UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, DC 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 March 31, 2023

OR

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

For the transition period from to

Commission file number 001-34960

GENERAL MOTORS COMPANY

(Exact name of registrant as specified in its charter)

Delaware	**27-0756180**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
300 Renaissance Center, Detroit, Michigan	**48265 -3000**
(Address of principal executive offices)	*(Zip Code)*

(313) 667-1500
(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, $0.01 par value	GM	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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.

Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

As of April 14, 2023 there were 1,390,123,499 shares of common stock outstanding.

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PART I

Item 1. Condensed Consolidated Financial Statements

CONDENSED CONSOLIDATED INCOME STATEMENTS
(In millions, except per share amounts) (Unaudited)

	Three Months Ended	
	March 31, 2023	March 31, 2022
Net sales and revenue		
Automotive	$ 36,646	$ 32,824
GM Financial	3,339	3,155
Total net sales and revenue (Note 2)	39,985	35,979
Costs and expenses		
Automotive and other cost of sales	32,247	29,353
GM Financial interest, operating and other expenses	2,612	1,926
Automotive and other selling, general and administrative expense	2,547	2,504
Total costs and expenses	37,407	33,783
Operating income (loss)	2,578	2,196
Automotive interest expense	234	226
Interest income and other non-operating income, net	409	517
Equity income (loss) (Note 7)	21	292
Income (loss) before income taxes	2,775	2,779
Income tax expense (benefit) (Note 14)	428	(28)
Net income (loss)	2,346	2,807
Net loss (income) attributable to noncontrolling interests	49	131
Net income (loss) attributable to stockholders	$ 2,395	$ 2,939
Net income (loss) attributable to common stockholders	$ 2,369	$ 1,987
Earnings per share (Note 17)		
Basic earnings per common share	$ 1.70	$ 1.36
Weighted-average common shares outstanding – basic	1,396	1,458
Diluted earnings per common share	$ 1.69	$ 1.35
Weighted-average common shares outstanding – diluted	1,402	1,470
Dividends declared per common share	$ 0.09	$ —

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions) (Unaudited)

	Three Months Ended	
	March 31, 2023	March 31, 2022
Net income (loss)	$ 2,346	$ 2,807
Other comprehensive income (loss), net of tax (Note 16)		
Foreign currency translation adjustments and other	148	340
Defined benefit plans	(35)	103
Other comprehensive income (loss), net of tax	113	442
Comprehensive income (loss)	2,460	3,250
Comprehensive loss (income) attributable to noncontrolling interests	58	145
Comprehensive income (loss) attributable to stockholders	$ 2,518	$ 3,394

Reference should be made to the notes to condensed consolidated financial statements.
Amounts may not add due to rounding.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

CONDENSED CONSOLIDATED BALANCE SHEETS
(In millions, except per share amounts) (Unaudited)

	March 31, 2023	December 31, 2022
ASSETS		
Current Assets		
Cash and cash equivalents	$ 18,227	$ 19,153
Marketable debt securities (Note 3)	9,981	12,150
Accounts and notes receivable, net of allowance of $261 and $260	13,702	13,333
GM Financial receivables, net of allowance of $801 and $869 (Note 4; Note 8 at VIEs)	32,283	33,623
Inventories (Note 5)	17,758	15,366
Other current assets (Note 3; Note 8 at VIEs)	6,881	6,825
Total current assets	98,832	100,451
Non-current Assets		
GM Financial receivables, net of allowance of $1,351 and $1,227 (Note 4; Note 8 at VIEs)	43,582	40,591
Equity in net assets of nonconsolidated affiliates (Note 7)	10,542	10,176
Property, net	46,895	45,248
Goodwill and intangible assets, net	4,968	4,945
Equipment on operating leases, net (Note 6; Note 8 at VIEs)	31,848	32,701
Deferred income taxes	20,676	20,539
Other assets (Note 3; Note 8 at VIEs)	9,661	9,386
Total non-current assets	168,173	163,586
Total Assets	$ 267,004	$ 264,037
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable (principally trade)	$ 28,931	$ 27,486
Short-term debt and current portion of long-term debt (Note 9)		
Automotive	425	1,959
GM Financial (Note 8 at VIEs)	36,585	36,819
Accrued liabilities	24,244	24,910
Total current liabilities	90,185	91,173
Non-current Liabilities		
Long-term debt (Note 9)		
Automotive	15,929	15,885
GM Financial (Note 8 at VIEs)	61,482	60,036
Postretirement benefits other than pensions (Note 12)	4,162	4,193
Pensions (Note 12)	5,697	5,698
Other liabilities	15,318	14,767
Total non-current liabilities	102,588	100,579
Total Liabilities	192,773	191,752
Commitments and contingencies (Note 13)		
Noncontrolling interest - Cruise stock incentive awards	271	357
Equity (Note 16)		
Common stock, $0.01 par value	14	14
Additional paid-in capital	26,323	26,428
Retained earnings	51,318	49,251
Accumulated other comprehensive loss	(7,778)	(7,901)
Total stockholders' equity	69,877	67,792
Noncontrolling interests	4,084	4,135
Total Equity	73,961	71,927
Total Liabilities and Equity	$ 267,004	$ 264,037

Reference should be made to the notes to condensed consolidated financial statements.

Amounts may not add due to rounding.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions) (Unaudited)

	Three Months Ended	
	March 31, 2023	March 31, 2022
Cash flows from operating activities		
Net income (loss)	$ 2,346	$ 2,807
Depreciation and impairment of Equipment on operating leases, net	1,241	1,223
Depreciation, amortization and impairment charges on Property, net	1,571	1,668
Foreign currency remeasurement and transaction (gains) losses	135	56
Undistributed earnings of nonconsolidated affiliates, net	(61)	(274)
Pension contributions and OPEB payments	(236)	(213)
Pension and OPEB income, net	(20)	(300)
Provision (benefit) for deferred taxes	46	(81)
Change in other operating assets and liabilities	(1,936)	(2,784)
Net cash provided by (used in) operating activities	3,086	2,104
Cash flows from investing activities		
Expenditures for property	(2,431)	(1,661)
Available-for-sale marketable securities, acquisitions	(643)	(3,451)
Available-for-sale marketable securities, liquidations	2,947	1,960
Purchases of finance receivables, net	(8,963)	(8,189)
Principal collections and recoveries on finance receivables	7,282	6,845
Purchases of leased vehicles, net	(3,154)	(2,990)
Proceeds from termination of leased vehicles	3,264	3,732
Other investing activities	(563)	(154)
Net cash provided by (used in) investing activities	(2,262)	(3,909)
Cash flows from financing activities		
Net increase (decrease) in short-term debt	(167)	722
Proceeds from issuance of debt (original maturities greater than three months)	11,487	10,685
Payments on debt (original maturities greater than three months)	(12,127)	(10,827)
Payments to purchase common stock	(369)	—
Issuance (redemption) of subsidiary stock (Note 16)	—	(2,124)
Dividends paid	(185)	(73)
Other financing activities	(324)	(235)
Net cash provided by (used in) financing activities	(1,685)	(1,852)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	54	93
Net increase (decrease) in cash, cash equivalents and restricted cash	(807)	(3,564)
Cash, cash equivalents and restricted cash at beginning of period	21,948	23,542
Cash, cash equivalents and restricted cash at end of period	$ 21,141	$ 19,978
Significant Non-cash Investing and Financing Activity		
Non-cash property additions	$ 3,041	$ 1,931

Reference should be made to the notes to condensed consolidated financial statements.
Amounts may not add due to rounding.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
(In millions) (Unaudited)

	Common Stockholders'						
	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interests	Total Equity (Permanent Equity)	Noncontrolling Interest Cruise Stock Incentive Awards (Temporary Equity)
Balance at January 1, 2022	$ 15	$ 27,061	$ 41,937	$ (9,269)	$ 6,071	$ 65,815	$ —
Net income (loss)	—	—	2,939	—	(131)	2,807	—
Other comprehensive income (loss)	—	—	—	456	(13)	442	—
Issuance (redemption) of subsidiary stock (Note 16)	—	—	(909)	—	(1,215)	(2,124)	—
Stock based compensation	—	(31)	(1)	—	—	(32)	289
Dividends to noncontrolling interests	—	—	(12)	—	(1)	(14)	—
Other	—	(15)	(74)	—	(31)	(120)	—
Balance at March 31, 2022	$ 15	$ 27,015	$ 43,879	$ (8,814)	$ 4,679	$ 66,774	$ 289
Balance at January 1, 2023	$ 14	$ 26,428	$ 49,251	$ (7,901)	$ 4,135	$ 71,927	$ 357
Net income (loss)	—	—	2,395	—	(49)	2,346	—
Other comprehensive income (loss)	—	—	—	123	(9)	113	—
Purchase of common stock	—	(168)	(201)	—	—	(369)	—
Stock based compensation	—	(34)	(2)	—	—	(35)	7
Cash dividends paid on common stock	—	—	(126)	—	—	(126)	—
Other	—	97	—	—	7	103	(93)
Balance at March 31, 2023	$ 14	$ 26,323	$ 51,318	$ (7,778)	$ 4,084	$ 73,961	$ 271

Reference should be made to the notes to condensed consolidated financial statements.
Amounts may not add due to rounding.

Note 1. Nature of Operations and Basis of Presentation

General Motors Company (sometimes referred to in this Quarterly Report on Form 10-Q as we, our, us, ourselves, the Company, General Motors or GM) designs, builds and sells trucks, crossovers, cars and automobile parts and provides software-enabled services and subscriptions worldwide. Additionally, we are investing in and growing an autonomous vehicle (AV) business. We also provide automotive financing services through General Motors Financial Company, Inc. (GM Financial). We analyze the results of our operations through the following segments: GM North America (GMNA), GM International (GMI), Cruise, and GM Financial. Cruise is our global segment responsible for the development and commercialization of AV technology. Nonsegment operations are classified as Corporate. Corporate includes certain centrally recorded income and costs such as interest, income taxes, corporate expenditures and certain nonsegment-specific revenues and expenses.

The condensed consolidated financial statements are prepared in conformity with U.S. GAAP pursuant to the rules and regulations of the Securities and Exchange Commission (SEC) for interim financial information. Accordingly, they do not include all of the information and notes required by U.S. GAAP for complete financial statements. The condensed consolidated financial statements include all adjustments, which consist of normal recurring adjustments and transactions or events discretely impacting the interim periods, considered necessary by management to fairly state our results of operations, financial position and cash flows. The operating results for interim periods are not necessarily indicative of results that may be expected for any other interim period or for the full year. These condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in our 2022 Form 10-K. Except for per share amounts or as otherwise specified, amounts presented within tables are stated in millions. Certain columns and rows may not add due to rounding.

Throughout this report, we refer to General Motors Company and its consolidated subsidiaries in a simplified manner and on a collective basis, using words like "we," "our," "us" and "the Company." This drafting style is suggested by the SEC and is not meant to indicate that General Motors Company, the publicly traded parent company, or any particular subsidiary of the parent company, owns or operates any particular asset, business or property. The operations and businesses described in this report are owned and operated by distinct subsidiaries of General Motors Company.

Principles of Consolidation We consolidate entities that we control due to ownership of a majority voting interest and we consolidate variable interest entities (VIEs) when we are the primary beneficiary. All intercompany balances and transactions are eliminated in consolidation. Our share of earnings or losses of nonconsolidated affiliates is included in our consolidated operating results using the equity method of accounting when we are able to exercise significant influence over the operating and financial decisions of the affiliate.

GM Financial The amounts presented for GM Financial are adjusted to reflect the impact on GM Financial's deferred tax positions and provision for income taxes resulting from the inclusion of GM Financial in our consolidated tax return and to eliminate the effect of transactions between GM Financial and the other members of the consolidated group. Accordingly, the amounts presented will differ from those presented by GM Financial on a stand-alone basis.

Note 2. Revenue

The following table disaggregates our revenue by major source:

	Three Months Ended March 31, 2023							
	GMNA	GMI	Corporate	Total Automotive	Cruise	GM Financial	Eliminations/Reclassifications	Total
Vehicle, parts and accessories	$ 31,876	$ 3,342	$ 9	$ 35,227	$ —	$ —	$ —	$ 35,227
Used vehicles	175	5	—	180	—	—	—	180
Services and other	837	380	22	1,239	25	—	(25)	1,239
Automotive net sales and revenue	32,889	3,727	31	36,646	25	—	(25)	36,646
Leased vehicle income	—	—	—	—	—	1,818	—	1,818
Finance charge income	—	—	—	—	—	1,368	(3)	1,366
Other income	—	—	—	—	—	156	(1)	155
GM Financial net sales and revenue	—	—	—	—	—	3,343	(4)	3,339
Net sales and revenue	$ 32,889	$ 3,727	$ 31	$ 36,646	$ 25	$ 3,343	$ (29)	$ 39,985

	Three Months Ended March 31, 2022							
	GMNA	GMI	Corporate	Total Automotive	Cruise	GM Financial	Eliminations/ Reclassifications	Total
Vehicle, parts and accessories	$ 28,572	$ 3,014	$ 5	$ 31,591	$ —	$ —	$ —	$ 31,591
Used vehicles	75	5	—	80	—	—	—	80
Services and other	809	295	48	1,152	26	—	(25)	1,153
Automotive net sales and revenue	29,456	3,313	53	32,823	26	—	(25)	32,824
Leased vehicle income	—	—	—	—	—	2,066	—	2,066
Finance charge income	—	—	—	—	—	1,010	—	1,010
Other income	—	—	—	—	—	80	(1)	79
GM Financial net sales and revenue	—	—	—	—	—	3,156	(1)	3,155
Net sales and revenue	$ 29,456	$ 3,313	$ 53	$ 32,823	$ 26	$ 3,156	$ (26)	$ 35,979

Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. Adjustments to sales incentives for previously recognized sales increased revenue by an insignificant amount in the three months ended March 31, 2023 and 2022.

Contract liabilities in our Automotive segments primarily consist of maintenance, extended warranty and other service contracts of $4.0 billion and $3.3 billion at March 31, 2023 and December 31, 2022, which are included in Accrued liabilities and Other liabilities. We recognized revenue of $408 million and $444 million related to contract liabilities in the three months ended March 31, 2023 and 2022. We expect to recognize revenue of $1.2 billion in the nine months ending December 31, 2023 and $989 million, $750 million and $1.1 billion in the years ending December 31, 2024, 2025 and thereafter related to contract liabilities at March 31, 2023.

Note 3. Marketable and Other Securities

The following table summarizes the fair value of cash equivalents and marketable debt securities, which approximates cost:

	Fair Value Level	March 31, 2023	December 31, 2022
Cash and cash equivalents			
Cash and time deposits		$ 9,521	$ 8,921
Available-for-sale debt securities			
U.S. government and agencies	2	126	1,012
Corporate debt	2	1,712	2,778
Sovereign debt	2	823	1,828
Total available-for-sale debt securities – cash equivalents		2,661	5,618
Money market funds	1	6,045	4,613
Total cash and cash equivalents(a)		$ 18,227	$ 19,153
Marketable debt securities			
U.S. government and agencies	2	$ 4,174	$ 4,357
Corporate debt	2	4,375	5,147
Mortgage and asset-backed	2	552	538
Sovereign debt	2	880	2,108
Total available-for-sale debt securities – marketable securities(b)		$ 9,981	$ 12,150
Restricted cash			
Cash and cash equivalents		$ 335	$ 341
Money market funds	1	2,579	2,455
Total restricted cash		$ 2,914	$ 2,796
Available-for-sale debt securities included above with contractual maturities(c)			
Due in one year or less		$ 6,079	
Due between one and five years		5,901	
Total available-for-sale debt securities with contractual maturities		$ 11,979	

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(a) Includes $1.9 billion and $1.5 billion in Cruise at March 31, 2023 and December 31, 2022.
(b) Includes $612 million and $1.4 billion in Cruise at March 31, 2023 and December 31, 2022.
(c) Excludes mortgage and asset-backed securities of $552 million at March 31, 2023 as these securities are not due at a single maturity date.

