of displaying amounts in millions, rounding differences may exist in the table above.

Revenue

For the three months ended March 31, 2023, revenue increased $19.0 million, or 2.1%, compared with the same period in 2022, due primarily to a 2.2% increase from our recent acquisition in the U.S. Markets segment, partially offset by macroeconomic weakness in several markets and decreases from the impact of foreign currencies.

Operating Expenses

Cost of Services

Cost of services increased $26.8 million for the three months ended March 31, 2023, compared with the same period in 2022.

The increase was due primarily to:

- an increase in variable product costs resulting from the increase in revenue in our U.S. Markets and International segments, and an increase in certain product cost pricing primarily in our U.S. Markets segment;
- an increase in operating costs due to our acquisition in our U.S. Markets segment;
- an increase in costs from our accelerated technology investment; and
- an increase in labor costs, primarily in our International segment, as we continue to invest in key strategic growth initiatives,

partially offset by:

- the impact of foreign currencies on the expenses of our International operations.

Selling, General and Administrative

Selling, general and administrative expenses decreased $19.0 million for the three months ended March 31, 2023, compared with the same period in 2022.

The decrease was due primarily to:

- a decrease in certain legal and regulatory expenses;
- a decrease in advertising expense, primarily in our Consumer Interactive segment; and
- the impact of foreign currencies on the expenses of our International segment,

partially offset by:

- an increase in operating costs from our April 2022 acquisition in our U.S. Markets segment; and
- an increase in labor costs, as we continue to invest in key strategic growth initiatives.

Depreciation and Amortization

Depreciation and amortization increased $0.9 million for the three months ended March 31, 2023, compared with the same period in 2022 as the incremental depreciation and amortization from our recent acquisitions of tangible and intangible assets was offset by a decrease in depreciation and amortization from legacy assets.

Non-Operating Income and Expense

Interest expense

On March 31, 2023, December 30, 2022 and January 31, 2022, we prepaid $75.0 million, $200.0 million and $400.0 million, respectively, of our Senior Secured Term Loan B-6, funded from our cash-on-hand. The interest rate on our debt is variable and based on LIBOR. Approximately 71.1% of this debt is hedged with interest rate swaps.

These factors impact the comparability of interest expense between periods. Our future interest expense could be materially impacted by changes in our variable interest rates to the extent our variable rate debt is not hedged, additional borrowings, or additional prepayments. See Part I, Item 1, “Notes to Unaudited Consolidated Financial Statements,” Note 11, “Debt,” for additional information about our debt.

For the three months ended March 31, 2023, interest expense increased $21.6 million compared with the same period in 2022. This increase was due to the impact of an increase in the average interest rate, partially offset by a decrease in outstanding principal balance due to the prepayments made in 2022 and 2023.

For the three months ended March 31, 2023, interest income increased $5.1 million due to interest earned on the note receivable discussed in Note 16, “Fair Value,” and the increase in interest rates.

Other income and (expense), net

Other income and (expense), net includes acquisition fees, loan fees, and various other income and expenses.

	Three Months Ended March 31,			
(in millions)	2023	2022	$ Change	% Change
Other income and (expense), net:				
Acquisition fees	$ (1.4)	$ (8.9)	$ 7.5	nm
Loan fees	(1.7)	(6.9)	5.2	nm
Other income (expense), net	(3.7)	4.0	(7.7)	nm
Total other income and (expense), net	$ (6.8)	$ (11.8)	$ 5.0	nm

nm: not meaningful

As a result of displaying amounts in millions, rounding differences may exist in the table above.

Acquisition fees

Acquisition fees represent costs we have incurred in each period for various acquisition-related efforts, and include costs related to our acquisition of Argus in 2022.

Loan fees

For the three months ended March 31, 2023 and 2022, loan fees included $1.1 million and $6.5 million, respectively, of our unamortized original issue discount and deferred financing fees written off as a result of the $75.0 million and $400.0 million prepayments of our Senior Secured Term Loan B-6.

Other income and (expense), net

Includes currency remeasurement gains and losses, dividends received from Cost Method Investments, gains and losses on Cost Method investments, if any, and other miscellaneous non-operating income and expense items.

Provision for Income Taxes

For the three months ended March 31, 2023, we reported an effective tax rate of 24.6%, which was higher than the 21.0% U.S. federal corporate statutory rate, due primarily to the impact of increases for foreign withholding taxes, uncertain tax positions, nondeductible expenses primarily in connection with executive compensation limitations, and excess tax expenses for stock-based compensation, partially offset by benefits from the foreign rate differential and the research and development credit.

For the three months ended March 31, 2022, we reported an effective tax rate of 31.8%, which was higher than the 21.0% U.S. federal corporate statutory rate, due primarily to nondeductible expenses in connection with certain legal and regulatory matters, state taxes and other rate-impacting items, partially offset by excess tax benefits on stock-based compensation.

Segment Results of Operations—Three Months Ended March 31, 2023 and 2022:

Management, including our chief operating decision maker ("CODM"), evaluates the financial performance of our businesses based on revenue and segment Adjusted EBITDA. For the three months ended March 31, 2023 and 2022, our segment revenue and segment Adjusted EBITDA were as follows:

For the three months ended March 31, 2023 and 2022, these key performance indicators were as follows:

Revenue, Adjusted EBITDA and Adjusted EBITDA margin by Segment

(in millions)	Three Months Ended March 31, 2023	2022	$ Change	% Change
Revenue:				
U.S. Markets gross revenue				
Financial Services	$ 320.6	$ 304.2	$ 16.4	5.4 %
Emerging Verticals	299.8	295.7	4.1	1.4 %
U.S. Markets gross revenue	$ 620.4	$ 599.9	$ 20.5	3.4 %
International:				
Canada	$ 31.4	$ 30.7	$ 0.7	2.4 %
Latin America	28.6	27.3	1.3	4.7 %
United Kingdom	47.2	56.4	(9.2)	(16.4)%
Africa	14.6	14.7	(0.1)	(0.9)%
India	54.7	45.2	9.5	21.0 %
Asia Pacific	20.8	16.9	3.9	22.7 %
International gross revenue	$ 197.2	$ 191.2	$ 6.0	3.1 %
Consumer Interactive	$ 142.3	$ 149.6	$ (7.2)	(4.8)%
Total gross revenue	$ 960.0	$ 940.7	$ 19.3	2.0 %
Adjusted EBITDA:				
U.S. Markets	200.0	216.7	(16.6)	(7.7)%
International	86.0	82.0	4.1	5.0 %
Consumer Interactive	70.0	68.9	1.1	1.6 %
Adjusted EBITDA margin:				
U.S. Markets	32.2 %	36.1 %		(3.9)%
International	43.6 %	42.9 %		0.8 %
Consumer Interactive	49.2 %	46.1 %		3.1 %

nm: not meaningful

As a result of displaying amounts in millions, rounding differences may exist in the table above.

