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 QUARTER ENDED SEPTEMBER 30, 2023

1-2360
(Commission file number)

INTERNATIONAL BUSINESS MACHINES CORPORATION
(Exact name of registrant as specified in its charter)

New York	**13-0871985**
(State of incorporation)	(IRS employer identification number)
One New Orchard Road **Armonk, New York**	**10504**
(Address of principal executive offices)	(Zip Code)

914-499-1900
(Registrant's telephone number)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Capital stock, par value $.20 per share	IBM	New York Stock Exchange
		NYSE Chicago
1.125% Notes due 2024	IBM 24A	New York Stock Exchange
2.875% Notes due 2025	IBM 25A	New York Stock Exchange
0.950% Notes due 2025	IBM 25B	New York Stock Exchange
0.875% Notes due 2025	IBM 25C	New York Stock Exchange
0.300% Notes due 2026	IBM 26B	New York Stock Exchange
1.250% Notes due 2027	IBM 27B	New York Stock Exchange
3.375% Notes due 2027	IBM 27F	New York Stock Exchange
0.300% Notes due 2028	IBM 28B	New York Stock Exchange
1.750% Notes due 2028	IBM 28A	New York Stock Exchange
1.500% Notes due 2029	IBM 29	New York Stock Exchange
0.875% Notes due 2030	IBM 30A	New York Stock Exchange
1.750% Notes due 2031	IBM 31	New York Stock Exchange
3.625% Notes due 2031	IBM 31B	New York Stock Exchange
0.650% Notes due 2032	IBM 32A	New York Stock Exchange
1.250% Notes due 2034	IBM 34	New York Stock Exchange
3.750% Notes due 2035	IBM 35	New York Stock Exchange
4.875% Notes due 2038	IBM 38	New York Stock Exchange
1.200% Notes due 2040	IBM 40	New York Stock Exchange
4.000% Notes due 2043	IBM 43	New York Stock Exchange
7.00% Debentures due 2025	IBM 25	New York Stock Exchange
6.22% Debentures due 2027	IBM 27	New York Stock Exchange
6.50% Debentures due 2028	IBM 28	New York Stock Exchange
5.875% Debentures due 2032	IBM 32D	New York Stock Exchange
7.00% Debentures due 2045	IBM 45	New York Stock Exchange
7.125% Debentures due 2096	IBM 96	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section l3 or l5(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 ☒

The registrant had 913,118,581 shares of common stock outstanding at September 30, 2023.

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Part I - Financial Information

Item 1. Consolidated Financial Statements:

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED INCOME STATEMENT
(UNAUDITED)

	Three Months Ended September 30,		Nine Months Ended September 30,	
(Dollars in millions except per share amounts)	2023	2022	2023	2022
Revenue:				
Services	$ 7,541	$ 7,365	$ 22,618	$ 22,708
Sales	7,025	6,565	21,296	20,652
Financing	186	176	566	479
Total revenue	14,752	14,107	44,479	43,840
Cost:				
Services	5,217	5,168	15,821	15,915
Sales	1,419	1,389	4,329	4,555
Financing	94	120	297	314
Total cost	6,729	6,677	20,446	20,784
Gross profit	8,023	7,430	24,033	23,055
Expense and other (income):				
Selling, general and administrative	4,458	4,391	14,212	13,843
Research, development and engineering	1,685	1,611	5,027	4,963
Intellectual property and custom development income	(190)	(121)	(618)	(418)
Other (income) and expense	(215)	5,755	(721)	5,921
Interest expense	412	295	1,202	903
Total expense and other (income)	6,150	11,931	19,102	25,212
Income/(loss) from continuing operations before income taxes	1,873	(4,501)	4,931	(2,156)
Provision for/(benefit from) income taxes	159	(1,287)	702	(1,070)
Income/(loss) from continuing operations	$ 1,714	$ (3,214)	$ 4,229	$ (1,087)
Income/(loss) from discontinued operations, net of tax	(10)	18	(15)	16
Net income/(loss)	$ 1,704	$ (3,196) *	$ 4,214	$ (1,071) *
Earnings/(loss) per share of common stock:				
Assuming dilution:				
Continuing operations	$ 1.86	$ (3.55)	$ 4.59	$ (1.21)
Discontinued operations	(0.01)	0.02	(0.02)	0.02
Total	$ 1.84	$ (3.54)	$ 4.58	$ (1.19)
Basic:				
Continuing operations	$ 1.88	$ (3.55)	$ 4.65	$ (1.21)
Discontinued operations	(0.01)	0.02	(0.02)	0.02
Total	$ 1.87	$ (3.54)	$ 4.63	$ (1.19)
Weighted-average number of common shares outstanding: (millions)				
Assuming dilution	923.7	904.1	920.3	901.6
Basic	912.8	904.1	910.1	901.6

* Includes the impact of a one-time, non-cash pension settlement charge. Refer to note 18, "Retirement-Related Benefits," for additional information.

(Amounts may not add due to rounding.)

(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
(UNAUDITED)

(Dollars in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net income/(loss)	$ 1,704	$ (3,196)	$ 4,214	$ (1,071)
Other comprehensive income/(loss), before tax:				
Foreign currency translation adjustments	151	143	180	799
Net changes related to available-for-sale securities:				
Unrealized gains/(losses) arising during the period	0	0	(1)	(1)
Reclassification of (gains)/losses to net income	—	—	—	—
Total net changes related to available-for-sale securities	0	0	(1)	(1)
Unrealized gains/(losses) on cash flow hedges:				
Unrealized gains/(losses) arising during the period	131	189	279	449
Reclassification of (gains)/losses to net income	202	(12)	51	4
Total unrealized gains/(losses) on cash flow hedges	333	178	330	453
Retirement-related benefit plans:				
Prior service costs/(credits)	—	412	—	408
Net (losses)/gains arising during the period	102	53	104	63
Curtailments and settlements	2	5,913	7	5,931
Amortization of prior service (credits)/costs	(2)	3	(6)	16
Amortization of net (gains)/losses	128	388	389	1,305
Total retirement-related benefit plans	230	6,768	494	7,722
Other comprehensive income/(loss), before tax	714	7,089	1,003	8,973
Income tax (expense)/benefit related to items of other comprehensive income	(313)	(2,058)	(361)	(2,877)
Other comprehensive income/(loss), net of tax	402	5,030	642	6,096
Total comprehensive income	$ 2,105	$ 1,834	$ 4,857	$ 5,025

(Amounts may not add due to rounding.)
(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED BALANCE SHEET
(UNAUDITED)

ASSETS

(Dollars in millions)	At September 30, 2023	At December 31, 2022
Assets:		
Current assets:		
Cash and cash equivalents	$ 7,257	$ 7,886
Restricted cash	19	103
Marketable securities	3,721	852
Notes and accounts receivable — trade (net of allowances of $198 in 2023 and $233 in 2022)	5,330	6,541
Short-term financing receivables:		
Held for investment (net of allowances of $133 in 2023 and $145 in 2022)	5,032	6,851
Held for sale	593	939
Other accounts receivable (net of allowances of $106 in 2023 and $89 in 2022)	842	817
Inventory, at lower of average cost or net realizable value:		
Finished goods	159	158
Work in process and raw materials	1,239	1,394
Total inventory	1,399	1,552
Deferred costs	931	967
Prepaid expenses and other current assets	2,582	2,611
Total current assets	27,705	29,118
Property, plant and equipment	18,217	18,695
Less: Accumulated depreciation	12,848	13,361
Property, plant and equipment — net	5,369	5,334
Operating right-of-use assets — net	3,112	2,878
Long-term financing receivables (net of allowances of $26 in 2023 and $28 in 2022)	4,789	5,806
Prepaid pension assets	8,901	8,236
Deferred costs	822	866
Deferred taxes	6,168	6,256
Goodwill	59,596	55,949
Intangible assets — net	11,278	11,184
Investments and sundry assets	1,582	1,617
Total assets	$ 129,321	$ 127,243

(Amounts may not add due to rounding.)

(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED BALANCE SHEET – (CONTINUED)
(UNAUDITED)

LIABILITIES AND EQUITY

(Dollars in millions except per share amounts)	At September 30, 2023	At December 31, 2022
Liabilities:		
Current liabilities:		
Taxes	$ 1,559	$ 2,196
Short-term debt	6,414	4,760
Accounts payable	3,342	4,051
Compensation and benefits	3,257	3,481
Deferred income	11,917	12,032
Operating lease liabilities	807	874
Other accrued expenses and liabilities	3,309	4,111
Total current liabilities	30,606	31,505
Long-term debt	48,828	46,189
Retirement and nonpension postretirement benefit obligations	9,090	9,596
Deferred income	3,085	3,499
Operating lease liabilities	2,476	2,190
Other liabilities	12,081	12,243
Total liabilities	106,165	105,222
Equity:		
IBM stockholders' equity:		
Common stock, par value $0.20 per share, and additional paid-in capital	59,313	58,343
Shares authorized: 4,687,500,000		
Shares issued: 2023 - 2,265,198,427		
2022 - 2,257,116,920		
Retained earnings	149,506	149,825
Treasury stock - at cost	(169,640)	(169,484)
Shares: 2023 - 1,352,079,846		
2022 - 1,351,024,943		
Accumulated other comprehensive income/(loss)	(16,098)	(16,740)
Total IBM stockholders' equity	23,081	21,944
Noncontrolling interests	75	77
Total equity	23,156	22,021
Total liabilities and equity	$ 129,321	$ 127,243

(Amounts may not add due to rounding.)

(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENT OF CASH FLOWS
(UNAUDITED)

(Dollars in millions)	Nine Months Ended September 30, 2023	2022*	
Cash flows from operating activities:			
Net income/(loss)	$ 4,214	$ (1,071)	
Adjustments to reconcile net income/(loss) to cash provided by operating activities:			
Pension settlement charge	—	5,894	
Depreciation	1,568	1,837	
Amortization of intangibles	1,676	1,828	
Stock-based compensation	843	739	
Net (gain)/loss on asset sales and other	(89)	(60)	
Changes in operating assets and liabilities, net of acquisitions/divestitures	1,257	(2,695)	**
Net cash provided by operating activities	9,468	6,470	
Cash flows from investing activities:			
Payments for property, plant and equipment	(945)	(937)	
Proceeds from disposition of property, plant and equipment	137	98	
Investment in software	(417)	(479)	
Acquisition of businesses, net of cash acquired	(4,945)	(1,020)	
Divestitures of businesses, net of cash transferred	(4)	1,271	
Purchases of marketable securities and other investments	(10,374)	(4,474)	
Proceeds from disposition of marketable securities and other investments	6,642	2,655	
Net cash provided by/(used in) investing activities	(9,906)	(2,883)	
Cash flows from financing activities:			
Proceeds from new debt	9,586	7,797	
Payments to settle debt	(4,973)	(5,446)	
Short-term borrowings/(repayments) less than 90 days — net	6	221	
Common stock repurchases for tax withholdings	(338)	(329)	
Financing — other	86	106	
Cash dividends paid	(4,522)	(4,454)	
Net cash provided by/(used in) financing activities	(154)	(2,106)	
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(120)	(463)	
Net change in cash, cash equivalents and restricted cash	(713)	1,018	
Cash, cash equivalents and restricted cash at January 1	7,988	6,957	
Cash, cash equivalents and restricted cash at September 30	$ 7,275	$ 7,975	

* Includes immaterial cash flows from discontinued operations.

** Refer to note 1, "Basis of Presentation," for additional information.

(Amounts may not add due to rounding.)

(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENT OF EQUITY
(UNAUDITED)

(Dollars in millions except per share amounts)	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
Equity - July 1, 2023	$ 58,963	$149,318	$(169,581)	$ (16,499)	$ 22,201	$ 70	$22,271
Net income plus other comprehensive income/(loss):							
Net income		1,704			1,704		1,704
Other comprehensive income/(loss)				402	402		402
Total comprehensive income					$ 2,105		$ 2,105
Cash dividends paid — common stock ($1.66 per share)		(1,515)			(1,515)		(1,515)
Common stock issued under employee plans (2,501,236 shares)	350				350		350
Purchases (688,254 shares) and sales (299,359 shares) of treasury stock under employee plans — net		(1)	(60)		(60)		(60)
Changes in noncontrolling interests						5	5
Equity – September 30, 2023	$ 59,313	$149,506	$(169,640)	$ (16,098)	$ 23,081	$ 75	$23,156

(Dollars in millions except per share amounts)	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
Equity - July 1, 2022	$ 57,802	$153,298	$(169,522)	$ (22,169)	$ 19,409	$ 67	$19,476
Net income/(loss) plus other comprehensive income/(loss):							
Net income/(loss)		(3,196)			(3,196)		(3,196)
Other comprehensive income/(loss)				5,030	5,030		5,030
Total comprehensive income					$ 1,834		$ 1,834
Cash dividends paid — common stock ($1.65 per share)		(1,491)			(1,491)		(1,491)
Common stock issued under employee plans (871,676 shares)	315				315		315
Purchases (103,736 shares) and sales (178,069 shares) of treasury stock under employee plans — net		0	8		8		8
Changes in noncontrolling interests						4	4
Equity - September 30, 2022	$ 58,117	$148,611	$(169,514)	$ (17,138)	$ 20,076	$ 71	$20,147

(Amounts may not add due to rounding.)

(The accompanying notes are an integral part of the financial statements.)

INTERNATIONAL BUSINESS MACHINES CORPORATION
AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENT OF EQUITY – (CONTINUED)
(UNAUDITED)

(Dollars in millions except per share amounts)	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
Equity - January 1, 2023	$ 58,343	$149,825	$(169,484)	$ (16,740)	$ 21,944	$ 77	$22,021
Net income plus other comprehensive income/(loss):							
Net income		4,214			4,214		4,214
Other comprehensive income/(loss)				642	642		642
Total comprehensive income					$ 4,857		$ 4,857
Cash dividends paid — common stock ($4.97 per share)		(4,522)			(4,522)		(4,522)
Common stock issued under employee plans (8,081,507 shares)	970				970		970
Purchases (2,498,567 shares) and sales (1,443,664 shares) of treasury stock under employee plans — net		(11)	(156)		(167)		(167)
Changes in noncontrolling interests						(2)	(2)
Equity - September 30, 2023	$ 59,313	$149,506	$(169,640)	$ (16,098)	$ 23,081	$ 75	$23,156

(Dollars in millions except per share amounts)	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
Equity - January 1, 2022	$ 57,319	$154,209	$(169,392)	$ (23,234)	$ 18,901	$ 95	$18,996
Net income/(loss) plus other comprehensive income/(loss):							
Net income/(loss)		(1,071)			(1,071)		(1,071)
Other comprehensive income/(loss)				6,096	6,096		6,096
Total comprehensive income					$ 5,025		$ 5,025
Cash dividends paid — common stock ($4.94 per share)		(4,454)			(4,454)		(4,454)
Common stock issued under employee plans (6,832,400 shares)	736				736		736
Purchases (2,423,220 shares) and sales (1,648,583 shares) of treasury stock under employee plans — net		(10)	(122)		(133)		(133)
Other equity	63	(63)			0		0
Changes in noncontrolling interests						(23)	(23)
Equity - September 30, 2022	$ 58,117	$148,611	$(169,514)	$ (17,138)	$ 20,076	$ 71	$20,147

(Amounts may not add due to rounding.)