Proceeds from the sale of available-for-sale debt securities sold prior to maturity were $380 million and $464 million in the three months ended March 31, 2023 and 2022. Net unrealized gains and losses on available-for-sale debt securities were insignificant in the three months ended March 31, 2023 and 2022. Cumulative unrealized losses on available-for-sale debt securities were $275 million and $344 million at March 31, 2023 and December 31, 2022.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the condensed consolidated balance sheets to the total shown in the condensed consolidated statement of cash flows:

	March 31, 2023
Cash and cash equivalents	$ 18,227
Restricted cash included in Other current assets	2,467
Restricted cash included in Other assets	447
Total	$ 21,141

Note 4. GM Financial Receivables and Transactions

	March 31, 2023			December 31, 2022		
	Retail	Commercial(a)	Total	Retail	Commercial(a)	Total
GM Financial receivables, net of fees	$ 67,704	$ 10,313	$ 78,017	$ 65,322	$ 10,988	$ 76,310
Less: allowance for loan losses	(2,123)	(29)	(2,152)	(2,062)	(34)	(2,096)
GM Financial receivables, net	$ 65,581	$ 10,283	$ 75,865	$ 63,260	$ 10,954	$ 74,214
Fair value of GM Financial receivables utilizing Level 2 inputs			$ 10,283			$ 10,954
Fair value of GM Financial receivables utilizing Level 3 inputs			$ 65,165			$ 62,150

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(a) Net of dealer cash management balances of $2.2 billion and $1.9 billion at March 31, 2023 and December 31, 2022. Under the cash management program, subject to certain conditions, a dealer may choose to reduce the amount of interest on its floorplan line by making principal payments to GM Financial in advance.

	Three Months Ended	
	March 31, 2023	March 31, 2022
Allowance for loan losses at beginning of period	$ 2,096	$ 1,886
Provision for loan losses	131	122
Charge-offs	(322)	(275)
Recoveries	187	177
Effect of foreign currency and other	61	18
Allowance for loan losses at end of period	$ 2,152	$ 1,928

Retail Finance Receivables GM Financial's retail finance receivable portfolio includes loans made to consumers and businesses to finance the purchase of vehicles for personal and commercial use. The following tables are consolidated summaries of the retail finance receivables by FICO score or its equivalent, determined at origination, for each vintage of the retail finance receivables portfolio at March 31, 2023 and December 31, 2022:

	Year of Origination						March 31, 2023	
	2023	2022	2021	2020	2019	Prior	Total	Percent
Prime – FICO score 680 and greater	$ 6,996	$ 20,633	$ 12,223	$ 7,149	$ 1,915	$ 914	$ 49,829	73.6 %
Near-prime – FICO score 620 to 679	832	3,012	2,389	1,345	599	322	8,498	12.6 %
Sub-prime – FICO score less than 620	835	3,054	2,525	1,443	916	603	9,377	13.8 %
Retail finance receivables, net of fees	$ 8,663	$ 26,699	$ 17,138	$ 9,936	$ 3,429	$ 1,839	$ 67,704	100.0 %

	Year of Origination						December 31, 2022	
	2022	2021	2020	2019	2018	Prior	Total	Percent
Prime – FICO score 680 and greater	$ 22,677	$ 13,399	$ 7,991	$ 2,254	$ 1,019	$ 205	$ 47,543	72.8 %
Near-prime – FICO score 620 to 679	3,202	2,601	1,487	688	310	104	8,392	12.8 %
Sub-prime – FICO score less than 620	3,211	2,746	1,604	1,051	496	280	9,388	14.4 %
Retail finance receivables, net of fees	$ 29,090	$ 18,745	$ 11,081	$ 3,992	$ 1,824	$ 589	$ 65,322	100.0 %

GM Financial reviews the ongoing credit quality of retail finance receivables based on customer payment activity. A retail account is considered delinquent if a substantial portion of a scheduled payment has not been received by the date the payment was contractually due. Retail finance receivables are collateralized by vehicle titles and, subject to local laws, GM Financial generally has the right to repossess the vehicle in the event the customer defaults on the payment terms of the contract. The accrual of finance charge income had been suspended on delinquent retail finance receivables with contractual amounts due of $585 million and $685 million at March 31, 2023 and December 31, 2022. The following tables are consolidated summaries of the amortized cost of retail finance receivables by delinquency status, for each vintage of the portfolio at March 31, 2023 and December 31, 2022, as well as summary totals for March 31, 2022:

	Year of Origination						March 31, 2023		March 31, 2022	
	2023	2022	2021	2020	2019	Prior	Total	Percent	Total	Percent
0-to-30 days	$ 8,646	$ 26,262	$ 16,648	$ 9,640	$ 3,236	$ 1,676	$ 66,109	97.6 %	$ 58,179	97.8 %
31-to-60 days	17	316	363	222	146	124	1,188	1.8 %	983	1.7 %
Greater-than-60 days	1	104	112	68	43	36	363	0.5 %	302	0.5 %
Finance receivables more than 30 days delinquent	17	420	475	290	190	160	1,551	2.3 %	1,285	2.2 %
In repossession	—	17	15	6	3	2	44	0.1 %	39	0.1 %
Finance receivables more than 30 days delinquent or in repossession	17	437	489	296	193	162	1,595	2.4 %	1,324	2.2 %
Retail finance receivables, net of fees	$ 8,663	$ 26,699	$ 17,138	$ 9,936	$ 3,429	$ 1,839	$ 67,704	100.0 %	$ 59,503	100.0 %

	Year of Origination						December 31, 2022	
	2022	2021	2020	2019	2018	Prior	Total	Percent
0-to-30 days	$ 28,676	$ 18,128	$ 10,702	$ 3,743	$ 1,685	$ 493	$ 63,426	97.1 %
31-to-60 days	310	452	275	184	103	69	1,393	2.1 %
Greater-than-60 days	93	150	98	62	35	26	465	0.7 %
Finance receivables more than 30 days delinquent	403	603	373	246	138	95	1,857	2.8 %
In repossession	11	14	6	4	2	1	39	0.1 %
Finance receivables more than 30 days delinquent or in repossession	414	617	380	249	140	96	1,896	2.9 %
Retail finance receivables, net of fees	$ 29,090	$ 18,745	$ 11,081	$ 3,992	$ 1,824	$ 589	$ 65,322	100.0 %

Commercial Finance Receivables GM Financial's commercial finance receivables consist of dealer financings, primarily for inventory purchases. Proprietary models are used to assign a risk rating to each dealer. GM Financial performs periodic credit reviews of each dealership and adjusts the dealership's risk rating, if necessary. There were no commercial finance receivables on nonaccrual status at March 31, 2023.

GM Financial's commercial risk model and risk rating categories are as follows:

Rating	Description
I	Performing accounts with strong to acceptable financial metrics with at least satisfactory capacity to meet financial commitments.
II	Performing accounts experiencing potential weakness in financial metrics and repayment prospects resulting in increased monitoring.
III	Non-Performing accounts with inadequate paying capacity for current obligations and have the distinct possibility of creating a loss if deficiencies are not corrected.
IV	Non-Performing accounts with inadequate paying capacity for current obligations and inherent weaknesses that make collection of liquidation in full highly questionable or improbable.

Dealers with III and IV risk ratings are subject to additional monitoring and restrictions on funding, including suspension of lines of credit and liquidation of assets. The following tables summarize the credit risk profile by dealer risk rating of commercial finance receivables at March 31, 2023 and December 31, 2022:

	Year of Origination(a)							March 31, 2023	
	Revolving	2023	2022	2021	2020	2019	Prior	Total	Percent
I	$ 8,823	$ 71	$ 435	$ 336	$ 338	$ 87	$ 42	$ 10,133	98.3 %
II	94	—	—	1	—	—	—	96	0.9 %
III	59	—	15	—	—	10	—	84	0.8 %
IV	—	—	—	—	—	—	—	—	— %
Commercial finance receivables, net of fees	$ 8,976	$ 71	$ 450	$ 338	$ 338	$ 97	$ 42	$ 10,313	100.0 %

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(a) Floorplan advances comprise 96% of the total revolving balance. Dealer term loans are presented by year of origination.

	Year of Origination(a)							December 31, 2022	
	Revolving	2022	2021	2020	2019	2018	Prior	Total	Percent
I	$ 9,493	$ 438	$ 356	$ 360	$ 91	$ 38	$ 18	$ 10,794	98.2 %
II	89	—	1	—	—	—	—	91	0.8 %
III	78	15	—	—	10	—	—	104	0.9 %
IV	—	—	—	—	—	—	—	—	— %
Commercial finance receivables, net of fees	$ 9,660	$ 453	$ 357	$ 360	$ 102	$ 38	$ 18	$ 10,988	100.0 %

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(a) Floorplan advances comprise 97% of the total revolving balance. Dealer term loans are presented by year of origination.

Transactions with GM Financial The following table shows transactions between our Automotive segments and GM Financial. These amounts are presented in GM Financial's condensed consolidated balance sheets and statements of income.

	March 31, 2023	December 31, 2022
Condensed Consolidated Balance Sheets(a)		
Commercial finance receivables, net due from GM consolidated dealers	$ 163	$ 187
Receivables from Cruise	$ 151	$ 113
Subvention receivable(b)	$ 594	$ 469
Commercial loan funding payable	$ 72	$ 105

	Three Months Ended	
	March 31, 2023	March 31, 2022
Condensed Consolidated Statements of Income		
Interest subvention earned on finance receivables	$ 279	$ 221
Leased vehicle subvention earned	$ 393	$ 547

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(a) All balance sheet amounts are eliminated upon consolidation.
(b) Our Automotive segments made cash payments to GM Financial for subvention of $749 million and $439 million in the three months ended March 31, 2023 and 2022.

GM Financial's Board of Directors declared and paid dividends of $450 million on its common stock in the three months ended March 31, 2023.

Note 5. Inventories

	March 31, 2023	December 31, 2022
Total productive material, supplies and work in process	$ 8,822	$ 8,014
Finished product, including service parts	8,935	7,353
Total inventories	$ 17,758	$ 15,366

Note 6. Equipment on Operating Leases

Equipment on operating leases consists of leases to retail customers of GM Financial.

	March 31, 2023	December 31, 2022
Equipment on operating leases	$ 39,991	$ 40,919
Less: accumulated depreciation	(8,143)	(8,218)
Equipment on operating leases, net	$ 31,848	$ 32,701

The estimated residual value of our leased assets at the end of the lease term was $24.1 billion and $24.7 billion at March 31, 2023 and December 31, 2022.

Depreciation expense related to Equipment on operating leases, net was $1.2 billion in the three months ended March 31, 2023 and 2022.

The following table summarizes lease payments due to GM Financial on leases to retail customers:

	Year Ending December 31,						
	2023	2024	2025	2026	2027	Thereafter	Total
Lease receipts under operating leases	$ 3,807	$ 3,293	$ 1,505	$ 243	$ 8	$ —	$ 8,855

Note 7. Equity in Net Assets of Nonconsolidated Affiliates

Nonconsolidated affiliates are entities in which we maintain an equity ownership interest and for which we use the equity method of accounting due to our ability to exert significant influence over decisions relating to their operating and financial affairs. Revenue and expenses of our joint ventures are not consolidated into our financial statements; rather, our proportionate share of the earnings of each joint venture is reflected as Equity income (loss) or Automotive and other cost of sales.

	Three Months Ended	
	March 31, 2023	March 31, 2022
Automotive China equity income (loss)	$ 83	$ 234
Other joint ventures equity income (loss)(a)	(8)	59
Total Equity income (loss)	$ 75	$ 292

(a) Equity earnings related to Ultium Cells Holdings LLC are presented in Automotive and other cost of sales as this entity is integral to the operations of our business by providing battery cells for our electric vehicles (EVs). In the three months ended March 31, 2023, equity earnings related to Ultium Cells Holdings LLC were insignificant.

There have been no significant ownership changes in our Automotive China joint ventures (Automotive China JVs) since December 31, 2022.

	Three Months Ended	
	March 31, 2023	March 31, 2022
Summarized Operating Data of Automotive China JVs		
Automotive China JVs' net sales	$ 5,833	$ 8,992
Automotive China JVs' net income (loss)	$ 123	$ 505

Dividends declared but not paid from our nonconsolidated affiliates were insignificant at March 31, 2023 and December 31, 2022. Dividends received from our nonconsolidated affiliates were insignificant in the three months ended March 31, 2023 and 2022. Undistributed earnings from our nonconsolidated affiliates were $2.0 billion and $1.9 billion at March 31, 2023 and December 31, 2022.

Note 8. Variable Interest Entities

Consolidated VIEs

Automotive Financing – GM Financial

GM Financial uses special purpose entities (SPEs) that are considered VIEs to issue variable funding notes to third party, bank-sponsored warehouse facilities or asset-backed securities to investors in securitization transactions. The debt issued by these VIEs is backed by finance receivables and leasing-related assets transferred to the VIEs (Securitized Assets). GM Financial determined that it is the primary beneficiary of the SPEs because the servicing responsibilities for the Securitized Assets give GM Financial the power to direct the activities that most significantly impact the performance of the VIEs and the variable interests in the VIEs give GM Financial the obligation to absorb losses and the right to receive residual returns that could potentially be significant. The assets of the VIEs serve as the sole source of repayment for the debt issued by these entities. Investors in the notes issued by the VIEs do not have recourse to GM Financial or its other assets, with the exception of customary representation and warranty repurchase provisions and indemnities that GM Financial provides as the servicer. GM Financial is not required to provide additional financial support to these SPEs. While these subsidiaries are included in GM Financial's condensed consolidated financial statements, they are separate legal entities and the finance receivables, lease-related assets and cash held by them are legally owned by them and are not available to GM Financial's creditors or creditors of GM Financial's other subsidiaries.

The following table summarizes the assets and liabilities related to GM Financial's consolidated VIEs:

	March 31, 2023	December 31, 2022
Restricted cash – current	$ 2,271	$ 2,176
Restricted cash – non-current	$ 367	$ 360
GM Financial receivables, net of fees – current	$ 17,968	$ 19,896
GM Financial receivables, net of fees – non-current	$ 20,031	$ 18,748
GM Financial equipment on operating leases, net	$ 16,414	$ 18,456
GM Financial short-term debt and current portion of long-term debt	$ 19,903	$ 21,643
GM Financial long-term debt	$ 21,410	$ 20,545

GM Financial recognizes finance charge, leased vehicle and fee income on the Securitized Assets and interest expense on the secured debt issued in a securitization transaction and records a provision for loan losses to recognize loan losses expected over the remaining life of the finance receivables.

Nonconsolidated VIEs

Automotive

Nonconsolidated VIEs principally include automotive related operating entities to which we provided financial support to ensure that our supply needs for production are met or are not disrupted. Our variable interests in these nonconsolidated VIEs include equity investments, accounts and loans receivable, committed financial support and other off-balance sheet arrangements. The carrying amounts of assets were approximately $1.9 billion and $1.6 billion and liabilities were insignificant related to our nonconsolidated VIEs at March 31, 2023 and December 31, 2022. Our maximum exposure to loss as a result of our involvement with these VIEs was approximately $3.3 billion, inclusive of approximately $1.2 billion and $1.4 billion in committed capital contributions to Ultium Cells Holdings LLC, at March 31, 2023 and December 31, 2022. Our maximum exposure to loss, and required capital contributions, could vary depending on Ultium Cells Holdings LLC's requirements and access to capital. We currently lack the power through voting or similar rights to direct the activities of these entities that most significantly affect their economic performance.

Note 9. Debt

Automotive The following table presents debt in our automotive operations:

	March 31, 2023		December 31, 2022	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Secured debt	$ 134	$ 134	$ 124	$ 123
Unsecured debt(a)	15,799	15,171	17,340	16,323
Finance lease liabilities	421	429	381	381
Total automotive debt(b)	$ 16,354	$ 15,734	$ 17,844	$ 16,828
Fair value utilizing Level 1 inputs		$ 14,837		$ 15,971
Fair value utilizing Level 2 inputs		$ 897		$ 857
Available under credit facility agreements(c)		$ 13,526		$ 15,095
Weighted-average interest rate on outstanding short-term debt(d)		9.5 %		6.1 %
Weighted-average interest rate on outstanding long-term debt(d)		5.8 %		5.8 %

(a) Primarily consists of senior notes.
(b) Includes net discount and debt issuance costs of $531 million and $525 million at March 31, 2023 and December 31, 2022.
(c) Excludes our 364-day, $2.0 billion facility allocated for exclusive use by GM Financial.
(d) Includes coupon rates on debt denominated in various foreign currencies and interest free loans.

