UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

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

For the Quarterly Period Ended June 30, 2023

Commission File Number 1-4949

CUMMINS INC.

(Exact name of registrant as specified in its charter)

Indiana	**35-0257090**
(State of Incorporation)	(IRS Employer Identification No.)

500 Jackson Street
Box 3005
Columbus, Indiana 47202-3005
(Address of principal executive offices)

Telephone (812) 377-5000
(Registrant's 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, $2.50 par value	CMI	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 x 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 registrant was required to submit such files). Yes x No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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. (Check one):

Large Accelerated Filer	x	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 x

As of June 30, 2023, there were 141,647,129 shares of common stock outstanding with a par value of $2.50 per share.

CUMMINS INC. AND SUBSIDIARIES
TABLE OF CONTENTS
QUARTERLY REPORT ON FORM 10-Q

PART I. FINANCIAL INFORMATION

ITEM 1. Condensed Consolidated Financial Statements

CUMMINS INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF NET INCOME
(Unaudited)

In millions, except per share amounts	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
NET SALES (Notes 1 and 2)	**$ 8,638**	$ 6,586	**$ 17,091**	$ 12,971
Cost of sales	**6,490**	4,860	**12,914**	9,713
GROSS MARGIN	**2,148**	1,726	**4,177**	3,258
OPERATING EXPENSES AND INCOME				
Selling, general and administrative expenses	**873**	622	**1,626**	1,237
Research, development and engineering expenses	**384**	299	**734**	597
Equity, royalty and interest income from investees (Note 4)	**133**	95	**252**	191
Other operating expense, net	**27**	3	**46**	114
OPERATING INCOME	**997**	897	**2,023**	1,501
Interest expense	**99**	34	**186**	51
Other income (expense), net	**51**	(8)	**141**	(17)
INCOME BEFORE INCOME TAXES	**949**	855	**1,978**	1,433
Income tax expense (Note 5)	**212**	148	**435**	303
CONSOLIDATED NET INCOME	**737**	707	**1,543**	1,130
Less: Net income attributable to noncontrolling interests	**17**	5	**33**	10
NET INCOME ATTRIBUTABLE TO CUMMINS INC.	**$ 720**	$ 702	**$ 1,510**	$ 1,120
EARNINGS PER COMMON SHARE ATTRIBUTABLE TO CUMMINS INC.				
Basic	**$ 5.08**	$ 4.97	**$ 10.66**	$ 7.90
Diluted	**$ 5.05**	$ 4.94	**$ 10.60**	$ 7.86
WEIGHTED-AVERAGE COMMON SHARES OUTSTANDING				
Basic	**141.7**	141.2	**141.6**	141.7
Dilutive effect of stock compensation awards	**0.8**	0.8	**0.9**	0.8
Diluted	**142.5**	142.0	**142.5**	142.5

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

CUMMINS INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
CONSOLIDATED NET INCOME	**$ 737**	$ 707	**$ 1,543**	$ 1,130
Other comprehensive income (loss), net of tax (Note 12)				
Change in pension and other postretirement defined benefit plans	**2**	6	**(7)**	22
Foreign currency translation adjustments	**(110)**	(245)	**(28)**	(241)
Unrealized gain on derivatives	**12**	43	**9**	71
Total other comprehensive loss, net of tax	**(96)**	(196)	**(26)**	(148)
COMPREHENSIVE INCOME	**641**	511	**1,517**	982
Less: Comprehensive income (loss) attributable to noncontrolling interests	**15**	(10)	**34**	(13)
COMPREHENSIVE INCOME ATTRIBUTABLE TO CUMMINS INC.	**$ 626**	$ 521	**$ 1,483**	$ 995

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

CUMMINS INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

In millions, except par value	June 30, 2023	December 31, 2022
ASSETS		
Current assets		
Cash and cash equivalents	**$ 1,802**	$ 2,101
Marketable securities (Note 6)	**512**	472
Total cash, cash equivalents and marketable securities	**2,314**	2,573
Accounts and notes receivable, net	**5,863**	5,202
Inventories (Note 7)	**6,026**	5,603
Prepaid expenses and other current assets	**1,207**	1,073
Total current assets	**15,410**	14,451
Long-term assets		
Property, plant and equipment	**10,922**	10,507
Accumulated depreciation	**(5,199)**	(4,986)
Property, plant and equipment, net	**5,723**	5,521
Investments and advances related to equity method investees	**1,861**	1,759
Goodwill	**2,404**	2,343
Other intangible assets, net	**2,584**	2,687
Pension assets (Note 3)	**1,523**	1,398
Other assets (Note 8)	**2,230**	2,140
Total assets	**$ 31,735**	$ 30,299
LIABILITIES		
Current liabilities		
Accounts payable (principally trade)	**$ 4,308**	$ 4,252
Loans payable (Note 9)	**419**	210
Commercial paper (Note 9)	**1,617**	2,574
Current maturities of long-term debt (Note 9)	**575**	573
Accrued compensation, benefits and retirement costs	**721**	617
Current portion of accrued product warranty (Note 10)	**751**	726
Current portion of deferred revenue (Note 2)	**1,017**	1,004
Other accrued expenses (Note 8)	**1,637**	1,465
Total current liabilities	**11,045**	11,421
Long-term liabilities		
Long-term debt (Note 9)	**5,089**	4,498
Deferred revenue (Note 2)	**939**	844
Other liabilities (Note 8)	**3,306**	3,311
Total liabilities	**$ 20,379**	$ 20,074
Commitments and contingencies (Note 11)		
Redeemable noncontrolling interests (Note 16)	**$ —**	$ 258
EQUITY		
Cummins Inc. shareholders’ equity		
Common stock, $2.50 par value, 500 shares authorized, 222.5 and 222.5 shares issued	**$ 2,532**	$ 2,243
Retained earnings	**19,102**	18,037
Treasury stock, at cost, 80.9 and 81.2 shares	**(9,380)**	(9,415)
Accumulated other comprehensive loss (Note 12)	**(1,917)**	(1,890)
Total Cummins Inc. shareholders’ equity	**10,337**	8,975
Noncontrolling interests	**1,019**	992
Total equity	**$ 11,356**	$ 9,967
Total liabilities, redeemable noncontrolling interests and equity	**$ 31,735**	$ 30,299

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

CUMMINS INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

In millions	Six months ended June 30, 2023	2022
CASH FLOWS FROM OPERATING ACTIVITIES		
Consolidated net income	**$ 1,543**	$ 1,130
Adjustments to reconcile consolidated net income to net cash provided by operating activities		
Depreciation and amortization	**503**	328
Deferred income taxes	**(132)**	(112)
Equity in income of investees, net of dividends	**(113)**	(62)
Pension and OPEB expense (Note 3)	**3**	17
Pension contributions and OPEB payments (Note 3)	**(103)**	(55)
Russian suspension costs, net of recoveries (Note 14)	**—**	111
(Gain) loss on corporate owned life insurance	**(20)**	85
Foreign currency remeasurement and transaction exposure	**(59)**	(10)
Changes in current assets and liabilities, net of acquisitions		
Accounts and notes receivable	**(635)**	(252)
Inventories	**(403)**	(498)
Other current assets	**(137)**	(65)
Accounts payable	**65**	426
Accrued expenses	**261**	(281)
Changes in other liabilities	**75**	(11)
Other, net	**130**	12
Net cash provided by operating activities	**978**	763
CASH FLOWS FROM INVESTING ACTIVITIES		
Capital expenditures	**(414)**	(251)
Acquisitions of businesses, net of cash acquired (Note 16)	**(134)**	(245)
Investments in marketable securities—acquisitions	**(648)**	(433)
Investments in marketable securities—liquidations (Note 6)	**620**	461
Other, net	**(30)**	(108)
Net cash used in investing activities	**(606)**	(576)
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from borrowings	**737**	56
Net (payments) borrowings of commercial paper	**(658)**	392
Payments on borrowings and finance lease obligations	**(228)**	(71)
Dividend payments on common stock	**(445)**	(411)
Repurchases of common stock	**—**	(347)
Other, net	**(9)**	(10)
Net cash used in financing activities	**(603)**	(391)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	**(68)**	74
Net decrease in cash and cash equivalents	**(299)**	(130)
Cash and cash equivalents at beginning of year	**2,101**	2,592
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**$ 1,802**	$ 2,462

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

CUMMINS INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE NONCONTROLLING INTERESTS AND EQUITY
(Unaudited)

	Three months ended								
In millions, except per share amounts	**Redeemable Noncontrolling Interests**	**Common Stock**	**Additional Paid-in Capital**	**Retained Earnings**	**Treasury Stock**	**Accumulated Other Comprehensive Loss**	**Total Cummins Inc. Shareholders' Equity**	**Noncontrolling Interests**	**Total Equity**
BALANCE AT MARCH 31, 2023	**$ 261**	**$ 556**	**$ 1,674**	**$ 18,605**	**$ (9,389)**	**$ (1,823)**	**$ 9,623**	**$ 997**	**$ 10,620**
Net income	**(12)**			**720**			**720**	**29**	**749**
Other comprehensive loss, net of tax (Note 12)						**(94)**	**(94)**	**(2)**	**(96)**
Issuance of common stock			**2**				**2**	**—**	**2**
Cash dividends on common stock, $1.57 per share				**(223)**			**(223)**	**—**	**(223)**
Distributions to noncontrolling interests							**—**	**(2)**	**(2)**
Share-based awards			**1**		**7**		**8**	**—**	**8**
Fair value adjustment of redeemable noncontrolling interests	**22**		**(22)**				**(22)**	**—**	**(22)**
Acquisition of redeemable noncontrolling interests (Note 16)	**(271)**						**—**	**—**	**—**
Sale of Atmus stock (Note 15)			**285**				**285**	**(3)**	**282**
Other shareholder transactions			**36**		**2**		**38**	**—**	**38**
BALANCE AT JUNE 30, 2023	**$ —**	**$ 556**	**$ 1,976**	**$ 19,102**	**$ (9,380)**	**$ (1,917)**	**$ 10,337**	**$ 1,019**	**$ 11,356**
BALANCE AT MARCH 31, 2022	$ 392	$ 556	$ 1,497	$ 16,952	$ (9,412)	$ (1,515)	$ 8,078	$ 893	$ 8,971
Net income	(7)			702			702	12	714
Other comprehensive loss, net of tax (Note 12)						(181)	(181)	(15)	(196)
Issuance of common stock			1				1	—	1
Repurchases of common stock					(36)		(36)	—	(36)
Cash dividends on common stock, $1.45 per share				(204)			(204)	—	(204)
Share-based awards			2		8		10	—	10
Fair value adjustment of redeemable noncontrolling interests	(159)		159				159	—	159
Other shareholder transactions			9		1		10	—	10
BALANCE AT JUNE 30, 2022	$ 226	$ 556	$ 1,668	$ 17,450	$ (9,439)	$ (1,696)	$ 8,539	$ 890	$ 9,429

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

In millions, except per share amounts	Redeemable Noncontrolling Interests	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total Cummins Inc. Shareholders' Equity	Noncontrolling Interests	Total Equity
	Six months ended								
BALANCE AT DECEMBER 31, 2022	$ 258	$ 556	$ 1,687	$ 18,037	$ (9,415)	$ (1,890)	$ 8,975	$ 992	$ 9,967
Net income	(20)			1,510			1,510	53	1,563
Other comprehensive (loss) income, net of tax (Note 12)						(27)	(27)	1	(26)
Issuance of common stock			2				2	—	2
Cash dividends on common stock, $3.14 per share				(445)			(445)	—	(445)
Distributions to noncontrolling interests							—	(24)	(24)
Share-based awards			(4)		32		28	—	28
Fair value adjustment of redeemable noncontrolling interests	33		(33)				(33)	—	(33)
Acquisition of redeemable noncontrolling interests (Note 16)	(271)						—	—	—
Sale of Atmus stock (Note 15)			285				285	(3)	282
Other shareholder transactions			39		3		42	—	42
BALANCE AT JUNE 30, 2023	$ —	$ 556	$ 1,976	$ 19,102	$ (9,380)	$ (1,917)	$ 10,337	$ 1,019	$ 11,356
BALANCE AT DECEMBER 31, 2021	$ 366	$ 556	$ 1,543	$ 16,741	$ (9,123)	$ (1,571)	$ 8,146	$ 889	$ 9,035
Net income	(11)			1,120			1,120	21	1,141
Other comprehensive loss, net of tax (Note 12)						(125)	(125)	(23)	(148)
Issuance of common stock			1				1	—	1
Repurchases of common stock					(347)		(347)	—	(347)
Cash dividends on common stock, $2.90 per share				(411)			(411)	—	(411)
Distributions to noncontrolling interests							—	(14)	(14)
Share-based awards			(7)		26		19	—	19
Fair value adjustment of redeemable noncontrolling interests	(129)		129				129	—	129
Other shareholder transactions			2		5		7	17	24
BALANCE AT JUNE 30, 2022	$ 226	$ 556	$ 1,668	$ 17,450	$ (9,439)	$ (1,696)	$ 8,539	$ 890	$ 9,429

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

CUMMINS INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1. NATURE OF OPERATIONS AND BASIS OF PRESENTATION

Overview

Cummins Inc. ("Cummins," "we," "our" or "us") was founded in 1919 as Cummins Engine Company, a corporation in Columbus, Indiana, and one of the first diesel engine manufacturers. In 2001, we changed our name to Cummins Inc. We are a global power leader that designs, manufactures, distributes and services diesel, natural gas, electric and hybrid powertrains and powertrain-related components including filtration, aftertreatment, turbochargers, fuel systems, controls systems, air handling systems, automated transmissions, axles, drivelines, brakes, suspension systems, electric power generation systems, batteries, electrified power systems, electric powertrains, hydrogen production and fuel cell products. We sell our products to original equipment manufacturers (OEMs), distributors, dealers and other customers worldwide. We serve our customers through a service network of approximately 460 wholly-owned, joint venture and independent distributor locations and more than 10,000 Cummins certified dealer locations in approximately 190 countries and territories.

Interim Condensed Financial Statements

The unaudited *Condensed Consolidated Financial Statements* reflect all adjustments which, in the opinion of management, are necessary for a fair statement of the results of operations, financial position and cash flows. All such adjustments are of a normal recurring nature. The *Condensed Consolidated Financial Statements* were prepared in accordance with accounting principles in the United States of America (GAAP) pursuant to the rules and regulations of the Securities and Exchange Commission (SEC) for interim financial information. Certain information and footnote disclosures normally included in annual financial statements were condensed or omitted as permitted by such rules and regulations.

These interim condensed financial statements should be read in conjunction with the *Consolidated Financial Statements* included in our Annual Report on Form 10-K for the year ended December 31, 2022. Our interim period financial results for the three and six month periods presented are not necessarily indicative of results to be expected for any other interim period or for the entire year. The year-end *Condensed Consolidated Balance Sheet* data was derived from audited financial statements but does not include all required annual disclosures.

Reclassifications

Certain amounts for prior year periods were reclassified to conform to the current year presentation.

Use of Estimates in Preparation of Financial Statements

Preparation of financial statements requires management to make estimates and assumptions that affect reported amounts presented and disclosed in our *Condensed Consolidated Financial Statements*. Significant estimates and assumptions in these *Condensed Consolidated Financial Statements* require the exercise of judgment. Due to the inherent uncertainty involved in making estimates, actual results reported in future periods may be different from these estimates.

Weighted-Average Diluted Shares Outstanding

The weighted-average diluted common shares outstanding exclude the anti-dilutive effect of certain stock options.The options excluded from diluted earnings per share were as follows:

	Three months ended June 30,		Six months ended June 30,	
	2023	**2022**	**2023**	**2022**
Options excluded	**14,210**	33,100	**9,522**	26,782

Related Party Transactions

In accordance with the provisions of various joint venture agreements, we may purchase products and components from our joint ventures, sell products and components to our joint ventures and our joint ventures may sell products and components to unrelated parties.

The following is a summary of sales to and purchases from nonconsolidated equity investees:

	Three months ended June 30,		Six months ended June 30,	
In millions	2023	2022	2023	2022
Sales to nonconsolidated equity investees	**$ 320**	$ 281	**$ 696**	$ 625
Purchases from nonconsolidated equity investees	**687**	328	**1,391**	755

The following is a summary of accounts receivable from and accounts payable to nonconsolidated equity investees:

In millions	June 30, 2023	December 31, 2022	Balance Sheet Location
Accounts receivable from nonconsolidated equity investees	**$ 466**	$ 376	Accounts and notes receivable, net
Accounts payable to nonconsolidated equity investees	**332**	292	Accounts payable (principally trade)

Supply Chain Financing

We currently have supply chain financing programs with financial intermediaries, which provide certain vendors the option to be paid by financial intermediaries earlier than the due date on the applicable invoice. When a vendor utilizes the program and receives an early payment from a financial intermediary, they take a discount on the invoice. We then pay the financial intermediary the face amount of the invoice on the original due date. The maximum amount that we could have outstanding under the program was $482 million at June 30, 2023. We do not reimburse vendors for any costs they incur for participation in the program, their participation is completely voluntary and there are no assets pledged as security or other forms of guarantees provided for the committed payment to the finance provider or intermediary. As a result, all amounts owed to the financial intermediaries are presented as accounts payable in our *Condensed Consolidated Balance Sheets.* Amounts due to the financial intermediaries reflected in accounts payable at June 30, 2023 and December 31, 2022, were $231 million and $331 million, respectively.

NOTE 2. REVENUE FROM CONTRACTS WITH CUSTOMERS

Long-term Contracts

The majority of our contracts are for a period of less than one year. We have certain arrangements, primarily long-term maintenance agreements, construction contracts and extended warranty coverage arrangements that span a period in excess of one year. The aggregate amount of the transaction price for long-term maintenance agreements and construction contracts allocated to performance obligations that were not satisfied as of June 30, 2023, was $730 million. We expect to recognize the related revenue of $232 million over the next 12 months and $498 million over periods up to 10 years. See NOTE 10, "PRODUCT WARRANTY LIABILITY," for additional disclosures on extended warranty coverage arrangements. Our other contracts generally are for a duration of less than one year, include payment terms that correspond to the timing of costs incurred when providing goods and services to our customers or represent sales-based royalties.

Deferred and Unbilled Revenue

The following is a summary of our unbilled and deferred revenue and related activity:

In millions	June 30, 2023	December 31, 2022
Unbilled revenue	**$ 299**	$ 257
Deferred revenue	**1,956**	1,848

We recognized revenue of $178 million and $384 million for the three and six months ended June 30, 2023, compared with $176 million and $416 million for the comparable periods in 2022, that was included in the deferred revenue balance at the beginning of each year. We did not record any impairment losses on our unbilled revenues during the three and six months ended June 30, 2023 or 2022.

Disaggregation of Revenue

Consolidated Revenue

The table below presents our consolidated sales by geographic area. Net sales attributed to geographic areas were based on the location of the customer.

	Three months ended June 30,		Six months ended June 30,	
In millions	2023	2022	2023	2022
United States	**$ 4,937**	$ 3,788	**$ 9,739**	$ 7,245
China	**762**	520	**1,552**	1,173
India	**413**	311	**824**	620
Other international	**2,526**	1,967	**4,976**	3,933
Total net sales	**$ 8,638**	$ 6,586	**$ 17,091**	$ 12,971

Segment Revenue

As previously announced, our Components segment reorganized its reporting structure to carve out the electronics business into the newly formed software and electronics business and combined the turbo technologies and fuel systems businesses into the newly formed engine components business. We started reporting results for the reorganized business in the first quarter of 2023 and reflected these changes for prior periods. On May 26, 2023, with the Atmus Filtration Technologies Inc. (Atmus) initial public offering (IPO), we changed the name of our Components' filtration business to Atmus. See NOTE 15, "FORMATION OF ATMUS AND IPO," to our *Condensed Consolidated Financial Statements* for additional information.