(The accompanying notes are an integral part of the financial statements.)

1. Basis of Presentation:

The accompanying Consolidated Financial Statements and footnotes of the International Business Machines Corporation (IBM or the company) have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The financial statements and footnotes are unaudited. In the opinion of the company's management, these statements include all adjustments, which are only of a normal recurring nature, necessary to present a fair statement of the company's results of operations, financial position and cash flows.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amount of assets, liabilities, revenue, costs, expenses and other comprehensive income/(loss) that are reported in the Consolidated Financial Statements and accompanying disclosures. These estimates are based on management's best knowledge of current events, historical experience, actions that the company may undertake in the future and on various other assumptions that are believed to be reasonable under the circumstances. As a result, actual results may be different from these estimates.

In September 2022, the IBM Qualified Personal Pension Plan (Qualified PPP) purchased two separate nonparticipating single premium group annuity contracts from The Prudential Insurance Company of America and Metropolitan Life Insurance Company (collectively, the Insurers) and irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP's defined benefit pension obligations and related plan assets, thereby reducing the company's pension obligations and assets by the same amount. The group annuity contracts were purchased using assets of the Qualified PPP and no additional funding contribution was required from the company. As a result of this transaction the company recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022, primarily related to the accelerated recognition of accumulated actuarial losses of the Qualified PPP. The $1.5 billion tax effect associated with the settlement charge is reflected as an adjustment to reconcile net income/(loss) to cash from operating activities within changes in operating assets and liabilities, net of acquisitions/divestitures in the Consolidated Statement of Cash Flows for the nine months ended September 30, 2022. Refer to note 18, "Retirement-Related Benefits," for additional information.

In the fourth quarter of 2022, the company completed its annual assessment of the useful lives of its property, plant and equipment. Due to advances in technology, the company determined it should increase the estimated useful lives of its server and network equipment from five to six years for new assets and from three to four years for used assets. This change in accounting estimate was effective beginning January 1, 2023. Based on the carrying amount of server and network equipment included in property, plant and equipment-net in the company's Consolidated Balance Sheet as of December 31, 2022, the effect of this change in estimate was an increase in income from continuing operations before income taxes of $44 million, or $0.04 per basic and diluted share for the three months ended September 30, 2023, and $175 million, or $0.16 and $0.15 per basic and diluted share, respectively, for the nine months ended September 30, 2023.

For the three and nine months ended September 30, 2023, the company reported a provision for income taxes of $159 million and $702 million, respectively, and its effective tax rate was 8.5 percent and 14.2 percent, respectively. The rates are driven by many factors including the impacts of changes to the U.S. Foreign Tax Credit regulations, geographical mix of income, incentives and changes in unrecognized tax benefits. For the three and nine months ended September 30, 2022, the company reported a benefit from income taxes of $1,287 million and $1,070 million, respectively. The tax benefits were primarily due to the transfer of a portion of the Qualified PPP's defined benefit pension obligations and related plan assets, as described above.

Noncontrolling interest amounts of $4 million, net of tax, for both the three months ended September 30, 2023 and 2022, respectively, and $13 million and $14 million, net of tax, for the nine months ended September 30, 2023 and 2022, respectively, are included as a reduction within other (income) and expense in the Consolidated Income Statement.

The company has supplier finance programs with third-party financial institutions where the company agrees to pay the financial institutions the stated amounts of invoices from participating suppliers on the originally invoiced maturity date, which have an average term of 90 to 120 days, consistent with the company's standard payment terms. The financial institutions offer earlier payment of the invoices at the sole discretion of the supplier for a discounted amount. The company does not provide secured legal assets or other forms of guarantees under the arrangements. The company is not a party to the arrangements between its suppliers and the financial institutions. These obligations are recognized as accounts

payable in the Consolidated Balance Sheet. The obligations outstanding under these programs at September 30, 2023 and December 31, 2022 were $99 million and $60 million, respectively.

Interim results are not necessarily indicative of financial results for a full year. The information included in this Form 10-Q should be read in conjunction with the company's 2022 Annual Report.

Within the financial statements and tables presented, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages presented are calculated from the underlying whole-dollar amounts. Certain prior-period amounts have been reclassified to conform to the current-period presentation. This is annotated where applicable.

2. Accounting Changes:

Standards Implemented

Disclosures of Supplier Finance Program Obligations

Standard/Description–Issuance date: September 2022. This guidance requires an entity to provide certain interim and annual disclosures about the use of supplier finance programs in connection with the purchase of goods or services.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2023 with certain annual disclosures required beginning in 2024 and early adoption was permitted. The company adopted the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. Refer to note 1, "Basis of Presentation," for additional information.

Troubled Debt Restructurings and Vintage Disclosures

Standard/Description–Issuance date: March 2022. This eliminates the accounting guidance for troubled debt restructurings and requires an entity to apply the general loan modification guidance to all loan modifications, including those made to customers experiencing financial difficulty, to determine whether the modification results in a new loan or a continuation of an existing loan. The guidance also requires presenting current-period gross write-offs by year of origination for financing receivables and net investment in leases.

Effective Date and Adoption Considerations–The amendment was effective January 1, 2023 and early adoption was permitted. The company adopted the guidance on a prospective basis as of the effective date.

Effect on Financial Statements or Other Significant Matters–The guidance did not have a material impact in the consolidated financial results. Refer to note 9, "Financing Receivables," for additional information.

3. Revenue Recognition:

Disaggregation of Revenue

The following tables provide details of revenue by major products/service offerings and revenue by geography.

Revenue by Major Products/Service Offerings

	Three Months Ended September 30,		Nine Months Ended September 30,	
(Dollars in millions)	**2023**	**2022**	**2023**	**2022**
Hybrid Platform & Solutions	$ 4,506	$ 4,172	$ 13,350	$ 12,641
Transaction Processing	1,759	1,640	5,444	5,107
Total Software	$ 6,265	$ 5,811	$ 18,794	$ 17,749
Business Transformation	2,291	2,165	6,869	6,646
Application Operations	1,710	1,593	5,204	4,865
Technology Consulting	961	943	2,865	2,826
Total Consulting	$ 4,963	$ 4,700	$ 14,938	$ 14,337
Hybrid Infrastructure	1,943	1,931	5,912	6,392
Infrastructure Support	1,329	1,421	4,076	4,413
Total Infrastructure	$ 3,272	$ 3,352	$ 9,988	$ 10,805
Financing*	186	174	566	474
Other	67	70	192	475
Total revenue	$ 14,752	$ 14,107	$ 44,479	$ 43,840

* Contains lease and loan financing arrangements which are not subject to the guidance on revenue from contracts with customers.

Revenue by Geography

	Three Months Ended September 30,		Nine Months Ended September 30,	
(Dollars in millions)	**2023**	**2022**	**2023**	**2022**
Americas	$ 7,686	$ 7,416	$ 22,810	$ 22,614
Europe/Middle East/Africa	4,223	3,959	13,156	12,716
Asia Pacific	2,843	2,732	8,513	8,509
Total	$ 14,752	$ 14,107	$ 44,479	$ 43,840

Remaining Performance Obligations

The remaining performance obligation (RPO) disclosure provides the aggregate amount of the transaction price yet to be recognized as of the end of the reporting period and an explanation as to when the company expects to recognize these amounts in revenue. It is intended to be a statement of overall work under contract that has not yet been performed and does not include contracts in which the customer is not committed, such as certain as-a-Service, governmental, term software license and services offerings. The customer is not considered committed when they are able to terminate for convenience without payment of a substantive penalty. The disclosure includes estimates of variable consideration, except when the variable consideration is a sales-based or usage-based royalty promised in exchange for a license of intellectual property. Additionally, as a practical expedient, the company does not include contracts that have an original duration of one year or less. RPO estimates are subject to change and are affected by several factors, including terminations, changes in the scope of contracts, periodic revalidations, adjustment for revenue that has not materialized and adjustments for currency.

At September 30, 2023, the aggregate amount of the transaction price allocated to RPO related to customer contracts that are unsatisfied or partially unsatisfied was $55 billion. Approximately 71 percent of the amount is expected to be recognized as revenue in the subsequent two years, approximately 26 percent in the subsequent three to five years and the balance thereafter.

Revenue Recognized for Performance Obligations Satisfied (or Partially Satisfied) in Prior Periods

For the three months ended September 30, 2023 the revenue recognized for performance obligations satisfied (or partially satisfied) in previous periods was immaterial. For the nine months ended September 30, 2023, revenue was reduced by $16 million mainly due to changes in estimates on contracts with cost-to-cost measures of progress.

Reconciliation of Contract Balances

The following table provides information about notes and accounts receivable–trade, contract assets and deferred income balances.

(Dollars in millions)	At September 30, 2023	At December 31, 2022
Notes and accounts receivable ─ trade (net of allowances of $198 in 2023 and $233 in 2022)	$ 5,330	$ 6,541
Contract assets*	$ 454	$ 464
Deferred income (current)	$ 11,917	$ 12,032
Deferred income (noncurrent)	$ 3,085	$ 3,499

* Included within prepaid expenses and other current assets in the Consolidated Balance Sheet.

The amount of revenue recognized during the three and nine months ended September 30, 2023 that was included within the deferred income balance at June 30, 2023 and December 31, 2022 was $4.3 billion and $9.0 billion, respectively, and was primarily related to services and software.

The following table provides roll forwards of the notes and accounts receivable–trade allowance for expected credit losses for the nine months ended September 30, 2023 and the year ended December 31, 2022.

(Dollars in millions)

January 1, 2023	Additions / (Releases)	Write-offs	Foreign currency and other	September 30, 2023
$ 233	$ 28	$ (67)	$ 4	$ 198

January 1, 2022	Additions / (Releases)	Write-offs	Foreign currency and other	December 31, 2022
$ 218	$ 59	$ (31)	$ (14)	$ 233

The contract assets allowance for expected credit losses was not material in any of the periods presented.

4. Segments:

The following tables reflect the results of continuing operations of the company's segments consistent with the management and measurement system utilized within the company. Performance measurement is based on pre-tax income from continuing operations. These results are used by the chief operating decision maker, both in evaluating the performance of, and in allocating resources to, each of the segments.

SEGMENT INFORMATION

(Dollars in millions)	Software	Consulting	Infrastructure	Financing	Total Segments
For the three months ended September 30, 2023:					
Revenue	$ 6,265	$ 4,963	$ 3,272	$ 186	$ 14,685
Pre-tax income from continuing operations	$ 1,486	$ 509	$ 387	$ 91	$ 2,473
Revenue year-to-year change	7.8 %	5.6 %	(2.4) %	6.9 %	4.6 %
Pre-tax income year-to-year change	13.7 %	10.0 %	38.3 %	16.0 %	16.2 %
Pre-tax income margin	23.7 %	10.2 %	11.8 %	49.2 %	16.8 %
For the three months ended September 30, 2022:					
Revenue	$ 5,811	$ 4,700	$ 3,352	$ 174	$ 14,037
Pre-tax income from continuing operations	$ 1,306	$ 462	$ 280	$ 79	$ 2,128
Pre-tax income margin	22.5 %	9.8 %	8.3 %	45.4 %	15.2 %

Reconciliations to IBM as Reported:

(Dollars in millions) For the three months ended September 30:	2023	2022
Revenue:		
Total reportable segments	$ 14,685	$ 14,037
Other–divested businesses	0	3
Other revenue	66	68
Total revenue from continuing operations	$ 14,752	$ 14,107
Pre-tax income from continuing operations:		
Total reportable segments	$ 2,473	$ 2,128
Amortization of acquired intangible assets	(414)	(417)
Acquisition-related (charges)/income	(25)	(1)
Non-operating retirement-related (costs)/income	12	(6,062) *
Kyndryl-related impacts	—	14 **
Workforce rebalancing charges+	(34)	—
Other–divested businesses	8	0
Unallocated corporate amounts and other	(148)	(163) ++
Total pre-tax income/(loss) from continuing operations	$ 1,873	$ (4,501)

* Includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion. See note 18, “Retirement-Related Benefits,” for additional information.

**Net impacts from Kyndryl retained shares and related swap. Refer to note 5, "Acquisitions & Divestitures," and note 16, "Derivative Financial Instruments," for additional information.

\+ Beginning in the first quarter of 2023, the company updated its measure of segment pre-tax income, consistent with its management system, to no longer allocate workforce rebalancing charges to its segments. Workforce rebalancing charges in the third quarter of 2022 of $13 million were included in the segments.

++Recast to conform to 2023 presentation.

SEGMENT INFORMATION

(Dollars in millions)	Software	Consulting	Infrastructure	Financing	Total Segments
For the nine months ended September 30, 2023:					
Revenue	$ 18,794	$ 14,938	$ 9,988	$ 566	$ 44,287
Pre-tax income from continuing operations	$ 4,154	$ 1,336	$ 1,236	$ 256	$ 6,983
Revenue year-to-year change	5.9 %	4.2 %	(7.6) %	19.5 %	2.1 %
Pre-tax income year-to-year change	8.9 %	15.8 %	0.0 %	(3.2) %	7.9 %
Pre-tax income margin	22.1 %	8.9 %	12.4 %	45.3 %	15.8 %
For the nine months ended September 30, 2022:					
Revenue	$ 17,749	$ 14,337	$ 10,805	$ 474	$ 43,365
Pre-tax income from continuing operations	$ 3,816	$ 1,154	$ 1,236	$ 265	$ 6,470
Pre-tax income margin	21.5 %	8.0 %	11.4 %	55.9 %	14.9 %

Reconciliations to IBM as Reported:

(Dollars in millions) For the nine months ended September 30:	2023	2022
Revenue:		
Total reportable segments	$ 44,287	$ 43,365
Other–divested businesses	(1)	319
Other revenue	193	156
Total consolidated revenue	$ 44,479	$ 43,840
Pre-tax income from continuing operations:		
Total reportable segments	$ 6,983	$ 6,470
Amortization of acquired intangible assets	(1,194)	(1,337)
Acquisition-related charges	(35)	(9)
Non-operating retirement-related (costs)/income	16	(6,455) *
Kyndryl-related impacts	—	(353) **
Workforce rebalancing charges+	(410)	—
Other–divested businesses	4	108
Unallocated corporate amounts	(432)	(581) ++
Total pre-tax income/(loss) from continuing operations	$ 4,931	$ (2,156)

* Includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion. See note 18, “Retirement-Related Benefits,” for additional information.