In March 2023, we redeemed our $1.5 billion, 4.875% senior unsecured notes with a maturity date of October 2023 and recorded an insignificant loss.

Also, in March 2023, we renewed and reduced the total borrowing capacity of our five-year, $11.2 billion facility to $10.0 billion, which now matures March 31, 2028. We also renewed and reduced the total borrowing capacity of our three-year, $4.3 billion facility to $4.1 billion, which now matures March 31, 2026, and renewed our 364-day, $2.0 billion revolving credit facility allocated for the exclusive use of GM Financial, which now matures March 30, 2024. The renewed credit facilities are based on Term Secured Overnight Financing Rate (Term SOFR) whereas the previous credit facilities were based on the London Interbank Offered Rate (LIBOR).

GM Financial The following table presents debt of GM Financial:

	March 31, 2023		December 31, 2022	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Secured debt	$ 41,253	$ 40,773	$ 42,131	$ 41,467
Unsecured debt	56,814	55,009	54,723	52,270
Total GM Financial debt	$ 98,067	$ 95,782	$ 96,854	$ 93,738
Fair value utilizing Level 2 inputs		$ 93,799		$ 91,545
Fair value utilizing Level 3 inputs		$ 1,983		$ 2,192

Secured debt consists of revolving credit facilities and securitization notes payable. Most of the secured debt was issued by VIEs and is repayable only from proceeds related to the underlying pledged assets. Refer to Note 8 to our condensed consolidated financial statements for additional information on GM Financial's involvement with VIEs. In the three months ended March 31, 2023, GM Financial renewed revolving credit facilities with total borrowing capacity of $1.8 billion and issued $5.1 billion in aggregate principal amount of securitization notes payable with an initial weighted-average interest rate of 5.25% and maturity dates ranging from 2027 to 2032.

Unsecured debt consists of senior notes, credit facilities and other unsecured debt. In the three months ended March 31, 2023, GM Financial issued $3.2 billion in aggregate principal amount of senior notes with an initial weighted-average interest rate of 5.41% and maturity dates ranging from 2026 to 2033.

Note 10. Derivative Financial Instruments

Automotive The following table presents the notional amounts of derivative financial instruments in our automotive operations:

	Fair Value Level	March 31, 2023	December 31, 2022
Derivatives not designated as hedges(a)			
Foreign currency	2	$ 3,176	$ 4,072
Commodity	2	901	1,075
Total derivative financial instruments		$ 4,077	$ 5,148

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(a) The fair value of these derivative instruments at March 31, 2023 and December 31, 2022 and the gains/losses included in our condensed consolidated income statements for the three months ended March 31, 2023 and 2022 were insignificant, unless otherwise noted.

GM Financial The following table presents the gross fair value amounts of GM Financial's derivative financial instruments and the associated notional amounts:

	Fair Value Level	March 31, 2023			December 31, 2022		
		Notional	Fair Value of Assets	Fair Value of Liabilities	Notional	Fair Value of Assets	Fair Value of Liabilities
Derivatives designated as hedges(a)							
Fair value hedges							
Interest rate swaps	2	$ 16,559	$ 8	$ 334	$ 19,950	$ —	$ 821
Cash flow hedges							
Interest rate swaps	2	1,637	33	3	1,434	34	1
Foreign currency swaps(b)	2	8,013	3	497	6,852	—	586
Derivatives not designated as hedges(a)							
Interest rate contracts	2	114,353	1,924	2,073	113,975	2,268	1,984
Total derivative financial instruments(c)		$ 140,562	$ 1,968	$ 2,907	$ 142,212	$ 2,302	$ 3,392

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(a) The gains/losses included in our condensed consolidated income statements and statements of comprehensive income for the three months ended March 31, 2023 and 2022 were insignificant, unless otherwise noted. Amounts accrued for interest payments in a net receivable position are included in Other assets. Amounts accrued for interest payments in a net payable position are included in Other liabilities.

(b) The effect of foreign currency cash flow hedges in the consolidated statements of comprehensive income include an insignificant gain and an insignificant loss recognized in Accumulated other comprehensive loss, and an insignificant gain and a $149 million loss reclassified from Accumulated other comprehensive loss into income for the three months ended March 31, 2023 and 2022.

(c) GM Financial held $480 million and $553 million of collateral from counterparties available for netting against GM Financial's asset positions, and posted $1.2 billion and $1.5 billion of collateral to counterparties available for netting against GM Financial's liability positions at March 31, 2023 and December 31, 2022.

The fair value for Level 2 instruments was derived using the market approach based on observable market inputs including quoted prices of similar instruments and foreign exchange and interest rate forward curves.

The following amounts were recorded in the condensed consolidated balance sheets related to items designated and qualifying as hedged items in fair value hedging relationships:

	March 31, 2023		December 31, 2022	
	Carrying Amount of Hedged Items	Cumulative Amount of Fair Value Hedging Adjustments(a)	Carrying Amount of Hedged Items	Cumulative Amount of Fair Value Hedging Adjustments(a)
Short-term unsecured debt	$ 3,712	$ (12)	$ 3,048	$ 2
Long-term unsecured debt	25,545	764	25,271	779
GM Financial unsecured debt	$ 29,257	$ 752	$ 28,319	$ 781

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(a) Includes $470 million of unamortized losses and an insignificant amount remaining on hedged items for which hedge accounting has been discontinued at March 31, 2023 and December 31, 2022.

Note 11. Product Warranty and Related Liabilities

	Three Months Ended	
	March 31, 2023	March 31, 2022
Product Warranty and Related Liabilities		
Warranty balance at beginning of period	$ 8,530	$ 9,774
Warranties issued and assumed in period – recall campaigns	236	132
Warranties issued and assumed in period – product warranty	490	461
Payments	(1,058)	(1,077)
Adjustments to pre-existing warranties	279	(5)
Effect of foreign currency and other	5	17
Warranty balance at end of period	8,482	9,302
Less: Supplier recoveries balance at end of period(a)	1,157	2,025
Warranty balance, net of supplier recoveries at end of period	$ 7,325	$ 7,277

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(a) The current portion of supplier recoveries is recorded in Accounts and notes receivable, net of allowance and the non-current portion is recorded in Other assets.

	Three Months Ended	
	March 31, 2023	March 31, 2022
Product Warranty Expense, Net of Recoveries		
Warranties issued and assumed in period	$ 726	$ 593
Supplier recoveries accrued in period	(44)	(57)
Adjustments and other	284	12
Warranty expense, net of supplier recoveries	$ 966	$ 548

We estimate our reasonably possible loss in excess of amounts accrued for recall campaigns to be insignificant at March 31, 2023. Refer to Note 13 to our condensed consolidated financial statements for more details.

Note 12. Pensions and Other Postretirement Benefits

	Three Months Ended March 31, 2023			Three Months Ended March 31, 2022		
	Pension Benefits		Global OPEB Plans	Pension Benefits		Global OPEB Plans
	U.S.	Non-U.S.		U.S.	Non-U.S.	
Service cost	$ 44	$ 42	$ 2	$ 58	$ 35	$ 4
Interest cost	568	161	59	323	76	37
Expected return on plan assets	(730)	(168)	—	(750)	(139)	—
Amortization of prior service cost (credit)	(1)	1	—	(1)	1	(1)
Amortization of net actuarial (gains) losses	—	8	(6)	5	35	17
Net periodic pension and OPEB (income) expense	$ (119)	$ 44	$ 55	$ (365)	$ 8	$ 57

The non-service cost components of net periodic pension and other postretirement benefits (OPEB) income of $86 million and $376 million in the three months ended March 31, 2023 and 2022 are presented in Interest income and other non-operating income, net.

Note 13. Commitments and Contingencies

Litigation-Related Liability and Tax Administrative Matters In the normal course of our business, we are named from time to time as a defendant in various legal actions, including arbitrations, class actions and other litigation. We identify below the material individual proceedings and investigations where we believe a material loss is reasonably possible or probable. We accrue for matters when we believe that losses are probable and can be reasonably estimated. At March 31, 2023 and December 31, 2022, we had accruals of $1.1 billion in Accrued liabilities and Other liabilities. In many matters, it is inherently difficult to determine whether loss is probable or reasonably possible or to estimate the size or range of the possible loss. Accordingly, while we believe that appropriate accruals have been established for losses that are probable and can be reasonably estimated, it is possible that adverse outcomes from such proceedings could exceed the amounts accrued by an amount that could be material to our results of operations or cash flows in any particular reporting period.

GM Korea Subcontract Workers Litigation GM Korea Company (GM Korea) is party to litigation with current and former subcontract workers over allegations that they are entitled to the same wages and benefits provided to full-time employees, and to be hired as full-time employees. In May 2018 and September 2020, the Korean labor authorities issued adverse administrative orders finding that GM Korea must hire certain current subcontract workers as full-time employees. GM Korea appealed the May 2018 and September 2020 orders. Since June 2020, the Seoul High Court (an intermediate-level appellate court) ruled against GM Korea in eight subcontract worker cases. Although GM Korea has appealed these decisions to the Supreme Court of the Republic of Korea (Korea Supreme Court), GM Korea has since hired certain of its subcontract workers as full-time employees. At March 31, 2023, our accrual covering certain asserted claims and claims that we believe are probable of assertion and for which liability is probable was approximately $261 million. We estimate the reasonably possible loss in excess of amounts accrued for other current subcontract workers who may assert similar claims to be approximately $94 million at March 31, 2023. We are currently unable to estimate any reasonably possible material loss or range of loss that may result from additional claims that may be asserted by former subcontract workers.

Other Litigation-Related Liability and Tax Administrative Matters Various other legal actions, including class actions, governmental investigations, claims and proceedings are pending against us or our related companies or joint ventures, including, but not limited to, matters arising out of alleged product defects; employment-related matters; product and workplace safety, vehicle emissions and fuel economy regulations; product warranties; financial services; dealer, supplier and other contractual relationships; government regulations relating to competition issues; tax-related matters not subject to the provision of Accounting Standards Codification 740, "Income Taxes" (indirect tax-related matters); product design, manufacture and performance; consumer protection laws; and environmental protection laws, including laws regulating air emissions, water discharges, waste management and environmental remediation from stationary sources. We also from time to time receive subpoenas and other inquiries or requests for information from agencies or other representatives of U.S. federal, state and foreign governments on a variety of issues.

There are several putative class actions pending against GM in federal courts in the U.S. and in the Provincial Courts in Canada alleging that various vehicles sold, including model year 2011-2016 Duramax Diesel Chevrolet Silverado and GMC Sierra vehicles, violate federal, state and foreign emission standards. We are currently unable to estimate any reasonably possible material loss or range of loss that may result from these actions. GM has also faced a series of additional lawsuits in the U.S. based on these allegations, including a shareholder demand lawsuit that remains pending.

There are several putative class actions and one certified class action pending against GM in federal courts in the U.S. alleging that various 2011-2014 model year vehicles are defective because they excessively consume oil. While many of these proceedings have been dismissed or have been settled for insignificant amounts, several remain outstanding, and in October 2022, we received an adverse jury verdict in the certified class action proceeding involving three states. We do not believe that the verdict is supported by the evidence and plan to pursue post-trial motions and, if necessary, appeal. We are currently unable to estimate any reasonably possible material loss or range of loss that may result from the putative class action proceedings and have previously accrued an immaterial amount related to the certified class action proceeding.

There is one putative class action and one certified class action pending against GM in federal court in the U.S. alleging that various 2015-2022 model year vehicles are defective because they are equipped with faulty 8-speed transmissions. In March 2023, the judge overseeing the class action concerning 2015-2019 model year vehicles certified 26 state subclasses. The putative class action concerning 2020-2022 model year vehicles is pending in front of a different judge that has not yet addressed class certification. We are currently unable to estimate any reasonably possible material loss or range of loss that may result from these proceedings.

There is a class action pending against GM in federal court in the U.S., and a putative class action in provincial court in Canada, alleging that 2011-2016 model year Duramax Diesel Chevrolet Silverado and GMC Sierra vehicles are equipped with defective fuel pumps that are prone to failure. In March 2023, the federal court certified seven state subclasses. We are currently unable to estimate any reasonably possible material loss or range of loss that may result from these proceedings.

Beyond the class action litigations disclosed, we have several other class action litigations pending at any given time. Historically, relatively few classes have been certified in these types of cases. Therefore, we will generally only disclose specific class actions if a class is certified and we believe there is a reasonably possible material exposure to the Company.

We are currently in discussions with the Environmental Protection Agency regarding potential adjustments to our balance of greenhouse gas credits. Depending on the outcome of those discussions, it is reasonably possible that the costs associated with these matters could be material, but we are unable to provide an estimate of the cost at this time.

Indirect tax-related matters are being litigated globally pertaining to value added taxes, customs, duties, sales, property taxes and other non-income tax-related tax exposures. The various non-U.S. labor-related matters include claims from current and former employees related to alleged unpaid wage, benefit, severance and other compensation matters. Certain administrative proceedings are indirect tax-related and may require that we deposit funds in escrow or provide an alternative form of security. Some of the matters may involve compensatory, punitive or other treble damage claims, environmental remediation programs or sanctions that, if granted, could require us to pay damages or make other expenditures in amounts that could not be reasonably estimated at March 31, 2023. For indirect tax-related matters, we estimate our reasonably possible loss in excess of amounts accrued to be up to approximately $950 million at March 31, 2023.

Takata Matters In November 2020, the National Highway Traffic Safety Administration (NHTSA) directed that we replace the Takata Corporation (Takata) airbag inflators in our GMT900 vehicles, which are full-size pickup trucks and sport utility vehicles (SUVs), and we decided not to contest NHTSA's decision. While we have already begun the process of executing the recall, given the number of vehicles in this population, the recall will take several years to be completed. Accordingly, in the year ended December 31, 2020, we recorded a warranty accrual of $1.1 billion for the expected costs of complying with the recall remedy, and we believe the currently accrued amount remains reasonable.

GM has recalled certain vehicles sold outside of the U.S. to replace Takata inflators in those vehicles. There are significant differences in vehicle and inflator design between the relevant vehicles sold internationally and those sold in the U.S. We continue to gather and analyze evidence about these inflators and to share our findings with regulators. Any additional recalls relating to these inflators could be material to our results of operations and cash flows.

There are several putative class actions that have been filed against GM, including in the federal courts in the U.S., in the Provincial Courts in Canada, and in Mexico, arising out of allegations that airbag inflators manufactured by Takata are defective. In March 2023, a federal court overseeing a putative class action against GM issued a final judgment in favor of GM on all claims in eight states at issue in that proceeding. At this stage of these proceedings, we are unable to provide an estimate of the amounts or range of reasonably possible material loss.

Chevrolet Bolt Recall In July 2021, we initiated a voluntary recall for certain 2017-2019 model year Chevrolet Bolt EVs due to the risk that two manufacturing defects present in the same battery cell could cause a high voltage battery fire in certain of these vehicles. Accordingly, in the three months ended June 30, 2021, we recorded a warranty accrual of $812 million. After further investigation into the manufacturing processes at our battery supplier, LG Energy Solution (LG), and disassembling battery packs, we determined that the risk of battery cell defects was not confined to the initial recall population. As a result, in August 2021, we expanded the recall to include all 2017-2022 model year Chevrolet Bolt EV and Electric Utility Vehicles (EUVs) and recorded an additional warranty accrual of $1.2 billion in the three months ended September 30, 2021. In October 2021, we reached an agreement with LG, under which LG will reimburse GM for costs and expenses associated with the recall. As a result, in the three months ended September 30, 2021, we recognized a receivable of $1.9 billion, which substantially offsets the warranty charges we recognized in connection with the recall. These charges reflect our current best estimate for the cost of the recall remedy. The actual costs of the recall and GM's associated recovery from LG could be materially higher or lower. For 2017-2019 model year vehicles, the recall remedy will be to replace the high voltage battery modules in these vehicles with new modules. For 2020-2022 model year vehicles, the recall remedy will be to replace any defective high voltage battery modules in these vehicles with new modules.