Components segment external sales by business were as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions	2023	2022	2023	2022
Axles and brakes	**$ 1,249**	$ —	**$ 2,521**	$ —
Emission solutions	**842**	767	**1,781**	1,575
Atmus	**341**	319	**683**	627
Engine components	**283**	223	**575**	463
Automated transmissions	**180**	143	**358**	277
Software and electronics	**29**	25	**49**	52
Total sales	**$ 2,924**	$ 1,477	**$ 5,967**	$ 2,994

Engine segment external sales by market were as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions	2023	2022	2023	2022
Heavy-duty truck	**$ 856**	$ 797	**$ 1,716**	$ 1,481
Medium-duty truck and bus	**687**	620	**1,304**	1,211
Light-duty automotive	**444**	425	**885**	912
Total on-highway	**1,987**	1,842	**3,905**	3,604
Off-highway	**276**	250	**610**	537
Total sales	**$ 2,263**	$ 2,092	**$ 4,515**	$ 4,141

As previously announced, due to the indefinite suspension of operations in Russia, we reorganized the regional management structure of our Distribution segment and moved all Commonwealth of Independent States (CIS) sales into the Europe and Africa and Middle East regions. The Russian portion of prior period CIS sales moved to the Europe region. We started to report results for our new regional management structure in the first quarter of 2023 and reflected these changes for historical periods.

Distribution segment external sales by region were as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions	**2023**	**2022**	**2023**	**2022**
North America	**$ 1,783**	$ 1,491	**$ 3,476**	$ 2,862
Asia Pacific	**265**	242	**504**	486
Europe	**213**	246	**407**	521
China	**112**	99	**213**	181
Africa and Middle East	**80**	61	**142**	111
India	**63**	52	**120**	100
Latin America	**60**	56	**113**	97
Total sales	**$ 2,576**	$ 2,247	**$ 4,975**	$ 4,358

Distribution segment external sales by product line were as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions	**2023**	**2022**	**2023**	**2022**
Parts	**$ 1,011**	$ 987	**$ 2,063**	$ 1,913
Power generation	**609**	440	**1,100**	838
Engines	**527**	428	**983**	866
Service	**429**	392	**829**	741
Total sales	**$ 2,576**	$ 2,247	**$ 4,975**	$ 4,358

Power Systems segment external sales by product line were as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions	**2023**	**2022**	**2023**	**2022**
Power generation	**$ 447**	$ 408	**$ 827**	$ 807
Industrial	**218**	213	**407**	401
Generator technologies	**129**	113	**239**	209
Total sales	**$ 794**	$ 734	**$ 1,473**	$ 1,417

NOTE 3. PENSIONS AND OTHER POSTRETIREMENT BENEFITS

We sponsor funded and unfunded domestic and foreign defined benefit pension and other postretirement benefit (OPEB) plans.Contributions to these plans were as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions	**2023**	**2022**	**2023**	**2022**
Defined benefit pension contributions	**$ 6**	$ 6	**$ 94**	$ 39
OPEB payments, net	**5**	6	**9**	16
Defined contribution pension plans	**30**	20	**73**	56

We anticipate making additional defined benefit pension contributions during the remainder of 2023 of $20 million for our U.S. and U.K. qualified and non-qualified pension plans. These contributions may be made from trusts or company funds either to increase pension assets or to make direct benefit payments to plan participants. We expect our 2023 annual net periodic pension cost to be near zero.

The components of net periodic pension and OPEB expense (income) under our plans were as follows:

	Pension					
	U.S. Plans		U.K. Plans		OPEB	
	Three months ended June 30,					
In millions	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Service cost	**$ 29**	$ 34	**$ 4**	$ 8	**$ —**	$ —
Interest cost	**42**	22	**18**	9	**2**	1
Expected return on plan assets	**(69)**	(52)	**(27)**	(20)	**—**	—
Amortization of prior service cost	**1**	—	**—**	—	**—**	—
Recognized net actuarial loss	**2**	6	**—**	—	**—**	—
Net periodic benefit expense (income)	**$ 5**	$ 10	**$ (5)**	$ (3)	**$ 2**	$ 1

	Pension					
	U.S. Plans		U.K. Plans		OPEB	
	Six months ended June 30,					
In millions	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Service cost	**$ 58**	$ 68	**$ 8**	$ 16	**$ —**	$ —
Interest cost	**84**	44	**35**	18	**4**	2
Expected return on plan assets	**(138)**	(104)	**(52)**	(40)	**—**	—
Amortization of prior service cost	**1**	—	**—**	—	**—**	—
Recognized net actuarial loss (gain)	**4**	12	**—**	1	**(1)**	—
Net periodic benefit expense (income)	**$ 9**	$ 20	**$ (9)**	$ (5)	**$ 3**	$ 2

NOTE 4. EQUITY, ROYALTY AND INTEREST INCOME FROM INVESTEES

Equity, royalty and interest income from investees included in our *Condensed Consolidated Statements of Net Income* for the reporting periods was as follows:

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
Manufacturing entities				
Dongfeng Cummins Engine Company, Ltd.	**$ 18**	$ 11	**$ 37**	$ 27
Chongqing Cummins Engine Company, Ltd.	**13**	7	**22**	16
Beijing Foton Cummins Engine Co., Ltd.	**9**	14	**25**	28
Tata Cummins, Ltd.	**7**	5	**15**	14
All other manufacturers	**32**	13	**51**	3 [(1)]
Distribution entities				
Komatsu Cummins Chile, Ltda.	**13**	12	**27**	19
All other distributors	**4**	3	**7**	5
Cummins share of net income	**96**	65	**184**	112
Royalty and interest income	**37**	30	**68**	79
Equity, royalty and interest income from investees	**$ 133**	$ 95	**$ 252**	$ 191

(1) Includes a $28 million impairment of our joint venture with KAMAZ and $ 3 million of royalty charges as part of our costs associated with the indefinite suspension of our Russian operations. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

NOTE 5. INCOME TAXES

Our effective tax rates for the three and six months ended June 30, 2023, were 22.3 percent and 22.0 percent, respectively. Our effective tax rates for the three and six months ended June 30, 2022, were 17.3 percent and 21.1 percent, respectively.

The three months ended June 30, 2023, contained net unfavorable discrete tax items of $3 million.

The six months ended June 30, 2023, contained net discrete tax amounts of zero, as the result of offsetting amounts for the first two quarters, primarily due to share-based compensation tax benefits and other discrete items.

The three months ended June 30, 2022, contained favorable discrete items of $36 million, primarily due to $36 million of favorable changes in tax reserves, $10 million of favorable changes associated with the indefinite suspension in our Russian operations and $8 million of net favorable other discrete tax items, partially offset by $18 million of unfavorable tax costs associated with internal restructuring ahead of the planned separation of Atmus.

The six months ended June 30, 2022, contained favorable net discrete tax items of $5 million, primarily due to $27 million of favorable changes in tax reserves and $4 million of net favorable other discrete tax items, partially offset by $18 million of unfavorable tax costs associated with internal restructuring ahead of the planned separation of Atmus and $8 million of unfavorable changes associated with the indefinite suspension in our Russian operations.

NOTE 6. MARKETABLE SECURITIES

A summary of marketable securities, all of which were classified as current, was as follows:

	June 30, 2023			December 31, 2022		
In millions	**Cost**	**Gross unrealized gains/(losses) (1)**	**Estimated fair value**	**Cost**	**Gross unrealized gains/(losses) (1)**	**Estimated fair value**
Equity securities						
Debt mutual funds	**$ 244**	**$ (5)**	**$ 239**	$ 238	$ (5)	$ 233
Certificates of deposit	**242**	**—**	**242**	209	—	209
Equity mutual funds	**29**	**2**	**31**	25	3	28
Debt securities	**—**	**—**	**—**	2	—	2
Marketable securities	**$ 515**	**$ (3)**	**$ 512**	$ 474	$ (2)	$ 472

(1) Unrealized gains and losses for debt securities are recorded in other comprehensive income while unrealized gains and losses for equity securities are recorded in our *Condensed Consolidated Statements of Net Income*.

All debt securities are classified as available-for-sale. All marketable securities presented use a Level 2 fair value measure. The fair value of Level 2 securities is estimated using actively quoted prices for similar instruments from brokers and observable inputs where available, including market transactions and third-party pricing services, or net asset values provided to investors. We do not currently have any Level 3 securities, and there were no transfers between Level 2 or 3 during the six months ended June 30, 2023, or the year ended December 31, 2022.

A description of the valuation techniques and inputs used for our Level 2 fair value measures is as follows:

- *Debt mutual funds* — The fair value measures for the vast majority of these investments are the daily net asset values published on a regulated governmental website. Daily quoted prices are available from the issuing brokerage and are used on a test basis to corroborate this Level 2 input measure.
- *Certificates of deposit* — These investments provide us with a contractual rate of return and generally range in maturity fromthree months to five years. The counterparties to these investments are reputable financial institutions with investment grade credit ratings. Since these instruments are not tradable and must be settled directly by us with the respective financial institution, our fair value measure is the financial institution's month-end statement.
- *Equity mutual funds* — The fair value measures for these investments are the net asset values published by the issuing brokerage. Daily quoted prices are available from reputable third-party pricing services and are used on a test basis to corroborate this Level 2 input measure.
- *Debt securities* — The fair value measures for these securities are broker quotes received from reputable firms. These securities are infrequently traded on a national exchange and these values are used on a test basis to corroborate our Level 2 input measure.

The proceeds from sales and maturities of marketable securities were as follows:

	Six months ended June 30,	
In millions	**2023**	**2022**
Proceeds from sales of marketable securities	**$ 509**	$ 346
Proceeds from maturities of marketable securities	**111**	115
Investments in marketable securities - liquidations	**$ 620**	$ 461

NOTE 7. INVENTORIES

Inventories are stated at the lower of cost or net realizable value.Inventories included the following:

In millions	June 30, 2023	December 31, 2022
Finished products	**$ 3,169**	$ 2,917
Work-in-process and raw materials	**3,102**	2,926
Inventories at FIFO cost	**6,271**	5,843
Excess of FIFO over LIFO	**(245)**	(240)
Inventories	**$ 6,026**	$ 5,603

NOTE 8. SUPPLEMENTAL BALANCE SHEET DATA

Other assets included the following:

In millions	June 30, 2023	December 31, 2022
Deferred income taxes	**$ 767**	$ 625
Operating lease assets	**514**	492
Corporate owned life insurance	**409**	390
Other	**540**	633
Other assets	**$ 2,230**	$ 2,140

Other accrued expenses included the following:

In millions	June 30, 2023	December 31, 2022
Marketing accruals	**$ 348**	$ 316
Other taxes payable	**233**	224
Income taxes payable	**202**	173
Current portion of operating lease liabilities	**135**	132
Other	**719**	620
Other accrued expenses	**$ 1,637**	$ 1,465

Other liabilities included the following:

In millions	June 30, 2023	December 31, 2022
Accrued product warranty [(1)]	**$ 778**	$ 744
Deferred income taxes	**615**	649
Pensions	**441**	445
Operating lease liabilities	**386**	368
Accrued compensation	**183**	184
Mark-to-market valuation on interest rate derivatives	**138**	151
Other postretirement benefits	**138**	141
Long-term income taxes	**116**	192
Other long-term liabilities	**511**	437
Other liabilities	**$ 3,306**	$ 3,311

[(1)] See NOTE 10, "PRODUCT WARRANTY LIABILITY," to our *Condensed Consolidated Financial Statements* for additional information.

NOTE 9. DEBT

Loans Payable and Commercial Paper

Loans payable, commercial paper and the related weighted-average interest rates were as follows:

In millions	June 30, 2023	December 31, 2022
Loans payable [(1)]	**$ 419**	$ 210
Commercial paper [(2)]	**1,617**	2,574

[(1)] Loans payable consist primarily of notes payable to various domestic and international financial institutions. It is not practicable to aggregate these notes and calculate a quarterly weighted-average interest rate.

[(2)] The weighted-average interest rate, inclusive of all brokerage fees, was 5.14 percent and 4.27 percent at June 30, 2023 and December 31, 2022, respectively.

We can issue up to $4.0 billion of unsecured, short-term promissory notes (commercial paper) pursuant to the Board of Directors (the Board) authorized commercial paper programs. These programs facilitate the private placement of unsecured short-term debt through third-party brokers. We intend to use the net proceeds from the commercial paper borrowings for acquisitions and general corporate purposes.

Revolving Credit Facilities

On June 5, 2023, we entered into an amended and restated 364-day credit agreement that allows us to borrow up to $2.0 billion of unsecured funds at any time prior to June 3, 2024. This credit agreement amended and restated the prior $1.5 billion 364-day credit facility that matured on August 16, 2023. In connection with the 364-day credit agreement, effective June 5, 2023, we terminated our $500 million incremental 364-day credit agreement dated August 17, 2022.

We have access to committed credit facilities totaling $4.0 billion, including our $2.0 billion 364-day facility that expires June 3, 2024, and our $2.0 billion five-year facility that expires on August 18, 2026. We intend to maintain credit facilities at the current or higher aggregate amounts by renewing or replacing these facilities at or before expiration. These revolving credit facilities are maintained primarily to provide backup liquidity for our commercial paper borrowings and general corporate purposes. There were no outstanding borrowings under these facilities at June 30, 2023 and December 31, 2022. At June 30, 2023, the $1.6 billion of outstanding commercial paper effectively reduced the $4.0 billion of revolving credit capacity to $2.4 billion.

At June 30, 2023, we also had an additional $221 million available for borrowings under our international and other domestic credit facilities.

On May 26, 2023, Atmus borrowed $50 million of its $400 million revolving credit facility. See "Atmus Credit Agreement" section below for additional details.

Long-term Debt

A summary of long-term debt was as follows:

In millions	Interest Rate	June 30, 2023	December 31, 2022
Long-term debt			
Senior notes, due 2023 [(1)]	3.65%	**$ 500**	$ 500
Hydrogenics promissory notes, due 2024 and 2025 [(2)]	—%	**160**	—
Term loan, due 2025 [(3)]	Variable	**1,400**	1,550
Senior notes, due 2025 [(4)]	0.75%	**500**	500
Atmus revolving credit facility, due 2027 [(5)]	Variable	**50**	—
Atmus term loan, due 2027 [(5)]	Variable	**600**	—
Debentures, due 2027	6.75%	**58**	58
Debentures, due 2028	7.125%	**250**	250
Senior notes, due 2030 [(4)]	1.50%	**850**	850
Senior notes, due 2043	4.875%	**500**	500
Senior notes, due 2050	2.60%	**650**	650
Debentures, due 2098 [(6)]	5.65%	**165**	165
Other debt		**68**	121
Unamortized discount and deferred issuance costs		**(77)**	(64)
Fair value adjustments due to hedge on indebtedness		**(121)**	(122)
Finance leases		**111**	113
Total long-term debt		**5,664**	5,071
Less: Current maturities of long-term debt		**575**	573
Long-term debt		**$ 5,089**	$ 4,498

(1) Senior notes, due 2023, are classified as current maturities of long-term debt.

(2) See NOTE 16, "ACQUISITIONS," to our *Condensed Consolidated Financial Statements* for additional information.

(3) During the first six months of 2023, we paid down $ 150 million of the term loan.

(4) In 2021, we entered into a series of interest rate swaps to effectively convert from a fixed rate to floating rate. See "Interest Rate Risk" in NOTE 13, "DERIVATIVES," to our *Condensed Consolidated Financial Statements* for additional information.

(5) See "Atmus Credit Agreement" section below for additional information.

(6) The effective interest rate is 7.48 percent.

Principal payments required on long-term debt during the next five years are as follows:

In millions	2023	2024	2025	2026	2027
Principal payments	$ 550	$ 98	$ 2,016	$ 9	$ 715

Fair Value of Debt

Based on borrowing rates currently available to us for bank loans with similar terms and average maturities, considering our risk premium, the fair values and carrying values of total debt, including current maturities, were as follows:

In millions	June 30, 2023	December 31, 2022
Fair value of total debt [(1)]	**$ 7,280**	$ 7,400
Carrying value of total debt	**7,700**	7,855

(1) The fair value of debt is derived from Level 2 input measures.

Atmus Credit Agreement

On February 15, 2023, certain of our subsidiaries entered into an amendment to the $1.0 billion credit agreement (Credit Agreement), consisting of a $400 million revolving credit facility and a $600 million term loan facility, in anticipation of the separation of our filtration business, which extended the date on which the Credit Agreement terminates from March 30, 2023 to June 30, 2023. On May 26, 2023, Atmus drew down the entire $600 million term loan facility and borrowed $50 million under the revolving credit facility. Borrowings under the Credit Agreement mature in September 2027 and bear interest at varying rates, depending on the type of loan and, in some cases, the rates of designated benchmarks and the applicable borrower's election. Generally, U.S. dollar-denominated loans bear interest at adjusted term Secured Overnight Financing Rate (SOFR) (which includes a 0.10 percent credit spread adjustment to term SOFR) for the applicable interest period plus a rate ranging from 1.125 percent to 1.75 percent. The Credit Agreement contains customary events of default and financial and other covenants, including maintaining a net leverage ratio of 4.0 to 1.0 and a minimum interest coverage ratio of 3.0 to 1.0. See NOTE 15, "FORMATION OF ATMUS AND IPO," to our *Condensed Consolidated Financial Statements* for additional information.

NOTE 10. PRODUCT WARRANTY LIABILITY

A tabular reconciliation of the product warranty liability, including the deferred revenue related to our extended warranty coverage and accrued product campaigns, was as follows:

In millions	Six months ended June 30, 2023	Six months ended June 30, 2022
Balance, beginning of year	**$ 2,477**	$ 2,425
Provision for base warranties issued	**301**	267
Deferred revenue on extended warranty contracts sold	**166**	145
Provision for product campaigns issued	**12**	65
Payments made during period	**(283)**	(289)
Amortization of deferred revenue on extended warranty contracts	**(152)**	(146)
Changes in estimates for pre-existing product warranties and campaigns	**22**	(47)
Acquisitions	**—**	97
Foreign currency translation adjustments and other	**2**	9
Balance, end of period	**$ 2,545**	$ 2,526

We recognized supplier recoveries of $2 million and $12 million for the three and six months ended June 30, 2023, compared with $10 million and $23 million for the comparable periods in 2022.