**Net impacts from Kyndryl retained shares and related swaps. Refer to note 5, "Acquisitions & Divestitures," and note 16, "Derivative Financial Instruments," for additional information.

\+ Beginning in the first quarter of 2023, the company updated its measure of segment pre-tax income, consistent with its management system, to no longer allocate workforce rebalancing charges to its segments. Workforce rebalancing charges in the first nine months of 2022 of $22 million were included in the segments.

++Recast to conform to 2023 presentation.

5. Acquisitions & Divestitures:

Acquisitions

Purchase price consideration for all acquisitions was paid primarily in cash. All acquisitions, unless otherwise stated, were for 100 percent of the acquired business and are reported in the Consolidated Statement of Cash Flows, net of acquired cash and cash equivalents.

During the nine months ended September 30, 2023, the company completed seven acquisitions at an aggregate cost of $5,033 million. Each acquisition is expected to enhance the company's portfolio of products and services capabilities and further advance IBM's hybrid cloud and AI strategy.

Acquisition	Segment	Description of Acquired Business
First Quarter		
StepZen, Inc.	Software	Developer of GraphQL to help build application programming interfaces (APIs)
Asset Strategy Library (ASL) Portfolio of Uptake Technologies	Software	Library of industrial asset management data
NS1	Software	Leading provider of network automation SaaS solutions
Second Quarter		
Ahana Cloud, Inc.	Software	Expert in open-source-based solutions for data analytics
Polar Security	Software	Innovator in technology that helps companies discover, continuously monitor and secure cloud and SaaS application data
Agyla SAS	Consulting	Leading provider of cloud platform engineering services in France specializing in Cloud, DevOps and Security
Third Quarter		
Apptio, Inc.	Software	Leading provider of financial and operational IT management and optimization software which enables enterprise leaders to deliver enhanced business value across technology investments

At September 30, 2023, the remaining cash to be remitted by the company related to certain 2023 acquisitions was $38 million, most of which is expected to be paid in the first half of 2024. The unremitted cash associated with these acquisitions is primarily a non-cash financing activity for purposes of the company's Consolidated Statement of Cash Flows as of September 30, 2023.

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of September 30, 2023.

(Dollars in millions)	Amortization Life (in years)	Apptio, Inc.	Other Acquisitions
Current assets		$ 150	$ 46
Property, plant and equipment/noncurrent assets		35	7
Intangible assets:			
Goodwill	N/A	3,552	301
Client relationships	6-10	740	37
Completed technology	5-7	530	66
Trademarks	2-5	35	2
Total assets acquired		$ 5,042	$ 458
Current liabilities		255	26
Noncurrent liabilities		177	10
Total liabilities assumed		$ 432	$ 36
Total purchase price		$ 4,610	$ 423

N/A – not applicable

The goodwill generated is primarily attributable to the assembled workforce of the acquired businesses and the increased synergies expected to be achieved from the integration of the acquired businesses into the company's various integrated solutions and services, neither of which qualifies as an amortizable intangible asset.

Apptio, Inc. — Goodwill of $3,180 million and $372 million was assigned to the Software and Consulting segments, respectively. It is expected that one percent of the goodwill will be deductible for tax purposes. The overall weighted-average useful life of the identified amortizable intangible assets acquired was 8.6 years.

Other Acquisitions — Goodwill of $266 million, $23 million and $12 million was assigned to the Software, Consulting and Infrastructure segments, respectively. It is expected that none of the goodwill will be deductible for tax purposes. The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.7 years.

The identified intangible assets will be amortized on a straight-line basis over their useful lives, which approximates the pattern that the assets economic benefits are expected to be consumed over time.

The valuation of the assets acquired and liabilities assumed is subject to revision. If additional information becomes available, the company may further revise the purchase price allocation as soon as practical, but no later than one year from the acquisition date; however, material changes are not expected.

Transactions Closed — In October 2023, the company acquired Manta Software, Inc. (Manta), a world-class data lineage platform to complement its capabilities within watsonx.ai, watsonx.data and watsonx.governance. Manta will be integrated into the Software segment. At the date of issuance of the financial statements, the initial purchase accounting for Manta was not complete.

Divestitures

Separation of Kyndryl — On November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding common stock of Kyndryl Holdings, Inc. (Kyndryl) to IBM stockholders on a pro rata basis. The company retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation. During 2022, the company fully disposed of its retained interest in Kyndryl common stock pursuant to exchange agreements with a third-party financial institution, which were completed within twelve months of separation. As of November 2, 2022, the company no longer held an ownership interest in Kyndryl.

Loss from discontinued operations, net of tax for the three and nine months ended September 30, 2023 of $10 million and $15 million, respectively, reflects the net impact of changes in separation-related estimates and the settlement of assets and liabilities in accordance with the separation and distribution agreement. Income from discontinued operations, net of tax for the three and nine months ended September 30, 2022 of $18 million and $16 million, respectively, reflects the same drivers as above and also reflects a gain on sale of a joint venture historically managed by Kyndryl, which was sold to Kyndryl in the first quarter of 2022 upon receiving regulatory approval.

Other — The company completed two divestitures in the second quarter of 2023. The financial terms related to these transactions were not material.

Transactions Signed — In August 2023, IBM and Zephyr Buyer, L.P., a wholly-owned subsidiary of Francisco Partners (collectively, Francisco), entered into a definitive agreement under which Francisco would acquire The Weather Company assets from IBM for $1,100 million inclusive of $250 million of contingent consideration, of which $200 million is contingent on Francisco's attainment of certain investment return metrics. The assets, reported within the company's Software segment, include The Weather Company's digital consumer-facing offerings, The Weather Channel mobile and cloud-based digital properties including Weather.com, Weather Underground and Storm Radar, as well as its enterprise offerings for broadcast, media, aviation, advertising technology and data solutions for other emerging industries. The transaction is expected to close in the first quarter of 2024, subject to customary regulatory clearances and closing conditions. Upon the initial closing, the company expects to receive cash proceeds of approximately $750 million and will provide seller financing to Francisco in the form of a $100 million loan with a term of 7 years. The company expects to recognize a pre-tax gain on the sale, of which the final amount is not yet determinable.

At September 30, 2023, the business met the criteria for held for sale classification. Held for sale assets of approximately $531 million, which consist primarily of goodwill, prepaid and other current assets, intangible assets-net and plant, property and equipment-net of approximately $450 million, $50 million, $20 million and $11 million, respectively, and held for sale liabilities of $17 million consisting primarily of deferred income, were included in the company's Consolidated Balance Sheet at September 30, 2023.

6. Other (Income) and Expense:

Components of other (income) and expense are as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
(Dollars in millions)	**2023**	**2022**	**2023**	**2022**
Other (income) and expense:				
Foreign currency transaction losses/(gains) [1]	$ (260)	$ (352)	$ (338)	$ (1,021)
(Gains)/losses on derivative instruments [2]	316	189	315	730
Interest income	(156)	(53)	(527)	(98)
Net (gains)/losses from securities and investment assets [3]	(5)	(11)	3	262
Retirement-related costs/(income) [4]	(12)	6,062	(16)	6,455
Other [5]	(97)	(80)	(158)	(407)
Total other (income) and expense	$ (215)	$ 5,755	$ (721)	$ 5,921

(1) The company uses financial hedging instruments to limit specific currency risks related to foreign currency-based transactions. The hedging program does not hedge 100 percent of currency exposures and defers, versus eliminates, the impact of currency. Refer to note 16, "Derivative Financial Instruments," for additional information on foreign exchange risk.

(2) Prior year includes a gain of $3 million and a loss of $85 million recognized in the three and nine months ended September 30, 2022, respectively, on the cash-settled swap related to the Kyndryl retained shares. Refer to note 16, "Derivative Financial Instruments," for additional information.

(3) Prior year includes a gain of $11 million and a loss of $267 million recognized in the three and nine months ended September 30, 2022, respectively, on Kyndryl retained shares. Refer to note 5, "Acquisitions & Divestitures," for additional information.

(4) Prior year includes a one-time, non-cash pension settlement charge of $5.9 billion. Refer to note 18, "Retirement-Related Benefits," for additional information.

(5) Other primarily consists of (gains)/losses from divestitures and dispositions of land/buildings. The nine months ended September 30, 2022 includes a pre-tax gain of $259 million related to the divestiture of IBM's healthcare software assets in the second quarter 2022.

7. Earnings/(Loss) Per Share of Common Stock:

The following tables provide the computation of basic and diluted earnings per share of common stock for the three and nine months ended September 30, 2023 and 2022.

(Dollars in millions except per share amounts) For the three months ended September 30:	2023	2022
Number of shares on which basic earnings per share is calculated:		
Weighted-average shares outstanding during period	912,790,387	904,076,831
Add — Incremental shares under stock-based compensation plans	8,531,982	—
Add — Incremental shares associated with contingently issuable shares	2,350,932	—
Number of shares on which diluted earnings per share is calculated	923,673,300	904,076,831
Income/(loss) from continuing operations	$ 1,714	$ (3,214)
Income/(loss) from discontinued operations, net of tax	(10)	18
Net income/(loss) on which basic earnings per share is calculated	$ 1,704	$ (3,196)
Income/(loss) from continuing operations	$ 1,714	$ (3,214)
Net income applicable to contingently issuable shares	—	—
Income/(loss) from continuing operations on which diluted earnings per share is calculated	$ 1,714	$ (3,214)
Income/(loss) from discontinued operations, net of tax, on which diluted earnings per share is calculated	(10)	18
Net income/(loss) on which diluted earnings per share is calculated	$ 1,704	$ (3,196)
Earnings/(loss) per share of common stock:		
Assuming dilution		
Continuing operations	$ 1.86	$ (3.55)
Discontinued operations	(0.01)	0.02
Total	$ 1.84	$ (3.54)
Basic		
Continuing operations	$ 1.88	$ (3.55)
Discontinued operations	(0.01)	0.02
Total	$ 1.87	$ (3.54)

Stock options to purchase 536,391 shares and 840,544 shares were outstanding as of September 30, 2023 and 2022, respectively, but were not included in the computation of diluted earnings per share because the exercise price of the options during the respective period was greater than the average market price of the common shares, and therefore, the effect would have been antidilutive.

Due to the net loss for the three months ended September 30, 2022, otherwise dilutive potential shares of common stock under stock-based compensation plans and contingently issuable shares of 6,696,350 and 2,069,742, respectively, have been excluded from the computation of diluted earnings/(loss) per share for the three months ended September 30, 2022, as the effect would have been antidilutive.

(Dollars in millions except per share amounts) For the nine months ended September 30:	2023	2022
Number of shares on which basic earnings per share is calculated:		
Weighted-average shares outstanding during period	910,057,739	901,621,217
Add — Incremental shares under stock-based compensation plans	8,241,752	—
Add — Incremental shares associated with contingently issuable shares	2,024,201	—
Number of shares on which diluted earnings per share is calculated	920,323,692	901,621,217
Income/(loss) from continuing operations	$ 4,229	$ (1,087)
Income/(loss) from discontinued operations, net of tax	(15)	16
Net income/(loss) on which basic earnings per share is calculated	$ 4,214	$ (1,071)
Income/(loss) from continuing operations	$ 4,229	$ (1,087)
Net income applicable to contingently issuable shares	—	—
Income/(loss) from continuing operations on which diluted earnings per share is calculated	$ 4,229	$ (1,087)
Income/(loss) from discontinued operations, net of tax, on which diluted earnings per share is calculated	(15)	16
Net income/(loss) on which diluted earnings per share is calculated	$ 4,214	$ (1,071)
Earnings/(loss) per share of common stock:		
Assuming dilution		
Continuing operations	$ 4.59	$ (1.21)
Discontinued operations	(0.02)	0.02
Total	$ 4.58	$ (1.19)
Basic		
Continuing operations	$ 4.65	$ (1.21)
Discontinued operations	(0.02)	0.02
Total	$ 4.63	$ (1.19)

Stock options to purchase 2,346,268 shares and 930,788 shares (average of first, second and third quarter share amounts) were outstanding as of September 30, 2023 and 2022, respectively, but were not included in the computation of diluted earnings per share because the exercise price of the options during the respective period was greater than the average market price of the common shares, and therefore, the effect would have been antidilutive.

Due to the net loss for the nine months ended September 30, 2022, otherwise dilutive potential shares of common stock under stock-based compensation plans and contingently issuable shares of 7,530,115 and 1,899,113, respectively, have been excluded from the computation of diluted earnings/(loss) per share for the nine months ended September 30, 2022, as the effect would have been antidilutive.

8. Financial Assets & Liabilities:

Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The company classifies certain assets and liabilities based on the following fair value hierarchy:

- Level 1–Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date;
- Level 2–Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3–Unobservable inputs for the asset or liability.

When available, the company uses unadjusted quoted market prices in active markets to measure the fair value and classifies such items as Level 1. If quoted market prices are not available, fair value is based upon internally developed models that use current market-based or independently sourced market parameters such as interest rates and currency rates. Items valued using internally generated models are classified according to the lowest level input or value driver that is significant to the valuation.

The determination of fair value considers various factors including interest rate yield curves and time value underlying the financial instruments. For derivatives and debt securities, the company uses a discounted cash flow analysis using discount rates commensurate with the duration of the instrument.

In determining the fair value of financial instruments, the company considers certain market valuation adjustments to the “base valuations” calculated using the methodologies described below for several parameters that market participants would consider in determining fair value:

- Counterparty credit risk adjustments are applied to financial instruments, taking into account the actual credit risk of a counterparty as observed in the credit default swap market to determine the true fair value of such an instrument.
- Credit risk adjustments are applied to reflect the company’s own credit risk when valuing all liabilities measured at fair value. The methodology is consistent with that applied in developing counterparty credit risk adjustments, but incorporates the company’s own credit risk as observed in the credit default swap market.

The company holds investments primarily in time deposits, certificates of deposit, and U.S. government debt that are designated as available-for-sale. The primary objective of the company’s cash and debt investment portfolio is to protect principal by investing in very liquid investment securities with highly rated counterparties.

The company’s standard practice is to hold all of its debt security investments classified as available-for-sale until maturity. No impairments for credit losses and no material non-credit impairments were recorded for the three and nine months ended September 30, 2023.

Certain non-financial assets such as property, plant and equipment, operating right-of-use assets, goodwill and intangible assets are also subject to nonrecurring fair value measurements if they are deemed to be impaired. The impairment models used for non-financial assets depend on the type of asset. There were no material impairments of non-financial assets for the three and nine months ended September 30, 2023 and 2022, respectively.

The following table presents the company's financial assets and financial liabilities that are measured at fair value on a recurring basis at September 30, 2023 and December 31, 2022.