In addition, putative class actions have been filed against GM in federal courts in the U.S. and in the Provincial Courts in Canada alleging that the batteries contained in the Bolt EVs and EUVs included in the recall population are defective. At this stage of these proceedings, we are unable to provide an estimate of the amounts or range of reasonably possible material loss.

Opel/Vauxhall Sale In 2017, we sold the Opel and Vauxhall businesses and certain other assets in Europe (the Opel/Vauxhall Business) to PSA Group, now Stellantis N.V. (Stellantis), under a Master Agreement (the Agreement). We also sold the European financing subsidiaries and branches to Banque PSA Finance S.A. and BNP Paribas Personal Finance S.A. Although the sale reduced our new vehicle presence in Europe, we may still be impacted by actions taken by regulators related to vehicles sold before the sale. General Motors Holdings LLC agreed, on behalf of our wholly owned subsidiary (the Seller), to indemnify Stellantis for certain losses resulting from any inaccuracy of the representations and warranties or breaches of our covenants included in the Agreement and for certain other liabilities, including costs related to certain emissions claims, product liabilities and recalls. We are unable to estimate any reasonably possible material loss or range of loss that may result from these actions either directly or through an indemnification claim from Stellantis. Certain of these indemnification obligations are subject to time limitations, thresholds and/or caps as to the amount of required payments.

Currently, various consumer lawsuits have been filed against the Seller and Stellantis in Germany, the United Kingdom and the Netherlands alleging that Opel and Vauxhall vehicles sold by the Seller violated applicable emissions standards. In addition, we indemnified Stellantis for an immaterial amount for certain recalls that Stellantis has conducted or will conduct, including recalls in certain geographic locations that Stellantis intends to conduct related to Takata inflators in legacy Opel vehicles. We may in the future be required to further indemnify Stellantis relating to its Takata recalls, but we believe such further indemnification to be remote at this time.

Product Liability We recorded liabilities of $570 million and $561 million in Accrued liabilities and Other liabilities at March 31, 2023 and December 31, 2022 for the expected cost of all known product liability claims, plus an estimate of the expected cost for product liability claims that have already been incurred and are expected to be filed in the future for which we are self-insured. It is reasonably possible that our accruals for product liability claims may increase in future periods in material amounts, although we cannot estimate a reasonable range of incremental loss based on currently available information. We believe that any judgment against us involving our products for actual damages will be adequately covered by our recorded accruals and, where applicable, excess liability insurance coverage.

Guarantees We enter into indemnification agreements for liability claims involving products manufactured primarily by certain joint ventures. These guarantees terminate in years ranging from 2023 to 2028, or upon the occurrence of specific events or are ongoing. We believe that the related potential costs incurred are adequately covered by our recorded accruals, which are insignificant. The maximum future undiscounted payments mainly based on royalties received associated with vehicles sold to date were $3.2 billion and $3.1 billion for these guarantees at March 31, 2023 and December 31, 2022, the majority of which relates to the indemnification agreements.

We provide payment guarantees on commercial loans outstanding with third parties such as dealers. In some instances, certain assets of the party or our payables to the party whose debt or performance we have guaranteed may offset, to some degree, the amount of any potential future payments. We are also exposed to residual value guarantees associated with certain sales to rental car companies.

We periodically enter into agreements that incorporate indemnification provisions in the normal course of business. It is not possible to estimate our maximum exposure under these indemnifications or guarantees due to the conditional nature of these obligations. Insignificant amounts have been recorded for such obligations as the majority of them are not probable or estimable at this time and the fair value of the guarantees at issuance was insignificant. Refer to the Opel/Vauxhall Sale section of this note for additional information on our indemnification obligations to Stellantis under the Agreement.

Supplier Finance Programs Third-party finance providers offer certain suppliers the option for payment in advance of their invoice due date through financing programs that we established. We retain our obligation to the participating suppliers, and we make payments directly to the third-party finance providers on the original invoice due date pursuant to the original invoice terms. There are no assets pledged as security or other forms of guarantees provided for committed payments. Our outstanding eligible balances under our supplier finance programs are $1.1 billion and $852 million at March 31, 2023 and December 31, 2022, which are recorded in Accounts payable (principally trade).

Note 14. Income Taxes

In the three months ended March 31, 2023, Income tax expense of $428 million was primarily due to tax expense attributable to entities included in our effective tax rate calculation. In the three months ended March 31, 2022, Income tax benefit of $28 million was primarily due to tax expense attributable to entities included in our effective tax rate calculation, offset by the release of a valuation allowance against certain Cruise deferred tax assets that were considered realizable due to the reconsolidation of Cruise for U.S. tax purposes.

Note 15. Restructuring and Other Initiatives

We have executed various restructuring and other initiatives and we may execute additional initiatives in the future, if necessary, to streamline manufacturing capacity and reduce other costs to improve the utilization of remaining facilities. To the extent these programs involve voluntary separations, a liability is generally recorded at the time offers to employees are accepted. To the extent these programs provide separation benefits in accordance with pre-existing agreements, a liability is recorded once the amount is probable and reasonably estimable. If employees are involuntarily terminated, a liability is generally recorded at the communication date. Related charges are recorded in Automotive and other cost of sales and Automotive and other selling, general and administrative expense.

The following table summarizes the reserves and charges related to restructuring and other initiatives, including postemployment benefit reserves and charges:

	Three Months Ended	
	March 31, 2023	March 31, 2022
Balance at beginning of period	$ 520	$ 285
Additions, interest accretion and other	980	(2)
Payments	(51)	(104)
Revisions to estimates and effect of foreign currency	—	(9)
Balance at end of period	$ 1,450	$ 171

In the three months ended March 31, 2023, restructuring and other initiatives included strategic activities in GMNA related to Buick dealerships. We recorded charges of $99 million, which are included in the table above, and incurred $39 million in net cash outflows resulting from these dealer restructurings in the three months ended March 31, 2023, in addition to the charges of $511 million and net cash outflows of $120 million in the year ended December 31, 2022. The remaining $451 million is expected to be paid by the end of 2023.

Additionally, on March 9, 2023, we announced a voluntary separation program (VSP) to accelerate attrition related to the cost reduction program announced in January 2023. We recorded charges in GMNA of $875 million in the three months ended March 31, 2023, primarily related to employee separation charges, which are reflected in the table above. We expect cash outflows related to these activities of approximately $875 million to be substantially complete by the end of 2023.

Note 16. Stockholders' Equity and Noncontrolling Interests

We have 2.0 billion shares of preferred stock and 5.0 billion shares of common stock authorized for issuance. We had no shares of preferred stock issued and outstanding at March 31, 2023 and December 31, 2022. We had 1.4 billion shares of common stock issued and outstanding at March 31, 2023 and December 31, 2022.

Common Stock Holders of our common stock are entitled to dividends at the sole discretion of our Board of Directors. Our dividends declared per common share were $0.09 and our total dividends paid on common stock were $126 million for the three months ended March 31, 2023. Dividends were not declared or paid on our common stock for the three months ended March 31, 2022.

In August 2022, our Board of Directors increased the capacity under our previously announced common stock repurchase program to $5.0 billion from the $3.3 billion that remained under the program as of June 30, 2022. In the three months ended March 31, 2023, we purchased 9 million shares of our outstanding common stock for $369 million as part of the program, inclusive of an insignificant amount of excise tax related to the Inflation Reduction Act of 2022. We did not purchase shares of our outstanding common stock in the three months ended March 31, 2022.

Cruise Preferred Shares In March 2022, under the Share Purchase Agreement, we acquired SoftBank Vision Fund (AIV M2) L.P.'s (together with its affiliates, SoftBank) Cruise Class A-1, Class F and Class G Preferred Shares for $2.1 billion and made an additional $1.35 billion investment in Cruise in place of SoftBank. SoftBank no longer has an ownership interest in or has any rights with respect to Cruise.

Cruise Common Shares During the three months ended March 31, 2023, GM Cruise Holdings LLC (Cruise Holdings) issued $95 million of Class B Common Shares to net settle vested awards under Cruise's 2018 Employee Incentive Plan and issued $56 million of Class B Common Shares to fund the payment of statutory tax withholding obligations resulting from the settlement or exercise of vested awards. Also, GM conducted a quarterly tender offer, and paid $75 million in cash to purchase tendered Cruise Class B Common Shares during the three months ended March 31, 2023. The Class B Common Shares are classified as noncontrolling interests in our condensed consolidated financial statements except for certain shares that are liability classified that have a recorded value of approximately $60 million at both March 31, 2023 and December 31, 2022. Refer to Note 18 for additional information on Cruise stock incentive awards.

During the three months ended March 31, 2023 and 2022, the effect on the equity attributable to us for changes in our ownership interest in Cruise was insignificant. For the three months ended March 31, 2023 and 2022, net income attributable to shareholders and transfers to the noncontrolling interest in Cruise and other subsidiaries was $2.4 billion and $2.0 billion, which in 2022 included a $909 million decrease in retained earnings due to the redemption of Cruise preferred shares.

The following table summarizes the significant components of Accumulated other comprehensive loss:

	Three Months Ended	
	March 31, 2023	March 31, 2022
Foreign Currency Translation Adjustments		
Balance at beginning of period	$ (2,776)	$ (2,653)
Other comprehensive income (loss) and noncontrolling interests, net of reclassification adjustment and tax(a)(b)	164	397
Balance at end of period	$ (2,611)	$ (2,256)
Defined Benefit Plans		
Balance at beginning of period	$ (4,851)	$ (6,528)
Other comprehensive income (loss) before reclassification adjustment, net of tax(b)	(39)	52
Reclassification adjustment, net of tax(b)	4	51
Other comprehensive income (loss), net of tax(b)	(35)	103
Balance at end of period(c)	$ (4,886)	$ (6,425)

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(a) The noncontrolling interests and reclassification adjustment were insignificant in the three months ended March 31, 2023 and 2022.
(b) The income tax effect was insignificant in the three months ended March 31, 2023 and 2022.
(c) Primarily consists of unamortized actuarial loss on our defined benefit plans. Refer to Note 2. Significant Accounting Policies of our 2022 Form 10-K for additional information.

Note 17. Earnings Per Share

	Three Months Ended	
	March 31, 2023	March 31, 2022
Basic earnings per share		
Net income (loss) attributable to stockholders	$ 2,395	$ 2,939
Less: cumulative dividends on subsidiary preferred stock(a)	(27)	(952)
Net income (loss) attributable to common stockholders	$ 2,369	$ 1,987
Weighted-average common shares outstanding	1,396	1,458
Basic earnings per common share	$ 1.70	$ 1.36
Diluted earnings per share		
Net income (loss) attributable to common stockholders – diluted	$ 2,369	$ 1,987
Weighted-average common shares outstanding – basic	1,396	1,458
Dilutive effect of awards under stock incentive plans	6	12
Weighted-average common shares outstanding – diluted	1,402	1,470
Diluted earnings per common share	$ 1.69	$ 1.35
Potentially dilutive securities(b)	22	6

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(a) Includes a $909 million deemed dividend related to the redemption of Cruise preferred shares from SoftBank in the three months ended March 31, 2022.

(b) Potentially dilutive securities attributable to outstanding stock options, Restricted Stock Units (RSUs) and Performance Stock Units (PSUs) at March 31, 2023 and outstanding stock options and RSUs at March 31, 2022 were excluded from the computation of diluted earnings per share (EPS) because the securities would have had an antidilutive effect.

Note 18. Stock Incentive Plans

Cruise Stock Incentive Awards In March 2022, Cruise modified its RSUs that settle in Cruise common stock to remove the liquidity vesting condition such that all granted RSU awards vest solely upon satisfactions of a service condition. Total compensation expense related to Cruise Holdings' share-based awards was $103 million in the three months ended March 31, 2023 and $1.2 billion in the three months ended March 31, 2022, which in 2022 primarily represents the impact of the modification to outstanding awards. GM conducted a quarterly tender offer and paid $75 million in cash to purchase tendered Cruise Class B Common Shares during the three months ended March 31, 2023. No cash was paid to settle share-based awards in the three months ended March 31, 2022.

Note 19. Segment Reporting

We analyze the results of our business through the following reportable segments: GMNA, GMI, Cruise and GM Financial. The chief operating decision-maker evaluates the operating results and performance of our automotive segments and Cruise through earnings before interest and income taxes (EBIT)-adjusted, which is presented net of noncontrolling interests. The chief operating decision-maker evaluates GM Financial through earnings before income taxes (EBT)-adjusted because interest income and interest expense are part of operating results when assessing and measuring the operational and financial performance of the segment. Each segment has a manager responsible for executing our strategic initiatives. While not all vehicles within a segment are individually profitable on a fully allocated cost basis, those vehicles attract customers to dealer showrooms and help maintain sales volumes for other, more profitable vehicles and contribute towards meeting required fuel efficiency standards. As a result of these and other factors, we do not manage our business on an individual brand or vehicle basis.

Substantially all of the trucks, crossovers, cars and automobile parts produced are marketed through retail dealers in North America and through distributors and dealers outside of North America, the substantial majority of which are independently owned. In addition to the products sold to dealers for consumer retail sales, trucks, crossovers and cars are also sold to fleet customers, including daily rental car companies, commercial fleet customers, leasing companies and governments. Fleet sales are completed through the dealer network and in some cases directly with fleet customers. Retail and fleet customers can obtain a wide range of after-sale vehicle services and products through the dealer network, such as maintenance, light repairs, collision repairs, vehicle accessories and extended service warranties.

GMNA meets the demands of customers in North America and GMI primarily meets the demands of customers outside North America with vehicles developed, manufactured and/or marketed under the Buick, Cadillac, Chevrolet and GMC brands. We also have equity ownership stakes in entities that meet the demands of customers in other countries, primarily China, with vehicles developed, manufactured and/or marketed under the Baojun, Buick, Cadillac, Chevrolet and Wuling brands. Cruise is our global segment responsible for the development and commercialization of AV technology, and includes AV-related engineering and other costs. We provide automotive financing services through our GM Financial segment.

Our automotive interest income and interest expense, legacy costs from the Opel/Vauxhall Business (primarily pension costs), corporate expenditures and certain nonsegment specific revenues and expenses are recorded centrally in Corporate. Corporate assets primarily consist of cash and cash equivalents, marketable debt securities and intersegment balances. All intersegment balances and transactions have been eliminated in consolidation.

The following tables summarize key financial information by segment:

	At and For the Three Months Ended March 31, 2023								
	GMNA	GMI	Corporate	Eliminations	Total Automotive	Cruise	GM Financial	Eliminations/Reclassifications	Total
Net sales and revenue	$ 32,889	$ 3,727	$ 31		$ 36,646	$ 25	$ 3,343	$ (29)	$ 39,985
Earnings (loss) before interest and taxes-adjusted	$ 3,576	$ 347	$ (327)		$ 3,596	$ (561)	$ 771	$ (3)	$ 3,803
Adjustments(a)	$ (974)	$ —	$ —		$ (974)	$ —	$ —	$ —	(974)
Automotive interest income									229
Automotive interest expense									(234)
Net income (loss) attributable to noncontrolling interests									(49)
Income (loss) before income taxes									2,775
Income tax benefit (expense)									(428)
Net income (loss)									2,346
Net loss (income) attributable to noncontrolling interests									49
Net income (loss) attributable to stockholders									$ 2,395
Equity in net assets of nonconsolidated affiliates	$ 2,000	$ 6,817	$ —	$ —	$ 8,818	$ —	$ 1,725	$ —	$ 10,542
Goodwill and intangibles	$ 2,154	$ 732	$ 4	$ —	$ 2,890	$ 728	$ 1,350	$ —	$ 4,968
Total assets	$ 144,903	$ 24,992	$ 40,880	$ (69,676)	$ 141,098	$ 5,217	$ 122,789	$ (2,099)	$ 267,004
Depreciation and amortization	$ 1,428	$ 122	$ 5	$ —	$ 1,555	$ 4	$ 1,251	$ —	$ 2,810
Impairment charges	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Equity income (loss)(b)	$ (46)	$ 81	$ —	$ —	$ 34	$ —	$ 41	$ —	$ 75

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(a) Consists of charges for strategic activities related to Buick dealerships and charges related to the VSP in GMNA.
(b) Equity earnings related to Ultium Cells Holdings LLC are presented in Automotive and other cost of sales as this entity is integral to the operations of our business by providing battery cells for our EVs. In the three months ended March 31, 2023, equity earnings related to Ultium Cells Holdings LLC were insignificant.