Warranty related deferred revenues and warranty liabilities on our *Condensed Consolidated Balance Sheets* were as follows:

In millions	June 30, 2023	December 31, 2022	Balance Sheet Location
Deferred revenue related to extended coverage programs			
Current portion	**$ 285**	$ 290	Current portion of deferred revenue
Long-term portion	**731**	717	Deferred revenue
Total	**$ 1,016**	$ 1,007	
Product warranty			
Current portion	**$ 751**	$ 726	Current portion of accrued product warranty
Long-term portion	**778**	744	Other liabilities
Total	**$ 1,529**	$ 1,470	
Total warranty accrual	**$ 2,545**	$ 2,477	

NOTE 11. COMMITMENTS AND CONTINGENCIES

Legal Proceedings

We are subject to numerous lawsuits and claims arising out of the ordinary course of our business, including actions related to product liability; personal injury; the use and performance of our products; warranty matters; product recalls; patent, trademark or other intellectual property infringement; contractual liability; the conduct of our business; tax reporting in foreign jurisdictions; distributor termination; workplace safety; environmental matters; and asbestos claims. We also have been identified as a potentially responsible party at multiple waste disposal sites under U.S. federal and related state environmental statutes and regulations and may have joint and several liability for any investigation and remediation costs incurred with respect to such sites. We have denied liability with respect to many of these lawsuits, claims and proceedings and are vigorously defending such lawsuits, claims and proceedings. We carry various forms of commercial, property and casualty, product liability and other forms of insurance; however, such insurance may not be applicable or adequate to cover the costs associated with a judgment against us with respect to these lawsuits, claims and proceedings. We do not believe that these lawsuits are material individually or in the aggregate. While we believe we have also established adequate accruals for our expected future liability with respect to pending lawsuits, claims and proceedings, where the nature and extent of any such liability can be reasonably estimated based upon then presently available information, there can be no assurance that the final resolution of any existing or future lawsuits, claims or proceedings will not have a material adverse effect on our business, results of operations, financial condition or cash flows.

We conduct significant business operations in Brazil that are subject to the Brazilian federal, state and local labor, social security, tax and customs laws. While we believe we comply with such laws, they are complex, subject to varying interpretations and we are often engaged in litigation regarding the application of these laws to particular circumstances.

On June 28, 2022, KAMAZ Publicly Traded Company (KAMAZ) was designated to the List of Specially Designated Nationals and Blocked Persons by the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC). We filed blocked property reports for relevant assets and are seeking relevant authorizations to extricate ourselves from our relationship with KAMAZ and its subsidiaries, including our unconsolidated joint venture with KAMAZ, in compliance with U.S. and other applicable laws. We received OFAC authorization on May 26, 2023. We are now waiting on approval from the Office of Financial Sanctions Implementation in the U.K., at which time we are able to execute the termination agreements with KAMAZ necessary to transfer our shares to KAMAZ and exit our unconsolidated joint venture with KAMAZ.

On April 29, 2019, we announced that we were conducting a formal internal review of our emissions certification process and compliance with emission standards for our pick-up truck applications, following conversations with the Environmental Protection Agency (EPA) and California Air Resources Board (CARB) regarding certification of our engines in model year 2019 RAM 2500 and 3500 trucks. This review is being conducted with external advisors as we strive to ensure the certification and compliance processes for all of our pick-up truck applications are consistent with our internal policies, engineering standards and applicable laws. During conversations with the EPA and CARB about the effectiveness of our pick-up truck applications, the regulators raised concerns that certain aspects of our emissions systems may reduce the effectiveness of our emissions control systems and thereby act as defeat devices. As a result, our internal review focuses, in part, on the regulators' concerns. We are working closely with the regulators to enhance our emissions systems to improve the effectiveness of all of our pick-up truck applications and to fully address the regulators' requirements. Based on discussions with the regulators, we have developed a new calibration for the engines in model year 2019 RAM 2500 and 3500 trucks that has been included in all engines shipped since September 2019. During our ongoing discussions, the regulators turned their attention to other model years and other engines, most notably our pick-up truck applications for RAM 2500 and 3500 trucks for model years 2013 through 2018 and Titan trucks for model years 2016 through 2019. Most recently, the regulators have also raised concerns regarding the completeness of our disclosures in our certification applications for RAM 2500 and 3500 trucks for model years 2013 through 2023. We have also been in communication with Environmental and Climate Change Canada regarding similar issues relating to some of these very same platforms. In connection with these and other ongoing discussions with the EPA and CARB, we are developing a new software calibration and will recall model years 2013 through 2018 RAM 2500 and 3500 trucks. We accrued $30 million for the RAM recall during the first quarter of 2022, an amount that reflected our current estimate of the cost of that recall. We are also developing a new software calibration and hardware fix and will recall model years 2016 through 2019 Titan trucks. We accrued $29 million for the Titan recall during the third quarter of 2022, an amount that reflected our current estimate of the cost of that recall.

We will continue to work together closely with the relevant regulators to develop and implement recommendations for improvements and seek to reach further resolutions as part of our ongoing commitment to compliance. Based upon our discussions to date with the regulators which are continuing, such resolutions may involve our agreeing to one or more consent decrees and paying civil penalties. Due to the presence of many unknown facts and circumstances, we are not yet able to estimate any further financial impact of these matters. The consequences resulting from our formal review and these regulatory processes likely will have a material adverse impact on our results of operations and cash flows, however we cannot yet reasonably estimate a loss or range of loss.

Guarantees and Commitments

Periodically, we enter into guarantee arrangements, including guarantees of non-U.S. distributor financings, residual value guarantees on equipment under operating leases and other miscellaneous guarantees of joint ventures or third-party obligations. At June 30, 2023, the maximum potential loss related to these guarantees was $46 million.

We have arrangements with certain suppliers that require us to purchase minimum volumes or be subject to monetary penalties. At June 30, 2023, if we were to stop purchasing from each of these suppliers, the aggregate amount of the penalty would be approximately $160 million. These arrangements enable us to secure supplies of critical components and IT services. We do not currently anticipate paying any penalties under these contracts.

We enter into physical forward contracts with suppliers of platinum and palladium to purchase certain volumes of the commodities at contractually stated prices for various periods, which generally fall within two years. At June 30, 2023, the total commitments under these contracts were $60 million. These arrangements enable us to guarantee the prices of these commodities, which otherwise are subject to market volatility.

We have guarantees with certain customers that require us to satisfactorily honor contractual or regulatory obligations, or compensate for monetary losses related to nonperformance. These performance bonds and other performance-related guarantees were $145 million at June 30, 2023.

Indemnifications

Periodically, we enter into various contractual arrangements where we agree to indemnify a third-party against certain types of losses. Common types of indemnities include:

- product liability and license, patent or trademark indemnifications;
- asset sale agreements where we agree to indemnify the purchaser against future environmental exposures related to the asset sold; and
- any contractual agreement where we agree to indemnify the counterparty for losses suffered as a result of a misrepresentation in the contract.

We regularly evaluate the probability of having to incur costs associated with these indemnities and accrue for expected losses that are probable. Because the indemnifications are not related to specified known liabilities and due to their uncertain nature, we are unable to estimate the maximum amount of the potential loss associated with these indemnifications.

NOTE 12. ACCUMULATED OTHER COMPREHENSIVE LOSS

Following are the changes in accumulated other comprehensive income (loss) by component for the three months ended:

In millions	Change in pension and OPEB plans	Foreign currency translation adjustment	Unrealized gain (loss) on derivatives	Total attributable to Cummins Inc.	Noncontrolling interests	Total
Balance at March 31, 2023	**$ (436)**	**$ (1,473)**	**$ 86**	**$ (1,823)**		
Other comprehensive income (loss) before reclassifications						
Before-tax amount	**—**	**(111)**	**18**	**(93)**	**$ (2)**	**$ (95)**
Tax benefit (expense)	**—**	**3**	**(2)**	**1**	**—**	**1**
After-tax amount	**—**	**(108)**	**16**	**(92)**	**(2)**	**(94)**
Amounts reclassified from accumulated other comprehensive income (loss) [(1)]	**2**	**—**	**(4)**	**(2)**	**—**	**(2)**
Net current period other comprehensive income (loss)	**2**	**(108)**	**12**	**(94)**	**$ (2)**	**$ (96)**
Balance at June 30, 2023	**$ (434)**	**$ (1,581)**	**$ 98**	**$ (1,917)**		
Balance at March 31, 2022	$ (330)	$ (1,196)	$ 11	$ (1,515)		
Other comprehensive income (loss) before reclassifications						
Before-tax amount	—	(235)	59	(176)	$ (15)	$ (191)
Tax benefit (expense)	1	5	(15)	(9)	—	(9)
After-tax amount	1	(230)	44	(185)	(15)	(200)
Amounts reclassified from accumulated other comprehensive income (loss) [(1)]	5	—	(1)	4	—	4
Net current period other comprehensive income (loss)	6	(230)	43 [(2)]	(181)	$ (15)	$ (196)
Balance at June 30, 2022	$ (324)	$ (1,426)	$ 54	$ (1,696)		

[(1)] Amounts are net of tax. Reclassifications out of accumulated other comprehensive income (loss) and the related tax effects are immaterial for separate disclosure.

[(2)] Primarily related to interest rate lock activity. See the Interest Rate Risk section in NOTE 13, "DERIVATIVES," for additional information.

Following are the changes in accumulated other comprehensive income (loss) by component for the six months ended:

In millions	Change in pension and OPEB plans	Foreign currency translation adjustment	Unrealized gain (loss) on derivatives	Total attributable to Cummins Inc.	Noncontrolling interests	Total
Balance at December 31, 2022	**$ (427)**	**$ (1,552)**	**$ 89**	**$ (1,890)**		
Other comprehensive income (loss) before reclassifications						
Before-tax amount	**(13)**	**(36)**	**15**	**(34)**	**$ 1**	**$ (33)**
Tax benefit (expense)	**2**	**7**	**(1)**	**8**	**—**	**8**
After-tax amount	**(11)**	**(29)**	**14**	**(26)**	**1**	**(25)**
Amounts reclassified from accumulated other comprehensive income (loss) [(1)]	**4**	**—**	**(5)**	**(1)**	**—**	**(1)**
Net current period other comprehensive (loss) income	**(7)**	**(29)**	**9**	**(27)**	**$ 1**	**$ (26)**
Balance at June 30, 2023	**$ (434)**	**$ (1,581)**	**$ 98**	**$ (1,917)**		
Balance at December 31, 2021	$ (346)	$ (1,208)	$ (17)	$ (1,571)		
Other comprehensive income (loss) before reclassifications						
Before-tax amount	14	(224)	95	(115)	$ (23)	$ (138)
Tax (expense) benefit	(3)	6	(22)	(19)	—	(19)
After-tax amount	11	(218)	73	(134)	(23)	(157)
Amounts reclassified from accumulated other comprehensive income (loss) [(1)]	11	—	(2)	9	—	9
Net current period other comprehensive income (loss)	22	(218)	71 [(2)]	(125)	$ (23)	$ (148)
Balance at June 30, 2022	$ (324)	$ (1,426)	$ 54	$ (1,696)		

(1) Amounts are net of tax. Reclassifications out of accumulated other comprehensive income (loss) and the related tax effects are immaterial for separate disclosure.

(2) Primarily related to interest rate lock activity. See the Interest Rate Risk section in NOTE 13, "DERIVATIVES," for additional information.

NOTE 13. DERIVATIVES

We are exposed to financial risk resulting from volatility in foreign exchange rates, interest rates and commodity prices. This risk is closely monitored and managed through the use of physical forward contracts (which are not considered derivatives), and financial derivative instruments including foreign currency forward contracts, commodity swap contracts and interest rate swaps and locks. Financial derivatives are used expressly for hedging purposes and under no circumstances are they used for speculative purposes. When material, we adjust the estimated fair value of our derivative contracts for counterparty or our credit risk. None of our derivative instruments are subject to collateral requirements. Substantially all of our derivative contracts are subject to master netting arrangements, which provide us with the option to settle certain contracts on a net basis when they settle on the same day with the same currency. In addition, these arrangements provide for a net settlement of all contracts with a given counterparty in the event that the arrangement is terminated due to the occurrence of default or a termination event.

Foreign Currency Exchange Rate Risk

We had foreign currency forward contracts with notional amounts of $4.4 billion and $3.6 billion at June 30, 2023 and December 31, 2022, respectively. The following currencies comprise 86 percent and 88 percent of outstanding foreign currency forward contracts at June 30, 2023 and December 31, 2022, respectively: British pound, Chinese renminbi, Canadian dollar, Australian dollar and Euro.

We are further exposed to foreign currency exchange risk as many of our subsidiaries are subject to fluctuations as the functional currencies of the underlying entities are not our U.S. dollar reporting currency. To help minimize movements for certain investments, in the third quarter of 2022 we began entering into foreign exchange forwards designated as net investment hedges for certain of our investments. Under the current terms of our foreign exchange forwards, we agreed with third parties to sell British pound in exchange for U.S. dollar currency at a specified rate at the maturity of the contract. The notional amount of these hedges at June 30, 2023, was $741 million.

The following table summarizes the net investment hedge activity in accumulated other comprehensive loss (AOCL):

In millions	Three months ended June 30, 2023		Six months ended June 30, 2023	
Type of Derivative	**Gain (Loss) Recognized in AOCL**	**Gain (Loss) Reclassified from AOCL into Earnings**	**Gain (Loss) Recognized in AOCL**	**Gain (Loss) Reclassified from AOCL into Earnings**
Foreign exchange forwards	**$ (13)**	**$ —**	**$ (28)**	**$ —**

Interest Rate Risk

In 2021, we entered into a series of interest rate swaps to effectively convert our $500 million senior notes, due in 2025, from a fixed rate of 0.75 percent to a floating rate equal to the three-month LIBOR plus a spread. We also entered into a series of interest rate swaps to effectively convert $765 million of our $850 million senior notes, due in 2030, from a fixed rate of 1.50 percent to a floating rate equal to the three-month LIBOR plus a spread. We designated the swaps as fair value hedges. The gain or loss on these derivative instruments, as well as the offsetting gain or loss on the hedged item attributable to the hedged risk, are recognized in current income as interest expense. The net swap settlements that accrue each period are also reported in the *Condensed Consolidated Financial Statements* as interest expense. In March 2023, we settled a portion of our 2021 interest rate swaps with a notional amount of $100 million. The $7 million loss on settlement will be amortized over the remaining term of the related debt.

The following table summarizes the gains and losses:

In millions	Three months ended June 30, 2023		Three months ended June 30, 2022		Six months ended June 30, 2023		Six months ended June 30, 2022	
Type of Swap	**Gain (Loss) on Swaps**	**Gain (Loss) on Borrowings**	**Gain (Loss) on Swaps**	**Gain (Loss) on Borrowings**	**Gain (Loss) on Swaps**	**Gain (Loss) on Borrowings**	**Gain (Loss) on Swaps**	**Gain (Loss) on Borrowings**
Interest rate swaps [(1)]	**$ (20)**	**$ 16**	$ (39)	$ 34	**$ 7**	**$ (6)**	$ (111)	$ 114

[(1)] The difference between the gain (loss) on swaps and borrowings represents hedge ineffectiveness.

In 2019, we entered into $350 million of interest rate lock agreements, and in 2020 we entered into an additional $150 million of lock agreements to reduce the variability of the cash flows of the interest payments on a total of $500 million of fixed rate debt forecast to be issued in 2023 to replace our senior notes at maturity. The terms of the rate locks mirror the time period of the expected fixed rate debt issuance and the expected timing of interest payments on that debt. The gains and losses on these derivative instruments are initially recorded in other comprehensive income and will be released to earnings in interest expense in future periods to reflect the difference in (1) the fixed rates economically locked in at the inception of the hedge and (2) the actual fixed rates established in the debt instrument at issuance. In December 2022, we settled certain rate lock agreements with notional amounts totaling $150 million for $49 million. In February 2023, we settled certain rate lock agreements with notional amounts totaling $100 million for $34 million. The $83 million of gains on settlements will remain in other comprehensive income and will be amortized over the term of the anticipated new debt as discussed above.

The following table summarizes the interest rate lock activity in AOCL:

In millions	Three months ended June 30,				Six months ended June 30,			
	2023		2022		2023		2022	
Type of Swap	Gain (Loss) Recognized in AOCL	Gain (Loss) Reclassified from AOCL into Interest Expense	Gain (Loss) Recognized in AOCL	Gain (Loss) Reclassified from AOCL into Interest Expense	Gain (Loss) Recognized in AOCL	Gain (Loss) Reclassified from AOCL into Interest Expense	Gain (Loss) Recognized in AOCL	Gain (Loss) Reclassified from AOCL into Interest Expense
Interest rate locks	**$ 10**	**$ —**	$ 43	$ —	**$ 1**	**$ —**	$ 82	$ —

Cash Flow Hedging

The following table summarizes the effect on our *Condensed Consolidated Statements of Net Income* for derivative instruments classified as cash flow hedges. The table does not include amounts related to ineffectiveness as it was not material for the periods presented.

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
Gain (loss) reclassified from AOCL into income - Net sales[1]	**$ 4**	$ (1)	**$ 5**	$ 2
Gain (loss) reclassified from AOCL into income - Cost of sales[1][2]	**1**	1	**1**	(1)

[1] Includes foreign currency forward contracts.

[2] Includes commodity swap contracts.

Derivatives Not Designated as Hedging Instruments

The following table summarizes the effect on our *Condensed Consolidated Statements of Net Income* for derivative instruments not designated as hedging instruments:

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
(Loss) gain recognized in income - Cost of sales[1]	**$ (1)**	$ 3	**$ (3)**	$ 2
Loss recognized in income - Other income (expense), net[1]	**(44)**	(31)	**(17)**	(23)

[1] Includes foreign currency forward contracts.

Fair Value Amount and Location of Derivative Instruments

The following table summarizes the location and fair value of derivative instruments on our *Condensed Consolidated Balance Sheets*:

	Derivatives Designated as Hedging Instruments		Derivatives Not Designated as Hedging Instruments	
In millions	June 30, 2023	December 31, 2022	June 30, 2023	December 31, 2022
Notional amount	**$ 2,908**	$ 3,051	**$ 3,691**	$ 2,900
Derivative assets				
Prepaid expenses and other current assets	**$ 17**	$ 18	**$ 20**	$ 27
Other assets	**47**	80	**—**	—
Total derivative assets [1]	**$ 64**	$ 98	**$ 20**	$ 27
Derivative liabilities				
Other accrued expenses	**$ 21**	$ 19	**$ 17**	$ 3
Other liabilities	**138**	151	**—**	—
Total derivative liabilities [1]	**$ 159**	$ 170	**$ 17**	$ 3

[1] Estimates of the fair value of all derivative assets and liabilities above are derived from Level 2 inputs, which are estimated using actively quoted prices for similar instruments from brokers and observable inputs where available, including market transactions and third-party pricing services, or net asset values provided to investors. We do not currently have any Level 3 input measures and there were no transfers into or out of Level 2 or 3 during the six months ended June 30, 2023, or the year ended December 31, 2022.

We elected to present our derivative contracts on a gross basis in our *Condensed Consolidated Balance Sheets*. Had we chosen to present on a net basis, we would have derivatives in a net asset position of $44 million and $52 million and derivatives in a net liability position of $136 million and $100 million at June 30, 2023 and December 31, 2022, respectively.

NOTE 14. RUSSIAN OPERATIONS

On March 17, 2022, the Board indefinitely suspended our operations in Russia due to the ongoing conflict in Ukraine. At the time of suspension, our Russian operations included a wholly-owned distributor in Russia, an unconsolidated joint venture with KAMAZ (a Russian truck manufacturer) and direct sales into Russia from our other business segments. As a result of the indefinite suspension of operations, we evaluated the recoverability of assets in Russia and assessed other potential liabilities. We experienced an inability to collect customer receivables and may be the subject of litigation as a consequence of our indefinite suspension of commercial operations in Russia. The following summarizes the (recoveries) costs associated with the suspension of our Russian operations in our *Condensed Consolidated Statements of Net Income:*

	Three months ended	Six months ended	
In millions	June 30, 2022	June 30, 2022	Statement of Net Income Location
Inventory write-downs	$ (40)	$ 19	Cost of sales
Accounts receivable reserves	—	43	Other operating expense, net
Impairment and other joint venture costs	—	31	Equity, royalty and interest income from investees
Other	(7)	18	Other operating expense, net
Total	$ (47)	$ 111	

For the three and six months ended June 30, 2023, there were no material additional costs. We will continue to evaluate the situation as conditions evolve and may take additional actions as deemed necessary in future periods.