We define Adjusted EBITDA Margin for our segments as the segment Adjusted EBITDA divided by segment gross revenue.

U.S. Markets Segment

Revenue

U.S. Markets revenue increased $20.5 million, or 3.4%, for the three months ended March 31, 2023, compared with the same period in 2022, due primarily to a 3.4% increase from our acquisition of Argus.

Financial Services: Revenue increased $16.4 million, or 5.4%, for the three months ended March 31, 2023, compared with the same period in 2022, due primarily to a 6.7% increase from our acquisition of Argus, partially offset by a decrease in organic revenue. Organic revenue decreased in our mortgage line of business as volumes declined due to the significant increases in interest rates, although at a slowing rate, that was partially offset by price increases. Revenue also declined in our consumer lending business as volumes decreased due to macroeconomic uncertainty. These decreases were partially offset by an increase in revenue from price and volume increases in our auto line of business, while our card and banking business was up slightly. We anticipate interest rates will remain high and continue to impact our Financial Services business.

Emerging Verticals: Revenue increased $4.1 million, or 1.4%, for the three months ended March 31, 2023, compared with the same period in 2022, due primarily to increases in our Technology, Insurance, Services & Collections, Tenant & Employment, and Public Sector verticals from new wins in our existing product portfolio, partially offset by softness in our Media and Commerce & Communications verticals.

Adjusted EBITDA

For the three months ended March 31, 2023, Adjusted EBITDA decreased $16.6 million primarily due to higher variable product costs, partially offset by the increase in revenue and a decrease in certain legal and regulatory expenses.

For the three months ended March 31, 2023, Adjusted EBITDA margin decreased, due primarily to a shift in the revenue mix and the lower margin profile of the Argus business, partially offset by a decrease in certain legal and regulatory expenses.

International Segment

Revenue

International revenue increased $6.0 million, or 3.1%, for the three months ended March 31, 2023, compared with the same period in 2022, due primarily to higher local currency revenue in all regions except for the United Kingdom, increased volumes, resulting from improving economic conditions and new product initiatives, partially offset by a decrease of 8.7% from the impact of foreign currencies.

Canada: Revenue increased $0.7 million, or 2.4%, for the three months ended March 31, 2023, compared with the same period in 2022. The increase was due primarily to higher local currency revenue from new business wins at a large bank, share-shifts from key customers and other volume increases, partially offset by a decrease in revenue of 6.9% from the impact of foreign currencies.

Latin America: Revenue increased $1.3 million, or 4.7%, for the three months ended March 31, 2023, compared with the same period in 2022. The increase was due primarily to higher local currency revenue from broad-based growth across our markets, including ongoing new business wins and expansion of our new solutions, partially offset by a decrease of 6.6% from the impact of foreign currencies.

United Kingdom: Revenue decreased $9.2 million, or 16.4%, for the three months ended March 31, 2023, compared with the same period in 2022. The decrease was primarily driven by a 8.7% impact from foreign currencies and the impact of a one-time contract in the prior year, partially offset by volume growth from new products at key Financial Services customers.

Africa: Revenue decreased $0.1 million, or 0.9%, for the three months ended March 31, 2023, compared with the same period in 2022. The decrease was primarily driven by a 15.2% impact of foreign currencies. Excluding the impact of foreign currency, local currency revenue increased due to meaningful new business wins and contract renewals as well as growth in emerging countries and emerging verticals.

India: Revenue increased $9.5 million, or 21.0%, for the three months ended March 31, 2023, compared with the same period in 2022, due primarily to higher local currency revenue from growth in consumer and commercial credit markets fueled by healthy consumers who continued to spend despite rising inflation, including fraud, employment screening and consumer offerings, partially offset by a decrease of 11.5% from the impact of foreign currencies.

Asia Pacific: Revenue increased $3.9 million, or 22.7%, for the three months ended March 31, 2023, compared with the same period in 2022, due primarily to higher local currency revenue from increased volumes resulting from improved macroeconomic conditions, including new business in the financial services market, new product adoptions and increased volume in our consumer offerings, partially offset by a decrease of 2.2% from the impact of foreign currencies.

Adjusted EBITDA

For the three months ended March 31, 2023, Adjusted EBITDA increased $4.1 million due primarily to the increase in revenue partially offset by an increase in labor costs and variable product costs.

For the three months ended March 31, 2023, Adjusted EBITDA margins for the International segment increased due primarily to an increase in local currency revenue and improving market conditions in some of our regions, partially offset by an increase in labor costs, and the impact of foreign currencies.

Consumer Interactive Segment

Revenue

Consumer Interactive revenue decreased $7.2 million, or 4.8% for the three months ended March 31, 2023, compared with the same period in 2022, due primarily to a decrease in revenue in our direct channel as reduced advertising and slowing

macroeconomic conditions significantly reduced consumer demand for our paid credit products, partially offset by an increase in revenue in our indirect channel. In our indirect channel, revenue increased due primarily to higher volumes and new contracts with existing customers, partially offset by a prior year breach services contract.

Adjusted EBITDA

Adjusted EBITDA was relatively flat as the decrease in advertising expense was partially offset by a decrease in revenue.