	At and For the Three Months Ended March 31, 2022								
	GMNA	GMI	Corporate	Eliminations	Total Automotive	Cruise	GM Financial	Eliminations/Reclassifications	Total
Net sales and revenue	$ 29,456	$ 3,313	$ 53		$ 32,823	$ 26	$ 3,156	$ (26)	$ 35,979
Earnings (loss) before interest and taxes-adjusted	$ 3,141	$ 328	$ (387)		$ 3,082	$ (325)	$ 1,284	$ 4	$ 4,044
Adjustments(a)	$ 100	$ —	$ —		$ 100	$ (1,057)	$ —	$ —	(957)
Automotive interest income									50
Automotive interest expense									(226)
Net income (loss) attributable to noncontrolling interests									(131)
Income (loss) before income taxes									2,779
Income tax benefit (expense)									28
Net income (loss)									2,807
Net loss (income) attributable to noncontrolling interests									131
Net income (loss) attributable to stockholders									$ 2,939
Equity in net assets of nonconsolidated affiliates	$ 1,217	$ 7,406	$ —	$ —	$ 8,623	$ —	$ 1,779	$ —	$ 10,402
Goodwill and intangibles	$ 2,213	$ 765	$ —	$ —	$ 2,978	$ 733	$ 1,346	$ —	$ 5,058
Total assets	$ 126,454	$ 24,612	$ 35,696	$ (55,702)	$ 131,060	$ 6,310	$ 115,312	$ (1,190)	$ 251,492
Depreciation and amortization	$ 1,504	$ 134	$ 5	$ —	$ 1,643	$ 12	$ 1,236	$ —	$ 2,891
Impairment charges	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Equity income (loss)	$ 6	$ 232	$ —	$ —	$ 238	$ —	$ 54	$ —	$ 292

(a) Consists of the resolution of substantially all royalty matters accrued with respect to past-year vehicle sales in GMNA; and charges related to the one-time modification of Cruise stock incentive awards.

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

Basis of Presentation This Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) should be read in conjunction with the accompanying condensed consolidated financial statements and the notes thereto, and the audited consolidated financial statements and notes thereto included in our 2022 Form 10-K.

Forward-looking statements in this MD&A are not guarantees of future performance and may involve risks and uncertainties that could cause actual results to differ materially from those projected. Refer to the "Forward-Looking Statements" section of this MD&A and Part 1, Item 1A. Risk Factors of our 2022 Form 10-K for a discussion of these risks and uncertainties. Except for per share amounts or as otherwise specified, dollar amounts presented within tables are stated in millions. Certain columns and rows may not add due to rounding.

Non-GAAP Measures Our non-GAAP measures include: EBIT-adjusted, presented net of noncontrolling interests; EBT-adjusted for our GM Financial segment; EPS-diluted-adjusted; effective tax rate-adjusted (ETR-adjusted); return on invested capital-adjusted (ROIC-adjusted) and adjusted automotive free cash flow. Our calculation of these non-GAAP measures may not be comparable to similarly titled measures of other companies due to potential differences between companies in the method of calculation. As a result, the use of these non-GAAP measures has limitations and should not be considered superior to, in isolation from, or as a substitute for, related U.S. GAAP measures.

These non-GAAP measures allow management and investors to view operating trends, perform analytical comparisons and benchmark performance between periods and among geographic regions to understand operating performance without regard to items we do not consider a component of our core operating performance. Furthermore, these non-GAAP measures allow investors the opportunity to measure and monitor our performance against our externally communicated targets and evaluate the investment decisions being made by management to improve ROIC-adjusted. Management uses these measures in its financial, investment and operational decision-making processes, for internal reporting and as part of its forecasting and budgeting processes. Further, our Board of Directors uses certain of these, and other measures, as key metrics to determine management performance under our performance-based compensation plans. For these reasons, we believe these non-GAAP measures are useful for our investors.

EBIT-adjusted EBIT-adjusted is presented net of noncontrolling interests and is used by management and can be used by investors to review our consolidated operating results because it excludes automotive interest income, automotive interest expense and income taxes as well as certain additional adjustments that are not considered part of our core operations. Examples of adjustments to EBIT include, but are not limited to, impairment charges on long-lived assets and other exit costs resulting from strategic shifts in our operations or discrete market and business conditions, and certain costs arising from legal matters. For EBIT-adjusted and our other non-GAAP measures, once we have made an adjustment in the current period for an item, we will also adjust the related non-GAAP measure in any future periods in which there is an impact from the item. Our corresponding measure for our GM Financial segment is EBT-adjusted because interest income and interest expense are part of operating results when assessing and measuring the operational and financial performance of the segment.

EPS-diluted-adjusted EPS-diluted-adjusted is used by management and can be used by investors to review our consolidated diluted EPS results on a consistent basis. EPS-diluted-adjusted is calculated as net income attributable to common stockholders-diluted less adjustments noted above for EBIT-adjusted and certain income tax adjustments divided by weighted-average common shares outstanding-diluted. Examples of income tax adjustments include the establishment or reversal of significant deferred tax asset valuation allowances.

ETR-adjusted ETR-adjusted is used by management and can be used by investors to review the consolidated effective tax rate for our core operations on a consistent basis. ETR-adjusted is calculated as Income tax expense less the income tax related to the adjustments noted above for EBIT-adjusted and the income tax adjustments noted above for EPS-diluted-adjusted divided by Income before income taxes less adjustments. When we provide an expected adjusted effective tax rate, we do not provide an expected effective tax rate because the U.S. GAAP measure may include significant adjustments that are difficult to predict.

ROIC-adjusted ROIC-adjusted is used by management and can be used by investors to review our investment and capital allocation decisions. We define ROIC-adjusted as EBIT-adjusted for the trailing four quarters divided by ROIC-adjusted average net assets, which is considered to be the average equity balances adjusted for average automotive debt and interest liabilities, exclusive of finance leases; average automotive net pension and OPEB liabilities; and average automotive net income tax assets during the same period.

Adjusted automotive free cash flow Adjusted automotive free cash flow is used by management and can be used by investors to review the liquidity of our automotive operations and to measure and monitor our performance against our capital allocation program and evaluate our automotive liquidity against the substantial cash requirements of our automotive operations. We measure adjusted automotive free cash flow as automotive operating cash flow from operations less capital expenditures adjusted for management actions. Management actions can include voluntary events such as discretionary contributions to employee benefit plans or nonrecurring specific events such as a closure of a facility that are considered special for EBIT-adjusted purposes. Refer to the "Liquidity and Capital Resources" section of this MD&A for additional information.

The following table reconciles Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted:

	Three Months Ended							
	March 31,		December 31,		September 30,		June 30,	
	2023	2022	2022	2021	2022	2021	2022	2021
Net income attributable to stockholders	$ 2,395	$ 2,939	$ 1,999	$ 1,741	$ 3,305	$ 2,420	$ 1,692	$ 2,836
Income tax expense (benefit)	428	(28)	580	471	845	152	490	971
Automotive interest expense	234	226	267	227	259	230	234	243
Automotive interest income	(229)	(50)	(215)	(44)	(122)	(38)	(73)	(32)
Adjustments								
Voluntary separation program(a)	875	—	—	—	—	—	—	—
Cruise compensation modifications(b)	—	1,057	—	—	—	—	—	—
Russia exit(c)	—	—	657	—	—	—	—	—
Buick dealer strategy(d)	99	—	511	—	—	—	—	—
Patent royalty matters(e)	—	(100)	—	250	—	—	—	—
GM Brazil indirect tax matters(f)	—	—	—	194	—	—	—	—
Cadillac dealer strategy(g)	—	—	—	—	—	158	—	17
GM Korea wage litigation(h)	—	—	—	—	—	—	—	82
Total adjustments	974	957	1,168	444	—	158	—	99
EBIT-adjusted	$ 3,803	$ 4,044	$ 3,799	$ 2,839	$ 4,287	$ 2,922	$ 2,343	$ 4,117

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(a) This adjustment was excluded because it relates to the acceleration of attrition as part of the cost reduction program announced in January 2023, primarily in the United States.
(b) This adjustment was excluded because it relates to the one-time modification of Cruise stock incentive awards.
(c) This adjustment was excluded because it relates to the shutdown of our Russia business including the write off of our net investment and release of accumulated translation losses into earnings.
(d) These adjustments were excluded because they relate to strategic activities to transition certain Buick dealers out of our dealer network as part of Buick's EV strategy.
(e) These adjustments were excluded because they relate to certain royalties accrued with respect to past-year vehicle sales in the three months ended December 31, 2021, and the resolution of substantially all of these matters in the three months ended March 31, 2022.
(f) This adjustment was excluded because it relates to a settlement with third parties in the three months ended December 31, 2021 relating to retrospective recoveries of indirect taxes in Brazil realized in prior periods.
(g) These adjustments were excluded because they relate to strategic activities to transition certain Cadillac dealers from the network as part of Cadillac's EV strategy.
(h) This adjustment was excluded because of the unique events associated with Korea Supreme Court decisions related to our salaried workers.

The following table reconciles diluted earnings per common share under U.S. GAAP to EPS-diluted-adjusted:

	Three Months Ended			
	March 31, 2023		March 31, 2022	
	Amount	Per Share	Amount	Per Share
Diluted earnings per common share	$ 2,369	$ 1.69	$ 1,987	$ 1.35
Adjustments(a)	974	0.69	957	0.65
Tax effect on adjustments(b)	(239)	(0.17)	(296)	(0.20)
Tax adjustments(c)	—	—	(482)	(0.33)
Deemed dividend adjustment(d)	—	—	909	0.62
EPS-diluted-adjusted	$ 3,104	$ 2.21	$ 3,075	$ 2.09

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(a) Refer to the reconciliation of Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted within this section of MD&A for the details of each individual adjustment.
(b) The tax effect of each adjustment is determined based on the tax laws and valuation allowance status of the jurisdiction to which the adjustment relates.
(c) This adjustment consists of tax benefit related to the release of a valuation allowance against deferred tax assets considered realizable as a result of Cruise tax reconsolidation in the three months ended March 31, 2022. This adjustment was excluded because significant impacts of valuation allowances are not considered part of our core operations.
(d) This adjustment consists of a deemed dividend related to the redemption of Cruise preferred shares from SoftBank in the three months ended March 31, 2022.

The following table reconciles our effective tax rate under U.S. GAAP to ETR-adjusted:

	Three Months Ended					
	March 31, 2023			March 31, 2022		
	Income before income taxes	Income tax expense (benefit)	Effective tax rate	Income before income taxes	Income tax expense (benefit)	Effective tax rate
Effective tax rate	$ 2,775	$ 428	15.4 %	$ 2,779	$ (28)	(1.0)%
Adjustments(a)	974	239		1,053	296	
Tax adjustments(b)		—			482	
ETR-adjusted	$ 3,749	$ 667	17.8 %	$ 3,832	$ 750	19.6 %

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(a) Refer to the reconciliation of Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted within this section of MD&A for adjustment details. These adjustments include Net income attributable to noncontrolling interests where applicable. The tax effect of each adjustment is determined based on the tax laws and valuation allowance status of the jurisdiction to which the adjustment relates.
(b) Refer to the reconciliation of diluted earnings per common share under U.S. GAAP to EPS-diluted-adjusted within this section of MD&A for adjustment details.

We define return on equity (ROE) as Net income attributable to stockholders for the trailing four quarters divided by average equity for the same period. Management uses average equity to provide comparable amounts in the calculation of ROE. The following table summarizes the calculation of ROE (dollars in billions):

	Four Quarters Ended	
	March 31, 2023	March 31, 2022
Net income attributable to stockholders	$ 9.4	$ 9.9
Average equity(a)	$ 68.6	$ 59.6
ROE	13.7 %	16.7 %

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(a) Includes equity of noncontrolling interests where the corresponding earnings (loss) are included in Net income attributable to stockholders.

The following table summarizes the calculation of ROIC-adjusted (dollars in billions):

	Four Quarters Ended	
	March 31, 2023	March 31, 2022
EBIT-adjusted(a)	$ 14.2	$ 13.9
Average equity(b)	$ 68.6	$ 59.6
Add: Average automotive debt and interest liabilities (excluding finance leases)	17.4	16.9
Add: Average automotive net pension & OPEB liability	8.6	14.0
Less: Average automotive and other net income tax asset	(20.9)	(21.8)
ROIC-adjusted average net assets	$ 73.6	$ 68.8
ROIC-adjusted	19.3 %	20.2 %

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(a) Refer to the reconciliation of Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted within this section of MD&A.
(b) Includes equity of noncontrolling interests where the corresponding earnings (loss) are included in EBIT-adjusted.

Overview Our vision for the future is a world with zero crashes, zero emissions and zero congestion, which guides our growth-focused strategy to invest in EVs and AVs, software-enabled services and subscriptions and new business opportunities, while strengthening our market position in profitable ICE vehicles, such as trucks and SUVs. We will execute our strategy with a diverse team and a steadfast commitment to good citizenship through sustainable operations and a leading health and safety culture.

We continue to monitor the macro-economic environment, including higher interest rates, inflationary pressures and competitor actions. Supply chain and logistics challenges have begun to ease, leading to increased production, which could result in a gradual increase in incentive activity as the year progresses. We expect pricing performance on our new and refreshed vehicles to partially offset this headwind. U.S. dealer inventories remained flat compared to December 2022 as we matched supply with demand and proactively planned some downtime at our facilities.

In January 2023, we announced our intention to implement a cost reduction program to reduce fixed costs by $2.0 billion on an annual run rate basis by 2024. In March 2023, we took the initial steps and announced performance-based exits and a VSP in an effort to accelerate attrition, which we believe will result in approximately $1.0 billion towards this target on an annual run rate basis. In addition to people costs, we expect the remaining $1.0 billion will come from reducing complexity across the vehicle portfolio and throughout the business, prioritizing growth initiatives and reducing overhead and discretionary costs. Refer to the Consolidated Results and regional analysis sections of this MD&A for additional information.

We also face continuing market, operating and regulatory challenges in several countries across the globe due to, among other factors, competitive pressures, our product portfolio offerings, heightened emission standards, potentially weakening economic conditions, labor disruptions, foreign exchange volatility, evolving trade policy and political uncertainty. Refer to Part I, Item 1A. Risk Factors of our 2022 Form 10-K for a discussion of these challenges.

As we continue to assess our performance and the needs of our evolving business, additional restructuring and rationalization actions could be required. These actions could give rise to future asset impairments or other charges, which may have a material impact on our operating results.

On August 16, 2022, the Inflation Reduction Act of 2022 (the "Act") was signed into law. The Act modified climate and clean energy tax provisions, including the consumer credit for EV purchases, and added new corporate tax credits for commercial EV purchases and investments in clean energy production, supply chains and manufacturing facilities. We expect to generate credits from our production of battery components and commercial EV tax credits that will increase net income and impact income tax cash payments. We also expect to benefit from the Act through lower raw material costs. While waiting on pending Department of Treasury regulatory guidance, we are continuing to evaluate the ultimate impact of the tax credits on our financial results, including our net earnings and cash flow.

For the year ending December 31, 2023, we expect Net income attributable to stockholders of between $8.4 billion and $9.9 billion, EBIT-adjusted of between $11.0 billion and $13.0 billion, EPS-diluted of between $5.83 and $6.83 and EPS-diluted-adjusted of between $6.35 and $7.35. We do not consider the potential impact of future adjustments on our expected financial results.

The following table reconciles expected Net income attributable to stockholders under U.S. GAAP to expected EBIT-adjusted (dollars in billions):

	Year Ending December 31, 2023
Net income attributable to stockholders	$ 8.4-9.9
Income tax expense	1.5-2.0
Automotive interest expense, net	0.1
Adjustments(a)	1.0
EBIT-adjusted	$ 11.0-13.0

(a) Refer to the reconciliation of Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted within the MD&A for the details of each individual adjustment. We do not consider the potential future impact of adjustments on our expected financial results.