NOTE 15. FORMATION OF ATMUS AND IPO

On May 23, 2023, in connection with the Atmus IPO, Cummins issued approximately $350 million of commercial paper with certain lenders. On May 26, 2023, Atmus shares began trading on the New York Stock Exchange under the symbol "ATMU." The IPO was completed on May 30, 2023, whereby Cummins exchanged 19.5 percent (approximately 16 million shares) of its ownership in Atmus, at $19.50 per share, to retire $299 million of the commercial paper as proceeds from the offering through a non-cash transaction.

In connection with the completion of the IPO, through a series of asset and equity contributions, we transferred the filtration business to Atmus. In exchange, Atmus transferred consideration of approximately $650 million to Cummins, which consisted primarily of the net proceeds from a term loan facility and revolver executed by Atmus during May 2023. The commercial paper issued and retired through the IPO proceeds, coupled with the $650 million received, is intended to be used for the retirement of our historical debt, dividends and share repurchases. The difference between the commercial paper retired from the IPO, other IPO related fees and the net book value of our divested interest was $285 million and was recorded as an offset to additional paid-in capital. Of our consolidated cash and cash equivalents at June 30, 2023, $134 million is retained by Atmus for its working capital purposes. See NOTE 9*, "*DEBT*,"* to our *Condensed Consolidated Financial Statements* for additional information.

We will continue to consolidate the financial position and results of Atmus, so long as we retain control. The earnings attributable to the divested, noncontrolling interest for the period from IPO until June 30, 2023, were not material for the three months ended June 30, 2023. At June 30, 2023, the noncontrolling interest associated with Atmus is reflected in noncontrolling interests in our *Condensed Consolidated Balance Sheets.*

Subject to market conditions, we intend to make a tax-free split-off of Atmus, pursuant to which Cummins will offer its stockholders the option to exchange their shares of Cummins common stock for shares of Atmus common stock in an exchange offer.

NOTE 16. ACQUISITIONS

Acquisitions for the six months ended June 30, 2023 and 2022, were as follows:

Entity Acquired (Dollars in millions)	Date of Acquisition	Additional Percent Interest Acquired	Payments to Former Owners	Acquisition Related Debt Retirements	Total Purchase Consideration(1)	Type of Acquisition(2)	Goodwill Acquired	Intangibles Recognized(3)
2023								
Hydrogenics Corporation (Hydrogenics)	**06/29/23**	**19%**	**$ 287**	**$ 48**	**$ 335**	**EQUITY**	**$ —**	**$ —**
Teksid Hierro de Mexico, S.A. de C.V. (Teksid MX)	**04/03/23**	**100%**	**150**	**—**	**150**	**COMB**	**25**	**—**
2022 (4)								
Jacobs Vehicle Systems (Jacobs)	04/08/22	100%	$ 345	$ —	$ 345	COMB	$ 108	$ 164
Cummins Westport, Inc. (Westport JV)	02/07/22	50%	42	—	42	COMB	—	20

(1) The "Total Purchase Consideration" represents the total amount that will or is estimated to be paid to complete the acquisition. Hydrogenics entered into three non-interest-bearing promissory notes with $175 million paid on July 31, 2023, and the remaining $ 160 million due in three installments through 2025.

(2) All results from acquired entities were included in segment results subsequent to the acquisition date. Previously consolidated entities were accounted for as equity transactions (EQUITY). Newly consolidated entities were accounted for as business combinations (COMB).

(3) Intangible assets acquired in the business combination were mostly customer, technology and trade name related.

(4) See Note 2, "ACQUISITIONS," of the *Notes to the Consolidated Financial Statements* of our 2022 Form 10-K for additional information on prior year acquisitions.

Hydrogenics Corporation - Redeemable Noncontrolling Interest

On June 29, 2023, a share purchase agreement was executed with a19 percent minority shareholder in one of our businesses, Hydrogenics Corporation (Hydrogenics), whereby we agreed to pay the minority shareholder $335 million for their 19 percent ownership, including the settlement of shareholder loans of $48 million. As part of the share purchase agreement, Hydrogenics entered into three non-interest-bearing promissory notes with $175 million paid on July 31, 2023, and the remaining $160 million due in three installments through 2025. We recorded the non-interest-bearing promissory notes at their present value in our *Condensed Consolidated Financial Statements.* The short-term amount was $175 million and recorded in loans payable at June 30, 2023. The long-term amount, net of unamortized debt discount, was $145 million and reflected in long-term debt at June 30, 2023.

Prior to the execution of this transaction, the minority shareholder had, among other rights and subject to related obligations and restrictive covenants, rights that were exercisable between September 2022 and September 2026 to require us to (1) purchase such shareholder's shares (put option) at an amount up to the fair market value (calculated pursuant to a process outlined in the shareholders' agreement) and (2) sell to such shareholder Hydrogenics' electrolyzer business at an amount up to the fair market value of the electrolyzer business (calculated pursuant to a process outlined in the shareholders' agreement). The estimated fair value of the put option was recorded as redeemable noncontrolling interests in our *Condensed Consolidated Financial Statements* with an offset to additional paid-in capital, and at December 31, 2022, the balance was $258 million. The redeemable noncontrolling interest balance was reduced to zero as of the acquisition date.

Teksid Hierro de Mexico, S.A. de C.V.

On April 3, 2023, we purchased all of the equity ownership interest of Teksid Hierro de Mexico, S.A. de C.V. (Teksid MX) and Teksid, Inc. from Stellantis N.V. for approximately $150 million, subject to certain adjustments set forth in the agreement. Teksid MX operates a cast iron foundry located in Monclova, Mexico, which primarily forges blocks and heads used in our and other manufacturers' engines. Teksid, Inc. facilitates the commercialization of Teksid MX products in North America. Since we are the primary customer of the foundry, the acquisition is not expected to result in material incremental sales to our business. Approximately $90 million of the purchase price was allocated to property, plant and equipment. The remainder was allocated primarily to working capital assets and liabilities (including approximately $16 million of cash and cash equivalents) and resulted in approximately $25 million of goodwill, none of which is deductible for tax purposes. The values assigned to individual assets acquired and liabilities assumed are preliminary based on management's current best estimate and subject to change as certain matters are finalized. The primary areas that remain open are related to deferred taxes and other tax contingencies. The results of the business were reported in our Engine segment. Pro forma financial information for the acquisition was not presented as the effects are not material to our *Condensed Consolidated Financial Statements.*

Meritor, Inc.

During the second quarter of 2023, we finalized our accounting for the Meritor, Inc. acquisition. The primary components of the change were to increase contingent liabilities by $62 million offset by finalization of deferred taxes and tax reserves, with a net increase to goodwill of $26 million. There was no impact to the *Condensed Consolidated Statements of Net Income* for any of the changes.

Pending Acquisition

In May 2023, we agreed to purchase from the Forvia Group, Faurecia's U.S. and Europe commercial vehicle exhaust business for approximately €142 million, subject to final working capital and other adjustments. The transaction is expected to close in the fourth quarter. This acquisition will be included in our Components segment with the emission solutions business unit. Since we are the primary customer of this business, the acquisition is not expected to result in material incremental sales to our business.

NOTE 17. OPERATING SEGMENTS

Operating segments under GAAP are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the Chief Operating Decision Maker (CODM), or decision-making group, in deciding how to allocate resources and in assessing performance. Our CODM is the Chief Executive Officer.

Our reportable operating segments consist of Components, Engine, Distribution, Power Systems and Accelera. This reporting structure is organized according to the products and markets each segment serves. The Components segment sells filtration products, aftertreatment systems, turbochargers, electronics, fuel systems, automated transmissions, axles, drivelines, brakes and suspension systems. The Engine segment produces engines (15 liters and smaller) and associated parts for sale to customers in on-highway and various off-highway markets. Our engines are used in trucks of all sizes, buses and recreational vehicles, as well as in various industrial applications, including construction, agriculture, power generation systems and other off-highway applications. The Distribution segment includes wholly-owned and partially-owned distributorships engaged in wholesaling engines, generator sets and service parts, as well as performing service and repair activities on our products and maintaining relationships with various OEMs throughout the world. The Power Systems segment is an integrated power provider, which designs, manufactures and sells engines (16 liters and larger) for industrial applications (including mining, oil and gas, marine and rail), standby and prime power generator sets, alternators and other power components. The Accelera segment designs, manufactures, sells and supports hydrogen production solutions as well as electrified power systems with innovative components and subsystems, including battery, fuel cell and electric powertrain technologies. The Accelera segment is currently in the early stages of commercializing these technologies with efforts primarily focused on the development of our electrolyzers for hydrogen production and electrified power systems and related components and subsystems. We continue to serve all our markets as they adopt electrification and alternative power technologies, meeting the needs of our OEM partners and end customers.

We use segment earnings or losses before interest expense, income taxes, depreciation and amortization and noncontrolling interests (EBITDA) as the basis for the CODM to evaluate the performance of each of our reportable operating segments. We believe EBITDA is a useful measure of our operating performance as it assists investors and debt holders in comparing our performance on a consistent basis without regard to financing methods, capital structure, income taxes or depreciation and amortization methods, which can vary significantly depending upon many factors. Segment amounts exclude certain expenses not specifically identifiable to segments.

The accounting policies of our operating segments are the same as those applied in our *Condensed Consolidated Financial Statements.* We prepared the financial results of our operating segments on a basis that is consistent with the manner in which we internally disaggregate financial information to assist in making internal operating decisions. We allocate certain common costs and expenses, primarily corporate functions, among segments differently than we would for stand-alone financial information prepared in accordance with GAAP. These include certain costs and expenses of shared services, such as information technology, human resources, legal, finance and supply chain management. We do not allocate gains or losses of corporate owned life insurance and certain Atmus separation costs to individual segments. EBITDA may not be consistent with measures used by other companies.

As previously announced, in March 2023, we rebranded our New Power segment as "Accelera" to better represent our commitment to zero-emission technologies. In addition, we moved our NPROXX joint venture from the Accelera segment to the Engine segment, which adjusted both the equity, royalty and interest income from investees and segment EBITDA line items for the current and prior year. We started to report results for the changes within our operating segments effective January 1, 2023, and reflected these changes in the historical periods presented.

Table of Contents

Summarized financial information regarding our reportable operating segments for the three and six months ended June 30, 2023 and 2022 is shown in the table below:

In millions	Components	Engine	Distribution	Power Systems	Accelera	Total Segments
Three months ended June 30, 2023						
External sales	**$ 2,924**	**$ 2,263**	**$ 2,576**	**$ 794**	**$ 81**	**$ 8,638**
Intersegment sales	**501**	**725**	**19**	**663**	**4**	**1,912**
Total sales	**3,425**	**2,988**	**2,595**	**1,457**	**85**	**10,550**
Research, development and engineering expenses	**103**	**148**	**15**	**66**	**52**	**384**
Equity, royalty and interest income (loss) from investees	**24**	**71**	**24**	**18**	**(4)**	**133**
Interest income	**7**	**7**	**8**	**2**	**1**	**25**
Segment EBITDA	**486** (1)	**425**	**299**	**201**	**(114)**	**1,297**
Depreciation and amortization (2)	**125**	**56**	**28**	**32**	**15**	**256**
Three months ended June 30, 2022						
External sales	$ 1,477	$ 2,092	$ 2,247	$ 734	$ 36	$ 6,586
Intersegment sales	473	683	6	469	6	1,637
Total sales	1,950	2,775	2,253	1,203	42	8,223
Research, development and engineering expenses	73	116	13	58	39	299
Equity, royalty and interest income (loss) from investees	9	58	21	10	(3)	95
Interest income	2	1	3	1	—	7
Russian suspension (recoveries) costs (3)	(2)	1	(45)	(1)	—	(47)
Segment EBITDA	352	421	297	128	(79)	1,119
Depreciation and amortization (2)	49	49	29	31	8	166
Six months ended June 30, 2023						
External sales	**$ 5,967**	**$ 4,515**	**$ 4,975**	**$ 1,473**	**$ 161**	**$ 17,091**
Intersegment sales	**1,015**	**1,459**	**26**	**1,327**	**9**	**3,836**
Total sales	**6,982**	**5,974**	**5,001**	**2,800**	**170**	**20,927**
Research, development and engineering expenses	**194**	**282**	**29**	**129**	**100**	**734**
Equity, royalty and interest income (loss) from investees	**45**	**136**	**48**	**31**	**(8)**	**252**
Interest income	**13**	**10**	**15**	**4**	**1**	**43**
Segment EBITDA	**993** (1)	**882**	**634**	**420**	**(208)**	**2,721**
Depreciation and amortization (2)	**248**	**107**	**56**	**61**	**29**	**501**
Six months ended June 30, 2022						
External sales	$ 2,994	$ 4,141	$ 4,358	$ 1,417	$ 61	$ 12,971
Intersegment sales	944	1,387	12	946	12	3,301
Total sales	3,938	5,528	4,370	2,363	73	16,272
Research, development and engineering expenses	149	225	26	122	75	597
Equity, royalty and interest income (loss) from investees	37	100 (4)	37	21	(4)	191
Interest income	3	5	5	2	—	15
Russian suspension costs (3)	4	33 (5)	55	19	—	111
Segment EBITDA	672	811	407	218	(144)	1,964
Depreciation and amortization (2)	92	100	57	62	15	326

(1) Includes $18 million and $30 million of costs associated with the IPO and separation of Atmus for the three and six months ended June 30, 2023, respectively. See NOTE 15, "FORMATION OF ATMUS AND IPO," to our *Condensed Consolidated Financial Statements* for additional information.

(2) Depreciation and amortization, as shown on a segment basis, excludes the amortization of debt discount and deferred costs included in the *Condensed Consolidated Statements of Net Income* as interest expense. The amortization of debt discount and deferred costs was $2 million and $2 million for the six months ended June 30, 2023 and June 30, 2022, respectively. A portion of depreciation expense is included in research, development and engineering expenses.

(3) See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

(4) Includes a $28 million impairment of our joint venture with KAMAZ and $ 3 million of royalty charges as part of our costs associated with the indefinite suspension of our Russian operations. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

(5) Includes $31 million of Russian suspension costs reflected in the equity, royalty and interest income (loss) from investees line above.

A reconciliation of our segment information to the corresponding amounts in the *Condensed Consolidated Statements of Net Income* is shown in the table below:

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
TOTAL SEGMENT EBITDA	**$ 1,297**	$ 1,119	**$ 2,721**	$ 1,964
Intersegment eliminations and other [(1)]	**7**	(64)	**(56)**	(154)
Less:				
Interest expense	**99**	34	**186**	51
Depreciation and amortization	**256**	166	**501**	326
INCOME BEFORE INCOME TAXES	**$ 949**	$ 855	**1,978**	1,433

[(1)] Intersegment eliminations and other included $ 5 million and $11 million of costs associated with the IPO and separation of Atmus for the three and six month periods ended June 30, 2023, respectively and $24 million and $41 million for the comparable periods in 2022, respectively. See NOTE 15, "FORMATION OF ATMUS AND IPO," to our *Condensed Consolidated Financial Statements* for additional information.

NOTE 18. RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS

In September 2022, the Financial Accounting Standards Board issued a standard related to the disclosure of additional information about the use of supplier finance programs. Under the new standard, entities are required to disclose (1) key terms of the programs, (2) the amount outstanding that remains unpaid as of the end of the period, including where amounts are recorded in the balance sheets and (3) an annual rollforward of those obligations, including the amount of obligations confirmed and the amount of obligations subsequently paid. We adopted the new standard on January 1, 2023, on a retrospective basis other than the rollforward, which we currently plan to early adopt on a prospective basis beginning with our 2023 annual financial statements. The adoption did not have a material impact on our financial statements. See "Supply Chain Financing" section in NOTE 1, "NATURE OF OPERATIONS AND BASIS OF PRESENTATION," for additional information.

ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Cummins Inc. and its consolidated subsidiaries are hereinafter sometimes referred to as "Cummins," "we," "our" or "us."

CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING INFORMATION

Certain parts of this quarterly report contain forward-looking statements intended to qualify for the safe harbors from liability established by the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those that are based on current expectations, estimates and projections about the industries in which we operate and management's beliefs and assumptions. Forward-looking statements are generally accompanied by words such as "anticipates," "expects," "forecasts," "intends," "plans," "believes," "seeks," "estimates," "could," "should," "may" or words of similar meaning. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions, which we refer to as "future factors," which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in such forward-looking statements. Some future factors that could cause our results to differ materially from the results discussed in such forward-looking statements are discussed below and shareholders, potential investors and other readers are urged to consider these future factors carefully in evaluating forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof. Future factors that could affect the outcome of forward-looking statements include the following:

GOVERNMENT REGULATION

- any adverse results of our internal review into our emissions certification process and compliance with emission standards;
- increased scrutiny from regulatory agencies, as well as unpredictability in the adoption, implementation and enforcement of emission standards around the world;
- changes in international, national and regional trade laws, regulations and policies;
- changes in taxation;
- global legal and ethical compliance costs and risks;
- evolving environmental and climate change legislation and regulatory initiatives;
- future bans or limitations on the use of diesel-powered products;

BUSINESS CONDITIONS / DISRUPTIONS

- failure to successfully integrate and / or failure to fully realize all of the anticipated benefits of the acquisition of Meritor, Inc. (Meritor);
- raw material, transportation and labor price fluctuations and supply shortages;
- any adverse effects of the conflict between Russia and Ukraine and the global response (including government bans or restrictions on doing business in Russia);
- aligning our capacity and production with our demand;
- the actions of, and income from, joint ventures and other investees that we do not directly control;
- large truck manufacturers' and original equipment manufacturers' customers discontinuing outsourcing their engine supply needs or experiencing financial distress, or change in control;

PRODUCTS AND TECHNOLOGY

- product recalls;
- variability in material and commodity costs;
- the development of new technologies that reduce demand for our current products and services;
- lower than expected acceptance of new or existing products or services;
- product liability claims;
- our sales mix of products;

GENERAL

- uncertainties and risks related to timing and potential value to both Atmus Filtration Technologies Inc. (Atmus) and Cummins of the planned separation of Atmus, including business, industry and market risks, as well as the risks involving the anticipated favorable tax treatment if there is a significant delay in the completion of the envisioned separation;
- our plan to reposition our portfolio of product offerings through exploration of strategic acquisitions and divestitures and related uncertainties of entering such transactions;
- increasing interest rates;
- challenging markets for talent and ability to attract, develop and retain key personnel;
- climate change, global warming, more stringent climate change regulations, accords, mitigation efforts, greenhouse gas regulations or other legislation designed to address climate change;
- exposure to potential security breaches or other disruptions to our information technology environment and data security;
- political, economic and other risks from operations in numerous countries including political, economic and social uncertainty and the evolving globalization of our business;
- competitor activity;
- increasing competition, including increased global competition among our customers in emerging markets;
- failure to meet environmental, social and governance (ESG) expectations or standards, or achieve our ESG goals;
- labor relations or work stoppages;
- foreign currency exchange rate changes;
- the performance of our pension plan assets and volatility of discount rates;
- the price and availability of energy;
- continued availability of financing, financial instruments and financial resources in the amounts, at the times and on the terms required to support our future business; and
- other risk factors described in Part II, Item 1A in this quarterly report and our 2022 Form 10-K, Part I, Item 1A, both under the caption "Risk Factors."