For the three months ended March 31, 2023, Adjusted EBITDA margin for the Consumer Interactive segment increased due to a decrease in advertising costs and compensation costs and revenue growth in our indirect channel, partially offset by a decrease in revenue in our direct channel.

Non-GAAP measures—Three Months Ended March 31, 2023 and 2022:

In addition to the GAAP measures discussed above, Management, including our CODM, evaluates the financial performance of our businesses based on the non-GAAP measures Consolidated Adjusted EBITDA, Consolidated Adjusted EBITDA Margin, Adjusted Net Income, Adjusted Diluted Earnings per Share, Adjusted Provision for Income Taxes, Adjusted Effective Tax Rate and Leverage Ratio.

Non-GAAP Financial Measures

We present Consolidated Adjusted EBITDA, Consolidated Adjusted EBITDA Margin, Adjusted Net Income, Adjusted Diluted Earnings per Share, Adjusted Provision for Income Taxes, Adjusted Effective Tax Rate and Leverage Ratio for all periods presented. These are important financial measures for the Company but are not financial measures as defined by GAAP. These financial measures should be reviewed in conjunction with the relevant GAAP financial measures and are not presented as alternative measures of GAAP. Other companies in our industry may define or calculate these measures differently than we do, limiting their usefulness as comparative measures. Because of these limitations, these non-GAAP financial measures should not be considered in isolation or as substitutes for performance measures calculated in accordance with GAAP, including operating income, operating margin, effective tax rate, net income (loss) attributable to the Company, diluted earnings per share or cash provided by operating activities. Reconciliations of these non-GAAP financial measures to their most directly comparable GAAP financial measures are presented in the tables below.

We present Consolidated Adjusted EBITDA, Consolidated Adjusted EBITDA Margin, Adjusted Net Income, Adjusted Diluted Earnings per Share, Adjusted Provision for Income Taxes and Adjusted Effective Tax Rate as supplemental measures of our operating performance because these measures eliminate the impact of certain items that we do not consider indicative of our cash operations and ongoing operating performance. These are measures frequently used by securities analysts, investors and other interested parties in their evaluation of the operating performance of companies similar to ours.

Our board of directors and executive management team use Adjusted EBITDA as an incentive compensation measure for most eligible employees and Adjusted Diluted Earnings per Share as an incentive compensation measure for certain of our senior executives.

Under the credit agreement governing our Senior Secured Credit Facility, our ability to engage in activities such as incurring additional indebtedness, making investments and paying dividends is tied to our Leverage Ratio which is partially based on Adjusted EBITDA. Investors also use our Leverage Ratio to assess our ability to service our debt and make other capital allocation decisions.

We define Consolidated Adjusted EBITDA as net income (loss) attributable to TransUnion, less discontinued operations, net of tax, plus net interest expense, plus (less) provision (benefit) for income taxes, plus depreciation and amortization, plus stock-based compensation, plus mergers, acquisitions, divestitures and business optimization-related expenses, including Neustar integration-related expenses, plus certain accelerated technology investment expenses to migrate to the cloud, plus (less) certain other expenses (income). We define Consolidated Adjusted EBITDA Margin as Consolidated Adjusted EBITDA divided by total revenue as reported.

We define Adjusted Net Income as net income (loss) attributable to TransUnion, less discontinued operations, net of tax, plus stock-based compensation, plus mergers, acquisitions, divestitures and business optimization-related expenses, including Neustar integration-related expenses, plus certain accelerated technology investment expenses, plus (less) certain other expenses (income), plus amortization of certain intangible assets, plus or minus the total adjustment for income taxes included in our Adjusted Provision for Income Taxes. We define Adjusted Diluted Earnings per Share as Adjusted Net Income divided by the weighted-average diluted shares outstanding. We define Adjusted Provision for Income Taxes as our provision for income taxes, plus or minus the tax impact on the adjustment included in Adjusted Net Income, plus or minus the impact of excess tax benefits for share compensation, plus or minus other items that relate to prior periods such as valuation allowance changes, deferred tax rate and return to provision adjustments, and other unusual items that are included in our provision for income taxes. We define Adjusted Effective Tax Rate as Adjusted Provision for Income Taxes divided by Adjusted Net Income.

We define Leverage Ratio as net debt divided by Consolidated Adjusted EBITDA for the most recent twelve-month period including twelve months of Adjusted EBITDA from significant acquisitions. Net debt is defined as total debt less cash and cash equivalents as reported on the balance sheet as of the end of the period.

For the three months ended March 31, 2023 and 2022, these non-GAAP measures were as follows:

Adjusted EBITDA and Adjusted EBITDA Margin:

(dollars in millions)	Three Months Ended March 31, 2023	Three Months Ended March 31, 2022	Change 2023 vs. 2022 $	Change 2023 vs. 2022 %
Reconciliation of net income attributable to TransUnion to consolidated Adjusted EBITDA:				
Net income attributable to TransUnion	$ 52.6	$ 48.3	$ 4.3	nm
Discontinued operations	0.1	0.4	(0.3)	nm
Net income from continuing operations attributable to TransUnion	$ 52.7	$ 48.7	$ 4.0	8.3 %
Net interest expense	66.0	49.5	16.5	nm
Provision / (benefit) for income taxes	18.6	24.4	(5.8)	(23.8)%
Depreciation and amortization	129.7	128.8	0.9	0.7 %
EBITDA	$ 267.0	$ 251.3	$ 15.6	6.2 %
Adjustments to EBITDA:				
Stock-based compensation[1]	22.2	20.6	1.6	7.7 %
Mergers and acquisitions, divestitures and business optimization[2]	8.9	14.6	(5.7)	(39.0)%
Accelerated technology investment [3]	19.7	12.0	7.7	64.2 %
Net other[4]	4.6	35.7	(31.1)	nm
Total adjustments to EBITDA	$ 55.4	$ 82.9	$ (27.5)	(33.2)%
Consolidated Adjusted EBITDA	$ 322.3	$ 334.2	$ (11.9)	(3.6)%
Net income attributable to TransUnion margin	5.6 %	5.2 %		0.4 %
Consolidated Adjusted EBITDA margin[5]	34.3 %	36.3 %		(2.0)%

nm: not meaningful

As a result of displaying amounts in millions, rounding differences may exist in the table above.