The following table reconciles expected EPS-diluted under U.S. GAAP to expected EPS-diluted-adjusted:

	Year Ending December 31, 2023
Diluted earnings per common share	$ 5.83-6.83
Adjustments(a)	0.52
EPS-diluted-adjusted	$ 6.35-7.35

(a) Refer to the reconciliation of diluted earnings per common share under U.S. GAAP to EPS-diluted-adjusted within the MD&A for the details of each individual adjustment. We do not consider the potential future impact of adjustments on our expected financial results.

GMNA Industry sales in North America were 4.5 million units in the three months ended March 31, 2023, representing an increase of 9.2% compared to the corresponding period in 2022. U.S. industry sales were 3.7 million units in the three months ended March 31, 2023, representing an increase of 8.3% compared to the corresponding period in 2022.

Our total vehicle sales in the U.S., our largest market in North America, were 0.6 million units for market share of 16.4% in the three months ended March 31, 2023, representing an increase of 1.3 percentage points compared to the corresponding period in 2022.

We expect to sustain relatively strong EBIT-adjusted margins in 2023 on the continued strength of vehicle pricing and healthy U.S. industry demand, partially offset by elevated costs associated with commodities, raw materials and logistics. Our outlook is dependent on the pricing environment, continuing improvement of supply chain availability and overall economic conditions. As a result of supply chain disruptions, we experienced interruptions to our planned production schedules and continue to prioritize production of our most popular and in-demand products, including our full-size trucks, full-size SUVs and EVs.

In 2023, our collective bargaining agreements with the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) in the United States and Unifor in Canada, as well as collective bargaining agreements in Mexico, will expire, which will require negotiation of new agreements. Refer to Part I, Item 1A. Risk Factors of our 2022 Form 10-K for a discussion of the risks related to any significant disruption at our manufacturing facilities.

GMI Industry sales in China were 5.2 million units in the three months ended March 31, 2023, representing a decrease of 10.3% compared to the corresponding period in 2022. Our total vehicle sales in China were 0.5 million units for market share of 9.0% in the three months ended March 31, 2023, representing a decrease of 1.7 percentage points compared to the corresponding period in 2022. The ongoing supply chain disruptions, global macro-economic impact and geopolitical tensions continue to place pressure on China's automotive industry and our vehicle sales in China. Our Automotive China JVs generated equity income of $0.1 billion in the three months ended March 31, 2023. Although price competition, higher costs associated with commodities and raw materials and a more challenging regulatory environment related to emissions, fuel consumption and new energy vehicles will place pressure on our operations in China, we will continue to build upon our strong brands, network, and partnerships in China as well as drive improvements in vehicle mix and cost.

Outside of China, industry sales were 6.4 million units in the three months ended March 31, 2023, representing an increase of 5.7% compared to the corresponding period in 2022. Our total vehicle sales outside of China were 0.2 million units for a market share of 3.4% in the three months ended March 31, 2023, representing a decrease of 0.2 percentage points compared to the corresponding period in 2022.

Cruise Gated by safety and regulation, Cruise continues to make significant progress towards commercialization of a network of on-demand AVs. In 2021, Cruise received a driverless test permit from the California Public Utilities Commission (CPUC) to provide unpaid rides to the public in driverless vehicles and received approval of its Autonomous Vehicle Deployment Permit from the California Department of Motor Vehicles to commercially deploy driverless AVs. In June 2022, Cruise received the first ever Driverless Deployment Permit granted by the CPUC, which allows them to charge a fare for the driverless rides they are providing to members of the public in certain parts of San Francisco. Additionally, in September 2022, Cruise acquired regulatory permits to operate driverless ride hail services in Phoenix, Arizona and began pursuing ride hail operations in Austin, Texas. GM and Cruise are also awaiting a decision on an exemption petition that was filed with NHTSA seeking regulatory approval for the deployment of the Cruise Origin.

Vehicle Sales The principal factors that determine consumer vehicle preferences in the markets in which we operate include overall vehicle design, price, quality, available options, safety, reliability, fuel economy and functionality. Market leadership in individual countries in which we compete varies widely.

We present both wholesale and total vehicle sales data to assist in the analysis of our revenue and our market share. Wholesale vehicle sales data consists of sales to GM's dealers and distributors as well as sales to the U.S. Government and excludes vehicles sold by our joint ventures. Wholesale vehicle sales data correlates to our revenue recognized from the sale of vehicles, which is the largest component of Automotive net sales and revenue. In the three months ended March 31, 2023, 28.4% of our wholesale vehicle sales volume was generated outside the U.S. The following table summarizes wholesale vehicle sales by automotive segment (vehicles in thousands):

	Three Months Ended			
	March 31, 2023		March 31, 2022	
GMNA	723	83.7 %	694	83.5 %
GMI	141	16.3 %	137	16.5 %
Total	864	100.0 %	831	100.0 %

Total vehicle sales data represents: (1) retail sales (i.e., sales to consumers who purchase new vehicles from dealers or distributors); (2) fleet sales (i.e., sales to large and small businesses, governments, and daily rental car companies); and (3) certain vehicles used by dealers in their business. Total vehicle sales data includes all sales by joint ventures on a total vehicle basis, not based on our percentage ownership interest in the joint venture. Certain joint venture agreements in China allow for the contractual right to report vehicle sales of non-GM trademarked vehicles by those joint ventures, which are included in the total vehicle sales we report for China. While total vehicle sales data does not correlate directly to the revenue we recognize during a particular period, we believe it is indicative of the underlying demand for our vehicles. Total vehicle sales data represents management's good faith estimate based on sales reported by GM's dealers, distributors, and joint ventures, commercially available data sources such as registration and insurance data, and internal estimates and forecasts when other data is not available.

The following table summarizes industry and GM total vehicle sales and our related competitive position by geographic region (vehicles in thousands):

	Three Months Ended					
	March 31, 2023			March 31, 2022		
	Industry	GM	Market Share	Industry	GM	Market Share
North America						
United States	3,684	603	16.4 %	3,402	513	15.1 %
Other	786	103	13.2 %	693	88	12.7 %
Total North America	4,470	707	15.8 %	4,095	601	14.7 %
Asia/Pacific, Middle East and Africa						
China(a)	5,154	462	9.0 %	5,745	613	10.7 %
Other	5,547	110	2.0 %	5,260	123	2.3 %
Total Asia/Pacific, Middle East and Africa	10,701	572	5.3 %	11,005	736	6.7 %
South America						
Brazil	471	71	15.1 %	405	50	12.4 %
Other	380	34	9.0 %	389	40	10.3 %
Total South America	852	105	12.4 %	795	90	11.3 %
Total in GM markets	16,023	1,384	8.6 %	15,895	1,427	9.0 %
Total Europe	4,012	—	— %	3,461	1	— %
Total Worldwide(b)(c)	20,035	1,384	6.9 %	19,357	1,427	7.4 %
United States						
Cars	719	61	8.4 %	672	47	7.0 %
Trucks	993	297	29.9 %	904	287	31.8 %
Crossovers	1,972	246	12.5 %	1,826	179	9.8 %
Total United States	3,684	603	16.4 %	3,402	513	15.1 %
China(a)						
SGMS		173			263	
SGMW		289			350	
Total China	5,154	462	9.0 %	5,745	613	10.7 %

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(a) Includes sales by the Automotive China JVs: SAIC General Motors Sales Co., Ltd. (SGMS) and SAIC GM Wuling Automobile Co., Ltd. (SGMW).
(b) Cuba, Iran, North Korea, Sudan and Syria are subject to broad economic sanctions. Accordingly, these countries are excluded from industry sales data and corresponding calculation of market share.
(c) As of March 2022, GM is no longer importing vehicles or parts to Russia, Belarus and other sanctioned provinces in Ukraine.

As discussed above, total vehicle sales and market share data provided in the table above includes fleet vehicles. Certain fleet transactions, particularly sales to daily rental car companies, are generally less profitable than retail sales to end customers. The following table summarizes estimated fleet sales and those sales as a percentage of total vehicle sales (vehicles in thousands):

	Three Months Ended	
	March 31, 2023	March 31, 2022
GMNA	177	142
GMI	90	71
Total fleet sales	267	213
Fleet sales as a percentage of total vehicle sales	19.3 %	14.9 %

GM Financial We believe that offering a comprehensive suite of financing products will generate incremental sales of our vehicles, drive incremental GM Financial earnings and help support our sales throughout various economic cycles. GM Financial's leasing program is exposed to residual values, which are heavily dependent on used vehicle prices. Used vehicle prices, although lower year-over-year, were generally higher than contractual residual values for the three months ended March 31, 2023, primarily due to above-average seasonal demand and low used vehicle supply. Gains on terminations of leased vehicles of $0.2 billion and $0.4 billion were included in GM Financial interest, operating and other expenses for the three months ended March 31, 2023 and 2022. The decrease in gains is primarily due to higher leased portfolio net book values at termination and fewer terminated leases. For the remainder of 2023, GM Financial expects used vehicle prices to moderate, as market prices on used vehicles approach contract residual values. The following table summarizes the estimated residual value based on GM Financial's most recent estimates and the number of units included in GM Financial Equipment on operating leases, net by vehicle type (units in thousands):

	March 31, 2023			December 31, 2022		
	Residual Value	Units	Percentage	Residual Value	Units	Percentage
Crossovers	$ 13,797	710	67.4 %	$ 14,207	736	67.3 %
Trucks	6,829	221	21.0 %	6,961	228	20.9 %
SUVs	2,537	64	6.1 %	2,595	66	6.0 %
Cars	904	58	5.6 %	964	63	5.8 %
Total	$ 24,067	1,053	100.0 %	$ 24,727	1,092	100.0 %

GM Financial's penetration of our retail sales in the U.S. was 46% in the three months ended March 31, 2023 and 2022. Penetration levels vary depending on incentive financing programs available and competing third-party financing products in the market. GM Financial's prime loan originations as a percentage of total loan originations in North America increased to 83% in the three months ended March 31, 2023 from 79% in the corresponding period in 2022. In the three months ended March 31, 2023, GM Financial's revenue consisted of leased vehicle income of 54%, retail finance charge income of 35% and commercial finance charge income of 6%.

Consolidated Results We review changes in our results of operations under five categories: volume, mix, price, cost and other. Volume measures the impact of changes in wholesale vehicle volumes driven by industry volume, market share and changes in dealer stock levels. Mix measures the impact of changes to the regional portfolio due to product, model, trim, country and option penetration in current year wholesale vehicle volumes. Price measures the impact of changes related to Manufacturer’s Suggested Retail Price and various sales allowances. Cost primarily includes: (1) material and freight; (2) manufacturing, engineering, advertising, administrative and selling and warranty expense; and (3) non-vehicle related activity. Other primarily includes foreign exchange and non-vehicle related automotive revenues as well as equity income or loss from our nonconsolidated affiliates. Refer to the regional sections of this MD&A for additional information.

Total Net Sales and Revenue

	Three Months Ended		Favorable/ (Unfavorable)	%	Variance Due To			
	March 31, 2023	March 31, 2022			Volume	Mix	Price	Other
					(Dollars in billions)			
GMNA	$ 32,889	$ 29,456	$ 3,433	11.7 %	$ 1.1	$ 0.8	$ 1.3	$ 0.2
GMI	3,727	3,313	414	12.5 %	$ 0.1	$ 0.1	$ 0.3	$ (0.1)
Corporate	31	53	(22)	(41.5)%		$ —		$ —
Automotive	36,646	32,823	3,823	11.6 %	$ 1.2	$ 0.9	$ 1.6	$ 0.1
Cruise	25	26	(1)	(3.8)%		$ —		$ —
GM Financial	3,343	3,156	187	5.9 %				$ 0.2
Eliminations/reclassifications	(29)	(26)	(3)	(11.5)%		$ —		$ —
Total net sales and revenue	$ 39,985	$ 35,979	$ 4,006	11.1 %	$ 1.2	$ 0.9	$ 1.6	$ 0.3

Refer to the regional sections of this MD&A for additional information on volume, mix and price.

Automotive and Other Cost of Sales

	Three Months Ended		Favorable/ (Unfavorable)	%	Variance Due To			
	March 31, 2023	March 31, 2022			Volume	Mix	Cost	Other
					(Dollars in billions)			
GMNA	$ 28,421	$ 25,096	$ (3,325)	(13.2)%	$ (0.8)	$ (0.9)	$ (1.7)	$ 0.1
GMI	3,235	3,015	(220)	(7.3)%	$ (0.1)	$ (0.1)	$ (0.2)	$ 0.2
Corporate	60	112	52	46.4 %		$ —	$ —	$ 0.1
Cruise	532	1,132	600	53.0 %		$ —	$ 0.6	
Eliminations	(1)	—	1	n.m.		$ —		
Total automotive and other cost of sales	$ 32,247	$ 29,353	$ (2,894)	(9.9)%	$ (0.8)	$ (1.0)	$ (1.4)	$ 0.3

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n.m. = not meaningful

In the three months ended March 31, 2023, increased Cost was primarily due to: (1) charges of $0.7 billion related to the VSP; (2) increased campaigns and other warranty-related costs of $0.5 billion; (3) increased engineering costs of $0.4 billion; (4) increased costs of $0.3 billion primarily related to parts and accessories sales; and (5) increased material and freight costs of $0.3 billion; partially offset by (6) charges of $0.8 billion related to modification of Cruise stock incentive awards in 2022; and (7) decreased costs of $0.2 billion related to other cost of sales and several individually insignificant items. In the three months ended March 31, 2023, favorable Other was primarily due to the weakening of the Korean Won and other currencies against the U.S. Dollar.

Refer to the regional sections of this MD&A for additional information on volume and mix.

Automotive and Other Selling, General and Administrative Expense

	Three Months Ended		Favorable/ (Unfavorable)	%
	March 31, 2023	March 31, 2022		
Automotive and other selling, general and administrative expense	$ 2,547	$ 2,504	$ (43)	(1.7)%

In the three months ended March 31, 2023, Automotive and other selling, general and administrative expense increased primarily due to: (1) charges of $0.2 billion related to the VSP; and (2) charges of $0.1 billion for strategic activities related to Buick dealerships; offset by (3) charges of $0.3 billion related to modification of Cruise stock incentive awards in 2022.

Interest Income and Other Non-operating Income, net

	Three Months Ended		Favorable/ (Unfavorable)	%
	March 31, 2023	March 31, 2022		
Interest income and other non-operating income, net	$ 409	$ 517	$ (108)	(20.9)%

In the three months ended March 31, 2023, Interest income and other non-operating income, net decreased primarily due to $0.3 billion decrease in non-service pension income, partially offset by the absence of $0.2 billion in losses related to Stellantis warrants, that occurred in the three months ended March 31, 2022, as warrants were exercised in 2022.

Income Tax Expense (Benefit)

	Three Months Ended		Favorable/ (Unfavorable)	%
	March 31, 2023	March 31, 2022		
Income tax expense (benefit)	$ 428	$ (28)	$ (456)	n.m.

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n.m. = not meaningful

In the three months ended March 31, 2023, Income tax expense increased primarily due to the absence of the Cruise valuation allowance adjustment that occurred in the three months ended March 31, 2022.

For the three months ended March 31, 2023, our ETR-adjusted was 17.8%. We expect our adjusted effective tax rate to be between 16% and 18% for the year ending December 31, 2023.

Refer to Note 14 to our condensed consolidated financial statements for additional information related to Income tax expense.

GM North America

	Three Months Ended		Favorable/ (Unfavorable)	%	Variance Due To				
	March 31, 2023	March 31, 2022			Volume	Mix	Price	Cost	Other
					(Dollars in billions)				
Total net sales and revenue	$ 32,889	$ 29,456	$ 3,433	11.7 %	$ 1.1	$ 0.8	$ 1.3		$ 0.2
EBIT-adjusted	$ 3,576	$ 3,141	$ 435	13.8 %	$ 0.3	$ (0.1)	$ 1.3	$ (1.0)	$ (0.1)
EBIT-adjusted margin	10.9 %	10.7 %	0.2 %						
	(Vehicles in thousands)								
Wholesale vehicle sales	723	694	29	4.2 %					

GMNA Total Net Sales and Revenue In the three months ended March 31, 2023, Total net sales and revenue increased primarily due to: (1) favorable price as a result of stable dealer inventory levels and strong demand for our products; (2) increased net wholesale volumes primarily due to increased sales of crossover vehicles and full-size pickup trucks, partially offset by decreased sales of mid-size pickup trucks; and (3) favorable mix associated with increased sales of full-size pickup trucks and full-size SUVs, and decreased sales of mid-size pickup trucks and passenger cars, partially offset by increased sales of crossover vehicles.