Shareholders, potential investors and other readers are urged to consider these factors carefully in evaluating the forward-looking statements and are cautioned not to place undue reliance on such forward-looking statements. The forward-looking statements made herein are made only as of the date of this quarterly report and we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

ORGANIZATION OF INFORMATION

The following Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) was prepared to provide the reader with a view and perspective of our business through the eyes of management and should be read in conjunction with our Management's Discussion and Analysis of Financial Condition and Results of Operations section of our 2022 Form 10-K. Our MD&A is presented in the following sections:

- **EXECUTIVE SUMMARY AND FINANCIAL HIGHLIGHTS**
- **RESULTS OF OPERATIONS**
- **OPERATING SEGMENT RESULTS**
- **OUTLOOK**
- **LIQUIDITY AND CAPITAL RESOURCES**
- **APPLICATION OF CRITICAL ACCOUNTING ESTIMATES**
- **RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS**

EXECUTIVE SUMMARY AND FINANCIAL HIGHLIGHTS

Overview

We are a global power leader that designs, manufactures, distributes and services diesel, natural gas, electric and hybrid powertrains and powertrain-related components including filtration, aftertreatment, turbochargers, fuel systems, controls systems, air handling systems, automated transmissions, axles, drivelines, brakes, suspension systems, electric power generation systems, batteries, electrified power systems, electric powertrains, hydrogen production and fuel cell products. We sell our products to original equipment manufacturers (OEMs), distributors, dealers and other customers worldwide. We have long-standing relationships with many of the leading manufacturers in the markets we serve, including PACCAR Inc, Traton Group, Daimler Trucks North America and Stellantis N.V. We serve our customers through a service network of approximately 460 wholly-owned, joint venture and independent distributor locations and more than 10,000 Cummins certified dealer locations in approximately 190 countries and territories.

As previously announced, beginning in the first quarter of 2023, we realigned certain businesses and regions within our reportable segments to be consistent with how our segment managers monitor the performance of our segments. We reorganized the businesses within our Components segment to carve out the electronics business into the newly formed software and electronics business and combined the turbo technologies and fuel systems businesses into the newly formed engine components business. On May 26, 2023, we changed the name of our Components' filtration business to Atmus with the initial public offering (IPO). Our Components segment now consists of the following businesses: axles and brakes, emission solutions, engine components, Atmus, automated transmissions and software and electronics. In the first quarter of 2023, as a result of the indefinite suspension of operations in Russia, we reorganized the regional management structure of our Distribution segment and moved all Commonwealth of Independent States (CIS) sales into the Europe and Africa and Middle East regions. The Russian portion of prior period CIS sales moved to the Europe region. In March 2023, we rebranded our New Power segment as "Accelera" to better represent our commitment to zero-emission technologies. In addition, we moved our NPROXX joint venture from the Accelera segment to the Engine segment, which adjusted both the equity, royalty and interest income from investees and segment EBITDA (defined as earnings or losses before interest expense, income taxes, depreciation and amortization and noncontrolling interests) line items for the current and prior year. We started to report results for the changes within our operating segments effective January 1, 2023, and reflected these changes in the historical periods presented. See NOTE 15, "FORMATION OF ATMUS AND IPO," to our *Condensed Consolidated Financial Statements* for additional information about the Atmus IPO.

Our reportable operating segments consist of Components, Engine, Distribution, Power Systems and Accelera. This reporting structure is organized according to the products and markets each segment serves. The Components segment sells filtration products, aftertreatment systems, turbochargers, electronics, fuel systems, automated transmissions, axles, drivelines, brakes and suspension systems. The Engine segment produces engines (15 liters and smaller) and associated parts for sale to customers in on-highway and various off-highway markets. Our engines are used in trucks of all sizes, buses and recreational vehicles, as well as in various industrial applications, including construction, agriculture, power generation systems and other off-highway applications. The Distribution segment includes wholly-owned and partially-owned distributorships engaged in wholesaling engines, generator sets and service parts, as well as performing service and repair activities on our products and maintaining relationships with various OEMs throughout the world. The Power Systems segment is an integrated power provider, which designs, manufactures and sells engines (16 liters and larger) for industrial applications (including mining, oil and gas, marine and rail), standby and prime power generator sets, alternators and other power components. The Accelera segment designs, manufactures, sells and supports hydrogen production solutions as well as electrified power systems with innovative components and subsystems, including battery, fuel cell and electric powertrain technologies. The Accelera segment is currently in the early stages of commercializing these technologies with efforts primarily focused on the development of our electrolyzers for hydrogen production and electrified power systems and related components and subsystems. We continue to serve all our markets as they adopt electrification and alternative power technologies, meeting the needs of our OEM partners and end customers.

Our financial performance depends, in large part, on varying conditions in the markets we serve, particularly the on-highway, construction and general industrial markets. Demand in these markets tends to fluctuate in response to overall economic conditions. Our sales may also be impacted by OEM inventory levels, production schedules, stoppages and supply chain challenges. Economic downturns in markets we serve generally result in reduced sales of our products and can result in price reductions in certain products and/or markets. As a worldwide business, our operations are also affected by geopolitical risks (such as the conflict between Russia and Ukraine), currency fluctuations, political and economic uncertainty, public health crises (epidemics or pandemics) and regulatory matters, including adoption and enforcement of environmental and emission standards, in the countries we serve. As part of our growth strategy, we invest in businesses in certain countries that carry higher levels of these risks such as China, Brazil, India, Mexico and countries in the Middle East and Africa. At the same time, our geographic diversity and broad product and service offerings have helped limit the impact from a drop in demand in any one industry, region, the economy of any single country or customer on our consolidated results.

Supply Chain Disruptions

We continue to experience supply chain disruptions, increased price levels and related financial impacts reflected as increased cost of sales and inventory holdings. Our industry continues to be unfavorably impacted by supply chain constraints leading to shortages and price increases across multiple component categories and limiting our collective ability to meet end-user demand. Our customers are also experiencing supply chain issues. The Board of Directors (the Board) continues to monitor and evaluate all of these factors and the related impacts on our business and operations, and we are diligently working to minimize the supply chain impacts to our business and to our customers.

2023 Second Quarter and Year-to-Date Results

A summary of our results is as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions, except per share amounts	**2023**	**2022**	**2023**	**2022**
Net sales	**$ 8,638**	$ 6,586	**$ 17,091**	$ 12,971
Net income attributable to Cummins Inc.	**720**	702	**1,510**	1,120
Earnings per common share attributable to Cummins Inc.				
Basic	**$ 5.08**	$ 4.97	**$ 10.66**	$ 7.90
Diluted	**5.05**	4.94	**10.60**	7.86

Worldwide revenues increased 31 percent in the three months ended June 30, 2023, compared to the same period in 2022, due to axles and brakes sales in the Components segment of $1.2 billion from the Meritor acquisition and higher demand in all operating segmentsand all geographic regions. Net sales in the U.S. and Canada improved 31 percent, primarily due to incremental sales of axles and brakes, increased demand in all Distribution product lines and stronger demand in heavy-duty and medium-duty truck markets, which positively impacted all Components businesses. International demand (excludes the U.S. and Canada) improved 32 percent, with higher sales in all other geographic regions. The increase in international sales was principally due to incremental sales of axles and brakes in Western Europe, Latin America and Asia Pacific and higher demand for power generation equipment. Unfavorable foreign currency fluctuations impacted international sales by 3 percent (primarily the Chinese renminbi, Indian rupee and Euro).

Worldwide revenues increased 32 percent in the six months ended June 30, 2023, compared to the same period in 2022, due to axles and brakes sales in the Components segment of $2.5 billion from the Meritor acquisition and higher demand in all operating segments and all geographic regions, partially offset by the decrease in Russian sales due to the indefinite suspension of our Russian operations in March 2022. Net sales in the U.S. and Canada improved 35 percent, primarily due to incremental sales of axles and brakes, increased demand in all Distribution product lines and stronger demand in heavy-duty and medium-duty truck markets, which positively impacted all Components businesses. International demand (excludes the U.S. and Canada) improved by 27 percent, with lower sales in Russia more than offset by higher sales in all other geographic regions. The increase in international sales was principally due to incremental sales of axles and brakes in Western Europe, Latin America, India and Asia Pacific. Unfavorable foreign currency fluctuations impacted international sales by 4 percent (primarily the Chinese renminbi, Indian rupee, Australian dollar, British pound and Euro).

The following tables contain sales and EBITDA by operating segment, including adjusted prior year balances for the NPROXX changes noted above, for the three and six months ended June 30, 2023 and 2022. See NOTE 17, "OPERATING SEGMENTS," to the *Condensed Consolidated Financial Statements* for additional information and a reconciliation of our segment information to the corresponding amounts in our *Condensed Consolidated Statements of Net Income*.

Operating Segments	Three months ended June 30, 2023			2022			Percent change 2023 vs. 2022	
In millions	Sales	Percent of Total	EBITDA	Sales	Percent of Total	EBITDA	Sales	EBITDA
Components	**$ 3,425**	**40 %**	**$ 486**	$ 1,950	30 %	$ 352	76 %	38 %
Engine	**2,988**	**34 %**	**425**	2,775	42 %	421	8 %	1 %
Distribution	**2,595**	**30 %**	**299**	2,253	34 %	297	15 %	1 %
Power Systems	**1,457**	**17 %**	**201**	1,203	18 %	128	21 %	57 %
Accelera	**85**	**1 %**	**(114)**	42	1 %	(79)	NM	(44) %
Intersegment eliminations	**(1,912)**	**(22)%**	**7**	(1,637)	(25)%	(64)	17 %	NM
Total	**$ 8,638**	**100 %**	**$ 1,304** (1)	$ 6,586	100 %	$ 1,055 (2)	31 %	24 %

"NM" - not meaningful information

(1) EBITDA includes $23 million of costs associated with the IPO and separation of Atmus. See NOTE 15, "FORMATION OF ATMUS AND IPO," to our *Condensed Consolidated Financial Statements* for additional information.

(2) EBITDA includes $47 million of recoveries associated with the suspension of our Russian operations and $29 million of costs associated with the planned separation of our Atmus business. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Net income attributable to Cummins Inc. was $720 million, or $5.05 per diluted share, on sales of $8.6 billion for the three months ended June 30, 2023, versus the comparable prior year period net income attributable to Cummins Inc. of $702 million, or $4.94 per diluted share, on sales of $6.6 billion. The increases in net income attributable to Cummins Inc. and earnings per diluted share were driven by higher net sales and improved gross margins, partially offset by increased compensation costs, higher interest expense related to increased floating interest rates and new borrowings, the absence of recoveries associated with the suspension of our Russian operations and increased intangible asset amortization resulting from our acquisitions. The increase in gross margin was primarily due to higher volumes (including sales of axles and brakes from the Meritor acquisition) and favorable pricing, partially offset by higher compensation expenses.

Operating Segments	Six months ended June 30, 2023			2022			Percent change 2023 vs. 2022	
In millions	Sales	Percent of Total	EBITDA	Sales	Percent of Total	EBITDA	Sales	EBITDA
Components	**$ 6,982**	**41 %**	**$ 993**	$ 3,938	30 %	$ 672	77 %	48 %
Engine	**5,974**	**35 %**	**882**	5,528	43 %	811	8 %	9 %
Distribution	**5,001**	**29 %**	**634**	4,370	34 %	407	14 %	56 %
Power Systems	**2,800**	**16 %**	**420**	2,363	18 %	218	18 %	93 %
Accelera	**170**	**1 %**	**(208)**	73	1 %	(144)	NM	(44) %
Intersegment eliminations	**(3,836)**	**(22)%**	**(56)**	(3,301)	(26)%	(154)	16 %	(64) %
Total	**$ 17,091**	**100 %**	**$ 2,665** (1)	$ 12,971	100 %	$ 1,810 (2)	32 %	47 %

"NM" - not meaningful information

(1) EBITDA includes $41 million of costs associated with the IPO and separation of Atmus. See NOTE 15, "FORMATION OF ATMUS AND IPO," to our *Condensed Consolidated Financial Statements* for additional information.

(2) EBITDA includes $111 million of costs associated with the indefinite suspension of our Russian operations and $46 million of costs associated with the planned separation of Atmus. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Net income attributable to Cummins Inc. was $1.5 billion, or $10.60 per diluted share, on sales of $17.1 billion for the six months ended June 30, 2023, versus the comparable prior year period net income attributable to Cummins Inc. of $1.1 billion, or $7.86 per diluted share, on sales of $13.0 billion. The increases in net income attributable to Cummins Inc. and earnings per diluted share were driven by higher net sales, improved gross margins and the absence of costs associated with the suspension of our Russian operations, partially offset by increased compensation expenses, increased interest expense related to increased floating interest rates and new borrowings, increased intangible asset amortization resulting from our acquisitions and higher consulting expenses. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information. The increase in gross margin was primarily due to higher volumes (including sales of axles and brakes from the Meritor acquisition) and favorable pricing, partially offset by higher compensation expenses.

We generated $978 million of cash from operations for the six months ended June 30, 2023, compared to $763 million for the comparable period in 2022. See the section titled "Cash Flows" in the "LIQUIDITY AND CAPITAL RESOURCES" section for a discussion of items impacting cash flows.

Our debt to capital ratio (total capital defined as debt plus equity) at June 30, 2023, was 40.4 percent, compared to 44.1 percent at December 31, 2022. The decrease was primarily due to the increased equity balance from strong earnings since December 31, 2022. At June 30, 2023, we had $2.3 billion in cash and marketable securities on hand and access to our $4.0 billion credit facilities, if necessary, to meet acquisition, working capital, investment and funding needs.

In July 2023, the Board authorized an increase to our quarterly dividend of approximately 7 percent from $1.57 per share to $1.68 per share.

On June 29, 2023, a share purchase agreement was executed with the minority shareholders of Hydrogenics Corporation (Hydrogenics) whereby we agreed to pay the minority shareholders $335 million for their 19 percent ownership, including the settlement of shareholder loans of $48 million. As part of the share purchase agreement, Hydrogenics entered into three non-interest-bearing promissory notes with $175 million paid on July 31, 2023, and the remaining $160 million due in three installments through 2025. See NOTE 16, "ACQUISITIONS," to the *Condensed Consolidated Financial Statements* for additional information.

On June 5, 2023, we entered into an amended and restated 364-day credit agreement that allows us to borrow up to $2.0 billion of unsecured funds at any time prior to June 3, 2024. This credit agreement amended and restated the prior $1.5 billion 364-day credit facility that was scheduled to mature on August 16, 2023. In connection with the 364-day credit agreement, effective June 5, 2023, we terminated our $500 million incremental 364-day credit agreement dated August 17, 2022.

On May 23, 2023, in connection with the Atmus IPO, Cummins issued approximately $350 million of commercial paper with certain lenders. On May 26, 2023, Atmus shares began trading on the New York Stock Exchange under the symbol "ATMU." The IPO was completed on May 30, 2023, whereby Cummins exchanged 19.5 percent (approximately 16 million shares) of its ownership in Atmus, at $19.50 per share, to retire $299 million of the commercial paper as proceeds from the offering through a non-cash transaction. As we still own 80.5 percent of Atmus shares, it remains included in our *Condensed Consolidated Financial Statements.* See NOTE 15, "FORMATION OF ATMUS AND IPO," to the *Condensed Consolidated Financial Statements* for additional information.

In May 2023, we agreed to purchase from the Forvia Group, Faurecia's U.S. and Europe commercial vehicle exhaust business for approximately €142 million, subject to final working capital and other adjustments. The transaction is expected to close in the fourth quarter.

On April 3, 2023, we purchased all of the equity ownership interest of Teksid Hierro de Mexico, S.A. de C.V. (Teksid MX) and Teksid, Inc. from Stellantis N.V. for approximately $150 million, subject to certain adjustments set forth in the agreement. See NOTE 16, "ACQUISITIONS," to the *Condensed Consolidated Financial Statements* for additional information.

In the first six months of 2023, our U.K. pension trusts' loss was 4.3 percent, while the investment gain on our U.S. pension trusts was 3.3 percent, excluding the Meritor plan as their return was not available at the time of filing. We anticipate making additional defined benefit pension contributions during the remainder of 2023 of $20 million for our U.S. and U.K. qualified and non-qualified pension plans. We expect our 2023 annual net periodic pension cost to be near zero**.**

As of the date of this filing, our credit ratings and outlooks from the credit rating agencies remain unchanged.

RESULTS OF OPERATIONS

In millions, except per share amounts	Three months ended June 30, 2023	Three months ended June 30, 2022	Favorable/(Unfavorable) Amount	Favorable/(Unfavorable) Percent	Six months ended June 30, 2023	Six months ended June 30, 2022	Favorable/(Unfavorable) Amount	Favorable/(Unfavorable) Percent
NET SALES	**$ 8,638**	$ 6,586	$ 2,052	31 %	**$ 17,091**	$ 12,971	$ 4,120	32 %
Cost of sales	**6,490**	4,860	(1,630)	(34) %	**12,914**	9,713	(3,201)	(33) %
GROSS MARGIN	**2,148**	1,726	422	24 %	**4,177**	3,258	919	28 %
OPERATING EXPENSES AND INCOME								
Selling, general and administrative expenses	**873**	622	(251)	(40) %	**1,626**	1,237	(389)	(31) %
Research, development and engineering expenses	**384**	299	(85)	(28) %	**734**	597	(137)	(23) %
Equity, royalty and interest income from investees	**133**	95	38	40 %	**252**	191	61	32 %
Other operating expense, net	**27**	3	(24)	NM	**46**	114	68	60 %
OPERATING INCOME	**997**	897	100	11 %	**2,023**	1,501	522	35 %
Interest expense	**99**	34	(65)	NM	**186**	51	(135)	NM
Other income (expense), net	**51**	(8)	59	NM	**141**	(17)	158	NM
INCOME BEFORE INCOME TAXES	**949**	855	94	11 %	**1,978**	1,433	545	38 %
Income tax expense	**212**	148	(64)	(43) %	**435**	303	(132)	(44) %
CONSOLIDATED NET INCOME	**737**	707	30	4 %	**1,543**	1,130	413	37 %
Less: Net income attributable to noncontrolling interests	**17**	5	(12)	NM	**33**	10	(23)	NM
NET INCOME ATTRIBUTABLE TO CUMMINS INC.	**$ 720**	$ 702	$ 18	3 %	**$ 1,510**	$ 1,120	$ 390	35 %
Diluted Earnings Per Common Share Attributable to Cummins Inc.	**$ 5.05**	$ 4.94	$ 0.11	2 %	**$ 10.60**	$ 7.86	$ 2.74	35 %

"NM" - not meaningful information

Percent of sales	Three months ended June 30, 2023	Three months ended June 30, 2022	Favorable/(Unfavorable) Percentage Points	Six months ended June 30, 2023	Six months ended June 30, 2022	Favorable/(Unfavorable) Percentage Points
Gross margin	**24.9 %**	26.2 %	(1.3)	**24.4 %**	25.1 %	(0.7)
Selling, general and administrative expenses	**10.1 %**	9.4 %	(0.7)	**9.5 %**	9.5 %	—
Research, development and engineering expenses	**4.4 %**	4.5 %	0.1	**4.3 %**	4.6 %	0.3

Net Sales

Net sales for the three months ended June 30, 2023, increased by $2.1 billionversus the comparable period in 2022. The primary drivers were as follows:

- Components segment sales increased 76 percent largely due to axles and brakes sales from the Meritor acquisition.
- Distribution segment sales increased 15 percent due to higher demand across all product lines, especially in North America.
- Power Systems segment sales increased 21 percent primarily due to higher demand in power generation markets.
- Engine segment sales increased 8 percent principally due to strong heavy-duty and medium-duty truck demand in North America.