1. Consisted of stock-based compensation, including amounts which are cash settled.
2. Mergers and acquisitions, divestitures and business optimization consisted of the following adjustments:

   For the three months ended March 31, 2023, $6.0 million of Neustar integration costs; a $2.5 million adjustment to a liability from a recent acquisition; $1.4 million of acquisition expenses; a $0.4 million adjustment to the fair value of a put option liability related to a minority investment; a $(0.8) million gain on the settlement of a Cost Method Investment; and $(0.6) million of reimbursements for transition services related to divested businesses, net of separation expenses.

   For the three months ended March 31, 2022, $9.0 million of Neustar integration costs; $8.9 million of acquisition expenses; a $0.2 million adjustment to fair value of put options; and a $(3.5) million reimbursement for transition services related to divested businesses, net of separation expenses.
3. Represents expenses associated with our accelerated technology investment to migrate to the cloud.
4. Net other consisted of the following adjustments:

   For the three months ended March 31, 2023, $1.1 million of deferred loan fees written off as a result of the prepayment on our debt; and a $3.5 million net loss from currency remeasurement of our foreign operations, loan fees and other.

   For the three months ended March 31, 2022, $28.4 million for certain legal and regulatory expenses; $6.5 million of deferred loan fees written off as a result of the prepayments on our debt; and $0.7 million of net other, which includes net losses from currency remeasurement of our foreign operations, loan fees and other.
5. Consolidated Adjusted EBITDA margin is calculated by dividing Consolidated Adjusted EBITDA by total revenue.

Consolidated Adjusted EBITDA

Consolidated Adjusted EBITDA decreased $11.9 million for the three months ended March 31, 2023, compared with the same periods in 2022.

The decrease was due primarily to:

- an increase in labor costs as we continue to invest in key strategic growth initiatives; and
- operating costs of our 2022 acquisition,

partially offset by:

- a decrease in advertising expense; and
- an increase in revenue.

Consolidated Adjusted EBITDA Margin

For the three months ended March 31, 2023, Adjusted EBITDA margin decreased due primarily to lower margins from our recent acquisitions and a shift to lower margin business in our U.S. Markets business.

Adjusted Net Income, Adjusted Diluted Earnings Per Share

	Three Months Ended March 31,			
(dollars in millions)	2023	2022	$	%
Reconciliation of net income attributable to TransUnion to Adjusted Net Income:				
Net income attributable to TransUnion	$ 52.6	$ 48.3	$ 4.3	nm
Discontinued operations, net of tax	0.1	0.4	(0.3)	nm
Income from continuing operations attributable to TransUnion	$ 52.7	$ 48.7	$ 4.0	8.3 %
Adjustments before income tax items:				
Stock-based compensation[1]	22.2	20.6	1.6	7.7 %
Mergers and acquisitions, divestitures and business optimization[2]	8.9	14.6	(5.7)	(39.0)%
Accelerated technology investment[3]	19.7	12.0	7.7	64.0 %
Net other[4]	3.8	35.3	(31.5)	nm
Amortization of certain intangible assets[5]	75.2	76.2	(1.0)	(1.4)%
Total adjustments before income tax items	$ 129.7	$ 158.7	$ (29.0)	(18.3)%
Change in provision for income taxes	(26.9)	(28.5)	1.6	(5.5)%
Adjusted Net Income	$ 155.4	$ 178.8	$ (23.4)	(13.1)%
Weighted-average shares outstanding:				
Basic	193.0	192.1	nm	nm
Diluted	193.9	193.2	nm	nm
Adjusted Earnings per Share:				
Basic	$ 0.81	$ 0.93	$ (0.13)	(13.5)%
Diluted	$ 0.80	$ 0.93	$ (0.12)	(13.4)%

	Three Months Ended March 31,	
	2023	2022
Reconciliation of diluted earnings per share from net income attributable to TransUnion to Adjusted Diluted Earnings per Share:		
Diluted earnings per common share from:		
Net income attributable to TransUnion	$ 0.27	$ 0.25
Discontinued operations, net of tax	—	—
Income from continuing operations attributable to TransUnion	$ 0.27	$ 0.25
Adjustments before income tax items:		
Stock-based compensation[1]	0.11	0.11
Mergers and acquisitions, divestitures and business optimization[2]	0.05	0.08
Accelerated technology investment[3]	0.10	0.06
Net other[4]	0.02	0.18
Amortization of certain intangible assets[5]	0.39	0.39
Total adjustments before income tax items	$ 0.67	$ 0.82
Change in provision for income taxes	(0.14)	(0.15)
Adjusted Diluted Earnings per Share	$ 0.80	$ 0.93

As a result of displaying amounts in millions, rounding differences may exist in the table above and footnotes below.

1. Consisted of stock-based compensation, including amounts which are cash settled.
2. Mergers and acquisitions, divestitures and business optimization consisted of the following adjustments:

   For the three months ended March 31, 2023, $6.0 million of Neustar integration costs; a $2.5 million adjustment to a liability from a recent acquisition; $1.4 million of acquisition expenses; a $0.4 million adjustment to the fair value of a put option liability related to a minority investment; a $(0.8) million gain on the settlement of a Cost Method Investment; and $(0.6) million of reimbursements for transition services related to divested businesses, net of separation expenses.

   For the three months ended March 31, 2022, $9.0 million of Neustar integration costs; $8.9 million of acquisition expenses; a $0.2 million adjustment to fair value of put options; and a $(3.5) million reimbursement for transition services related to divested businesses, net of separation expenses.
3. Represents expenses associated with our accelerated technology investment to migrate to the cloud.
4. Net other consisted of the following adjustments:

   For the three months ended March 31, 2023, $1.1 million of deferred loan fees written off as a result of the prepayment on our debt; and a $2.7 million net loss from currency remeasurement of our foreign operations, loan fees and other.