(Dollars in millions)	Fair Value Hierarchy Level	At September 30, 2023		At December 31, 2022	
		Assets [5]	Liabilities [6]	Assets [5]	Liabilities [6]
Cash equivalents: [1]					
Time deposits and certificates of deposit [2]	2	$ 3,765	N/A	$ 3,712	N/A
Money market funds	1	212	N/A	306	N/A
Total cash equivalents		$ 3,977	N/A	$ 4,018	N/A
Equity investments	1	2	N/A	—	N/A
Debt securities-current [2][3]	2	3,721	N/A	852	N/A
Debt securities-noncurrent [2][4]	2,3	33	N/A	31	N/A
Derivatives designated as hedging instruments:					
Interest rate contracts	2	0	579	3	336
Foreign exchange contracts	2	420	185	184	674
Derivatives not designated as hedging instruments:					
Foreign exchange contracts	2	12	45	42	16
Equity contracts	2	0	55	49	8
Total		$ 8,164	$ 864	$ 5,179	$ 1,034

(1) Included within cash and cash equivalents in the Consolidated Balance Sheet.
(2) Available-for-sale debt securities with carrying values that approximate fair value.
(3) Term deposits and U.S. treasury bills that are reported within marketable securities in the Consolidated Balance Sheet. The September 30, 2023 balance includes partial proceeds from the first quarter 2023 debt issuances. See note 12, "Borrowings," for additional information.
(4) Includes immaterial activity related to private company investments reported within investments and sundry assets in the Consolidated Balance Sheet.
(5) The gross balances of derivative assets contained within prepaid expenses and other current assets, and investments and sundry assets in the Consolidated Balance Sheet at September 30, 2023 were $431 million and $1 million, respectively, and at December 31, 2022 were $271 million and $7 million, respectively.
(6) The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Balance Sheet at September 30, 2023 were $171 million and $693 million, respectively, and at December 31, 2022 were $546 million and $488 million, respectively.

N/A – not applicable

Financial Assets and Liabilities Not Measured at Fair Value

Short-Term Receivables and Payables

Short-term receivables (excluding the current portion of long-term receivables) and other investments are financial assets with carrying values that approximate fair value. Accounts payable, other accrued expenses and short-term debt (excluding the current portion of long-term debt) are financial liabilities with carrying values that approximate fair value. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy, except for short-term debt which would be classified as Level 2.

Loans and Long-Term Receivables

Fair values are based on discounted future cash flows using current interest rates offered for similar loans to clients with similar credit ratings for the same remaining maturities. At September 30, 2023 and December 31, 2022, the difference between the carrying amount and estimated fair value for loans and long-term receivables was immaterial. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy.

Long-Term Debt

Fair value of publicly traded long-term debt is based on quoted market prices for the identical liability when traded as an asset in an active market. For other long-term debt (including long-term finance lease liabilities) for which a quoted market price is not available, an expected present value technique that uses rates currently available to the company for debt with similar terms and remaining maturities is used to estimate fair value. The carrying amount of long-term debt was $48,828 million and $46,189 million, and the estimated fair value was $44,264 million and $42,514 million at September 30, 2023 and December 31, 2022, respectively. If measured at fair value in the financial statements, long-term debt (including the current portion) would be classified as Level 2 in the fair value hierarchy.

9. Financing Receivables:

Financing receivables primarily consist of client loan and installment payment receivables (loans), investment in sales-type and direct financing leases (collectively referred to as client financing receivables) and commercial financing receivables. Loans are provided primarily to clients to finance the purchase of hardware, software and services. Payment terms on these financing arrangements are for terms up to seven years. Investment in sales-type and direct financing leases relate principally to the company's Infrastructure products and are for terms ranging generally from two to six years. Commercial financing receivables, which consist of both held-for-investment and held-for-sale receivables, relate primarily to working capital financing for dealers and remarketers of IBM products. Payment terms for working capital financing generally range from 30 to 90 days.

A summary of the components of the company's financing receivables is presented as follows:

	Client Financing Receivables		Commercial Financing Receivables		
(Dollars in millions) At September 30, 2023	Client Loan and Installment Payment Receivables (Loans)	Investment in Sales-Type and Direct Financing Leases	Held for Investment	Held for Sale*	Total
Financing receivables, gross	$ 6,398	$ 3,628	$ 313	$ 593	$ 10,932
Unearned income	(406)	(355)	—	—	(761)
Unguaranteed residual value	—	403	—	—	403
Amortized cost	$ 5,992	$ 3,676	$ 313	$ 593	$ 10,573
Allowance for credit losses	(95)	(59)	(5)	—	(159)
Total financing receivables, net	$ 5,897	$ 3,617	$ 308	$ 593	$ 10,414
Current portion	$ 3,337	$ 1,387	$ 308	$ 593	$ 5,625
Noncurrent portion	$ 2,560	$ 2,230	$ —	$ —	$ 4,789

	Client Financing Receivables		Commercial Financing Receivables		
(Dollars in millions) At December 31, 2022	Client Loan and Installment Payment Receivables (Loans)	Investment in Sales-Type and Direct Financing Leases	Held for Investment	Held for Sale*	Total
Financing receivables, gross	$ 8,875	$ 4,023	$ 299	$ 939	$ 14,136
Unearned income	(439)	(351)	—	—	(790)
Unguaranteed residual value	—	422	—	—	422
Amortized cost	$ 8,437	$ 4,094	$ 299	$ 939	$ 13,769
Allowance for credit losses	(108)	(60)	(5)	—	(173)
Total financing receivables, net	$ 8,329	$ 4,034	$ 293	$ 939	$ 13,596
Current portion	$ 5,073	$ 1,485	$ 293	$ 939	$ 7,790
Noncurrent portion	$ 3,256	$ 2,549	$ —	$ —	$ 5,806

* The carrying value of the receivables classified as held for sale approximates fair value.

The company has a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties. These actions may include credit insurance, financial guarantees, nonrecourse secured borrowings, transfers of receivables recorded as true sales in accordance with accounting guidance or sales of equipment under operating lease. Sale of receivables arrangements are also utilized in the normal course of business as part of the company's cash and liquidity management.

Financing receivables pledged as collateral for secured borrowings were $294 million and $349 million at September 30, 2023 and December 31, 2022, respectively. These borrowings are included in note 12, "Borrowings."

Transfer of Financial Assets

The company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis. In addition, the company enters into agreements with third-party financial institutions to sell certain of its client financing receivables, including both loan and lease receivables, for cash proceeds. There were no material client financing receivables transferred for the nine months ended September 30, 2023 and 2022.

The following table presents the total amount of commercial financing receivables transferred.

(Dollars in millions) For the nine months ended September 30:	2023	2022
Commercial financing receivables:		
Receivables transferred during the period	$ 6,453	$ 6,091
Receivables uncollected at end of period*	$ 836	$ 816

* Of the total amount of commercial financing receivables sold and derecognized from the Consolidated Balance Sheet, the amounts presented remained uncollected from business partners as of September 30, 2023 and 2022.

The transfer of these receivables qualified as true sales and therefore reduced financing receivables. The cash proceeds from the sales are included in cash flows from operating activities. For the nine months ended September 30, 2023 and 2022, the net loss, including fees, associated with the transfer of commercial financial receivables was $69 million and $38 million, respectively, and is included in other (income) and expense in the Consolidated Income Statement.

Financing Receivables by Portfolio Segment

The following tables present the amortized cost basis for client financing receivables at September 30, 2023 and December 31, 2022, further segmented by three classes: Americas, Europe/Middle East/Africa (EMEA) and Asia Pacific. The commercial financing receivables portfolio segment is excluded from the tables in the sections below as the receivables are short term in nature and the current estimated risk of loss and resulting impact to the company's financial results are not material.

(Dollars in millions) At September 30, 2023:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$ 5,841	$ 2,636	$ 1,190	$ 9,668
Allowance for credit losses:				
Beginning balance at January 1, 2023	$ 88	$ 60	$ 20	$ 168
Write-offs	$ (9)	$ 0	$ 0	$ (9)
Recoveries	0	0	3	3
Additions/(releases)	6	(14)	(4)	(11)
Other*	6	(1)	(1)	3
Ending balance at September 30, 2023	$ 92	$ 44	$ 18	$ 154

* Primarily represents translation adjustments.

(Dollars in millions) At December 31, 2022:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$ 7,281	$ 3,546	$ 1,704	$ 12,531
Allowance for credit losses:				
Beginning balance at January 1, 2022	$ 111	$ 61	$ 23	$ 195
Write-offs	$ (20)	$ (3)	$ (2)	$ (25)
Recoveries	1	0	4	5
Additions/(releases)	(5)	6	(4)	(3)
Other*	2	(5)	(2)	(4)
Ending balance at December 31, 2022	$ 88	$ 60	$ 20	$ 168

* Primarily represents translation adjustments.

When determining the allowances, financing receivables are evaluated either on an individual or a collective basis. For the company's policy on determining allowances for credit losses, refer to note A, "Significant Accounting Policies," in the company's 2022 Annual Report.

Past Due Financing Receivables

The company summarizes information about the amortized cost basis for client financing receivables, including amortized cost aged over 90 days and still accruing, billed invoices aged over 90 days and still accruing, and amortized cost not accruing.

(Dollars in millions) At September 30, 2023:	Total Amortized Cost	Amortized Cost > 90 Days*	Amortized Cost > 90 Days and Accruing*	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing**
Americas	$ 5,841	$ 101	$ 33	$ 7	$ 70
EMEA	2,636	34	4	1	30
Asia Pacific	1,190	17	1	1	15
Total client financing receivables	$ 9,668	$ 152	$ 37	$ 9	$ 115

(Dollars in millions) At December 31, 2022:	Total Amortized Cost	Amortized Cost > 90 Days*	Amortized Cost > 90 Days and Accruing*	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing**
Americas	$ 7,281	$ 272	$ 198	$ 22	$ 74
EMEA	3,546	52	8	1	46
Asia Pacific	1,704	20	3	1	17
Total client financing receivables	$ 12,531	$ 344	$ 208	$ 23	$ 137

* At a contract level, which includes total billed and unbilled amounts for financing receivables aged greater than 90 days.

** Of the amortized cost not accruing, there was a related allowance of $112 million and $122 million at September 30, 2023 and December 31, 2022, respectively. Financing income recognized on these receivables was immaterial for the three and nine months ended September 30, 2023, respectively.

Credit Quality Indicators

The company's credit quality indicators, which are based on rating agency data, publicly available information and information provided by customers, are reviewed periodically based on the relative level of risk. The resulting indicators are a numerical rating system that maps to Moody's Investors Service credit ratings as shown below. The company uses information provided by Moody's, where available, as one of many inputs in its determination of customer credit ratings. The credit quality of the customer is evaluated based on these indicators and is assigned the same risk rating whether the receivable is a lease or a loan.

The following tables present the amortized cost basis for client financing receivables by credit quality indicator at September 30, 2023 and December 31, 2022, respectively. Receivables with a credit quality indicator ranging from Aaa to Baa3 are considered investment grade. All others are considered non-investment grade. The credit quality indicators reflect mitigating credit enhancement actions taken by customers which reduce the risk to IBM. Gross write-offs by vintage year at September 30, 2023 were not material.

(Dollars in millions)	Americas		EMEA		Asia Pacific	
At September 30, 2023:	**Aaa – Baa3**	**Ba1 – C**	**Aaa – Baa3**	**Ba1 – C**	**Aaa – Baa3**	**Ba1 – C**
Vintage year:						
2023	$ 1,242	$ 718	$ 385	$ 384	$ 281	$ 59
2022	1,962	307	737	395	381	45
2021	780	160	290	94	120	43
2020	283	120	120	73	105	26
2019	124	33	66	45	52	10
2018 and prior	58	54	16	32	46	21
Total	$ 4,449	$ 1,393	$ 1,613	$ 1,023	$ 986	$ 204

(Dollars in millions)	Americas		EMEA		Asia Pacific	
At December 31, 2022:	**Aaa – Baa3**	**Ba1 – C**	**Aaa – Baa3**	**Ba1 – C**	**Aaa – Baa3**	**Ba1 – C**
Vintage year:						
2022	$ 3,316	$ 1,097	$ 1,447	$ 704	$ 799	$ 96
2021	1,197	323	451	159	203	65
2020	559	217	258	158	210	49
2019	251	91	161	99	127	22
2018	128	26	42	16	84	21
2017 and prior	32	45	14	38	12	17
Total	$ 5,482	$ 1,800	$ 2,373	$ 1,173	$ 1,434	$ 269

Modifications and Troubled Debt Restructurings

The company did not have any significant modifications due to financial difficulty during the nine months ended September 30, 2023. The company did not have any significant troubled debt restructurings during the year ended December 31, 2022.

10. Leases:

Accounting for Leases as a Lessor

The following table presents amounts included in the Consolidated Income Statement related to lessor activity.

	Three Months Ended September 30,		Nine Months Ended September 30,	
(Dollars in millions)	**2023**	**2022**	**2023**	**2022**
Lease income — sales-type and direct financing leases:				
Sales-type lease selling price	$ 190	$ 99	$ 528	$ 888
Less: Carrying value of underlying assets*	(42)	(57)	(133)	(195)
Gross profit	$ 148	$ 43	$ 395	$ 693
Interest income on lease receivables	58	54	176	144
Total sales-type and direct financing lease income	$ 206	$ 97	$ 571	$ 838
Lease income — operating leases	20	29	71	86
Variable lease income	12	19	47	75
Total lease income	$ 238	$ 145	$ 689	$ 998

* Excludes unguaranteed residual value.

11. Intangible Assets Including Goodwill:

Intangible Assets

The following tables present the company's intangible asset balances by major asset class.

(Dollars in millions)	At September 30, 2023 Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount*
Intangible asset class:			
Capitalized software	$ 1,606	$ (734)	$ 872
Client relationships	8,946	(3,253)	5,693
Completed technology	5,630	(2,321)	3,309
Patents/trademarks	1,805	(404)	1,401
Other**	17	(15)	2
Total	$ 18,004	$ (6,726)	$ 11,278

(Dollars in millions)	At December 31, 2022 Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount*
Intangible asset class:			
Capitalized software	$ 1,650	$ (705)	$ 945
Client relationships	8,559	(2,951)	5,608
Completed technology	5,220	(2,045)	3,175
Patents/trademarks	2,140	(688)	1,452
Other**	19	(15)	4
Total	$ 17,588	$ (6,404)	$ 11,184

* Amounts as of September 30, 2023 and December 31, 2022 include a decrease in net intangible asset balances of $41 million and $198 million, respectively, due to foreign currency translation.

** Other intangibles are primarily acquired proprietary and non-proprietary business processes, methodologies and systems.

The net carrying amount of intangible assets increased $94 million during the first nine months of 2023, primarily due to additions of acquired intangibles of $1,406 million, primarily related to the acquisition of Apptio, Inc. in the current quarter and capitalized software, partially offset by intangible asset amortization. The aggregate intangible asset amortization expense was $572 million and $1,676 million for the third quarter and first nine months of 2023, respectively, compared to $577 million and $1,828 million for the third quarter and first nine months of 2022, respectively. In the first nine months of 2023, the company retired $1,327 million of fully amortized intangible assets, impacting both the gross carrying amount and accumulated amortization by this amount.