These increases were partially offset by unfavorable foreign currency fluctuations of 1 percent of total sales, primarily in the Chinese renminbi, Indian rupee and Australian dollar.

Net sales for the six months ended June 30, 2023, increased $4.1 billionversus the comparable period in 2022. The primary drivers were as follows:

- Components segment sales increased 77 percent largely due to axles and brakes sales from the Meritor acquisition.
- Distribution segment sales increased 14 percent principally due to higher demand across all product lines, especially in North America.
- Engine segment sales increased 8 percent due to strong heavy-duty and medium-duty truck demand (including higher aftermarket sales) in North America.
- Power Systems segment sales increased 18 percent primarily due to higher demand in power generation markets.

These increases were partially offset by unfavorable foreign currency fluctuations of 2 percent of total sales, primarily in the Chinese renminbi, Indian rupee, Australian dollar, British pound and Euro.

Sales to international markets (excluding the U.S. and Canada), based on location of customers, for the three and six months ended June 30, 2023, were 39 percent and 39 percent of total net sales compared with 39 percent and 40 percent of total net sales for the comparable periods in 2022. A more detailed discussion of sales by segment is presented in the “OPERATING SEGMENT RESULTS” section.

Cost of Sales

The types of expenses included in cost of sales are the following: parts and material consumption, including direct and indirect materials; compensation and related expenses including variable compensation, salaries and fringe benefits; depreciation on production equipment and facilities and amortization of technology intangibles; estimated costs of warranty programs and campaigns; production utilities; production-related purchasing; warehousing, including receiving and inspection; freight costs; engineering support costs; repairs and maintenance; production and warehousing facility property insurance; rent for production facilities; charges for the write-downs of inventories in Russia and other production overhead.

Gross Margin

Gross margin increased $422 million for the three months ended June 30, 2023 and decreased 1.3 points as a percentage of net sales versus the comparable period in 2022. The increase in gross margin was primarily due to higher volumes (including sales of axles and brakes from the Meritor acquisition) and favorable pricing, partially offset by higher compensation expenses. Compensation and related expenses include variable compensation, salaries and fringe benefits. The 1.3 percentage point decrease in gross margin as a percentage of sales was principally due to the addition of Meritor activity, which has a lower gross margin percentage than our legacy business, and the absence of inventory recoveries associated with the suspension of our Russian operations.

Gross margin increased $919 million for the six months ended June 30, 2023 and decreased 0.7 points as a percentage of sales versus the comparable period in 2022. The increase in gross margin was primarily due to higher volumes (including sales of axles and brakes from the Meritor acquisition) and favorable pricing, partially offset by higher compensation expenses. The 0.7 percentage point decrease in gross margin as a percentage of sales was principally due to the addition of Meritor activity, which has a lower gross margin percentage than our legacy business.

The provision for base warranties issued as a percent of sales for the three and six months ended June 30, 2023, was 1.8 percent and 1.8 percent, respectively, compared to 2.2 percent and 2.1 percent for the comparable periods in 2022.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased $251 million for the three months ended June 30, 2023, versus the comparable period in 2022, primarily due to higher compensation expenses and higher consulting expenses. Compensation and related expenses include variable compensation, salaries and fringe benefits. Overall, selling, general and administrative expenses as a percentage of net sales increased to 10.1 percent in the three months ended June 30, 2023, from 9.4 percent in the comparable period in 2022, as selling, general and administrative expenses increased at a faster rate than net sales.

Selling, general and administrative expenses increased $389 million for the six months ended June 30, 2023, versus the comparable period in 2022, primarily due to higher compensation expenses and higher consulting expenses. Overall, selling, general and administrative expenses, as a percentage of sales, remained flat at 9.5 percent.

Research, Development and Engineering Expenses

Research, development and engineering expenses increased $85 million for the three months ended June 30, 2023, versus the comparable period in 2022, primarily due to higher compensation expenses, higher consulting expenses and lower expense recovery. Compensation and related expenses include variable compensation, salaries and fringe benefits. Overall, research, development and engineering expenses as a percentage of net sales decreased to 4.4 percent in the three months ended June 30, 2023, from 4.5 percent in the comparable period in 2022, as research, development and engineering expenses increased at a slower rate than net sales.

Research, development and engineering expenses increased $137 million for the six months ended June 30, 2023, versus the comparable period in 2022, primarily due to higher compensation costs, lower expense recovery and higher consulting expenses. Overall, research, development and engineering expenses as a percentage of sales decreased to 4.3 percent in the six months ended June 30, 2023, from 4.6 percent in the comparable period in 2022, as research, development and engineering expenses increased at a slower rate than net sales.

Research activities continue to focus on development of new products to meet future emission standards around the world, improvements in fuel economy performance of diesel and natural gas-powered engines and related components as well as development activities around battery electric, fuel cell electric, hydrogen engine and hydrogen production solutions.

Equity, Royalty and Interest Income from Investees

Equity, royalty and interest income from investees increased $38 million for the three months ended June 30, 2023, versus the comparable period in 2022, primarily due higher earnings at Dongfeng Cummins Engine Co., Ltd., joint venture earnings from the Meritor acquisition and higher royalty and interest income from investees.

Equity, royalty and interest income from investees increased $61 million for the six months ended June 30, 2023, versus the comparable period in 2022, mainly due to the absence of the $28 million impairment of our Russian joint venture with KAMAZ and joint venture earnings from the Meritor acquisition. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Other Operating Expense, Net

Other operating (expense) income, net was as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions	**2023**	**2022**	**2023**	**2022**
Amortization of intangible assets	**$ (34)**	$ (9)	**$ (66)**	$ (14)
Loss on write-off of assets	**(1)**	(3)	**(2)**	(8)
Royalty income, net	**10**	3	**11**	5
Russian suspension recoveries (cost)[1]	**—**	7	**—**	(61)
Asset impairments and other charges	**—**	—	**—**	(36)
Other, net	**(2)**	(1)	**11**	—
Total other operating expense, net	**$ (27)**	$ (3)	**$ (46)**	$ (114)

[1] See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Interest Expense

Interest expense was $99 million and $186 million for the three and six months ended June 30, 2023, versus $34 million and $51 million for the comparable periods in 2022. Interest expense increased $65 million and $135 million primarily due to the overall increase in floating interest rates, higher short-term borrowings (including commercial paper) and new term loan borrowings.

Other Income (Expense), Net

Other income (expense), net was as follows:

	Three months ended June 30,		Six months ended June 30,	
In millions	2023	2022	2023	2022
Non-service pension and OPEB income	**$ 31**	$ 32	**$ 62**	$ 65
Interest income	**25**	7	**43**	15
Gain (loss) on marketable securities, net	**3**	(5)	**8**	(9)
Gain (loss) on corporate owned life insurance	**1**	(48)	**20**	(85)
Foreign currency (loss) gain, net	**(11)**	(1)	**1**	(13)
Other, net	**2**	7	**7**	10
Total other income (expense), net	**$ 51**	$ (8)	**$ 141**	$ (17)

Income Tax Expense

Our effective tax rate for 2023 is expected to approximate 22.0 percent, excluding any discrete items that may arise.

Our effective tax rates for the three and six months ended June 30, 2023, were 22.3 percent and 22.0 percent, respectively. Our effective tax rates for the three and six months ended June 30, 2022, were 17.3 percent and 21.1 percent, respectively.

The three months ended June 30, 2023, contained net unfavorable discrete tax items of $3 million.

The six months ended June 30, 2023, contained net discrete tax amounts of zero, as the result of offsetting amounts for the first two quarters, primarily due to share-based compensation tax benefits and other discrete items.

The three months ended June 30, 2022, contained favorable discrete items of $36 million, primarily due to $36 million of favorable changes in tax reserves, $10 million of favorable changes associated with the indefinite suspension in our Russian operations and $8 million of net favorable other discrete tax items, partially offset by $18 million of unfavorable tax costs associated with internal restructuring ahead of the planned separation of Atmus.

The six months ended June 30, 2022, contained favorable net discrete tax items of $5 million, primarily due to $27 million of favorable changes in tax reserves and $4 million of net favorable other discrete tax items, partially offset by $18 million of unfavorable tax costs associated with internal restructuring ahead of the planned separation of Atmus and $8 million of unfavorable changes associated with the indefinite suspension in our Russian operations.

Noncontrolling Interests

Noncontrolling interests eliminate the income or loss attributable to non-Cummins ownership interests in our consolidated entities. Noncontrolling interests in income of consolidated subsidiaries for the three and six months ended June 30, 2023, increased $12 million and $23 million versus the comparable periods in 2022 primarily due to higher earnings at Cummins India Limited and Eaton Cummins Joint Venture.

Comprehensive Income - Foreign Currency Translation Adjustment

The foreign currency translation adjustment was a net loss of $110 million and $28 million, respectively, for the three and six months ended June 30, 2023, compared to a net loss of $245 million and $241 million, respectively, for the three and six months ended June 30, 2022, driven by the following:

	Three months ended June 30,			
	2023		2022	
In millions	Translation adjustment	Primary currency driver vs. U.S. dollar	Translation adjustment	Primary currency driver vs. U.S. dollar
Wholly-owned subsidiaries	**$ (72)**	Chinese renminbi, partially offset by Brazilian real and British pound	$ (175)	Chinese renminbi, Indian rupee
Equity method investments	**(36)**	Chinese renminbi	(55)	Chinese renminbi
Consolidated subsidiaries with a noncontrolling interest	**(2)**	Chinese renminbi	(15)	Indian rupee
Total	**$ (110)**		$ (245)	

	Six months ended June 30,			
	2023		2022	
In millions	Translation adjustment	Primary currency driver vs. U.S. dollar	Translation adjustment	Primary currency driver vs. U.S. dollar
Wholly-owned subsidiaries	**$ 1**	Chinese renminbi, partially offset by Brazilian real, British pound and Euro	$ (159)	Chinese renminbi, Indian rupee
Equity method investments	**(30)**	Chinese renminbi, partially offset by Brazilian real	(59)	Chinese renminbi
Consolidated subsidiaries with a noncontrolling interest	**1**	Indian rupee, partially offset by Chinese renminbi	(23)	Indian rupee
Total	**$ (28)**		$ (241)	

OPERATING SEGMENT RESULTS

As previously announced, beginning in the first quarter of 2023, we realigned certain businesses and regions within our reportable segments to be consistent with how our segment managers monitor the performance of our segments. We reorganized the businesses within our Components segment to carve out the electronics business into the newly formed software and electronics business and combined the turbo technologies and fuel systems businesses into the newly formed engine components business. On May 26, 2023, we changed the name of our Components' filtration business to Atmus with the IPO. Our Components segment now consists of the following businesses: axles and brakes, emission solutions, engine components, Atmus, automated transmissions and software and electronics. In the first quarter of 2023, as a result of the indefinite suspension of operations in Russia, we reorganized the regional management structure of our Distribution segment and moved all Commonwealth of Independent States (CIS) sales into the Europe and Africa and Middle East regions. The Russian portion of prior period CIS sales moved to the Europe region. In March 2023, we rebranded our New Power segment as "Accelera" to better represent our commitment to zero-emission technologies. In addition, we moved our NPROXX joint venture from the Accelera segment to the Engine segment, which adjusted both the equity, royalty and interest income from investees and segment EBITDA line items for the current and prior year. We started to report results for the changes within our operating segments effective January 1, 2023, and reflected these changes in the historical periods presented. See NOTE 15, "FORMATION OF ATMUS AND IPO," to our *Condensed Consolidated Financial Statements* for additional information about the Atmus IPO.

Our reportable operating segments consist of the Components, Engine, Distribution, Power Systems and Accelera segments. This reporting structure is organized according to the products and markets each segment serves. We use segment EBITDA as the basis for the Chief Operating Decision Maker to evaluate the performance of each of our reportable operating segments. We believe EBITDA is a useful measure of our operating performance as it assists investors and debt holders in comparing our performance on a consistent basis without regard to financing methods, capital structure, income taxes or depreciation and amortization methods, which can vary significantly depending upon many factors. Segment amounts exclude certain expenses not specifically identifiable to segments. See NOTE 17, "OPERATING SEGMENTS," to the *Condensed Consolidated Financial Statements* for additional information and a reconciliation of our segment information to the corresponding amounts in our *Condensed Consolidated Statements of Net Income.*

Following is a discussion of results for each of our operating segments.

Components Segment Results

Financial data for the Components segment was as follows:

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Favorable/(Unfavorable) Amount	Favorable/(Unfavorable) Percent	Six months ended June 30, 2023	Six months ended June 30, 2022	Favorable/(Unfavorable) Amount	Favorable/(Unfavorable) Percent
External sales	**$ 2,924**	$ 1,477	$ 1,447	98 %	**$ 5,967**	$ 2,994	$ 2,973	99 %
Intersegment sales	**501**	473	28	6 %	**1,015**	944	71	8 %
Total sales	**3,425**	1,950	1,475	76 %	**6,982**	3,938	3,044	77 %
Research, development and engineering expenses	**103**	73	(30)	(41)%	**194**	149	(45)	(30)%
Equity, royalty and interest income from investees	**24**	9	15	NM	**45**	37	8	22 %
Interest income	**7**	2	5	NM	**13**	3	10	NM
Russian suspension (recoveries) costs [1]	**—**	(2)	(2)	(100)%	**—**	4	4	100 %
Segment EBITDA	**486** [2]	352	134	38 %	**993** [3]	672	321	48 %
			Percentage Points				Percentage Points	
Segment EBITDA as a percentage of total sales	**14.2 %**	18.1 %	(3.9)		**14.2 %**	17.1 %	(2.9)	

"NM" - not meaningful information

(1) See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

(2) Includes $18 million of costs associated with the IPO and separation of Atmus.

(3) Includes $30 million of costs associated with the IPO and separation of Atmus.

As noted above, the descriptions of the two new businesses are as follows:

- **Engine components -** We design, manufacture and market turbocharger, valvetrain and fuel system technologies for light-duty, mid-range, heavy-duty and high-horsepower markets across North America, Europe, China and India.

- **Software and electronics -** We develop, supply and remanufacture control units, specialty sensors, power electronics, actuators and software for on-highway, off-highway and power generation applications. We primarily serve markets in the Americas, China, India and Europe.

Sales for our Components segment by business, including adjusted prior year balances for the changes noted above, were as follows:

	Three months ended June 30,		Favorable/ (Unfavorable)		Six months ended June 30,		Favorable/ (Unfavorable)	
In millions	**2023**	**2022**	**Amount**	**Percent**	**2023**	**2022**	**Amount**	**Percent**
Axles and brakes	**$ 1,249**	$ —	$ 1,249	NM	**$ 2,521**	$ —	$ 2,521	NM
Emission solutions	**964**	863	101	12 %	**2,020**	1,773	247	14 %
Engine components	**557**	503	54	11 %	**1,138**	1,005	133	13 %
Atmus	**417**	391	26	7 %	**834**	773	61	8 %
Automated transmissions	**179**	143	36	25 %	**358**	277	81	29 %
Software and electronics	**59**	50	9	18 %	**111**	110	1	1 %
Total sales	**$ 3,425**	$ 1,950	$ 1,475	76 %	**$ 6,982**	$ 3,938	$ 3,044	77 %

"NM" - not meaningful information

Sales

Components segment sales for the three months ended June 30, 2023, increased $1.5 billion versus the comparable period in 2022. The following were the primary drivers by business:

- Axles and brakes sales added $1.2 billion in sales due to the Meritor acquisition.
- Emission solutions sales increased $101 million primarily due to stronger demand in China and North America.
- Engine components sales increased $54 million largely due to higher demand in China.

Components segment sales for the six months ended June 30, 2023, increased $3.0 billion versus the comparable period in 2022. The following were the primary drivers by business:

- Axles and brakes sales added $2.5 billion in sales due to the Meritor acquisition.
- Emission solutions sales increased $247 million principally due to stronger demand in North America and China.
- Engine components sales increased $133 million mainly due to higher demand in China and North America.

Segment EBITDA

Components segment EBITDA for the three months ended June 30, 2023, increased $134 million versus the comparable period in 2022, mainly due to higher volumes (including sales of axles and brakes from the Meritor acquisition), improved pricing and favorable mix, partially offset by higher compensation expenses.

Components segment EBITDA for the six months ended June 30, 2023, increased $321 million versus the comparable period in 2022, primarily due to higher volumes (including sales of axles and brakes from the Meritor acquisition) and favorable pricing, partially offset by higher compensation expenses.

Table of Contents

Engine Segment Results

Financial data for the Engine segment was as follows:

	Three months ended June 30,		Favorable/ (Unfavorable)		Six months ended June 30,		Favorable/ (Unfavorable)	
In millions	**2023**	**2022**	**Amount**	**Percent**	**2023**	**2022**	**Amount**	**Percent**
External sales	**$ 2,263**	$ 2,092	$ 171	8 %	**$ 4,515**	$ 4,141	$ 374	9 %
Intersegment sales	**725**	683	42	6 %	**1,459**	1,387	72	5 %
Total sales	**2,988**	2,775	213	8 %	**5,974**	5,528	446	8 %
Research, development and engineering expenses	**148**	116	(32)	(28)%	**282**	225	(57)	(25)%
Equity, royalty and interest income from investees	**71**	58	13	22 %	**136**	100 (1)	36	36 %
Interest income	**7**	1	6	NM	**10**	5	5	100 %
Russian suspension costs	**—**	1	1	100 %	**—**	33 (2)	33	100 %
Segment EBITDA	**425**	421	4	1 %	**882**	811	71	9 %
			Percentage Points				Percentage Points	
Segment EBITDA as a percentage of total sales	**14.2 %**	15.2 %	(1.0)		**14.8 %**	14.7 %	0.1	

"NM" - not meaningful information

(1) Includes a $28 million impairment of our joint venture with KAMAZ and $3 million of royalty charges as part of our costs associated with the indefinite suspension of our Russian operations. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

(2) Includes $31 million of Russian suspension costs reflected in the equity, royalty and interest income from investees line above. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Sales for our Engine segment by market were as follows:

	Three months ended June 30,		Favorable/ (Unfavorable)		Six months ended June 30,		Favorable/ (Unfavorable)	
In millions	**2023**	**2022**	**Amount**	**Percent**	**2023**	**2022**	**Amount**	**Percent**
Heavy-duty truck	**$ 1,117**	$ 1,001	$ 116	12 %	**$ 2,231**	$ 1,909	$ 322	17 %
Medium-duty truck and bus	**942**	875	67	8 %	**1,845**	1,723	122	7 %
Light-duty automotive	**445**	456	(11)	(2) %	**884**	954	(70)	(7) %
Total on-highway	**2,504**	2,332	172	7 %	**4,960**	4,586	374	8 %
Off-highway	**484**	443	41	9 %	**1,014**	942	72	8 %
Total sales	**$ 2,988**	$ 2,775	$ 213	8 %	**$ 5,974**	$ 5,528	$ 446	8 %
			Percentage Points				Percentage Points	
On-highway sales as percentage of total sales	**84 %**	84 %	—		**83 %**	83 %	—	

Unit shipments by engine classification (including unit shipments to Power Systems and off-highway engine units included in their respective classification) were as follows:

	Three months ended June 30,		Favorable/ (Unfavorable)		Six months ended June 30,		Favorable/ (Unfavorable)	
	2023	**2022**	**Amount**	**Percent**	**2023**	**2022**	**Amount**	**Percent**
Heavy-duty	**36,400**	30,900	5,500	18 %	**71,100**	59,500	11,600	19 %
Medium-duty	**76,000**	68,800	7,200	10 %	**154,900**	141,400	13,500	10 %
Light-duty	**53,600**	60,400	(6,800)	(11) %	**108,600**	126,900	(18,300)	(14) %
Total unit shipments	**166,000**	160,100	5,900	4 %	**334,600**	327,800	6,800	2 %

Sales

Engine segment sales for the three months ended June 30, 2023, increased $213 million versus the comparable period in 2022. The following were the primary drivers by market:

- Heavy-duty truck sales increased $116 million principally due to stronger demand in North America and China.
- Medium-duty truck and bus sales increased $67 million mainly due to higher demand, especially in North America with shipments up 18 percent.