   For the three months ended March 31, 2022, $28.4 million for certain legal and regulatory expenses; $6.5 million of deferred loan fees written off as a result of the prepayments on our debt; and $0.4 million of net other, which includes net losses from currency remeasurement of our foreign operations and other.
5. Consisted of amortization of intangible assets from our 2012 change-in-control transaction and amortization of intangible assets established in business acquisitions after our 2012 change-in-control transaction.

Adjusted Net Income

For the three months ended March 31, 2023, the decrease in Adjusted Net Income was due primarily to an increase in interest expense partially offset by an increase in operating income and decrease in Adjusted Provision for Income Taxes.

Adjusted Provision for Income Taxes and Adjusted Effective Tax Rate

	Three Months Ended March 31,	
	2023	2022
Income from continuing operations before income taxes	$ 75.6	$ 76.7
Total adjustments before income tax items from Adjusted Net Income table above	129.7	158.7
Adjusted income from continuing operations before income taxes	$ 205.2	$ 235.4
Reconciliation of provision for income taxes to Adjusted Provision for Income Taxes		
Provision for income taxes	(18.6)	(24.4)
Adjustments for income taxes:		
Tax effect of above adjustments [1]	(29.6)	(28.4)
Eliminate impact of excess tax expenses/(benefits) for stock-based compensation	1.5	(4.2)
Other [2]	1.2	4.1
Total adjustments for income taxes	$ (26.9)	$ (28.5)
Adjusted Provision for Income Taxes	$ (45.5)	$ (52.9)
Effective tax rate	24.6 %	31.8 %
Adjusted Effective Tax Rate	22.2 %	22.5 %

As a result of displaying amounts in millions, rounding differences may exist in the table above.

1. Tax rates used to calculate the tax expense impact are based on the nature of each item.
2. For the three months ended March 31, 2023, $0.9 million of other adjustments, $0.4 million of deferred tax rate adjustments, and ($0.1) million of valuation allowances related to prior periods.

   For the three months ended March 31, 2022, $2.1 million of deferred tax rate adjustments; $0.6 million of return to provision and audit adjustments related to prior periods; $0.9 million of other adjustments, and $0.5 of valuation allowances.

Adjusted Provision for Income Taxes

We reported an adjusted tax rate of 22.2% and 22.5% for three months ended March 31, 2023 and 2022, respectively, each of which is higher than the 21.0% U.S. federal corporate statutory rate, due primarily to increases for state taxes and foreign withholding taxes, partially offset by benefits from the foreign rate differential and the research and development credit.

Leverage Ratio

(dollars in millions)		Trailing Twelve Months Ended March 31, 2023
Reconciliation of net income attributable to TransUnion to Adjusted EBITDA:		
Net income attributable to TransUnion	$	273.8
Discontinued operations, net of tax		(17.7)
Income from continuing operations attributable to TransUnion	$	256.1
Net interest expense		242.7
Provision for income taxes		114.1
Depreciation and amortization		519.9
EBITDA	$	1,132.8
Adjustments to EBITDA:		
Stock-based compensation [1]	$	82.7
Mergers and acquisitions, divestitures and business optimization [2]		45.0
Accelerated technology investment [3]		59.1
Net other [4]		15.0
Total adjustments to EBITDA	$	201.8
Leverage Ratio Adjusted EBITDA	$	1,334.6
Total debt	$	5,569.6
Less: Cash and cash equivalents		439.0
Net Debt	$	5,130.6
Ratio of Net Debt to Net income attributable to TransUnion		18.7
Leverage Ratio		3.8

As a result of displaying amounts in millions, rounding differences may exist in the table above.

1. Consisted of stock-based compensation, including amounts which are cash settled.
2. Mergers and acquisitions, divestitures and business optimization consisted of the following adjustments: $30.1 million of Neustar integration costs; $16.3 million of acquisition expenses; $4.6 loss on the impairment of a cost method investment; a $2.5 million adjustment to a liability from a recent acquisition; a $(0.4) million adjustment to the fair value of a put option liability related to a minority investment; a $(0.8) million gain on the settlement of a Cost Method Investment; $(3.4) gain related to a government tax reimbursement from a recent business acquisition; and $(3.9) million of reimbursements for transition services related to divested businesses, net of separation expenses.
3. Represents expenses associated with our accelerated technology investment to migrate to the cloud.
4. Net other consisted of the following adjustments: $3.9 million of deferred loan fees written off as a result of the prepayments on our debt; and $11.1 million net loss from currency remeasurement of our foreign operations, loan fees and other.

Liquidity and Capital Resources

Overview

Our principal sources of liquidity are cash flows provided by operating activities, cash and cash equivalents on hand, and our Senior Secured Revolving Line of Credit. Our principal uses of liquidity are working capital, capital expenditures, debt service and other capital structure obligations, business acquisitions, dividends, and other general corporate purposes. We believe our cash-on-hand, cash generated from operations, and funds available under the Senior Secured Revolving Line of Credit will be sufficient to fund our planned capital expenditures, debt service and other capital structure obligations, business acquisitions, dividends, and operating needs for the foreseeable future. Our ability to maintain adequate liquidity for our operations in the future is dependent upon a number of factors, including our revenue, macroeconomic conditions, our ability to contain costs, including capital expenditures, and to collect accounts receivable, and various other factors, many of which are beyond our control. We will continue to monitor our liquidity position and may elect to raise funds through debt or equity financing in the future to fund significant investments or acquisitions that are consistent with our growth strategy.

Cash and cash equivalents totaled $439.0 million and $585.3 million at March 31, 2023, and December 31, 2022, respectively, of which $322.9 million and $303.4 million was held outside the United States in each respective period. As of March 31, 2023, we had no outstanding balance under the Senior Secured Revolving Credit Facility and $1.2 million of outstanding letters of credit, and could have borrowed up to the remaining $298.8 million available.