GMNA EBIT-Adjusted In the three months ended March 31, 2023, EBIT-adjusted increased primarily due to: (1) favorable price; and (2) favorable volume; partially offset by (3) unfavorable Cost primarily due to increased campaigns and other warranty-related costs of $0.5 billion, decreased non-service pension income of $0.3 billion, increased engineering costs of $0.2 billion and increased material and freight costs of $0.2 billion.

GM International

	Three Months Ended		Favorable/ (Unfavorable)	%	Variance Due To				
	March 31, 2023	March 31, 2022			Volume	Mix	Price	Cost	Other
					(Dollars in billions)				
Total net sales and revenue	$ 3,727	$ 3,313	$ 414	12.5 %	$ 0.1	$ 0.1	$ 0.3		$ (0.1)
EBIT-adjusted	$ 347	$ 328	$ 19	5.8 %	$ —	$ —	$ 0.3	$ (0.2)	$ (0.2)
EBIT-adjusted margin	9.3 %	9.9 %	(0.6)%						
Equity income — Automotive China	*$ 83*	*$ 234*	*$ (151)*	*(64.5)%*					
EBIT-adjusted — excluding Equity income	*$ 264*	*$ 94*	*$ 170*	*n.m.*					
	(Vehicles in thousands)								
Wholesale vehicle sales	141	137	4	2.9 %					

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n.m. = not meaningful

The vehicle sales of our Automotive China JVs are not recorded in Total net sales and revenue. The results of our joint ventures are recorded in Equity income, which is included in EBIT-adjusted above.

GMI Total Net Sales and Revenue In the three months ended March 31, 2023, Total net sales and revenue increased primarily due to: (1) favorable pricing across multiple vehicle lines in Argentina, Brazil and in the Middle East; (2) increased net wholesale volumes in Brazil due to improved parts availability and a new compact pickup launch, partially offset by decreased volumes in Egypt, primarily due to industry downturn, and in Korea due to end of legacy vehicles production; and (3) favorable mix in Asia Pacific and in the Middle East, partially offset by unfavorable mix in South America; all partially offset by (4) unfavorable Other primarily due to the foreign currency effect resulting from the weakening of various currencies against the U.S. dollar, partially offset by increased components sales.

GMI EBIT-Adjusted In the three months ended March 31, 2023, EBIT-adjusted increased primarily due to: (1) favorable price; partially offset by (2) unfavorable cost primarily due to increased material, logistic and other costs to support new vehicles launches in South America; and (3) unfavorable Other primarily due to decreased equity income and the foreign currency effect resulting from the weakening of various currencies against the U.S. dollar.

We view the Chinese market as important to our global growth strategy and are employing a multi-brand strategy. In the coming years we plan to leverage our global architectures to increase the number of product offerings under the Buick, Chevrolet and Cadillac brands in China and continue to grow our business under the local Baojun and Wuling brands while we are accelerating the development and rollout of EVs across our brands in China in response to our commitment to an all-electric future. We operate in the Chinese market through a number of joint ventures and maintaining strong relationships with our joint venture partners is an important part of our China growth strategy.

The following table summarizes certain key operational and financial data for the Automotive China JVs (vehicles in thousands):

	Three Months Ended	
	March 31, 2023	March 31, 2022
Wholesale vehicle sales, including vehicles exported to markets outside of China	392	602
Total net sales and revenue	$ 5,833	$ 8,992
Net income	$ 123	$ 505

Cruise

	Three Months Ended		Favorable/ (Unfavorable)	%
	March 31, 2023	March 31, 2022		
Total net sales and revenue(a)	$ 25	$ 26	$ (1)	(3.8)%
EBIT (loss)-adjusted(b)	$ (561)	$ (325)	$ (236)	(72.6)%

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(a) Primarily reclassified to Interest income and other non-operating income, net in our condensed consolidated income statements in the three months ended March 31, 2023 and 2022.
(b) Excludes $1.1 billion in compensation expense in the three months ended March 31, 2022 resulting from modification of the Cruise stock incentive awards.

Cruise EBIT (Loss)-Adjusted In the three months ended March 31, 2023, EBIT (loss)-adjusted increased primarily due to an increase in development costs as we progress towards the commercialization of a network of on-demand AVs.

GM Financial

	Three Months Ended		Increase/ (Decrease)	%
	March 31, 2023	March 31, 2022		
Total revenue	$ 3,343	$ 3,156	$ 187	5.9 %
Provision for loan losses	$ 131	$ 122	$ 9	7.4 %
EBT-adjusted	$ 771	$ 1,284	$ (513)	(40.0)%
Average debt outstanding (dollars in billions)	$ 96.9	$ 92.8	$ 4.1	4.4 %
Effective rate of interest paid	4.2 %	2.5 %	1.7 %	

GM Financial Revenue In the three months ended March 31, 2023, total revenue increased primarily due to increased finance charge income of $0.4 billion primarily due to an increase in the effective yield resulting from higher benchmark rates and growth in the size of the portfolio, partially offset by decreased leased vehicle income of $0.2 billion primarily due to a decrease in the average balance of the leased vehicles portfolio.

GM Financial EBT-Adjusted In the three months ended March 31, 2023, EBT-adjusted decreased primarily due to: (1) decreased leased vehicle income net of leased vehicle expenses of $0.4 billion primarily due to decreased leased vehicle income resulting from a decrease in the average balance of the leased vehicles portfolio and decreased lease termination gains associated with higher leased portfolio net book values at termination and fewer terminated leases; and (2) increased interest expense of $0.4 billion primarily due to an increased effective rate of interest on debt, resulting from higher benchmark rates and increased credit spreads, as well as an increase in average debt outstanding; partially offset by (3) increased finance charge income of $0.4 billion primarily due to an increase in the effective yield resulting from higher benchmark rates and growth in the size of the portfolio.

Liquidity and Capital Resources We believe our current levels of cash, cash equivalents, marketable debt securities, available borrowing capacity under our revolving credit facilities and other liquidity actions currently available to us are sufficient to meet our liquidity requirements. We also maintain access to the capital markets and may issue debt or equity securities, which may provide an additional source of liquidity. We have substantial cash requirements going forward, which we plan to fund through our total available liquidity, cash flows from operating activities and additional liquidity measures, if determined to be necessary.

Our known current material uses of cash include, among other possible demands: (1) capital spending and our investments in our battery cell manufacturing joint ventures of approximately $11.0 billion to $13.0 billion per year through 2025; (2) payments for engineering and product development activities; (3) payments associated with previously announced vehicle recalls and any other recall-related contingencies; (4) payments to service debt and other long-term obligations, including discretionary and mandatory contributions to our pension plans; (5) payments associated with the liquidity program for holders of equity-based incentive awards issued to employees of Cruise; (6) dividend payments on our common stock that are declared by our Board of Directors; and (7) payments to purchase shares of our common stock authorized by our Board of Directors. Our material future uses of cash, which may vary from time to time based on market conditions and other factors, are focused on the three objectives of our capital allocation program: (1) grow our business at an average target ROIC-adjusted rate of 20% or greater; (2) maintain a strong investment-grade balance sheet, including a target average automotive cash balance of $18 billion; and (3) after the first two objectives are met, return available cash to shareholders. Our senior management evaluates our capital allocation program on an ongoing basis and recommends any modifications to the program to our Board of Directors, not less than once annually.

We continue to monitor and evaluate opportunities to strengthen our competitive position over the long term while maintaining a strong investment-grade balance sheet. These actions may include opportunistic payments to reduce our long-term obligations as well as the possibility of acquisitions, dispositions and investments with joint venture partners as well as strategic alliances that we believe would generate significant advantages and substantially strengthen our business. To support our transition to EVs, we anticipate making investments in suppliers or providing funding towards the execution of strategic, multi-year supply agreements to secure critical materials. In addition, we have entered, and plan to continue to enter, into offtake agreements that generally obligate us to purchase defined quantities of output. These arrangements could have a short-term adverse impact on our cash and increase our inventory.

Our liquidity plans are subject to a number of risks and uncertainties, including those described in the "Forward-Looking Statements" section of this MD&A and Part I, Item 1A. Risk Factors of our 2022 Form 10-K, some of which are outside of our control.

In 2022, our Board of Directors increased the capacity under our previously announced common stock repurchase program to $5.0 billion. In the three months ended March 31, 2023, we completed $0.4 billion of repurchases under the program and retired 9 million shares of our common stock. We have completed $2.9 billion of the $5.0 billion program through March 31, 2023.

In 2022, we reinstated a quarterly dividend on our common stock. In the three months ended March 31, 2023, we paid dividends of $0.1 billion to holders of our common stock.

In March 2023, we redeemed our $1.5 billion, 4.875% senior unsecured notes with a maturity date of October 2023 and recorded an insignificant loss.

Cash flows that occur amongst our Automotive, Cruise and GM Financial operations are eliminated when we consolidate our cash flows. Such eliminations include, among other things, collections by Automotive on wholesale accounts receivables financed by dealers through GM Financial, payments between Automotive and GM Financial for accounts receivables transferred by Automotive to GM Financial, loans to Automotive and Cruise from GM Financial, dividends issued by GM Financial to Automotive, tax payments by GM Financial to Automotive and Automotive cash injections in Cruise. The presentation of Automotive liquidity, Cruise liquidity and GM Financial liquidity presented below includes the impact of cash transactions amongst the sectors that are ultimately eliminated in consolidation.

Automotive Liquidity Total available liquidity includes cash, cash equivalents, marketable debt securities and funds available under credit facilities. The amount of available liquidity is subject to seasonal fluctuations and includes balances held by various business units and subsidiaries worldwide that are needed to fund their operations. We have not significantly changed the management of our liquidity, including our allocation of available liquidity, our portfolio composition and our investment guidelines since December 31, 2022. Refer to Part II, Item 7. MD&A of our 2022 Form 10-K.

In March 2023, we renewed and reduced the total borrowing capacity of our five-year, $11.2 billion facility to $10.0 billion, which now matures March 31, 2028. We also renewed and reduced the total borrowing capacity of our three-year, $4.3 billion facility to $4.1 billion, which now matures March 31, 2026, and renewed our 364-day, $2.0 billion revolving credit facility allocated for the exclusive use of GM Financial, which now matures March 30, 2024. The renewed credit facilities are based on Term SOFR whereas the previous credit facilities were based on LIBOR.

We use credit facilities as a mechanism to provide additional flexibility in managing our global liquidity. Our Automotive borrowing capacity under credit facilities totaled $14.1 billion at March 31, 2023 and $15.5 billion at December 31, 2022, which consisted primarily of two credit facilities. Total Automotive borrowing capacity under our credit facilities does not include our 364-day, $2.0 billion facility allocated for exclusive use of GM Financial. We did not have any borrowings against our primary facilities, but had letters of credit outstanding under our sub-facility of $0.6 billion and $0.4 billion at March 31, 2023 and December 31, 2022.

If available capacity permits, GM Financial continues to have access to our automotive credit facilities. GM Financial did not have borrowings outstanding against any of these facilities at March 31, 2023 and December 31, 2022. We had intercompany loans from GM Financial of $0.2 billion at March 31, 2023 and December 31, 2022, which primarily consisted of commercial loans to dealers we consolidate. We did not have intercompany loans to GM Financial at March 31, 2023 and December 31, 2022. Refer to Note 4 to our condensed consolidated financial statements for additional information.

Several of our loan facilities, including our revolving credit facilities, require compliance with certain financial and operational covenants as well as regular reporting to lenders. We have reviewed our covenants in effect as of March 31, 2023 and determined we are in compliance and expect to remain in compliance in the future.

GM Financial's Board of Directors declared and paid dividends of $0.5 billion on its common stock in the three months ended March 31, 2023. Future dividends from GM Financial will depend on several factors including business and economic conditions, its financial condition, earnings, liquidity requirements and leverage ratio.

The following table summarizes our Automotive available liquidity (dollars in billions):

	March 31, 2023	December 31, 2022
Automotive cash and cash equivalents	$ 12.0	$ 13.6
Marketable debt securities	9.4	10.8
Automotive cash, cash equivalents and marketable debt securities	21.4	24.4
Available under credit facilities(a)	13.5	15.1
Total Automotive available liquidity	$ 34.9	$ 39.5

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(a) We had letters of credit outstanding under our sub-facility of $0.6 billion and $0.4 billion at March 31, 2023 and December 31, 2022.

The following table summarizes the changes in our Automotive available liquidity (dollars in billions):

	Three Months Ended March 31, 2023
Operating cash flow	$ 2.2
Capital expenditures	(2.4)
Payment of senior unsecured notes	(1.5)
Dividends paid and payments to purchase common stock	(0.5)
Investment in Lithium Americas Corp.	(0.3)
Investment in Ultium Cells Holdings LLC	(0.2)
Decrease in available credit facilities	(1.6)
Other non-operating	(0.3)
Total change in automotive available liquidity	$ (4.6)

Automotive Cash Flow (dollars in billions)

	Three Months Ended		
	March 31, 2023	March 31, 2022	Change
Operating Activities			
Net income	$ 2.2	$ 2.6	$ (0.4)
Depreciation, amortization and impairment charges	1.6	1.6	—
Pension and OPEB activities	(0.3)	(0.5)	0.2
Working capital	(2.1)	(0.9)	(1.2)
Accrued and other liabilities and income taxes	0.6	(1.0)	1.6
Other	0.2	(0.2)	0.4
Net automotive cash provided by (used in) operating activities	$ 2.2	$ 1.6	$ 0.6

In the three months ended March 31, 2023, the increase in Net automotive cash provided by operating activities was primarily due to higher dividends received from GM Financial of $0.5 billion.

	Three Months Ended		
	March 31, 2023	March 31, 2022	Change
Investing Activities			
Capital expenditures	$ (2.4)	$ (1.6)	$ (0.8)
Acquisitions and liquidations of marketable securities, net	1.5	(1.5)	3.0
Other(a)	(0.7)	(3.7)	3.0
Net automotive cash provided by (used in) investing activities	$ (1.6)	$ (6.8)	$ 5.2

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(a) Includes a $0.3 billion investment in Lithium Americas Corp. in the three months ended March 31, 2023 and a $0.2 billion investment in Ultium Cells Holdings LLC in the three months ended March 31, 2023 and 2022; and $3.5 billion for the redemption of Cruise preferred shares from SoftBank and GM's investment in Cruise in the three months ended March 31, 2022.

In the three months ended March 31, 2023, cash provided by acquisitions and liquidations of marketable securities, net increased due to liquidations of securities and investments compared to acquisitions of securities to fund operating activities and investments during the three months ended March 31, 2022.

	Three Months Ended		
	March 31, 2023	March 31, 2022	Change
Financing Activities			
Net proceeds (payments) from short-term debt	$ (1.5)	$ —	$ (1.5)
Other(a)	(0.7)	(0.2)	(0.5)
Net automotive cash provided by (used in) financing activities	$ (2.3)	$ (0.2)	$ (2.0)

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(a) Includes $0.5 billion for dividends paid and payments to purchase common stock in the three months ended March 31, 2023.

Adjusted Automotive Free Cash Flow We measure adjusted automotive free cash flow as automotive operating cash flow from operations less capital expenditures adjusted for management actions. In the three months ended March 31, 2023, net automotive cash provided by operating activities under U.S. GAAP was $2.2 billion, capital expenditures were $2.4 billion and adjustments were insignificant.

In the three months ended March 31, 2022, net automotive cash provided by operating activities under U.S. GAAP was $1.6 billion, capital expenditures were $1.6 billion and adjustments for management actions were insignificant.

Status of Credit Ratings We receive ratings from four independent credit rating agencies: DBRS Limited, Fitch Ratings, Moody's Investors Service (Moody's) and Standard & Poor's. All four credit rating agencies currently rate our corporate credit at investment grade. In March 2023, Moody's upgraded our senior unsecured notes to Baa2 from Baa3. As of April 16, 2023, all other credit ratings remained unchanged since December 31, 2022.