Engine segment sales for the six months ended June 30, 2023, increased $446 million versus the comparable period in 2022. The following were the primary drivers by market:

- Heavy-duty truck sales increased $322 million principally due to higher demand (including higher aftermarket sales), especially in North America with shipments up 18 percent.
- Medium-duty truck and bus sales increased $122 million mainly due to higher demand (including higher aftermarket sales) especially in North America.

These increases were partially offset by decreased light-duty automotive sales of $70 million primarily due to our indefinite suspension of operations in Russia.

Segment EBITDA

Engine segment EBITDA for the three months ended June 30, 2023, increased $4 million versus the comparable period in 2022, primarily due to favorable pricing, partially offset by higher compensation expenses and increased material costs.

Engine segment EBITDA for the six months ended June 30, 2023, increased $71 million versus the comparable period in 2022, mainly due to favorable pricing, partially offset by higher compensation expenses.

Distribution Segment Results

Financial data for the Distribution segment was as follows:

	Three months ended June 30,		Favorable/ (Unfavorable)		Six months ended June 30,		Favorable/ (Unfavorable)	
In millions	**2023**	**2022**	**Amount**	**Percent**	**2023**	**2022**	**Amount**	**Percent**
External sales	**$ 2,576**	$ 2,247	$ 329	15 %	**$ 4,975**	$ 4,358	$ 617	14 %
Intersegment sales	**19**	6	13	NM	**26**	12	14	NM
Total sales	**2,595**	2,253	342	15 %	**5,001**	4,370	631	14 %
Research, development and engineering expenses	**15**	13	(2)	(15)%	**29**	26	(3)	(12)%
Equity, royalty and interest income from investees	**24**	21	3	14 %	**48**	37	11	30 %
Interest income	**8**	3	5	NM	**15**	5	10	NM
Russian suspension (recoveries) costs [(1)]	**—**	(45)	(45)	(100)%	**—**	55	55	100 %
Segment EBITDA	**299**	297	2	1 %	**634**	407	227	56 %
			Percentage Points				**Percentage Points**	
Segment EBITDA as a percentage of total sales	**11.5 %**	13.2 %		(1.7)	**12.7 %**	9.3 %		3.4

"NM" - not meaningful information

(1) See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Sales for our Distribution segment by region, including adjusted prior year balances for the changes noted above, were as follows:

	Three months ended June 30,		Favorable/ (Unfavorable)		Six months ended June 30,		Favorable/ (Unfavorable)	
In millions	2023	2022	Amount	Percent	2023	2022	Amount	Percent
North America	**$ 1,797**	$ 1,494	$ 303	20 %	**$ 3,492**	$ 2,861	$ 631	22 %
Asia Pacific	**266**	242	24	10 %	**506**	488	18	4 %
Europe	**213**	248	(35)	(14) %	**408**	529	(121)	(23) %
China	**113**	99	14	14 %	**215**	182	33	18 %
Africa and Middle East	**80**	61	19	31 %	**142**	111	31	28 %
India	**65**	53	12	23 %	**124**	102	22	22 %
Latin America	**61**	56	5	9 %	**114**	97	17	18 %
Total sales	**$ 2,595**	$ 2,253	$ 342	15 %	**$ 5,001**	$ 4,370	$ 631	14 %

Sales for our Distribution segment by product line were as follows:

	Three months ended June 30,		Favorable/ (Unfavorable)		Six months ended June 30,		Favorable/ (Unfavorable)	
In millions	2023	2022	Amount	Percent	2023	2022	Amount	Percent
Parts	**$ 1,019**	$ 990	$ 29	3 %	**$ 2,076**	$ 1,914	$ 162	8 %
Power generation	**614**	441	173	39 %	**1,106**	842	264	31 %
Engines	**531**	429	102	24 %	**987**	870	117	13 %
Service	**431**	393	38	10 %	**832**	744	88	12 %
Total sales	**$ 2,595**	$ 2,253	$ 342	15 %	**$ 5,001**	$ 4,370	$ 631	14 %

Sales

Distribution segment sales for the three months ended June 30, 2023, increased $342 million versus the comparable period in 2022. The primary driver was an increase in North American sales of $303 million due to higher demand in all product lines (mainly power generation and aftermarket products). The increase was partially offset by unfavorable foreign currency fluctuations, primarily in the Australian dollar, Canadian dollar, South African rand and Chinese renminbi.

Distribution segment sales for the six months ended June 30, 2023, increased $631 million versus the comparable period in 2022. The primary driver was an increase in North American sales of $631 million due to higher demand in all product lines.

The increase was partially offset by the following:

- European sales decreased $121 million as a result of our indefinite suspension of operations in Russia.
- Unfavorable foreign currency fluctuations, primarily in the Australian dollar, Canadian dollar, Chinese renminbi, Indian rupee and South African rand.

Segment EBITDA

Distribution segment EBITDA for the three months ended June 30, 2023, increased $2 million versus the comparable period in 2022, primarily due to increased volumes and favorable mix, partially offset by higher compensation expenses and the absence of recoveries associated with the suspension of our Russian operations. See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Distribution segment EBITDA for the six months ended June 30, 2023, increased $227 million versus the comparable period in 2022, primarily due to increased volumes, favorable mix and improved pricing, partially offset by higher compensation expenses.

Power Systems Segment Results

Financial data for the Power Systems segment was as follows:

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Favorable/(Unfavorable) Amount	Favorable/(Unfavorable) Percent	Six months ended June 30, 2023	Six months ended June 30, 2022	Favorable/(Unfavorable) Amount	Favorable/(Unfavorable) Percent
External sales	**$ 794**	$ 734	$ 60	8 %	**$ 1,473**	$ 1,417	$ 56	4 %
Intersegment sales	**663**	469	194	41 %	**1,327**	946	381	40 %
Total sales	**1,457**	1,203	254	21 %	**2,800**	2,363	437	18 %
Research, development and engineering expenses	**66**	58	(8)	(14)%	**129**	122	(7)	(6)%
Equity, royalty and interest income from investees	**18**	10	8	80 %	**31**	21	10	48 %
Interest income	**2**	1	1	100 %	**4**	2	2	100 %
Russian suspension (recoveries) costs [(1)]	**—**	(1)	(1)	(100)%	**—**	19	19	100 %
Segment EBITDA	**201**	128	73	57 %	**420**	218	202	93 %
			Percentage Points				Percentage Points	
Segment EBITDA as a percentage of total sales	**13.8 %**	10.6 %	3.2		**15.0 %**	9.2 %	5.8	

[(1)] See NOTE 14, "RUSSIAN OPERATIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Sales for our Power Systems segment by product line were as follows:

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Favorable/(Unfavorable) Amount	Favorable/(Unfavorable) Percent	Six months ended June 30, 2023	Six months ended June 30, 2022	Favorable/(Unfavorable) Amount	Favorable/(Unfavorable) Percent
Power generation	**$ 854**	$ 657	$ 197	30 %	**$ 1,624**	$ 1,321	$ 303	23 %
Industrial	**468**	428	40	9 %	**923**	821	102	12 %
Generator technologies	**135**	118	17	14 %	**253**	221	32	14 %
Total sales	**$ 1,457**	$ 1,203	$ 254	21 %	**$ 2,800**	$ 2,363	$ 437	18 %

Sales

Power Systems segment sales for the three months ended June 30, 2023, increased $254 million versus the comparable period in 2022. The primary driver was aincrease in power generation sales of $197 million mainly due to higher demand in North America, India, Asia Pacific, Western Europe and Mexico. The increase was partially offset by unfavorable foreign currency fluctuations, primarily in the Indian rupee and Chinese renminbi.

Power Systems segment sales for the six months ended June 30, 2023, increased $437 million versus the comparable period in 2022. The following were the primary drivers by product line:

- Power generation sales increased $303 million mainly due to higher demand in North America, India and Asia Pacific.
- Industrial sales increased $102 million principally due to improved demand in oil and gas market in North America and global mining markets.

These increases were partially offset by unfavorable foreign currency fluctuations, primarily in the Indian rupee and Chinese renminbi.

Segment EBITDA

Power Systems segment EBITDA for the three months ended June 30, 2023, increased $73 million versus the comparable period in 2022, mainly due to increased volumes and favorable pricing, partially offset by higher compensation expenses and severance costs.

Power Systems segment EBITDA for the six months ended June 30, 2023, increased $202 million versus the comparable period in 2022, primarily due to favorable pricing and increased volumes, partially offset by higher compensation expenses and severance costs.

Accelera Segment Results

Financial data for the Accelera segment was as follows:

In millions	Three months ended June 30, 2023	Three months ended June 30, 2022	Favorable/ (Unfavorable) Amount	Favorable/ (Unfavorable) Percent	Six months ended June 30, 2023	Six months ended June 30, 2022	Favorable/ (Unfavorable) Amount	Favorable/ (Unfavorable) Percent
External sales	**$ 81**	$ 36	$ 45	NM	**$ 161**	$ 61	$ 100	NM
Intersegment sales	**4**	6	(2)	(33) %	**9**	12	(3)	(25)%
Total sales	**85**	42	43	NM	**170**	73	97	NM
Research, development and engineering expenses	**52**	39	(13)	(33) %	**100**	75	(25)	(33)%
Equity, royalty and interest loss from investees	**(4)**	(3)	(1)	(33) %	**(8)**	(4)	(4)	(100)%
Interest income	**1**	—	1	NM	**1**	—	1	NM
Segment EBITDA	**(114)**	(79)	(35)	(44) %	**(208)**	(144)	(64)	(44)%

"NM" - not meaningful information

Accelera segment sales for the three months ended June 30, 2023, increased $43 million versus the comparable period in 2022 principally due to incremental sales of central drive systems, e-axles and accessory systems since the acquisitions of Siemens' Commercial Vehicles Propulsion business and Meritor's electric powertrain business.

Accelera segment sales for the six months ended June 30, 2023, increased $97 million versus the comparable period in 2022 principally due to incremental sales of central drive systems, e-axles and accessory systems since the acquisitions of Siemens' Commercial Vehicles Propulsion business and Meritor's electric powertrain business, as well as improved electrified components and fuel cell sales.

OUTLOOK

Supply Chain Disruptions

We continue to experience supply chain disruptions, increased price levels and related financial impacts reflected as increased cost of sales and inventory holdings. Our industry continues to be unfavorably impacted by supply chain constraints leading to shortages and price increases across multiple component categories and limiting our collective ability to meet end-user demand. Our customers are also experiencing supply chain issues. The Board continues to monitor and evaluate all of these factors and the related impacts on our business and operations and we are diligently working to minimize the supply chain impacts to our business and to our customers.

Business Outlook

Our outlook reflects the following positive trends and challenges to our business that could impact our revenue and earnings potential for the remainder of 2023.

Positive Trends

- We expect demand for pick-up, medium-duty and heavy-duty trucks in North America to remain strong.
- We believe market demand for trucks in India will continue to be strong.
- We expect demand within our Power Systems business to remain strong, including the power generation, mining, oil and gas and marine markets.
- We anticipate demand in our aftermarket business will continue to be robust, driven primarily by truck utilization in North America and continued strong demand in our Power Systems business.
- We expect demand for trucks in China to improve from the low demand levels in 2022.

Challenges

- Continued increases in material and labor costs, as well as other inflationary pressures, could negatively impact earnings.
- Our industry's sales continue to be unfavorably impacted by supply chain constraints leading to shortages across multiple components categories and limiting our collective ability to meet end-user demand. Our customers are also experiencing other supply chain issues limiting full production capabilities.
- The completion of the Meritor, Inc. acquisition in 2022 impacted our liquidity and resulted in incremental interest expense for debt utilized in funding the transaction and increased amortization of intangible assets, which will negatively impact net income.
- Increasing interest rates could increase borrowing costs and negatively impact net income.
- We expect the ongoing separation of Atmus, our filtration business, into a stand-alone company, will continue to result in incremental expenses.

LIQUIDITY AND CAPITAL RESOURCES

Key Working Capital and Balance Sheet Data

We fund our working capital with cash from operations and short-term borrowings, including commercial paper, when necessary. Various assets and liabilities, including short-term debt, can fluctuate significantly from month to month depending on short-term liquidity needs. As a result, working capital is a prime focus of management's attention. Working capital and balance sheet measures are provided in the following table:

Dollars in millions	June 30, 2023	December 31, 2022
Working capital [(1)]	**$ 4,365**	$ 3,030
Current ratio	**1.40**	1.27
Accounts and notes receivable, net	**$ 5,863**	$ 5,202
Days' sales in receivables	**59**	60
Inventories	**$ 6,026**	$ 5,603
Inventory turnover	**4.3**	4.2
Accounts payable (principally trade)	**$ 4,308**	$ 4,252
Days' payable outstanding	**60**	60
Total debt	**$ 7,700**	$ 7,855
Total debt as a percent of total capital	**40.4 %**	44.1 %

[(1)] Working capital includes cash and cash equivalents.

Cash Flows

Cash and cash equivalents were impacted as follows:

In millions	Six months ended June 30, 2023	Six months ended June 30, 2022	Change
Net cash provided by operating activities	**$ 978**	$ 763	$ 215
Net cash used in investing activities	**(606)**	(576)	(30)
Net cash used in financing activities	**(603)**	(391)	(212)
Effect of exchange rate changes on cash and cash equivalents	**(68)**	74	(142)
Net decrease in cash and cash equivalents	**$ (299)**	$ (130)	$ (169)

Net cash provided by operating activities increased $215 million for the six months ended June 30, 2023, versus the comparable period in 2022, primarily due to higher net income of $413 million, partially offset by higher working capital requirement of $179 million and the absence of Russian suspension costs, net of recoveries, in 2023 of $111 million. The higher working capital requirements resulted in a cash outflow of $849 million compared to a cash outflow of $670 million in the comparable period of 2022, mainly due to unfavorable changes in accounts and notes receivable and accounts payable, partially offset by increased accrued expenses (from higher variable compensation accruals in 2023 and higher variable compensation payments in the first quarter of 2022 for the previous year).

Net cash used in investing activities increased $30 million for the six months ended June 30, 2023, versus the comparable period in 2022, primarily due to higher capital expenditures of $163 million, partially offset by lower acquisition of businesses, net of cash acquired of $111 million.

Net cash used in financing activities increased $212 million for the six months ended June 30, 2023, versus the comparable period in 2022, primarily due to higher net payments of commercial paper of $1.1 billion and higher payments on borrowings and finance lease obligations of $157 million (largely related to term loan payments), partially offset by higher proceeds from borrowings of $681 million (including $650 million of Atmus debt) and the absence of repurchases of common stock of $347 million.

The effect of exchange rate changes on cash and cash equivalents for the six months ended June 30, 2023, versus the comparable period in 2022, changed $142 million primarily due to unfavorable fluctuations in the British pound, partially offset by the Chinese renminbi.

Sources of Liquidity

We generate significant ongoing cash flow. Cash provided by operations is our principal source of liquidity with $978 million generated in the six months ended June 30, 2023. Our sources of liquidity include:

	June 30, 2023			
In millions	**Total**	**U.S.**	**International**	**Primary location of international balances**
Cash and cash equivalents	$ 1,802	$ 805	$ 997	Singapore, China, Belgium, Australia, Canada, Mexico
Marketable securities [1]	512	90	422	India
Total	$ 2,314	$ 895	$ 1,419	
Available credit capacity				
Revolving credit facilities [2]	$ 2,383			
Atmus revolving credit facility [3]	$ 350			
International and other uncommitted domestic credit facilities	$ 221			

[1] The majority of marketable securities could be liquidated into cash within a few days.

[2] The five-year credit facility for $2.0 billion and the 364-day credit facility for $2.0 billion, maturing August 2026 and June 2024, respectively, are maintained primarily to provide backup liquidity for our commercial paper borrowings and general corporate purposes. At June 30, 2023, we had $1.6 billion of commercial paper outstanding, which effectively reduced our available capacity under our revolving credit facilities to $2.4 billion.

[3] In February 2023, Atmus entered into a $400 million revolving credit facility. At June 30, 2023, they had $50 million of outstanding borrowings, which effectively reduced the available capacity under the revolving credit facility to $350 million.

Cash, Cash Equivalents and Marketable Securities

A significant portion of our cash flow is generated outside the U.S. We manage our worldwide cash requirements considering available funds among the many subsidiaries through which we conduct our business and the cost effectiveness with which those funds can be accessed. As a result, we do not anticipate any local liquidity restrictions to preclude us from funding our operating needs with local resources.

If we distribute our foreign cash balances to the U.S. or to other foreign subsidiaries, we could be required to accrue and pay withholding taxes, for example, if we repatriated cash from certain foreign subsidiaries whose earnings we asserted are completely or partially permanently reinvested. Foreign earnings for which we assert permanent reinvestment outside the U.S. consist primarily of earnings of our China, India, Canada (including underlying subsidiaries) and Netherlands domiciled subsidiaries. At present, we do not foresee a need to repatriate any earnings for which we assert permanent reinvestment. However, to help fund cash needs of the U.S. or other international subsidiaries as they arise, we repatriate available cash from certain foreign subsidiaries whose earnings are not permanently reinvested when it is cost effective to do so.

Divestiture of Atmus

On May 23, 2023, in connection with the Atmus IPO, Cummins issued approximately $350 million of commercial paper with certain lenders. On May 26, 2023, Atmus shares began trading on the New York Stock Exchange under the symbol "ATMU." The IPO was completed on May 30, 2023, whereby Cummins exchanged 19.5 percent (approximately 16 million shares) of its ownership in Atmus, at $19.50 per share, to retire $299 million of the commercial paper as proceeds from the offering through a non-cash transaction. In exchange for the filtration business, Atmus also transferred to Cummins consideration of approximately $650 million. The commercial paper issued and retired through the IPO proceeds, coupled with the $650 million received, is intended to be used for the retirement of our historical debt, dividends and share repurchases. See NOTE 15, "FORMATION OF ATMUS AND IPO," to the *Condensed Consolidated Financial Statements* for additional information.

Debt Facilities and Other Sources of Liquidity

On June 5, 2023, we entered into an amended and restated 364-day credit agreement that allows us to borrow up to $2.0 billion of unsecured funds at any time prior to June 3, 2024. This credit agreement amended and restated the prior $1.5 billion 364-day credit facility that matured on August 16, 2023. In connection with the 364-day credit agreement, effective June 5, 2023, we terminated our $500 million incremental 364-day credit agreement dated August 17, 2022.

We have access to committed credit facilities totaling $4.0 billion, including our $2.0 billion 364-day facility that expires June 3, 2024, and our $2.0 billion five-year facility that expires on August 18, 2026. These revolving credit facilities are maintained primarily to provide backup liquidity for our commercial paper borrowings and general corporate purposes. We intend to maintain credit facilities at the current or higher aggregate amounts by renewing or replacing these facilities at or before expiration. There were no outstanding borrowings under these facilities at June 30, 2023.