We also have the ability to request incremental loans on the same terms under the existing Senior Secured Credit Facility up to the greater of an additional $1,000.0 million and 100% of Consolidated EBITDA. In addition, as long as the senior secured net leverage ratio does not exceed 4.25-to-1, we may incur additional incremental loans, subject to certain additional conditions and commitments by existing or new lenders to fund any additional borrowings.

With certain exceptions, the Senior Secured Credit Facility obligations are secured by a first-priority security interest in substantially all of the assets of Trans Union LLC, including its investments in subsidiaries. The Senior Secured Credit Facility contains various restrictions and nonfinancial covenants, along with a senior secured net leverage ratio test. The nonfinancial covenants include restrictions on dividends, investments, dispositions, future borrowings and other specified payments, as well as additional reporting and disclosure requirements. The senior secured net leverage test must be met as a condition to incur additional indebtedness, make certain investments, and may be required to make certain restricted payments. The senior secured net leverage ratio must not exceed 5.5-to-1 at any such measurement date.

Each year, the Company may be required to make additional principal payments on the Senior Secured Term Loan B based on excess cash flows of the prior year, as defined in the agreement. There were no excess cash flows for 2022 and therefore no additional payment will be required in 2023. See Part I, Item 1, “Notes to Unaudited Consolidated Financial Statements,” Note 11, “Debt,” for additional information about our debt.

On March 31, 2023, we prepaid $75.0 million of our Senior Secured Term Loan B-6, funded from our cash-on-hand.

In the first quarter of 2023 we paid dividends of $0.105 per share totaling $20.8 million. Dividends declared accrue to outstanding restricted stock units and are paid to employees as dividend equivalents when the restricted stock units vest. While we currently expect to continue to pay quarterly dividends, any determination to pay dividends in the future will be at the discretion of our board of directors and will depend on a number of factors, including our liquidity, results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law and other factors that our board of directors deems appropriate. We currently have capacity and intend to continue to pay a quarterly dividend, subject to approval by our board.

On February 13, 2017, our board of directors authorized the repurchase of up to $300.0 million of our common stock over the next 3 years. Our board of directors removed the three-year time limitation on February 8, 2018. To date, we have repurchased $133.5 million of our common stock and have the ability to repurchase the remaining $166.5 million.

We have no obligation to repurchase additional shares and the timing, actual number and value of the shares that are repurchased, if any, will be at the discretion of management and will depend on a number of factors, including market conditions, the cost of repurchasing shares, the availability of alternative investment opportunities, liquidity, and other factors deemed appropriate. Repurchases may be suspended, terminated or modified at any time for any reason. Any repurchased shares will have the status of treasury shares and may be used, if and when needed, for general corporate purposes.

Sources and Uses of Cash

(in millions)	Three Months Ended March 31, 2023	2022	Change
Cash provided by operating activities of continuing operations	$ 77.4	$ 11.6	$ 65.8
Cash used in investing activities of continuing operations	(103.6)	(91.0)	(12.6)
Cash used in financing activities of continuing operations	(122.0)	(467.6)	345.6
Cash flows of discontinued operations and effect of exchange rate changes on cash and cash equivalents	1.9	1.4	0.5
Net change in cash and cash equivalents	$ (146.3)	$ (545.6)	$ 399.3

Operating Activities

The increase in cash provided by continuing operations was due primarily to a decrease in working capital, partially offset by an increase in interest expense.

Investing Activities

The increase in cash used in investing activities of continuing operations was due primarily to an increase in cash used for investments in nonconsolidated affiliates.

Financing Activities

The decrease in cash used in financing activities of continuing operations was due primarily to a decrease in debt prepayments and cash used to pay employee taxes on restricted stock units.

Capital Expenditures

We make capital expenditures to grow our business by developing new and enhanced capabilities, to increase the effectiveness and efficiency of the organization and to reduce risks. We make capital expenditures for product development, disaster recovery, security enhancements, regulatory compliance, and the replacement and upgrade of existing equipment at the end of its useful life.

Cash paid for capital expenditures increased $7.9 million, from $58.6 million for the three months ended March 31, 2022, to $66.5 million for the three months ended March 31, 2023.

Debt

Hedges

On November 16, 2022, we entered into new interest rate swap agreements with various counterparties that effectively fix our LIBOR exposure on a portion of our Senior Secured Term Loan or similar replacement debt. The new swaps commenced on December 30, 2022, and expire on December 31, 2024, with a current aggregate notional amount of $1,315.0 million that amortizes each quarter. The swaps require us to pay fixed rates varying between 4.4105% and 4.4465% in exchange for receiving a variable rate that matches the variable rate on our loans. We have designated these swap agreements as cash flow hedges.

On December 23, 2021, we entered into new interest rate swap agreements with various counterparties that effectively fix our LIBOR exposure on a portion of our Senior Secured Term Loan or similar replacement debt. The new swaps commenced on December 31, 2021, and expire on December 31, 2026, with a current aggregate notional amount of $1,580.0 million that amortizes each quarter. The swaps require us to pay fixed rates varying between 1.4280% and 1.4360% in exchange for receiving a variable rate that matches the variable rate on our loans. We have designated these swap agreements as cash flow hedges.

On March 10, 2020, we entered into two tranches of interest rate swap agreements with various counterparties that effectively fix our LIBOR exposure on a portion of our Senior Secured Term Loans or similar replacement debt. The first swap commenced on June 30, 2020, and expired on June 30, 2022. The second swap commenced on June 30, 2022, and expires on June 30, 2025, with an initial aggregate notional amount of $1,095.0 million that amortizes each quarter after it commences. The second swap requires us to pay fixed rates varying between 0.9125% and 0.9280% in exchange for receiving a variable rate that matches the variable rate on our loans. We have designated these swap agreements as cash flow hedges.

Effect of Certain Debt Covenants

A breach of any of the covenants under the agreements governing our debt could limit our ability to borrow funds under the Senior Secured Revolving Line of Credit and could result in a default under the Senior Secured Credit Facility. Upon the occurrence of an event of default under the Senior Secured Credit Facility, the lenders could elect to declare all amounts then outstanding to be immediately due and payable, and the lenders could terminate all commitments to extend further credit. If we were unable to repay the amounts declared due, the lenders could proceed against any collateral granted to them to secure that indebtedness.