The future amortization expense relating to intangible assets currently recorded in the Consolidated Balance Sheet was estimated to be the following at September 30, 2023:

(Dollars in millions)	Capitalized Software	Acquired Intangibles	Total
Remainder of 2023	$ 156	$ 430	$ 585
2024	448	1,703	2,151
2025	213	1,684	1,897
2026	55	1,661	1,716
2027	—	1,642	1,642
Thereafter	—	3,285	3,285

Goodwill

The changes in the goodwill balances by segment for the nine months ended September 30, 2023 and for the year ended December 31, 2022 were as follows:

(Dollars in millions) Segment	Balance 1/1/2023	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments*	Balance 9/30/2023
Software	$ 43,657	$ 3,447	$ (7)	$ —	$ (173)	$ 46,923
Consulting	7,928	395	6	—	(26)	8,302
Infrastructure	4,363	12	—	—	(5)	4,370
Other	—	—	—	—	—	—
Total	$ 55,949	$ 3,854	$ (1)	$ —	$ (205)	$ 59,596

(Dollars in millions) Segment	Balance 1/1/2022	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments*	Balance 12/31/2022
Software	$ 43,966	$ 568	$ (118)	$ —	$ (760)	$ 43,657
Consulting	6,797	1,366	(42)	—	(192)	7,928
Infrastructure	4,396	—	—	(1)	(32)	4,363
Other**	484	—	—	(484)	—	—
Total	$ 55,643	$ 1,934	$ (159)	$ (485)	$ (984)	$ 55,949

* Primarily driven by foreign currency translation.
** The company derecognized goodwill related to the divestiture of its healthcare software assets in the second quarter of 2022.

There were no goodwill impairment losses recorded during the first nine months of 2023 or full-year 2022 and the company has no accumulated impairment losses. Purchase price adjustments recorded in the first nine months of 2023 and full-year 2022 were related to acquisitions that were still subject to the measurement period that ends at the earlier of 12 months from the acquisition date or when information becomes available. Net purchase price adjustments recorded in the first nine months of 2023 were not material. Net purchase price adjustments recorded in 2022 primarily related to deferred tax assets and liabilities associated with the Turbonomic acquisition.

12. Borrowings:

Short-Term Debt

(Dollars in millions)	At September 30, 2023	At December 31, 2022
Short-term loans	$ 13	$ 8
Long-term debt ─ current maturities	6,400	4,751
Total	$ 6,414	$ 4,760

The weighted-average interest rate for short-term loans was 1.8 percent and 7.6 percent at September 30, 2023 and December 31, 2022, respectively.

Long-Term Debt

Pre-Swap Borrowing

(Dollars in millions)	Maturities	Balance 9/30/2023	Balance 12/31/2022
U.S. dollar debt (weighted-average interest rate at September 30, 2023):*			
2.4%	2023	$ 2	$ 1,529
3.3%	2024	5,004	5,009
5.1%	2025	1,602	1,603
3.5%	2026	5,201	4,351
3.1%	2027	3,620	3,620
5.0%	2028	1,313	313
3.5%	2029	3,250	3,250
2.0%	2030	1,350	1,350
4.4%	2032	1,850	1,850
4.8%	2033	750	—
8.0%	2038	83	83
4.5%	2039	2,745	2,745
2.9%	2040	650	650
4.0%	2042	1,107	1,107
7.0%	2045	27	27
4.7%	2046	650	650
4.3%	2049	3,000	3,000
3.0%	2050	750	750
4.2%	2052	1,400	1,400
5.1%	2053	650	—
7.1%	2096	316	316
		$ 35,321	$ 33,605
Other currencies (weighted-average interest rate at September 30, 2023, in parentheses):*			
Euro (1.8%)	2024–2043	$ 18,512	$ 17,087
Pound sterling (4.9%)	2038	915	—
Japanese yen (0.5%)	2024–2028	1,182	694
Other (15.1%)	2023–2026	310	361
		$ 56,240	$ 51,747
Finance lease obligations (4.3%)	2023–2030	303	239
		$ 56,542	$ 51,986
Less: net unamortized discount		846	835
Less: net unamortized debt issuance costs		157	138
Add: fair value adjustment**		(311)	(73)
		$ 55,228	$ 50,940
Less: current maturities		6,400	4,751
Total		$ 48,828	$ 46,189

* Includes notes, debentures, bank loans and secured borrowings.

** The portion of the company's fixed-rate debt obligations that is hedged is reflected in the Consolidated Balance Sheet as an amount equal to the sum of the debt's carrying value and a fair value adjustment representing changes in the fair value of the hedged debt obligations attributable to movements in benchmark interest rates.

The company's indenture governing its debt securities and its various credit facilities each contain significant covenants which obligate the company to promptly pay principal and interest, limit the aggregate amount of secured indebtedness and sale and leaseback transactions to 10 percent of the company's consolidated net tangible assets, and restrict the company's ability to merge or consolidate unless certain conditions are met. The credit facilities also include a covenant on the company's consolidated net interest expense ratio, which cannot be less than 2.20 to 1.0, as well as a cross default provision with respect to other defaulted indebtedness of at least $500 million.

The company is in compliance with its debt covenants and provides periodic certifications to its lenders. The failure to comply with its debt covenants could constitute an event of default with respect to the debt to which such provisions apply. If certain events of default were to occur, the principal and interest on the debt to which such event of default applied would become immediately due and payable.

In the first quarter of 2023, the company issued $0.7 billion of Japanese yen floating-rate syndicated bank loans with a maturity of 5 years; $4.6 billion of Euro fixed-rate notes in tranches with maturities ranging from 4 to 20 years and coupons ranging from 3.375 percent to 4 percent; $0.9 billion of Pound sterling fixed-rate notes with a maturity of 15 years and a coupon of 4.875 percent; and $3.25 billion of U.S. dollar fixed-rate notes in tranches with maturities ranging from 3 to 30 years and coupons ranging from 4.5 to 5.1 percent.

Pre-swap annual contractual obligations of long-term debt outstanding at September 30, 2023, were as follows:

(Dollars in millions)	Total
Remainder of 2023	$ 75
2024	6,368
2025	4,912
2026	5,570
2027	5,772
Thereafter	33,845
Total	$ 56,542

Interest on Debt

(Dollars in millions) For the nine months ended September 30:	2023	2022
Cost of financing	$ 255	$ 264
Interest expense	1,202	903
Interest capitalized	7	4
Total interest paid and accrued	$ 1,464	$ 1,170

Lines of Credit

The company has a $2.5 billion Three-Year Credit Agreement and a $7.5 billion Five-Year Credit Agreement (the Credit Agreements) with maturity dates of June 20, 2026 and June 22, 2028, respectively. The Credit Agreements permit the company and its subsidiary borrowers to borrow up to $10 billion on a revolving basis. At September 30, 2023, there were no borrowings by the company, or its subsidiaries, under these credit facilities.

13. Commitments:

The company's extended lines of credit to third-party entities include unused amounts of $1.5 billion and $1.6 billion at September 30, 2023 and December 31, 2022, respectively. A portion of these amounts was available to the company's business partners to support their working capital needs. In addition, the company has committed to provide future financing to its clients in connection with client purchase agreements for $1.5 billion and $2.1 billion at September 30, 2023 and December 31, 2022, respectively. The reduction in the future financing commitments is primarily due to lower services financing in the current year. The company collectively evaluates the allowance for these arrangements using a provision methodology consistent with the portfolio of the commitments. Refer to note A, "Significant Accounting

Policies," in the company's 2022 Annual Report for additional information. The allowance for these commitments is recorded in other liabilities in the Consolidated Balance Sheet and was not material at September 30, 2023.

The company has applied the guidance requiring a guarantor to disclose certain types of guarantees, even if the likelihood of requiring the guarantor's performance is remote. The following is a description of arrangements in which the company is the guarantor.

The company is a party to a variety of agreements pursuant to which it may be obligated to indemnify the other party with respect to certain matters. Typically, these obligations arise in the context of contracts entered into by the company, under which the company customarily agrees to hold the party harmless against losses arising from a breach of representations and covenants related to such matters as title to the assets sold, certain intellectual property rights, specified environmental matters, third-party performance of nonfinancial contractual obligations and certain income taxes. In each of these circumstances, payment by the company is conditioned on the other party making a claim pursuant to the procedures specified in the particular contract, the procedures of which typically allow the company to challenge the other party's claims. While indemnification provisions typically do not include a contractual maximum on the company's payment, the company's obligations under these agreements may be limited in terms of time and/or nature of claim, and in some instances, the company may have recourse against third parties for certain payments made by the company.

It is not possible to predict the maximum potential amount of future payments under these or similar agreements due to the conditional nature of the company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the company under these agreements have not had a material effect on the company's business, financial condition or results of operations.

In addition, the company guarantees certain loans and financial commitments. The maximum potential future payment under these financial guarantees and the fair value of these guarantees recognized in the Consolidated Balance Sheet at September 30, 2023 and December 31, 2022 was not material.

Changes in the company's warranty liability for standard warranties, which are included in other accrued expenses and liabilities and other liabilities in the Consolidated Balance Sheet, and for extended warranty contracts, which are included in deferred income in the Consolidated Balance Sheet, are presented in the following tables.

Standard Warranty Liability

(Dollars in millions)	2023	2022
Balance at January 1	$ 79	$ 77
Current-period accruals	53	58
Accrual adjustments to reflect actual experience	(14)	(1)
Charges incurred	(64)	(62)
Balance at September 30	$ 54	$ 72

Extended Warranty Liability

(Dollars in millions)	2023	2022
Balance at January 1	$ 272	$ 350
Revenue deferred for new extended warranty contracts	55	103
Amortization of deferred revenue	(122)	(148)
Other*	(4)	(21)
Balance at September 30	$ 201	$ 284
Current portion	$ 119	$ 139
Noncurrent portion	$ 82	$ 145

* Other primarily consists of foreign currency translation adjustments.

14. Contingencies:

As a company with a substantial employee population and with clients in more than 175 countries, IBM is involved, either as plaintiff or defendant, in a variety of ongoing claims, demands, suits, investigations, tax matters and proceedings that arise from time to time in the ordinary course of its business. The company is a leader in the information technology industry and, as such, has been and will continue to be subject to claims challenging its IP rights and associated products and offerings, including claims of copyright and patent infringement and violations of trade secrets and other IP rights. In addition, the company enforces its own IP against infringement, through license negotiations, lawsuits or otherwise. Further, given the rapidly evolving external landscape of cybersecurity, privacy and data protection laws, regulations and threat actors, the company and its clients have been and will continue to be subject to actions or proceedings in various jurisdictions. Also, as is typical for companies of IBM's scope and scale, the company is party to actions and proceedings in various jurisdictions involving a wide range of labor and employment issues (including matters related to contested employment decisions, country-specific labor and employment laws, and the company's pension, retirement and other benefit plans), as well as actions with respect to contracts, product liability, securities, foreign operations, competition law and environmental matters. These actions may be commenced by a number of different parties, including competitors, clients, current or former employees, government and regulatory agencies, stockholders and representatives of the locations in which the company does business. Some of the actions to which the company is party may involve particularly complex technical issues, and some actions may raise novel questions under the laws of the various jurisdictions in which these matters arise.

The company records a provision with respect to a claim, suit, investigation or proceeding when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Any recorded liabilities, including any changes to such liabilities for the quarter ended September 30, 2023 were not material to the Consolidated Financial Statements.

In accordance with the relevant accounting guidance, the company provides disclosures of matters for which the likelihood of material loss is at least reasonably possible. In addition, the company also discloses matters based on its consideration of other matters and qualitative factors, including the experience of other companies in the industry, and investor, customer and employee relations considerations.

With respect to certain of the claims, suits, investigations and proceedings discussed herein, the company believes at this time that the likelihood of any material loss is remote, given, for example, the procedural status, court rulings, and/or the strength of the company's defenses in those matters. With respect to the remaining claims, suits, investigations and proceedings discussed in this note, except as specifically discussed herein, the company is unable to provide estimates of reasonably possible losses or range of losses, including losses in excess of amounts accrued, if any, for the following reasons. Claims, suits, investigations and proceedings are inherently uncertain, and it is not possible to predict the ultimate outcome of these matters. It is the company's experience that damage amounts claimed in litigation against it are unreliable and unrelated to possible outcomes, and as such are not meaningful indicators of the company's potential liability. Further, the company is unable to provide such an estimate due to a number of other factors with respect to these claims, suits, investigations and proceedings, including considerations of the procedural status of the matter in question, the presence of complex or novel legal theories, and/or the ongoing discovery and development of information important to the matters. The company reviews claims, suits, investigations and proceedings at least quarterly, and decisions are made with respect to recording or adjusting provisions and disclosing reasonably possible losses or range of losses (individually or in the aggregate), to reflect the impact and status of settlement discussions, discovery, procedural and substantive rulings, reviews by counsel and other information pertinent to a particular matter.

Whether any losses, damages or remedies finally determined in any claim, suit, investigation or proceeding could reasonably have a material effect on the company's business, financial condition, results of operations or cash flows will depend on a number of variables, including: the timing and amount of such losses or damages; the structure and type of any such remedies; the significance of the impact any such losses, damages or remedies may have in the Consolidated Financial Statements; and the unique facts and circumstances of the particular matter that may give rise to additional factors. While the company will continue to defend itself vigorously, it is possible that the company's business, financial condition, results of operations or cash flows could be affected in any particular period by the resolution of one or more of these matters.

The following is a summary of the more significant legal matters involving the company.

On June 8, 2021, IBM sued GlobalFoundries U.S. Inc. (GF) in New York State Supreme Court for claims including fraud and breach of contract relating to a long-term strategic relationship between IBM and GF for researching, developing, and manufacturing advanced semiconductor chips for IBM. GF walked away from its obligations and IBM is now suing to recover amounts paid to GF, and other compensatory and punitive damages, totaling more than $1.5 billion. On September 14, 2021, the court ruled on GF's motion to dismiss. On April 7, 2022, the Appellate Division unanimously reversed the lower court's dismissal of IBM's fraud claim. IBM's claims for breaches of contract, promissory estoppel, and fraud are proceeding.

On June 2, 2022, a putative class action lawsuit was filed in the United States District Court for the Southern District of New York alleging that the IBM Pension Plan miscalculated certain joint and survivor annuity pension benefits by using outdated actuarial tables in violation of the Employee Retirement Income Security Act of 1974. IBM, the Plan Administrator Committee, and the IBM Pension Plan are named as defendants.

As disclosed in the Kyndryl Form 10 and subsequent Kyndryl public filings, in 2017 BMC Software, Inc. (BMC) filed suit against IBM in the United States District Court for the Southern District of Texas in a dispute involving IBM's former managed infrastructure services business. On May 30, 2022, the trial court awarded BMC $718 million in direct damages and $718 million in punitive damages, plus interest and fees. IBM filed a notice of appeal. IBM does not believe it has any material exposure relating to this litigation. No material liability or related indemnification asset has been recorded by IBM.