Cruise Liquidity

The following table summarizes Cruise's available liquidity (dollars in billions):

	March 31, 2023	December 31, 2022
Cruise cash and cash equivalents	$ 1.9	$ 1.5
Cruise marketable securities	0.6	1.4
Total Cruise available liquidity(a)	$ 2.5	$ 2.9

(a) Excludes a multi-year credit agreement between Cruise and GM Financial whereby Cruise can request to borrow, over time, up to an additional aggregate of $4.5 billion, through 2024, to fund exclusively the purchase of AVs from GM.

The following table summarizes the changes in Cruise's available liquidity (dollars in billions):

	Three Months Ended March 31, 2023
Operating cash flow(a)	$ (0.5)
Other non-operating	0.1
Total change in Cruise available liquidity	$ (0.4)

(a) Includes $0.1 billion cash outflows related to tendered Cruise Class B Common Shares classified as liabilities.

Cruise Cash Flow (dollars in billions)

	Three Months Ended		
	March 31, 2023	March 31, 2022	Change
Net cash provided by (used in) operating activities	$ (0.5)	$ (0.3)	$ (0.2)
Net cash provided by (used in) investing activities	$ 0.8	$ —	$ 0.8
Net cash provided by (used in) financing activities	$ 0.1	$ 1.3	$ (1.2)

Automotive Financing – GM Financial Liquidity GM Financial's primary sources of cash are finance charge income, leasing income and proceeds from the sale of terminated leased vehicles, net proceeds from credit facilities, securitizations, secured and unsecured borrowings and collections and recoveries on finance receivables. GM Financial's primary uses of cash are purchases and funding of finance receivables and leased vehicles, repayment or repurchases of secured and unsecured debt, funding credit enhancement requirements in connection with securitizations and secured credit facilities, interest costs, operating expenses, income taxes and dividend payments. GM Financial continues to monitor and evaluate opportunities to optimize its liquidity position and the mix of its debt between secured and unsecured debt. The following table summarizes GM Financial's available liquidity (dollars in billions):

	March 31, 2023	December 31, 2022
Cash and cash equivalents	$ 4.4	$ 4.0
Borrowing capacity on unpledged eligible assets	23.0	22.0
Borrowing capacity on committed unsecured lines of credit	0.5	0.5
Borrowing capacity on revolving credit facility, exclusive to GM Financial	2.0	2.0
Total GM Financial available liquidity	$ 29.8	$ 28.5

At March 31, 2023, GM Financial's available liquidity increased from December 31, 2022 due to increased available borrowing capacity on unpledged eligible assets, resulting from the issuance of securitization transactions and unsecured debt and an increase in cash and cash equivalents. GM Financial structures liquidity to support at least six months of GM Financial's expected net cash flows, including new originations, without access to new debt financing transactions or other capital markets activity.

GM Financial did not have any borrowings outstanding against our credit facility designated for their exclusive use or the remainder of our revolving credit facilities at March 31, 2023 and December 31, 2022. Refer to the Automotive Liquidity section of this MD&A for additional details.

Credit Facilities In the normal course of business, in addition to using its available cash, GM Financial utilizes borrowings under its credit facilities, which may be secured or unsecured, and GM Financial repays these borrowings as appropriate under its cash management strategy. At March 31, 2023, secured, committed unsecured and uncommitted unsecured credit facilities totaled $26.2 billion, $0.6 billion and $1.5 billion with advances outstanding of $2.8 billion, an insignificant amount and $1.5 billion.

GM Financial Cash Flow (dollars in billions)

	Three Months Ended		
	March 31, 2023	March 31, 2022	Change
Net cash provided by (used in) operating activities	$ 1.7	$ 1.2	$ 0.5
Net cash provided by (used in) investing activities	$ (1.5)	$ (1.0)	$ (0.5)
Net cash provided by (used in) financing activities	$ 0.2	$ 0.5	$ (0.3)

In the three months ended March 31, 2023, Net cash provided by operating activities increased primarily due to: (1) a net increase in cash provided by counterparty derivative collateral posting activities of $0.6 billion; (2) an increase in finance charge income of $0.4 billion; (3) a decrease in taxes paid to GM of $0.1 billion; and (4) an increase in investment income of $0.1 billion; partially offset by (5) an increase in interest paid of $0.4 billion; and (6) a decrease in leased vehicle income of $0.2 billion.

In the three months ended March 31, 2023, Net cash used in investing activities increased primarily due to: (1) an increase in purchases and originations of finance receivables of $1.0 billion; (2) a decrease in proceeds from termination of leased vehicles of $0.5 billion; (3) an increase in purchases of leased vehicles, net of $0.2 billion; and (4) a decrease in principal collections and recoveries on finance receivables $0.1 billion; partially offset by (5) the net change in commercial finance receivables of $1.3 billion.

In the three months ended March 31, 2023, Net cash provided by financing activities decreased primarily due to: (1) an increase in cash dividend payments of $0.5 billion; and (2) a net decrease in short-term debt & borrowings of $0.1 billion; partially offset by (3) a decrease in payments on debt of $0.2 billion.

Critical Accounting Estimates The condensed consolidated financial statements are prepared in conformity with U.S. GAAP, which requires the use of estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses in the periods presented. We believe the accounting estimates employed are appropriate and the resulting balances are reasonable; however, due to the inherent uncertainties in developing estimates, actual results could differ from the original estimates, requiring adjustments to these balances in future periods. The critical accounting estimates that affect the condensed consolidated financial statements and the judgments and assumptions used are consistent with those described in the MD&A in our 2022 Form 10-K.

Forward-Looking Statements This report and the other reports filed by us with the SEC from time to time, as well as statements incorporated by reference herein and related comments by our management, may include "forward-looking statements" within the meaning of the U.S. federal securities laws. Forward-looking statements are any statements other than statements of historical fact. Forward-looking statements represent our current judgment about possible future events and are often identified by words like “aim,” “anticipate,” “appears,” “approximately,” “believe,” “continue,” “could,” “designed,” “effect,” “estimate,” “evaluate,” “expect,” “forecast,” “goal,” “initiative,” “intend,” “may,” “objective,” “outlook,” “plan,” “potential,” “priorities,” “project,” “pursue,” “seek,” “should,” “target,” “when,” “will,” “would,” or the negative of any of those words or similar expressions. In making these statements, we rely on assumptions and analysis based on our experience and perception of historical trends, current conditions and expected future developments as well as other factors we consider appropriate under the circumstances. We believe these judgments are reasonable, but these statements are not guarantees of any future events or financial results, and our actual results may differ materially due to a variety of important factors, many of which are beyond our control. These factors, which may be revised or supplemented in subsequent reports we file with the SEC, include, among others, the following: (1) our ability to deliver new products, services, technologies and customer experiences in response to increased competition and changing consumer preferences in the automotive industry; (2) our ability to timely fund and introduce new and improved vehicle models, including EVs, that are able to attract a sufficient number of consumers; (3) our ability to profitably deliver a broad portfolio of EVs that will help drive consumer adoption; (4) the success of our current line of full-size SUVs and full-size pickup trucks; (5) our highly competitive industry, which has been historically characterized by excess manufacturing capacity and the use of incentives, and the introduction of new and improved vehicle models by our competitors; (6) the unique technological, operational, regulatory and competitive risks related to the timing and commercialization of AVs; (7) risks associated with climate change, including increased regulation of greenhouse gas emissions, our transition to EVs and the potential increased impacts of severe weather events; (8) global automobile market sales volume, which can be volatile; (9) inflationary pressures and persistently high prices and uncertain availability of raw materials and commodities used by us and our suppliers, and instability in logistics and related costs; (10) our business in China, which is subject to unique operational, competitive, regulatory and economic risks; (11) the success of our ongoing strategic business relationships and of our joint ventures, which we cannot operate solely for our benefit and over which we may have limited control; (12) the international scale and footprint of our operations, which exposes us to a variety of unique political, economic, competitive and regulatory risks, including the risk of changes in government leadership and laws (including labor, trade, tax and other laws), political uncertainty or instability and economic tensions between governments and changes in international trade policies, new barriers to entry and changes to or withdrawals from free trade agreements, changes in foreign exchange rates and interest rates, economic downturns in the countries in which we operate, differing local product preferences and product requirements, changes to and compliance with U.S. and foreign countries' export controls and economic sanctions, differing labor regulations, requirements and union relationships, differing dealer and franchise regulations and relationships, difficulties in obtaining financing in foreign countries, and public health crises, including the occurrence of a contagious disease or illness, such as the COVID-19 pandemic; (13) any significant disruption, including any work stoppages, at any of our manufacturing facilities; (14) the ability of our suppliers to deliver parts, systems and components without disruption and at such times to allow us to meet production schedules; (15) pandemics, epidemics, disease outbreaks and other public health crises, including the COVID-19 pandemic; (16) the possibility that competitors may independently develop products and services similar to ours, or that our intellectual property rights are not sufficient to prevent competitors from developing or selling those products or services; (17) our ability to manage risks related to security breaches and other disruptions to our information technology systems and networked products, including connected vehicles and in-vehicle systems; (18) our ability to comply with increasingly complex, restrictive and punitive regulations relating to our enterprise data practices, including the collection, use, sharing and security of the Personal Identifiable Information of our customers, employees, or suppliers; (19) our ability to comply with extensive laws, regulations and policies applicable to our operations and products, including those relating to fuel economy, emissions and AVs; (20) costs and risks associated with litigation and government investigations; (21) the costs and effect on our reputation of product safety recalls and alleged defects in products and services; (22) any additional tax expense or exposure or failure to fully realize available tax incentives; (23) our continued ability to develop captive financing capability through GM Financial; and (24) any significant increase in our pension funding requirements. A further list and description of these risks, uncertainties and other factors can be found in our 2022 Form 10-K and our subsequent filings with the SEC.

We caution readers not to place undue reliance on forward-looking statements. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update publicly or otherwise revise any forward-looking statements, whether as a result of new information, future events or other factors, except where we are expressly required to do so by law.

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Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no significant changes in our exposure to market risk since December 31, 2022. For further discussion on market risk, refer to Part II, Item 7A. of our 2022 Form 10-K.

* * * * * * *

Item 4. Controls and Procedures

Disclosure Controls and Procedures We maintain disclosure controls and procedures designed to provide reasonable assurance that information required to be disclosed in reports filed under the Securities Exchange Act of 1934, as amended (Exchange Act), is recorded, processed, summarized and reported within the specified time periods and accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosures.

Our management, with the participation of our CEO and CFO, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) promulgated under the Exchange Act) as of March 31, 2023 as required by paragraph (b) of Rules 13a-15 or 15d-15. Based on this evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of March 31, 2023.

Changes in Internal Control over Financial Reporting There have not been any changes in our internal control over financial reporting during the three months ended March 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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PART II

Item 1. Legal Proceedings

SEC regulations require us to disclose certain information about environmental proceedings if a governmental authority is a party to such proceedings and such proceedings involve potential monetary sanctions that we reasonably believe will exceed a stated threshold. Pursuant to the SEC regulations, the Company will use a threshold of $1 million for purposes of determining whether disclosure of any such proceedings is required.

The discussion under Note 13 to our condensed consolidated financial statements is incorporated by reference into this Part II, Item 1.

* * * * * * *

Item 1A. Risk Factors

We face a number of significant risks and uncertainties in connection with our operations. Our business and the results of our operations and financial condition could be materially adversely affected by these risk factors. There have been no material changes to the Risk Factors disclosed in our 2022 Form 10-K.

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

Purchases of Equity Securities The following table summarizes our purchases of common stock in the three months ended March 31, 2023:

	Total Number of Shares Purchased(a)(b)	Weighted Average Price Paid per Share(c)	Total Number of Shares Purchased Under Announced Programs(b)	Approximate Dollar Value of Shares That May Yet be Purchased Under Announced Programs
January 1, 2023 through January 31, 2023	22,216	$ 33.97	—	$2.5 billion
February 1, 2023 through February 28, 2023	6,180,726	$ 41.24	3,985,294	$2.3 billion
March 1, 2023 through March 31, 2023	5,276,241	$ 38.06	5,276,241	$2.1 billion
Total	11,479,183	$ 39.76	9,261,535	

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(a) Shares purchased consist of shares delivered by employees or directors to us for the payment of taxes resulting from the issuance of common stock upon the vesting of RSUs and PSUs relating to compensation plans. Refer to our 2022 Form 10-K for additional details on employee stock incentive plans.
(b) In January 2017, we announced that our Board of Directors had authorized the purchase of up to $5.0 billion of our common stock with no expiration date. In August 2022, the Board of Directors increased the capacity to $5.0 billion from the $3.3 billion that remained as of June 30, 2022, with no expiration.
(c) The weighted-average price paid per share excludes broker commissions.

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Item 6. Exhibits

Exhibit Number	Exhibit Name	
3.1	Restated Certificate of Incorporation of General Motors Company dated December 7, 2010, incorporated herein by reference to Exhibit 3.2 to the Current Report on Form 8-K of General Motors Company filed December 13, 2010	Incorporated by Reference
3.2	General Motors Company Amended and Restated Bylaws, as amended April 20, 2023, incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of General Motors Company filed April 21, 2023	Incorporated by Reference
10.1†	Fourth Amended and Restated 5-Year Revolving Credit Agreement among General Motors Company, General Motors Financial Company, Inc., the subsidiary borrowers from time to time parties thereto, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of General Motors Company filed March 31, 2023	Incorporated by Reference
10.2†	Fifth Amended and Restated 3-Year Revolving Credit Agreement among General Motors Company, General Motors Financial Company, Inc., the subsidiary borrowers from time to time parties thereto, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K of General Motors Company filed March 31, 2023	Incorporated by Reference
10.3†	Fifth Amended and Restated 364-Day Revolving Credit Agreement among General Motors Company, General Motors Financial Company, Inc., the subsidiary borrowers from time to time parties thereto, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K of General Motors Company filed March 31, 2023	Incorporated by Reference
31.1	Section 302 Certification of the Chief Executive Officer	Filed Herewith
31.2	Section 302 Certification of the Chief Financial Officer	Filed Herewith
32	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished with this Report
101	The following financial information from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, formatted in Inline Extensible Business Reporting Language (iXBRL) includes: (i) the Condensed Consolidated Income Statements, (ii) the Condensed Consolidated Statements of Comprehensive Income, (iii) the Condensed Consolidated Balance Sheets, (iv) the Condensed Consolidated Statements of Cash Flows, (v) the Condensed Consolidated Statements of Equity and (vi) Notes to the Condensed Consolidated Financial Statements	Filed Herewith
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, formatted as Inline XBRL and contained in Exhibit 101	Filed Herewith

† Portions of this exhibit have been omitted pursuant to Rule 601(b)(10) of Regulation S-K. The omitted information is not material and would likely cause competitive harm to the registrant if publicly disclosed.

* * * * * * *

SIGNATURE

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.

GENERAL MOTORS COMPANY (Registrant)

By: /s/ CHRISTOPHER T. HATTO

Christopher T. Hatto, Vice President, Global Business Solutions and Chief Accounting Officer

Date: April 25, 2023

Exhibit 31.1

CERTIFICATION

I, Mary T. Barra, certify that:

1. I have reviewed this quarterly report on Form 10-Q of General Motors Company;

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 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 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.

/s/ MARY T. BARRA
Mary T. Barra
Chair and Chief Executive Officer

Date: April 25, 2023

Exhibit 31.2

CERTIFICATION

I, Paul A. Jacobson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of General Motors Company;

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 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 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.

/s/ PAUL A. JACOBSON

Paul A. Jacobson
Executive Vice President and Chief Financial Officer

Date: April 25, 2023

Exhibit 32

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 General Motors Company (the “Company”) on Form 10-Q for the period ended March 31, 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. § 1350, as adopted pursuant to § 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.

/s/ MARY T. BARRA
Mary T. Barra
Chair and Chief Executive Officer

/s/ PAUL A. JACOBSON
Paul A. Jacobson
Executive Vice President and Chief Financial Officer

Date: April 25, 2023