With certain exceptions, the Senior Secured Credit Facility obligations are secured by a first-priority security interest in substantially all of the assets of Trans Union LLC, including its investment in subsidiaries. The Senior Secured Credit Facility contains various restrictions and nonfinancial covenants, along with a senior secured net leverage ratio test. The nonfinancial covenants include restrictions on dividends, investments, dispositions, future borrowings and other specified payments, as well as additional reporting and disclosure requirements. The senior secured net leverage test must be met as a condition to incur additional indebtedness, make certain investments, and may be required to make certain restricted payments. The senior secured net leverage ratio must not exceed 5.5-to-1 at any such measurement date. Under the terms of the Senior Secured Credit Facility, TransUnion may make dividend payments up to the greater of $100 million or 10.0% of Consolidated EBITDA per year, or an unlimited amount provided that no default or event of default exists and so long as the total net leverage ratio does not exceed 4.75-to-1. As of March 31, 2023, we were in compliance with all debt covenants.

Our ability to meet our liquidity needs or to pay dividends on our common stock depends on our subsidiaries' earnings, the terms of their indebtedness, and other contractual restrictions.

For additional information about our debt and hedge, see Part I, Item 1, "Notes to Unaudited Consolidated Financial Statements," Note 11, "Debt."

Contractual Obligations

Refer to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022 in Part II, Item 8, "Financial Statements and Supplementary Data - Notes to Consolidated Financial Statements," Note 12, "Debt" for information about our long-term debt obligations, noncancelable lease obligations, and noncancelable purchase obligations as of December 31, 2022.

Recent Accounting Pronouncements

See Part I, Item 1, "Notes to Unaudited Consolidated Financial Statements," Note 1, "Significant Accounting and Reporting Policies," for information about recent accounting pronouncements and the impact on our consolidated financial statements.

Application of Critical Accounting Estimates

We prepare our consolidated financial statements in conformity with generally accepted accounting principles ("GAAP"). The notes to our consolidated financial statements include disclosures about our significant accounting policies. These accounting policies require us to make certain judgments and estimates in reporting our operating results and our assets and liabilities. See Part II, Item 7, "Application of Critical Accounting Estimates" and Part II, Item 8, Note 1, "Significant Accounting and Reporting Policies" of our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the Securities and Exchange Commission on February 14, 2023, for additional information about our critical accounting estimates.

Cautionary Notice Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q, including the exhibits hereto, contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on the current beliefs and expectations of TransUnion's management and are subject to significant risks and uncertainties. Actual results may differ materially from those described in the forward-looking statements. Any statements made in this report that are not statements of historical fact, including statements about our beliefs and expectations, are forward-looking statements. Forward-looking statements include information concerning possible or assumed future results of operations, including descriptions of our business plans and strategies. These statements often include words such as "anticipate," "expect," "guidance," "suggest," "plan," "believe," "intend," "estimate," "target," "project," "should," "could," "would," "may," "will," "forecast," "outlook," "potential," "continues," "seeks," "predicts," or the negatives of these words and other similar expressions.

Factors that could cause actual results to differ materially from those described in the forward-looking statements, or that could materially affect our financial results or such forward-looking statements include:

- macroeconomic effects and changes in market conditions, including the impact of inflation, risk of recession, and industry trends and adverse developments in the debt, consumer credit and financial services markets;
- our ability to provide competitive services and prices;

- our ability to retain or renew existing agreements with large or long-term customers;
- our ability to maintain the security and integrity of our data;
- our ability to deliver services timely without interruption;
- our ability to maintain our access to data sources;
- government regulation and changes in the regulatory environment;
- litigation or regulatory proceedings;
- our ability to effectively manage our costs;
- economic and political stability in the United States and international markets where we operate;
- the war in Ukraine and escalating geopolitical tensions as a result of Russia's invasion of Ukraine;
- the effects of the COVID-19 pandemic, including the prevalence and severity of variants;
- our ability to effectively develop and maintain strategic alliances and joint ventures;
- our ability to timely develop new services and the market's willingness to adopt our new services;
- our ability to manage and expand our operations and keep up with rapidly changing technologies;
- our ability to acquire businesses, successfully secure financing for our acquisitions, timely consummate our acquisitions, successfully integrate the operations of our acquisitions, control the costs of integrating our acquisitions and realize the intended benefits of such acquisitions;
- our ability to protect and enforce our intellectual property, trade secrets and other forms of unpatented intellectual property;
- our ability to defend our intellectual property from infringement claims by third parties;
- the ability of our outside service providers and key vendors to fulfill their obligations to us;
- further consolidation in our end-customer markets;
- the increased availability of free or inexpensive consumer information;
- losses against which we do not insure;
- our ability to make timely payments of principal and interest on our indebtedness;
- our ability to satisfy covenants in the agreements governing our indebtedness;
- our ability to maintain our liquidity;
- share repurchase plans; and
- our reliance on key management personnel.

There may be other factors, many of which are beyond our control, that may cause our actual results to differ materially from the forward-looking statements, including factors disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022, and any subsequent Quarterly Report on Form 10-Q or Current Report on Form 8-K filed with the Securities and Exchange Commission, and in this report under the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." You should evaluate all forward-looking statements made in this report in the context of these risks and uncertainties.

The forward-looking statements contained in this report speak only as of the date of this report. We undertake no obligation to publicly release the result of any revisions to these forward-looking statements to reflect the impact of events or circumstances that may arise after the date of this report.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no other material changes from the quantitative and qualitative disclosures about market risk included in our Annual Report on Form 10-K for the year ended December 31, 2022.

In the normal course of business we are exposed to market risk, primarily from changes in variable interest rates and foreign currency exchange rates, which could impact our results of operations and financial position. We manage the exposure to this market risk through our regular operating and financing activities. We may use derivative financial instruments, such as foreign currency and interest rate hedges, but only as a risk management tool and not for speculative or trading purposes.