The company is party to, or otherwise involved in, proceedings brought by U.S. federal or state environmental agencies under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), known as "Superfund," or laws similar to CERCLA. Such statutes require potentially responsible parties to participate in remediation activities regardless of fault or ownership of sites. The company is also conducting environmental investigations, assessments or remediations at or in the vicinity of several current or former operating sites globally pursuant to permits, administrative orders or agreements with country, state or local environmental agencies, and is involved in lawsuits and claims concerning certain current or former operating sites.

The company is also subject to ongoing tax examinations and governmental assessments in various jurisdictions. Along with many other U.S. companies doing business in Brazil, the company is involved in various challenges with Brazilian tax authorities regarding non-income tax assessments and non-income tax litigation matters. The total potential amount related to all these matters for all applicable years is approximately $400 million. The company believes it will prevail on these matters and that this amount is not a meaningful indicator of liability.

15. Equity Activity:

Reclassifications and Taxes Related to Items of Other Comprehensive Income

(Dollars in millions) For the three months ended September 30, 2023:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ 151	$ (164)	$ (13)
Net changes related to available-for-sale securities:			
Unrealized gains/(losses) arising during the period	$ 0	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ 0	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges:			
Unrealized gains/(losses) arising during the period	$ 131	$ (35)	$ 95
Reclassification of (gains)/losses to:			
Cost of services	2	0	1
Cost of sales	5	(1)	4
Cost of financing	3	(1)	2
SG&A expense	4	(1)	3
Other (income) and expense	175	(44)	131
Interest expense	14	(4)	11
Total unrealized gains/(losses) on cash flow hedges	$ 333	$ (85)	$ 248
Retirement-related benefit plans:*			
Prior service costs/(credits)	$ —	$ —	$ —
Net (losses)/gains arising during the period	102	(26)	77
Curtailments and settlements	2	(1)	1
Amortization of prior service (credits)/costs	(2)	1	(2)
Amortization of net (gains)/losses	128	(37)	91
Total retirement-related benefit plans	$ 230	$ (63)	$ 167
Other comprehensive income/(loss)	$ 714	$ (313)	$ 402

* These accumulated other comprehensive income (AOCI) components are included in the computation of net periodic pension cost. Refer to note 18, "Retirement-Related Benefits," for additional information.

Reclassifications and Taxes Related to Items of Other Comprehensive Income

(Dollars in millions) For the three months ended September 30, 2022:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ 143	$ (301)	$ (158)
Net changes related to available-for-sale securities:			
Unrealized gains/(losses) arising during the period	$ 0	$ 0	$ 0
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ 0	$ 0	$ 0
Unrealized gains/(losses) on cash flow hedges:			
Unrealized gains/(losses) arising during the period	$ 189	$ (49)	$ 140
Reclassification of (gains)/losses to:			
Cost of services	(4)	1	(3)
Cost of sales	(35)	10	(25)
Cost of financing	7	(2)	5
SG&A expense	(8)	2	(6)
Other (income) and expense	6	(2)	5
Interest expense	22	(5)	16
Total unrealized gains/(losses) on cash flow hedges	$ 178	$ (45)	$ 133
Retirement-related benefit plans:*			
Prior service costs/(credits)	$ 412	$ (104)	$ 309
Net (losses)/gains arising during the period	53	(13)	39
Curtailments and settlements	5,913	(1,487)	4,426
Amortization of prior service (credits)/costs	3	(1)	2
Amortization of net (gains)/losses	388	(108)	279
Total retirement-related benefit plans	$ 6,768	$ (1,712)	$ 5,056
Other comprehensive income/(loss)	$ 7,089	$ (2,058)	$ 5,030

* These AOCI components are included in the computation of net periodic pension cost and include the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022. Refer to note 18, “Retirement-Related Benefits,” for additional information.

Reclassifications and Taxes Related to Items of Other Comprehensive Income

(Dollars in millions) For the nine months ended September 30, 2023:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ 180	$ (142)	$ 39
Net changes related to available-for-sale securities:			
Unrealized gains/(losses) arising during the period	$ (1)	$ 0	$ (1)
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ (1)	$ 0	$ (1)
Unrealized gains/(losses) on cash flow hedges:			
Unrealized gains/(losses) arising during the period	$ 279	$ (77)	$ 203
Reclassification of (gains)/losses to:			
Cost of services	6	(1)	5
Cost of sales	(12)	4	(8)
Cost of financing	12	(3)	9
SG&A expense	(7)	2	(4)
Other (income) and expense	(6)	1	(4)
Interest expense	57	(14)	43
Total unrealized gains/(losses) on cash flow hedges	$ 330	$ (87)	$ 243
Retirement-related benefit plans:*			
Prior service costs/(credits)	$ —	$ 1	$ 1
Net (losses)/gains arising during the period	104	(19)	85
Curtailments and settlements	7	(2)	5
Amortization of prior service (credits)/costs	(6)	2	(5)
Amortization of net (gains)/losses	389	(113)	276
Total retirement-related benefit plans	$ 494	$ (132)	$ 361
Other comprehensive income/(loss)	$ 1,003	$ (361)	$ 642

* These AOCI components are included in the computation of net periodic pension cost. Refer to note 18, "Retirement-Related Benefits," for additional information.

Reclassifications and Taxes Related to Items of Other Comprehensive Income

(Dollars in millions) For the nine months ended September 30, 2022:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ 799	$ (784)	$ 14
Net changes related to available-for-sale securities:			
Unrealized gains/(losses) arising during the period	$ (1)	$ 0	$ (1)
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	$ (1)	$ 0	$ (1)
Unrealized gains/(losses) on cash flow hedges:			
Unrealized gains/(losses) arising during the period	$ 449	$ (118)	$ 332
Reclassification of (gains)/losses to:			
Cost of services	(32)	8	(24)
Cost of sales	(71)	20	(50)
Cost of financing	19	(5)	14
SG&A expense	(28)	8	(20)
Other (income) and expense	51	(13)	38
Interest expense	64	(16)	48
Total unrealized gains/(losses) on cash flow hedges	$ 453	$ (116)	$ 338
Retirement-related benefit plans:*			
Prior service costs/(credits)	$ 408	$ (99)	$ 309
Net (losses)/gains arising during the period	63	(20)	43
Curtailments and settlements	5,931	(1,491)	4,440
Amortization of prior service (credits)/costs	16	(4)	12
Amortization of net (gains)/losses	1,305	(364)	941
Total retirement-related benefit plans	$ 7,722	$ (1,978)	$ 5,745
Other comprehensive income/(loss)	$ 8,973	$ (2,877)	$ 6,096

* These AOCI components are included in the computation of net periodic pension cost and include the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022. Refer to note 18, “Retirement-Related Benefits,” for additional information.

Accumulated Other Comprehensive Income/(Loss) (net of tax)

(Dollars in millions)	Net Unrealized Gains/ (Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments*	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/ (Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/ (Loss)
January 1, 2023	$ (135)	$ (3,591)	$ (13,013)	$ (1)	$ (16,740)
Other comprehensive income before reclassifications	203	39	86	(1)	326
Amount reclassified from accumulated other comprehensive income	40	—	276	—	316
Total change for the period	$ 243	$ 39	$ 361	$ (1)	$ 642
September 30, 2023	$ 109	$ (3,552)	$ (12,652)	$ (2)	$ (16,098)

(Dollars in millions)	Net Unrealized Gains/ (Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments*	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/ (Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/ (Loss)
January 1, 2022	$ (18)	$ (3,362)	$ (19,854)	$ (1)	$ (23,234)
Other comprehensive income before reclassifications	332	14	352	(1)	697
Amount reclassified from accumulated other comprehensive income	6	—	5,393 **	—	5,399
Total change for the period	$ 338	$ 14	$ 5,745	$ (1)	$ 6,096
September 30, 2022	$ 320	$ (3,347)	$ (14,110)	$ (1)	$ (17,138)

* Foreign currency translation adjustments are presented gross except for any associated hedges which are presented net of tax.

** Includes the impact of a one-time, non-cash pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022. Refer to note 18, “Retirement-Related Benefits,” for additional information.

16. Derivative Financial Instruments:

The company operates in multiple functional currencies and is a significant lender and borrower in the global markets. In the normal course of business, the company is exposed to the impact of interest rate changes and foreign currency fluctuations, and to a lesser extent equity and commodity price changes and client credit risk. The company limits these risks by following established risk management policies and procedures, including the use of derivatives, and, where cost effective, financing with debt in the currencies in which assets are denominated. For interest rate exposures, derivatives are used to better align rate movements between the interest rates associated with the company’s lease and other financial assets and the interest rates associated with its financing debt. Derivatives are also used to manage the related cost of debt. For foreign currency exposures, derivatives are used to better manage the cash flow volatility arising from foreign exchange rate fluctuations.

In the Consolidated Balance Sheet, the company does not offset derivative assets against liabilities in master netting arrangements nor does it offset receivables or payables recognized upon payment or receipt of cash collateral against the fair values of the related derivative instruments. At September 30, 2023 and December 31, 2022, the amount recognized in other accounts receivables for the right to reclaim cash collateral was $112 million and $140 million, respectively. At September 30, 2023 and December 31, 2022, the amount recognized in accounts payable for the obligation to return cash collateral was $3 million and $8 million respectively. The company restricts the use of cash collateral received to rehypothecation, and therefore reports it in restricted cash in the Consolidated Balance Sheet. At September 30, 2023 and December 31, 2022, the amount rehypothecated was $3 million and $8 million respectively. Additionally, if derivative exposures covered by a qualifying master netting agreement had been netted in the Consolidated Balance Sheet at

September 30, 2023 and December 31, 2022, the total derivative asset and liability positions each would have been reduced by $281 million and $220 million, respectively.

On May 19, 2022, in connection with the disposition of 22.3 million shares of Kyndryl common stock, the company entered into a cash-settled swap that maintained IBM's continued economic exposure in those shares. The notional value of the swap was $311 million. For the three and nine months ended September 30, 2022, an unrealized gain of $3 million and an unrealized loss of $85 million, respectively, was recorded in other (income) and expense in the Consolidated Income Statement. The company settled the swap on November 2, 2022.

In its hedging programs, the company may use forward contracts, futures contracts, interest-rate swaps, cross-currency swaps, equity swaps, and options depending upon the underlying exposure. The company is not a party to leveraged derivative instruments.

A brief description of the major hedging programs, categorized by underlying risk, follows.

Interest Rate Risk

Fixed and Variable Rate Borrowings

The company issues debt in the global capital markets to fund its operations and financing business. Access to cost-effective financing can result in interest rate mismatches with the underlying assets. To manage these mismatches and to reduce overall interest cost, the company may use interest-rate swaps to convert specific fixed-rate debt issuances into variable-rate debt (i.e., fair value hedges) and to convert specific variable-rate debt issuances into fixed-rate debt (i.e., cash flow hedges). At September 30, 2023 and December 31, 2022, the total notional amount of the company's interest-rate swaps was $6.7 billion and $6.5 billion, respectively. The weighted-average remaining maturity of these instruments at September 30, 2023 and December 31, 2022 was approximately 5.7 years and 6.0 years, respectively. These interest-rate contracts were accounted for as fair value hedges. The company did not have any cash flow hedges relating to this program outstanding at September 30, 2023 and December 31, 2022.

Forecasted Debt Issuance

The company is exposed to interest rate volatility on future debt issuances. To manage this risk, the company may use instruments such as forward starting interest-rate swaps to lock in the rate on the interest payments related to the forecasted debt issuances. There were no instruments outstanding at September 30, 2023 and December 31, 2022.

In connection with cash flow hedges of forecasted interest payments related to the company's borrowings, the company recorded net losses (before taxes) of $126 million and $139 million at September 30, 2023 and December 31, 2022, respectively, in AOCI. The company estimates that $16 million of the deferred net losses (before taxes) on derivatives in AOCI at September 30, 2023 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying interest payments.

Foreign Exchange Risk

Long-Term Investments in Foreign Subsidiaries (Net Investment)

A large portion of the company's foreign currency denominated debt portfolio is designated as a hedge of net investment in foreign subsidiaries to reduce the volatility in stockholders' equity caused by changes in foreign currency exchange rates in the functional currency of major foreign subsidiaries with respect to the U.S. dollar. At September 30, 2023 and December 31, 2022, the carrying value of debt designated as hedging instruments was $15.2 billion and $13.4 billion, respectively. The company also uses cross-currency swaps and foreign exchange forward contracts (forward contracts) for this risk management purpose. At September 30, 2023 and December 31, 2022, the total notional amount of derivative instruments designated as net investment hedges was $5.3 billion and $4.7 billion, respectively. At September 30, 2023 and December 31, 2022, the weighted-average remaining maturity of these instruments was approximately 0.2 years and 0.1 years, respectively.

Anticipated Royalties and Cost Transactions

The company's operations generate significant nonfunctional currency, third-party vendor payments and intercompany payments for royalties and goods and services among the company's non-U.S. subsidiaries and with the company. In anticipation of these foreign currency cash flows and in view of the volatility of the currency markets, the company selectively employs foreign exchange forward contracts to manage its currency risk. These forward contracts are accounted for as cash flow hedges. At September 30, 2023, the maximum remaining length of time over which the company hedged its exposure is approximately two years. At September 30, 2023 and December 31, 2022, the total notional amount of forward contracts designated as cash flow hedges of forecasted royalty and cost transactions was $9.0 billion and $8.1 billion, respectively. At both September 30, 2023 and December 31, 2022, the weighted-average remaining maturity of these instruments was approximately 0.6 years.

At September 30, 2023 and December 31, 2022, in connection with cash flow hedges of anticipated royalties and cost transactions, the company recorded net gains (before taxes) of $317 million and $66 million, respectively, in AOCI. The company estimates that $257 million of deferred net gains (before taxes) on derivatives in AOCI at September 30, 2023 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying anticipated transactions.

Foreign Currency Denominated Borrowings

The company is exposed to exchange rate volatility on foreign currency denominated debt. To manage this risk, the company may employ forward contracts or cross-currency swaps to convert the principal, or principal and interest payments of foreign currency denominated debt to debt denominated in the functional currency of the borrowing entity. These derivatives are accounted for as cash flow hedges. For forward contracts, the company excludes the initial forward points from the assessment of hedge effectiveness and recognizes it in other (income) and expense in the Consolidated Income Statement on a straight-line basis over the life of the hedging instrument. Changes in the fair value of the amounts excluded from the assessment of hedge effectiveness are recognized in OCI.