We can issue up to $4.0 billion of unsecured, short-term promissory notes (commercial paper) pursuant to the Board authorized commercial paper programs. These programs facilitate the private placement of unsecured short-term debt through third-party brokers. We intend to use the net proceeds from the commercial paper borrowings for acquisitions and general corporate purposes. The total combined borrowing capacity under the revolving credit facilities and commercial programs should not exceed $4.0 billion. At June 30, 2023, we had $1.6 billion of commercial paper outstanding, which effectively reduced our available capacity under our revolving credit facilities to $2.4 billion.

In 2021, we entered into a series of interest rate swaps to effectively convert our $500 million senior notes, due in 2025, from a fixed rate of 0.75 percent to a floating rate equal to the three-month LIBOR plus a spread. We also entered into a series of interest rate swaps to effectively convert $765 million of our $850 million senior notes, due in 2030, from a fixed rate of 1.50 percent to a floating rate equal to the three-month LIBOR plus a spread. The swaps were designated and are accounted for as fair value hedges. In March 2023, we settled a portion of our 2021 interest rate swaps with a notional amount of $100 million. The $7 million loss on settlement will be amortized over the remaining term of the related debt.

In 2019, we entered into $350 million of interest rate lock agreements, and in 2020 we entered into an additional $150 million of lock agreements to reduce the variability of the cash flows of the interest payments on a total of $500 million of fixed rate debt forecast to be issued in 2023 to replace our senior notes at maturity. In December 2022, we settled certain rate lock agreements with notional amounts totaling $150 million for $49 million. In February 2023, we settled certain rate lock agreements with notional amounts totaling $100 million for $34 million. The $83 million of gains on settlements will remain in other comprehensive income and will be amortized over the term of the anticipated new debt.

On February 15, 2023, certain of our subsidiaries entered into an amendment to the $1.0 billion credit agreement (Credit Agreement), consisting of a $400 million revolving credit facility and a $600 million term loan facility, in anticipation of the separation of our filtration business, which extended the date on which the Credit Agreement terminates from March 30, 2023 to June 30, 2023. On May 26, 2023, Atmus drew down the entire $600 million term loan facility and borrowed $50 million under the revolving credit facility for use as partial consideration for the filtration business. Borrowings under the Credit Agreement mature in September 2027 and bear interest at varying rates, depending on the type of loan and, in some cases, the rates of designated benchmarks and the applicable borrower's election. Generally, U.S. dollar-denominated loans bear interest at adjusted term Secured Overnight Financing Rate (SOFR) (which includes a 0.10 percent credit spread adjustment to term SOFR) for the applicable interest period plus a rate ranging from 1.125 percent to 1.75 percent. The Credit Agreement contains customary events of default and financial and other covenants, including maintaining a net leverage ratio of 4.0 to 1.0 and a minimum interest coverage ratio of 3.0 to 1.0.

As a well-known seasoned issuer, we filed an automatic shelf registration of an undetermined amount of debt and equity with the Securities and Exchange Commission (SEC) on February 8, 2022. Under this shelf registration we may offer, from time to time, debt securities, common stock, preferred and preference stock, depositary shares, warrants, stock purchase contracts and stock purchase units.

On July 3, 2023, the Financial Conduct Authority published a statement confirming that the U.S. dollar LIBOR panel had ceased. The Alternative Reference Rates Committee identified SOFR as its preferred alternative rate for U.S. dollar LIBOR. SOFR is a measure of the cost of borrowing cash overnight, collateralized by U.S. Treasury securities, and is based on directly observable U.S. Treasury-backed repurchase transactions. We evaluated the potential impact of the replacement of the LIBOR benchmark interest rate including risk management, internal operational readiness and monitoring the Financial Accounting Standards Board standard-setting process to address financial reporting issues that might arise in connection with transition from LIBOR to a new benchmark rate. The change had no material impact due to our operational and system readiness coupled with relevant contractual fallback language. In anticipation of LIBOR's phase out, our revolving credit and term loan agreements incorporated the use of SOFR as a replacement for LIBOR. Our 5-year credit facility maturing August 18, 2026, as amended to date, also incorporates SOFR. Additionally, with respect to our $1.2 billion in LIBOR-based fixed to variable rate swaps maturing in 2025 and 2030, we reviewed and believe our adherence to the 2020 LIBOR fallback protocol allowed for a smooth transition to the designated replacement rate.

Supply Chain Financing

We currently have supply chain financing programs with financial intermediaries, which provide certain vendors the option to be paid by financial intermediaries earlier than the due date on the applicable invoice. When a vendor utilizes the program and receives an early payment from a financial intermediary, they take a discount on the invoice. We then pay the financial intermediary the face amount of the invoice on the original due date. The maximum amount that we could have outstanding under the program was $482 million. We do not reimburse vendors for any costs they incur for participation in the program, their participation is completely voluntary and there are no assets pledged as security or other forms of guarantees provided for the committed payment to the finance provider or intermediary. As a result, all amounts owed to the financial intermediaries are presented as accounts payable in our *Condensed Consolidated Balance Sheets*. Amounts due to the financial intermediaries reflected in accounts payable at June 30, 2023, were $231 million.

Uses of Cash

Dividends

We paid dividends of $445 million during the six months ended June 30, 2023. In July 2023, the Board authorized an increase to our quarterly dividend of approximately 7 percent from $1.57 per share to $1.68 per share.

Capital Expenditures

Capital expenditures for the six months ended June 30, 2023, were $414 million versus $251 million in the comparable period in 2022. We continue to invest in new product lines and targeted capacity expansions. We plan to spend an estimated $1.2 billion to $1.3 billion in 2023 on capital expenditures with over 60 percent of these expenditures expected to be invested in North America.

Acquisitions

Acquisitions for the six months ended June 30, 2023, were as follows:

Entity Acquired (Dollars in millions)	Date of Acquisition	Additional Percent Interest Acquired	Payments to Former Owners	Acquisition Related Debt Retirements	Total Purchase Consideration[1]
Hydrogenics Corporation (Hydrogenics)	**06/29/23**	**19%**	**$ 287**	**$ 48**	**$ 335**
Teksid Hierro de Mexico, S.A. de C.V. (Teksid MX)	**04/03/23**	**100%**	**150**	**—**	**150**

[1] The "Total Purchase Consideration" represents the total amount that will or is estimated to be paid to complete the acquisition. Hydrogenics entered into three non-interest-bearing promissory notes with $175 million paid on July 31, 2023, and the remaining $160 million due in three installments through 2025.

See NOTE 16, "ACQUISITIONS," to our *Condensed Consolidated Financial Statements* for additional information.

Current Maturities of Short and Long-Term Debt

We had $1.6 billion of commercial paper outstanding at June 30, 2023, that matures in less than one year. The maturity schedule of our existing long-term debt requires significant cash outflows in 2023 when our 3.65 percent senior notes are due and in 2025 when our term loan and 0.75 percent senior notes are due. Required annual long-term debt principal payments range from $9 million to $2.0 billion over the next five years (including the remainder of 2023). In 2023, we intend to have a greater emphasis on the repayment of debt to maintain our strong credit ratings. See NOTE 9, "DEBT," to the *Condensed Consolidated Financial Statements* for additional information.

Pensions

Our global pension plans, including our unfunded and non-qualified plans, were 120 percent funded at December 31, 2022. Our U.S. defined benefit plans (qualified and non-qualified), which represented approximately 69 percent of the worldwide pension obligation, were 121 percent funded, and our U.K. defined benefit plans were 119 percent funded at December 31, 2022. The funded status of our pension plans is dependent upon a variety of variables and assumptions including return on invested assets, market interest rates and levels of voluntary contributions to the plans. In the first six months of 2023, our U.K. pension trusts' loss was 4.3 percent, while the investment gain on our U.S. pension trusts was 3.3 percent, excluding the Meritor plan as their return was not available at the time of filing. We anticipate making additional defined benefit pension contributions during the remainder of 2023 of $20 million for our U.S. and U.K. qualified and non-qualified pension plans. These contributions may be made from trusts or company funds either to increase pension assets or to make direct benefit payments to plan participants. We expect our 2023 annual net periodic pension cost to be near zero.

Stock Repurchases

In December 2021, the Board authorized the acquisition of up to $2.0 billion of additional common stock upon completion of the $2.0 billion repurchase plan authorized in 2019. We did not make any repurchases of common stock in the first six months of 2023.

Credit Ratings

Our rating and outlook from each of the credit rating agencies as of the date of filing are shown in the table below:

Credit Rating Agency [1]	Long-Term Senior Debt Rating	Short-Term Debt Rating	Outlook
Standard and Poor's Rating Services	A+	A1	Stable
Moody's Investors Service, Inc.	A2	P1	Stable

[1] Credit ratings are not recommendations to buy, are subject to change, and each rating should be evaluated independently of any other rating. In addition, we undertake no obligation to update disclosures concerning our credit ratings, whether as a result of new information, future events or otherwise.

Management's Assessment of Liquidity

Our financial condition and liquidity remain strong. Our solid balance sheet and credit ratings enable us to have ready access to credit and the capital markets. We assess our liquidity in terms of our ability to generate adequate cash to fund our operating, investing and financing activities. We believe our access to capital markets, our existing cash and marketable securities, operating cash flow and revolving credit facilities provide us with the financial flexibility needed to fund repayment of debt obligations, dividend payments, acquisitions, targeted capital expenditures, common stock repurchases, projected pension obligations, working capital and equity injections for our subsidiaries through 2023 and beyond. We continue to generate significant cash from operations and maintain access to our revolving credit facilities and commercial paper programs as noted above.

APPLICATION OF CRITICAL ACCOUNTING ESTIMATES

A summary of our significant accounting policies is included in NOTE 1, "SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES," of the Notes to the Consolidated Financial Statements of our 2022 Form 10-K, which discusses accounting policies that we have selected from acceptable alternatives.

Our *Condensed Consolidated Financial Statements* are prepared in accordance with generally accepted accounting principles that often require management to make judgments, estimates and assumptions regarding uncertainties that affect the reported amounts presented and disclosed in the financial statements. Management reviews these estimates and assumptions based on historical experience, changes in business conditions and other relevant factors they believe to be reasonable under the circumstances. In any given reporting period, our actual results may differ from the estimates and assumptions used in preparing our *Condensed Consolidated Financial Statements.*

Critical accounting estimates are defined as follows: the estimate requires management to make assumptions about matters that were highly uncertain at the time the estimate was made; different estimates reasonably could have been used; or if changes in the estimate are reasonably likely to occur from period to period and the change would have a material impact on our financial condition or results of operations. Our senior management has discussed the development and selection of our accounting policies, related accounting estimates and the disclosures set forth below with the Audit Committee of the Board. Our critical accounting estimates disclosed in the Form 10-K address estimating liabilities for warranty programs, fair value of intangible assets, assessing goodwill impairment, accounting for income taxes and pension benefits.

A discussion of our critical accounting estimates may be found in the "Management's Discussion and Analysis" section of our 2022 Form 10-K under the caption "APPLICATION OF CRITICAL ACCOUNTING ESTIMATES." Within the context of these critical accounting estimates, we are not currently aware of any reasonably likely events or circumstances that would result in different policies or estimates being reported in the first six months of 2023.

RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS

See Note 18, "RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS," in the *Notes to Condensed Consolidated Financial Statements* for additional information.

ITEM 3. Quantitative and Qualitative Disclosures About Market Risk

A discussion of quantitative and qualitative disclosures about market risk may be found in Item 7A of our 2022 Form 10-K. There have been no material changes in this information since the filing of our 2022 Form 10-K.

ITEM 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this Quarterly Report on Form 10-Q, we carried out an evaluation under the supervision and with the participation of our management, including our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Exchange Act Rules 13a-15(e) and 15d-15(e). Based upon that evaluation, our CEO and our CFO concluded that our disclosure controls and procedures were effective to ensure that the information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (2) accumulated and communicated to management, including our CEO and CFO, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended June 30, 2023, that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. Legal Proceedings

The matters described under "Legal Proceedings" in NOTE 11, "COMMITMENTS AND CONTINGENCIES," to the *Condensed Consolidated Financial Statements* are incorporated herein by reference.

ITEM 1A. Risk Factors

In addition to other information set forth in this report and the risk factor noted below, you should consider other risk factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022, which could materially affect our business, financial condition or future results. Other than noted below, there have been no material changes to our risks described in our 2022 Annual Report on Form 10-K or the "CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING INFORMATION" in this Quarterly report. Additional risks and uncertainties not currently known to us or that we currently judge to be immaterial also may materially adversely affect our business, financial condition or operating results.

GOVERNMENT REGULATION

We are conducting a formal internal review of our emission certification process and compliance with emission standards with respect to our pick-up truck applications and are working with the Environmental Protection Agency (EPA) and California Air Resources Board (CARB) to address their questions about these applications. Due to the continuing nature of our formal internal review and on-going discussions with the EPA and CARB, we cannot predict the final results of this formal review and these regulatory processes, nor the extent to which, they likely will have a material adverse impact on the results of operations and cash flows.

We previously announced that we are conducting a formal internal review of our emissions certification process and compliance with emission standards with respect to all of our pick-up truck applications, following conversations with the EPA and CARB regarding certification of our engines for model year 2019 RAM 2500 and 3500 trucks. During conversations with the EPA and CARB about the effectiveness of our pick-up truck applications, the regulators raised concerns that certain aspects of our emissions systems may reduce the effectiveness of our emissions control systems and thereby act as defeat devices. As a result, our internal review focuses, in part, on the regulators' concerns. We are working closely with the regulators to enhance our emissions systems to improve the effectiveness of all of our pick-up truck applications and to fully address the regulators' requirements. Based on discussions with the regulators, we have developed a new calibration for the engines in model year 2019 RAM 2500 and 3500 trucks that has been included in all engines shipped since September 2019. During our ongoing discussions, the regulators turned their attention to other model years and other engines, most notably our pick-up truck applications for RAM 2500 and 3500 trucks for model years 2013 through 2018 and Titan trucks for model years 2016 through 2019. Most recently, the regulators have also raised concerns regarding the completeness of our disclosures in our certification applications for RAM 2500 and 3500 trucks for model years 2013 through 2023. We have also been in communication with Environmental and Climate Change Canada regarding similar issues relating to some of these very same platforms. In connection with these and other ongoing discussions with the EPA and CARB, we are developing a new software calibration and will recall model years 2013 through 2018 RAM 2500 and 3500 trucks. We accrued $30 million for the RAM recall during the first quarter of 2022, an amount that reflected our current estimate of the cost of that recall. We are also developing a new software calibration and hardware fix and will recall model years 2016 through 2019 Titan trucks. We accrued $29 million for the Titan recall during the third quarter of 2022, an amount that reflected our current estimate of the cost of that recall.

We will continue to work together closely with the relevant regulators to develop and implement recommendations for improvements and seek to reach further resolutions as part of our ongoing commitment to compliance. Based upon our discussions to date with the regulators which are continuing, such resolutions may involve our agreeing to one or more consent decrees and paying civil penalties. Due to the presence of many unknown facts and circumstances, we are not yet able to estimate any further financial impact of these matters. The consequences resulting from our formal review and these regulatory processes likely will have a material adverse impact on our results of operations and cash flows, however we cannot yet reasonably estimate a loss or range of loss.

ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds

The following information is provided pursuant to Item 703 of Regulation S-K:

	Issuer Purchases of Equity Securities			
Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in millions) [(1)]
April 1 - April 30	—	$ —	—	$ 2,218
May 1 - May 31	—	—	—	2,218
June 1 - June 30	—	—	—	2,218
Total	—	—	—	

(1) Shares repurchased under our Key Employee Stock Investment Plan only occur in the event of a participant default, which cannot be predicted, and were excluded from this column.

In December 2021, the Board authorized the acquisition of up to $2.0 billion of additional common stock upon completion of the $2.0 billion repurchase plan authorized in 2019. During the three months ended June 30, 2023, we did not make any repurchases of common stock. The dollar value remaining available for future purchases under the 2019 program at June 30, 2023, was $218 million.

Our Key Employee Stock Investment Plan allows certain employees, other than officers, to purchase shares of common stock on an installment basis up to an established credit limit. We hold participants' shares as security for the loans and would, in effect, repurchase shares only if the participant defaulted in repayment of the loan. Shares associated with participants' sales are sold as open-market transactions via a third-party broker.

ITEM 3. Defaults Upon Senior Securities

Not applicable.

ITEM 4. Mine Safety Disclosures

Not applicable.

ITEM 5. Other Information

(c) During the second quarter of 2023, none of our directors or executive officers adopted or terminated any "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement" (as each term is defined in Item 408(a) of Regulation S-K).

ITEM 6. Exhibits

The exhibits listed in the following Exhibit Index are filed as part of this Quarterly Report on Form 10-Q.

CUMMINS INC.
EXHIBIT INDEX

Exhibit No.	Description of Exhibit
10.1	Fifth Amended and Restated 364-Day Credit Agreement, dated as of June 5, 2023, by and among Cummins Inc., the subsidiary borrowers referred to therein, the Lenders party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent. (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by Cummins Inc. with the Securities and Exchange Commission on June 7, 2023 (File No. 001-04949)).
10.2	Cummins Inc. Employee Stock Purchase Plan, as amended (incorporated by reference to Annex B to the Company's definitive proxy statement filed with the Securities and Exchange Commission on Schedule 14A on March 27, 2023 (File No. 001-04949)).
31(a)	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31(b)	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* Filed with this quarterly report on Form 10-Q are the following documents formatted in iXBRL (Inline Extensible Business Reporting Language): (i) the *Condensed Consolidated Statements of Net Income for the three and six months ended June 30, 2023 and June 30, 2022*, (ii) the *Condensed Consolidated Statements of Comprehensive Income for the three and six months ended June 30, 2023 and June 30, 2022*, (iii) the *Condensed Consolidated Balance Sheets at June 30, 2023 and December 31, 2022*, (iv) the *Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2023 and June 30, 2022*, (v) the *Condensed Consolidated Statements of Changes in Redeemable Noncontrolling Interests and Equity for the three and six months ended June 30, 2023 and June 30, 2022* and (vi) *Notes to Condensed Consolidated Financial Statements*.

SIGNATURES

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

Cummins Inc.

Date: August 3, 2023

By:	/s/ MARK A. SMITH	By:	/s/ LUTHER E. PETERS
	Mark A. Smith		Luther E. Peters
	Vice President and Chief Financial Officer		*Vice President-Controller*
	(Principal Financial Officer)		*(Principal Accounting Officer)*

EXHIBIT 31(a)

Certification

I, Jennifer Rumsey, certify that:

1. I have reviewed this report on Form 10-Q of Cummins Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 3, 2023

/s/ JENNIFER RUMSEY
Jennifer Rumsey
Chair and Chief Executive Officer

EXHIBIT 31(b)

Certification

I, Mark A. Smith, certify that:

1. I have reviewed this report on Form 10-Q of Cummins Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 3, 2023

/s/ MARK A. SMITH

Mark A. Smith

Vice President and Chief Financial Officer

EXHIBIT 32

Cummins Inc.

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Cummins Inc. (the “Company”) on Form 10-Q for the period ended June 30, 2023, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of the undersigned officers of the Company certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that to the best of such officer's knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 3, 2023	/s/ JENNIFER RUMSEY Jennifer Rumsey *Chair and Chief Executive Officer*
August 3, 2023	/s/ MARK A. SMITH Mark A. Smith *Vice President and Chief Financial Officer*