Interest Rate Risk

Our Senior Secured Credit Facility consists of Senior Secured Term Loans and a $300.0 million Senior Secured Revolving Line of Credit. Interest rates on these borrowings are based, at our election, on LIBOR or an alternate base rate, subject to floors,

plus applicable margins based on applicable net leverage ratios. As of December 31, 2022, essentially all of our outstanding debt was variable-rate debt. We currently have several interest rate hedge instruments that effectively fixes our LIBOR exposure on approximately 71.1% of our outstanding debt. Based on the amount of unhedged outstanding variable-rate debt, we have a material exposure to interest rate risk. In the future, our exposure to interest rate risk may change due to changes in the amount borrowed, changes in interest rates, or changes in the amount we have hedged. The amount of our outstanding debt, and the ratio of fixed-rate debt to variable-rate debt, can be expected to vary as a result of future business requirements, market conditions or other factors. During the first quarter of 2023, a 10% change in the average LIBOR rates utilized in the calculation of our actual interest expense would have increased our interest expense by $7.4 million.

See Part I, Item 1, “Notes to Unaudited Consolidated Financial Statements,” Note 11, “Debt,” for additional information about interest rates on our debt.

Foreign Currency Exchange Rate Risk

A substantial majority of our revenue, expense and capital expenditure activities are transacted in U.S. dollars. However, we transact business in a number of foreign currencies, including British pounds sterling, the South African rand, the Canadian dollar, the Indian rupee, the Colombian peso and the Brazilian real. In reporting the results of our foreign operations, we benefit from a weaker U.S. dollar and are adversely affected by a stronger U.S. dollar relative to the foreign currencies.

We are required to translate the assets and liabilities of our foreign subsidiaries that are measured in foreign currencies at the applicable period-end exchange rate in our consolidated balance sheets. We are required to translate revenue and expenses at the average exchange rates prevailing during the year in our consolidated statements of income. The resulting translation adjustment is included in other comprehensive income, as a component of stockholders’ equity. Transaction gains and losses that arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency are included in other income and expense as incurred.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. The term “disclosure controls and procedures” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms.

Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this report, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Controls over Financial Reporting

During the quarter covered by this report, there have been no changes in our internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

PART II. OTHER INFORMATION

None.

ITEM 1. LEGAL PROCEEDINGS

General

Refer to Part I, Item 3, “Legal Proceedings,” of our Annual Report on Form 10-K for the year ended December 31, 2022, and Part II, Item 1, “Legal Proceedings” of all subsequently filed Quarterly Reports on Form 10-Q, including this Quarterly Report, and Part I, Item 1, Note 18 “Contingencies,” of this Quarterly Report for a full description of our material pending legal and regulatory matters.

ITEM 1A. RISK FACTORS

In addition to the other information included in this report, you should carefully consider the factors discussed in Part I, Item 1A “Risk Factors” included in our Annual Report on Form 10-K for the year ended December 31, 2022, and any subsequently filed Quarterly Reports on Form 10-Q, as well as the factors identified under “Cautionary Statement Regarding Forward-Looking Statements” at the end of Part I, Item 2 of this Quarterly Report on Form 10-Q, which could materially affect our business, financial condition or future results. The risks described in these reports are not the only risks facing TransUnion. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially adversely affect our business, financial condition, and operating results.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

(a) Recent Sales of Unregistered Securities

Not applicable.

(b) Use of Proceeds

Not applicable.

(c) Issuer Purchases of Equity Securities

	(a) Total Number of Shares Purchased	(b) Average Price Paid Per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Approximate Dollar Value, in millions, of Shares that May Yet Be Purchased Under the Plans or Programs[(1)]
January 1 to January 31	2,500	$ 56.75	—	$ 166.5
February 1 to February 28	108,417	68.44	—	$ 166.5
March 1 to March 31	2,162	64.30	—	$ 166.5
Total	113,079	$ 68.10	—	

Shares shown in column (a) above consist of shares that were repurchased from employees for withholding taxes on options exercised and restricted stock units vesting pursuant to the terms of the Company's equity compensation plans and net settled.

(1) On February 13, 2017, our board of directors authorized the repurchase of up to $300.0 million of common stock over the next three years. On February 8, 2018, our board of directors removed the three-year time limitation. Prior to the second quarter of 2018, we had purchased approximately $133.5 million of common stock under the program and may purchase up to an additional $166.5 million. Additional repurchases may be made from time to time at management’s discretion at prices management considers to be attractive through open market purchases or through privately negotiated transactions, subject to availability. Open market purchases will be conducted in accordance with the limitations set forth in Rule 10b-18 of the Exchange Act and other applicable legal requirements.

ITEM 6. EXHIBITS

3.1	Third Amended and Restated Certificate of Incorporation of TransUnion (Incorporated by reference to Exhibit 3.1.2 to TransUnion's Current Report on Form 8-K filed May 18, 2020).
3.2	Fourth Amended and Restated Bylaws of TransUnion amended as of November 18, 2022 (Incorporated by reference to Exhibit 3.1 to TransUnion's Current Report on Form 8-K filed November 23, 2022).
10.1**	TransUnion 2015 Omnibus Incentive Plan Award Agreement, as amended, with respect to Restricted Stock Units.
10.2**	TransUnion 2015 Omnibus Incentive Plan Award Agreement, as amended, with respect to Performance Share Units.
10.3**	TransUnion 2015 Omnibus Incentive Plan Award Agreement, as amended, with respect to Restricted Stock (Outside Directors).
31.1**	TransUnion Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2**	TransUnion Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32**	TransUnion Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.SCH**	XBRL Taxonomy Extension Schema Document.
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document.
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document.
104	The cover page from this Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, formatted in Inline XBRL (included with Exhibit 101 attachments).

** Filed or furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

TransUnion

April 25, 2023 By /s/ Todd M. Cello

Todd M. Cello

Executive Vice President, Chief Financial Officer

(Principal Financial Officer)

April 25, 2023 By /s/ Jennifer A. Williams

Jennifer A. Williams

Senior Vice President, Chief Accounting Officer
(Principal Accounting Officer)