In August 2023, the company terminated all of its outstanding cross-currency swaps designated as cash flow hedges of the principal and interest associated with foreign currency denominated debt and executed forward contracts designated as cash flow hedges of the principal associated with foreign currency denominated debt. At September 30, 2023, the maximum length of time remaining over which the company hedged its exposure was approximately seven years. At September 30, 2023 and December 31, 2022, the total notional amount of derivative instruments designated as cash flow hedges of foreign-currency denominated debt was $5.2 billion and $3.1 billion, respectively.

At September 30, 2023 and December 31, 2022, in connection with cross-currency swaps, the company recorded net losses (before taxes) of $74 million and $101 million, respectively, in AOCI, of which $23 million of deferred net losses (before taxes) is estimated to be reclassified to net income within the next 12 months.

At September 30, 2023, in connection with forward contracts, the company has recorded net gains (before taxes) of $40 million in AOCI. Approximately $72 million of losses (before taxes) related to the initial forward points excluded from the assessment of hedge effectiveness is expected to be amortized to other (income) and expenses within the next 12 months. There was no activity associated with forward contracts recorded in AOCI at December 31, 2022.

Subsidiary Cash and Foreign Currency Asset/Liability Management

The company uses its Global Treasury Centers to manage the cash of its subsidiaries. These centers principally use currency swaps to convert cash flows in a cost-effective manner. In addition, the company uses forward contracts to economically hedge, on a net basis, the foreign currency exposure of a portion of the company's nonfunctional currency assets and liabilities. The terms of these forward and swap contracts are generally less than one year. The changes in the fair values of these contracts and of the underlying hedged exposures are generally offsetting and are recorded in other (income) and expense in the Consolidated Income Statement. At September 30, 2023 and December 31, 2022, the total notional amount of derivative instruments in economic hedges of foreign currency exposure was $6.2 billion and $5.9 billion, respectively.

Equity Risk Management

The company is exposed to market price changes in certain broad market indices and in the company's own stock primarily related to certain obligations to employees. Changes in the overall value of these employee compensation obligations are recorded in SG&A expense in the Consolidated Income Statement. Although not designated as accounting hedges, the company utilizes derivatives, including equity swaps and futures, to economically hedge the exposures related to its employee compensation obligations. The derivatives are linked to the total return on certain broad market indices or the total return on the company's common stock, and are recorded at fair value with gains or losses also reported in SG&A expense in the Consolidated Income Statement. At September 30, 2023 and December 31, 2022, the total notional amount of derivative instruments in economic hedges of these compensation obligations was $1.2 billion and $1.1 billion, respectively.

Cumulative Basis Adjustments for Fair Value Hedges

At September 30, 2023 and December 31, 2022, the following amounts were recorded in the Consolidated Balance Sheet related to cumulative basis adjustments for fair value hedges:

(Dollars in millions)	September 30, 2023	December 31, 2022
Short-term debt:		
Carrying amount of the hedged item	$ (2)	$ (199)
Cumulative hedging adjustments included in the carrying amount — assets/(liabilities)*	$ (2)	$ 1
Long-term debt:		
Carrying amount of the hedged item	$ (6,376)	$ (6,216)
Cumulative hedging adjustments included in the carrying amount — assets/(liabilities)*	$ 312	$ 72

* Includes ($212) million and ($250) million of hedging adjustments on discontinued hedging relationships at September 30, 2023 and December 31, 2022, respectively.

The Effect of Derivative Instruments in the Consolidated Income Statement

The total amounts of income and expense line items presented in the Consolidated Income Statement in which the effects of fair value hedges, cash flow hedges, net investment hedges and derivatives not designated as hedging instruments are recorded and the total effect of hedge activity on these income and expense line items are as follows:

(Dollars in millions)	Total		Gains/(Losses) of Total Hedge Activity	
For the three months ended September 30:	2023	2022	2023	2022
Cost of services	$ 5,217	$ 5,168	$ (2)	$ 4
Cost of sales	$ 1,419	$ 1,389	$ (5)	$ 35
Cost of financing	$ 94	$ 120	$ (3)	$ 1
SG&A expense	$ 4,458	$ 4,391	$ (58)	$ (69)
Other (income) and expense	$ (215)	$ 5,755	$ (316)	$ (189)
Interest expense	$ 412	$ 295	$ (15)	$ 4

(Dollars in millions) For the three months ended September 30:	Consolidated Income Statement Line Item	Gain (Loss) Recognized in Consolidated Income Statement: Recognized on Derivatives 2023	Recognized on Derivatives 2022	Attributable to Risk Being Hedged [2] 2023	Attributable to Risk Being Hedged [2] 2022
Derivative instruments in fair value hedges [1]:					
Interest rate contracts	Cost of financing	$ (33)	$ (64)	$ 28	$ 68
	Interest expense	(166)	(191)	139	203
Derivative instruments not designated as hedging instruments:					
Foreign exchange contracts	Other (income) and expense	(141)	(186)	N/A	N/A
Equity contracts	SG&A expense	(54)	(76)	N/A	N/A
	Other (income) and expense	—	3	N/A	N/A
Total		$ (394)	$ (514)	$ 167	$ 271

(Dollars in millions) For the three months ended September 30:	Gain (Loss) Recognized in Consolidated Income Statement and Other Comprehensive Income: Recognized in OCI 2023	Recognized in OCI 2022	Consolidated Income Statement Line Item	Reclassified from AOCI 2023	Reclassified from AOCI 2022	Amounts Excluded from Effectiveness Testing [3] 2023	Amounts Excluded from Effectiveness Testing [3] 2022
Derivative instruments in cash flow hedges:							
Interest rate contracts	$ —	$ —	Cost of financing	$ (1)	$ (1)	$ —	$ —
			Interest expense	(4)	(3)	—	—
Foreign exchange contracts			Cost of services	(2)	4	—	—
Amount included in the assessment of effectiveness	101	189	Cost of sales	(5)	35	—	—
Amount excluded from the assessment of effectiveness	29	—	Cost of financing	(2)	(6)	—	—
			SG&A expense	(4)	8	—	—
			Other (income) and expense	(164)	(6)	(11)	—
			Interest expense	(11)	(18)	—	—
Instruments in net investment hedges [4]:							
Foreign exchange contracts	652	1,198	Cost of financing	—	—	5	5
			Interest expense	—	—	26	14
Total	$ 782	$ 1,387		$ (192)	$ 12	$ 21	$ 19

(1) The amount includes changes in clean fair values of the derivative instruments in fair value hedging relationships and the periodic accrual for coupon payments required under these derivative contracts.

(2) The amount includes basis adjustments to the carrying value of the hedged item recorded during the period and amortization of basis adjustments recorded on de-designated hedging relationships during the period.

(3) The company's policy is to recognize all fair value changes in amounts excluded from effectiveness testing for net investment hedges in net income each period. For cash flow hedges of foreign currency denominated debt, the amounts excluded from effectiveness testing are amortized to net income over the life of the hedging instrument.

(4) Instruments in net investment hedges include derivative and non-derivative instruments with the amounts recognized in OCI providing an offset to the translation of foreign subsidiaries.

N/A - not applicable

(Dollars in millions)	Total		Gains/(Losses) of Total Hedge Activity	
For the nine months ended September 30:	2023	2022	2023	2022
Cost of services	$ 15,821	$ 15,915	$ (6)	$ 32
Cost of sales	$ 4,329	$ 4,555	$ 12	$ 71
Cost of financing	$ 297	$ 314	$ (10)	$ 0
SG&A expense	$ 14,212	$ 13,843	$ 44	$ (291)
Other (income) and expense	$ (721)	$ 5,921	$ (315)	$ (730)
Interest expense	$ 1,202	$ 903	$ (46)	$ 1

(Dollars in millions)		Gain (Loss) Recognized in Consolidated Income Statement			
	Consolidated Income Statement Line Item	Recognized on Derivatives		Attributable to Risk Being Hedged [2]	
For the nine months ended September 30:		2023	2022	2023	2022
Derivative instruments in fair value hedges [1]:					
Interest rate contracts	Cost of financing	$ (55)	$ (76)	$ 42	$ 89
	Interest expense	(261)	(261)	196	305
Derivative instruments not designated as hedging instruments:					
Foreign exchange contracts	Other (income) and expense	(321)	(595)	N/A	N/A
Equity contracts	SG&A expense	37	(319)	N/A	N/A
	Other (income) and expense	—	(85)	N/A	N/A
Total		$ (600)	$ (1,336)	$ 238	$ 395

(Dollars in millions)	Gain (Loss) Recognized in Consolidated Income Statement and Other Comprehensive Income						
	Recognized in OCI		Consolidated Income Statement Line Item	Reclassified from AOCI		Amounts Excluded from Effectiveness Testing [3]	
For the nine months ended September 30:	2023	2022		2023	2022	2023	2022
Derivative instruments in cash flow hedges:							
Interest rate contracts	$ —	$ —	Cost of financing	$ (2)	$ (3)	$ —	$ —
			Interest expense	(11)	(10)	—	—
Foreign exchange contracts			Cost of services	(6)	32	—	—
Amount included in the assessment of effectiveness	250	449	Cost of sales	12	71	—	—
Amount excluded from the assessment of effectiveness	29	—	Cost of financing	(10)	(16)	—	—
			SG&A expense	7	28	—	—
			Other (income) and expense	16	(51)	(11)	—
			Interest expense	(46)	(54)	—	—
Instruments in net investment hedges [4]:							
Foreign exchange contracts	564	3,118	Cost of financing	—	—	16	6
			Interest expense	—	—	75	22
Total	$ 843	$ 3,567		$ (40)	$ (4)	$ 81	$ 28

(1) The amount includes changes in clean fair values of the derivative instruments in fair value hedging relationships and the periodic accrual for coupon payments required under these derivative contracts.

(2) The amount includes basis adjustments to the carrying value of the hedged item recorded during the period and amortization of basis adjustments recorded on de-designated hedging relationships during the period.

(3) The company's policy is to recognize all fair value changes in amounts excluded from effectiveness testing for net investment hedges in net income each period. For cash flow hedges of foreign currency denominated debt, the amounts excluded from effectiveness testing are amortized to net income over the life of the hedging instrument.

(4) Instruments in net investment hedges include derivative and non-derivative instruments with the amounts recognized in OCI providing an offset to the translation of foreign subsidiaries.

N/A - not applicable

For the three and nine months ended September 30, 2023 and 2022, there were no material gains or losses excluded from the assessment of hedge effectiveness (for fair value or cash flow hedges), or associated with an underlying exposure that did not or was not expected to occur (for cash flow hedges); nor are there any anticipated in the normal course of business.

17. Stock-Based Compensation:

Stock-based compensation cost for stock awards and stock options is measured at grant date, based on the fair value of the award, and is recognized over the employee requisite service period. The following table presents total stock-based compensation cost included in income from continuing operations.

	Three Months Ended September 30,		Nine Months Ended September 30,	
(Dollars in millions)	2023	2022	2023	2022
Cost	$ 48	$ 40	$ 141	$ 124
Selling, general and administrative	148	138	465	427
Research, development and engineering	91	73	237	188
Pre-tax stock-based compensation cost	$ 286	$ 251	$ 843	$ 739
Income tax benefits	(74)	(51)	(216)	(191)
Total net stock-based compensation cost	$ 213	$ 200	$ 627	$ 548

Pre-tax stock-based compensation cost for the three months ended September 30, 2023 increased $35 million compared to the corresponding period in the prior year due to increases in restricted stock units ($26 million), performance share units ($4 million) and stock options ($4 million). The increases are driven by stock-based compensation awards granted by the company as part of its annual cycles for executives and other employees.

Pre-tax stock-based compensation cost for the nine months ended September 30, 2023 increased $104 million compared to the corresponding period in the prior year due to increases in restricted stock units ($44 million), stock options ($25 million), Employees Stock Purchase Plan (ESPP) ($20 million) and performance share units ($15 million). The increases are driven by stock-based compensation awards granted by the company as part of its annual cycles for executives and other employees and the ESPP being considered compensatory effective April 1, 2022.

Total unrecognized compensation cost related to non-vested awards at September 30, 2023 was $1.7 billion and is expected to be recognized over a weighted-average period of approximately 2.7 years.

18. Retirement-Related Benefits:

The company offers defined benefit (DB) pension plans, defined contribution pension plans, as well as nonpension postretirement plans primarily consisting of retiree medical benefits.

The following tables provide the pre-tax cost for all retirement-related plans.

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Retirement-related plans ─ cost:			
Defined benefit and contribution pension plans ─ cost	$ 250	$ 6,319 *	(96.0) %
Nonpension postretirement plans ─ cost	33	31	5.3
Total	$ 283	$ 6,350	(95.5) %

* Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described below.

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Defined benefit and contribution pension plans — cost	$ 791	$ 7,252 *	(89.1) %
Nonpension postretirement plans — cost	98	97	0.4
Total	$ 888	$ 7,350	(87.9) %

* Includes the impact of a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion related to the Qualified PPP, as described below.

Cost/(Income) of Pension Plans

The following tables provide the components of the cost/(income) for the company's pension plans.

(Dollars in millions)	U.S. Plans		Non-U.S. Plans	
For the three months ended September 30:	2023	2022	2023	2022
Service cost	$ —	$ —	$ 44	$ 57
Interest cost*	272	282	293	124
Expected return on plan assets*	(382)	(432)	(363)	(246)
Amortization of prior service costs/(credits)*	—	2	5	3
Recognized actuarial losses*	27	132	99	247
Curtailments and settlements*	—	5,894 **	2	19
Multi-employer plans	—	—	4	4
Other costs/(credits)*	—	—	3	8
Total net periodic pension (income)/cost of defined benefit plans	$ (82)	$ 5,877	$ 88	$ 216
Cost of defined contribution plans	150	134	95	91
Total defined benefit and contribution pension plans cost recognized in the Consolidated Income Statement	$ 68	$ 6,012	$ 182	$ 307

(Dollars in millions)	U.S. Plans		Non-U.S. Plans	
For the nine months ended September 30:	2023	2022	2023	2022
Service cost	$ —	$ —	$ 133	$ 180
Interest cost*	817	885	873	394
Expected return on plan assets*	(1,146)	(1,382)	(1,081)	(778)
Amortization of prior service costs/(credits)*	0	6	15	10
Recognized actuarial losses*	82	490	302	784
Curtailments and settlements*	—	5,894 **	7	38
Multi-employer plans	—	—	10	11
Other costs/(credits)*	—	—	21	24
Total net periodic pension (income)/cost of defined benefit plans	$ (247)	$ 5,893	$ 281	$ 663
Cost of defined contribution plans	473	416	283	280
Total defined benefit and contribution pension plans cost recognized in the Consolidated Income Statement	$ 226	$ 6,309	$ 565	$ 943

* These components of net periodic pension cost are included in other (income) and expense in the Consolidated Income Statement.
** Reflects the impact of a one-time, non-cash, pre-tax pension settlement charge related to the Qualified PPP, as described below.

Cost of Nonpension Postretirement Plans

The following tables provide the components of the cost for the company's nonpension postretirement plans.

(Dollars in millions)	U.S. Plan		Non-U.S. Plans	
For the three months ended September 30:	2023	2022	2023	2022
Service cost	$ 1	$ 1	$ 1	$ 1
Interest cost*	29	21	10	8
Expected return on plan assets*	—	—	(1)	0
Amortization of prior service costs/(credits)*	(7)	(2)	0	0
Recognized actuarial losses*	—	1	0	1
Curtailments and settlements*	—	—	—	—
Total nonpension postretirement plans cost recognized in the Consolidated Income Statement	$ 23	$ 21	$ 10	$ 10

(Dollars in millions)	U.S. Plan		Non-U.S. Plans	
For the nine months ended September 30:	2023	2022	2023	2022
Service cost	$ 3	$ 4	$ 2	$ 2
Interest cost*	88	58	29	26
Expected return on plan assets*	—	—	(2)	(2)
Amortization of prior service costs/(credits)*	(22)	(1)	0	0
Recognized actuarial losses*	—	6	(1)	3
Curtailments and settlements*	—	—	—	—
Total nonpension postretirement plans cost recognized in the Consolidated Income Statement	$ 69	$ 67	$ 28	$ 30

* These components of net periodic pension cost are included in other (income) and expense in the Consolidated Income Statement.

IBM U.S. Pension Plan Change

As described in note 1, "Basis of Presentation," in September 2022, the Qualified PPP irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP's defined benefit pension obligations and related plan assets, thereby reducing the company's pension obligations and assets by the same amount. This transaction further de-risked the company's retirement-related plans by eliminating the potential for the company to make future cash contributions to fund this portion of pension obligations being transferred to the Insurers.

Upon issuance of the group annuity contracts, the Qualified PPP's benefit obligations and administration for approximately 100,000 of the company's retirees and beneficiaries (the Transferred Participants) were transferred to the Insurers. Under the group annuity contracts, each Insurer made an irrevocable commitment, and is solely responsible, to pay 50 percent of the pension benefits of each Transferred Participant that are due on and after January 1, 2023. The company recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022 primarily related to the accelerated recognition of actuarial losses included within AOCI in the Consolidated Statement of Equity.

Plan Contributions

The company does not anticipate any significant changes to the expected plan contributions in 2023 from the amounts disclosed in the 2022 Annual Report.

The table below includes contributions to the following plans:

(Dollars in millions)	Plan Contributions	
For the nine months ended September 30:	**2023**	**2022**
U.S. nonpension postretirement benefit plans	$ 188	$ 272
Non-U.S. DB and multi-employer plans*	45	85
Total plan contributions	$ 233	$ 357

* Amounts reported net of refunds.

During the nine months ended September 30, 2023 and 2022, the company contributed $188 million and $247 million of U.S. Treasury Securities, respectively, to the U.S. nonpension postretirement benefit plan. Additionally, during the nine months ended September 30, 2023 and 2022, the company contributed $537 million and $366 million of U.S. Treasury securities, respectively, to the Active Medical Trust. Contributions made with U.S. Treasury securities are considered a non-cash transaction.

19. Subsequent Events:

On October 30, 2023, the company announced that the Board of Directors approved a quarterly dividend of $1.66 per common share. The dividend is payable December 9, 2023 to shareholders of record on November 10, 2023.

Item 2.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2023

Snapshot

Organization of Information:

In September 2022, the IBM Qualified Personal Pension Plan (Qualified PPP) purchased two separate nonparticipating single premium group annuity contracts from The Prudential Insurance Company of America and Metropolitan Life Insurance Company (collectively, the Insurers) and irrevocably transferred to the Insurers approximately $16 billion of the Qualified PPP's defined benefit pension obligations and related plan assets, thereby reducing our pension obligations and assets by the same amount. The group annuity contracts were purchased using assets of the Qualified PPP and no additional funding contribution was required from the company. As a result of this transaction we recognized a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022, primarily related to the accelerated recognition of accumulated actuarial losses of the Qualified PPP. Refer to note 18, "Retirement-Related Benefits," for additional information.

In the fourth quarter of 2022, we completed our annual assessment of the useful lives of our property, plant and equipment. Due to advances in technology, we determined we should increase the estimated useful lives of our server and network equipment from five to six years for new assets and from three to four years for used assets. This change in accounting estimate was effective beginning January 1, 2023. Based on the carrying amount of server and network equipment included in property, plant and equipment-net in our Consolidated Balance Sheet as of December 31, 2022, the effect of this change in estimate was an increase in income from continuing operations before income taxes of $44 million, or $0.04 per basic and diluted share for the three months ended September 30, 2023, and $175 million, or $0.16 and $0.15 per basic and diluted share, respectively, for the nine months ended September 30, 2023.

In 2023, we executed workforce rebalancing actions to address remaining stranded costs from portfolio actions over the last couple of years resulting in a charge to pre-tax income from continuing operations of $34 million and $410 million for the three and nine months ended September 30, 2023. In addition, beginning in the first quarter of 2023, we updated our measure of segment pre-tax income to no longer allocate workforce rebalancing actions to our segments, consistent with our management system. Workforce rebalancing charges in the third quarter and first nine months of 2022 of $13 million and $22 million, respectively, were included in the segments.

Within the tables presented, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages presented are calculated from the underlying whole-dollar amounts. Certain prior-period amounts have been reclassified to conform to the current period presentation. This is annotated where applicable.

Currency:

The references to "adjusted for currency" or "at constant currency" in the Management Discussion do not include operational impacts that could result from fluctuations in foreign currency rates. When we refer to growth rates at constant currency or adjust such growth rates for currency, it is done so that certain financial results can be viewed without the impact of fluctuations in foreign currency exchange rates, thereby facilitating period-to-period comparisons of its business performance. Financial results adjusted for currency are calculated by translating current period activity in local currency using the comparable prior-year period's currency conversion rate. This approach is used for countries where the functional currency is the local currency. Generally, when the dollar either strengthens or weakens against other currencies, the growth at constant currency rates or adjusting for currency will be higher or lower than growth reported at actual exchange rates. Refer to "Currency Rate Fluctuations" for additional information.

Operating (non-GAAP) Earnings:

In an effort to provide better transparency into the operational results of the business, supplementally, management separates business results into operating and non-operating categories. Operating earnings from continuing operations is a non-GAAP measure that excludes the effects of certain acquisition-related charges, intangible asset amortization, expense resulting from basis differences on equity method investments, retirement-related costs, certain impacts from the Kyndryl

separation and their related tax impacts. Due to the unique, non-recurring nature of the enactment of the U.S. Tax Cuts and Jobs Act (U.S. tax reform), management characterizes the one-time provisional charge recorded in the fourth quarter of 2017 and adjustments to that charge as non-operating. Adjustments primarily include true-ups, accounting elections and any changes to regulations, laws, audit adjustments that affect the recorded one-time charge. Management characterizes direct and incremental charges incurred related to the Kyndryl separation as non-operating given their unique and non-recurring nature. In 2022, these charges primarily related to any net gains or losses on the Kyndryl common stock and the related cash-settled swap with a third-party financial institution, which were recorded in other (income) and expense in the Consolidated Income Statement. As of November 2, 2022, the company no longer held an ownership interest in Kyndryl. For acquisitions, operating (non-GAAP) earnings exclude the amortization of purchased intangible assets and acquisition-related charges such as in-process research and development, transaction costs, applicable retention, restructuring and related expenses, tax charges related to acquisition integration and pre-closing charges, such as financing costs. These charges are excluded as they may be inconsistent in amount and timing from period to period and are significantly impacted by the size, type and frequency of the company's acquisitions. All other spending for acquired companies is included in both earnings from continuing operations and in operating (non-GAAP) earnings. For retirement-related costs, management characterizes certain items as operating and others as non-operating, consistent with GAAP. We include defined benefit plan and nonpension postretirement benefit plan service costs, multi-employer plan costs and the cost of defined contribution plans in operating earnings. Non-operating retirement-related costs include defined benefit plan and nonpension postretirement benefit plan amortization of prior service costs, interest cost, expected return on plan assets, amortized actuarial gains/losses, the impacts of any plan curtailments/settlements including a one-time, non-cash, pre-tax settlement charge of $5.9 billion ($4.4 billion net of tax) in the third quarter of 2022 and pension insolvency costs and other costs. Non-operating retirement-related costs are primarily related to changes in pension plan assets and liabilities which are tied to financial market performance, and the company considers these costs to be outside of the operational performance of the business.

Overall, management believes that supplementally providing investors with a view of operating earnings as described above provides increased transparency and clarity into both the operational results of the business and the performance of the company's pension plans; improves visibility to management decisions and their impacts on operational performance; enables better comparison to peer companies; and allows the company to provide a long-term strategic view of the business going forward. In addition, these non-GAAP measures provide a perspective consistent with areas of interest we routinely receive from investors and analysts. Our reportable segment financial results reflect pre-tax operating earnings from continuing operations, consistent with our management and measurement system.

Financial Results Summary — Three Months Ended September 30

(Dollars and shares in millions except per share amounts) For the three months ended September 30:	2023	2022*	Yr. to Yr. Percent/ Margin Change
Revenue	$ 14,752	$ 14,107	4.6 %**
Gross profit margin	54.4 %	52.7 %	1.7 pts.
Total expense and other (income)	$ 6,150	$ 11,931	(48.5) %
Income/(loss) from continuing operations before income taxes	$ 1,873	$ (4,501)	nm
Provision for/(benefit from) income taxes from continuing operations	$ 159	$ (1,287)	nm
Income/(loss) from continuing operations	$ 1,714	$ (3,214)	nm
Income/(loss) from continuing operations margin	11.6 %	(22.8) %	34.4 pts.
Income/(loss) from discontinued operations, net of tax	$ (10)	$ 18	nm
Net income/(loss)	$ 1,704	$ (3,196)	nm
Earnings/(loss) per share from continuing operations - assuming dilution	$ 1.86	$ (3.55)	nm
Consolidated earnings/(loss) per share - assuming dilution	$ 1.84	$ (3.54)	nm
Weighted-average shares outstanding - assuming dilution	923.7	904.1	2.2 %

* Includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) resulting in an impact of ($4.86) to diluted earnings/(loss) per share from continuing operations and an impact of ($4.87) to consolidated diluted earnings/(loss) per share. See note 18, "Retirement-Related Benefits," for additional information.

** 3.5% percent adjusted for currency.

nm - not meaningful

The following table provides the company's operating (non-GAAP) earnings for the third quarter of 2023 and 2022.

(Dollars in millions except per share amounts) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Net income/(loss) as reported	$ 1,704	$ (3,196) *	nm
Income/(loss) from discontinued operations, net of tax	(10)	18	nm
Income/(loss) from continuing operations	$ 1,714	$ (3,214) *	nm
Non-operating adjustments (net of tax):			
Acquisition-related charges	$ 340	$ 315	8.0 %
Non-operating retirement-related costs/(income)	1	4,566 *	(100.0)
U.S. tax reform impacts	(24)	—	nm
Kyndryl-related impacts	—	(14)	(100.0)
Operating (non-GAAP) earnings**	$ 2,031	$ 1,653	22.8 %
Diluted operating (non-GAAP) earnings per share**	$ 2.20	$ 1.81	21.5 %

* Includes a one-time, non-cash pension settlement charge of $4.4 billion net of tax.
** Refer to page 81 for a more detailed reconciliation of net income to operating earnings.
nm - not meaningful

Macroeconomic Environment:

Our business profile positions us well in challenging macroeconomic times. Our diversification across geographies, industries, clients and business mix and our recurring revenue base provides some stability in revenue, profit and cash generation. In the current environment, clients and partners continue to view technology as a source of competitive advantage. Businesses and governments around the world are looking for opportunities to address demographic shifts, make their supply chains more resilient and improve sustainability. More recently, geopolitical events and the "higher for longer" interest rate environment are adding to the growing uncertainty. In response, clients are leveraging technologies like hybrid cloud and AI that boost productivity and competitiveness.

In the first nine months of 2023, movements in global currencies continued to impact our reported year-to-year revenue and pre-tax profit. We execute hedging programs which defer, but do not eliminate, the impact of currency. The (gains)/losses from these hedging programs are reflected primarily in other income and expense. See "Currency Rate Fluctuations," for additional information. We saw progress from the actions we have taken to mitigate the impacts of escalating labor and component costs and a strong U.S. dollar. Consulting gross profit and pre-tax margin increased in the third quarter of 2023 on a year-to-year basis, reflecting the pricing and productivity actions we have taken. We expect these actions to continue to contribute to margin improvement for the remainder of 2023.

Financial Performance Summary — Three Months Ended September 30:

In the third quarter of 2023, we reported $14.8 billion in revenue, income from continuing operations of $1.7 billion and operating (non-GAAP) earnings of $2.0 billion. Diluted earnings per share from continuing operations was $1.86 as reported and $2.20 on an operating (non-GAAP) basis. We generated $3.1 billion in cash from operations and $1.7 billion in free cash flow, and delivered shareholder returns of $1.5 billion in dividends. Our third-quarter performance reflects solid revenue growth, profit margin expansion and strong cash generation. Our cash generation has enabled us to be acquisitive and increase our investment in R&D, strengthening our future hybrid cloud and AI capabilities, while continuing to support shareholder returns through dividends.

Total revenue grew 4.6 percent as reported and 3.5 percent adjusted for currency compared to the prior-year period led by our growth areas of Software and Consulting. Software delivered revenue growth of 7.8 percent as reported and 6 percent adjusted for currency, with growth in both Hybrid Platform & Solutions and Transaction Processing, as clients leverage their data for insights and automate IT in a hybrid cloud environment. Hybrid Platform & Solutions revenue was up 8.0 percent as reported and 7 percent adjusted for currency, with growth across Red Hat, Automation and Data & AI. Transaction Processing grew 7.3 percent as reported and 5 percent adjusted for currency, reflecting the success of the last two zSystems cycles which drives demand for this mission-critical software. Consulting revenue increased 5.6 percent as reported and 5 percent adjusted for currency, with revenue growth across all lines of business as clients continue to

prioritize transformation projects that enable cost savings and productivity. Infrastructure revenue decreased 2.4 percent year to year as reported and 3 percent adjusted for currency, with declines in Distributed Infrastructure and Infrastructure Support reflecting product cycle dynamics; partially offset by growth in zSystems.

From a geographic perspective, Americas revenue increased 3.6 percent as reported (4 percent adjusted for currency). Europe/Middle East/Africa (EMEA) increased 6.7 percent as reported and was flat adjusted for currency. Asia Pacific increased 4.1 percent (7 percent adjusted for currency).

Gross margin of 54.4 percent increased 1.7 points year to year with continued margin expansion across all reportable segments driven by revenue growth, improving portfolio mix and productivity actions. Operating (non-GAAP) gross margin of 55.5 percent increased 1.6 points compared to the prior-year period due to the same dynamics.

Total expense and other (income) decreased 48.5 percent in the third quarter of 2023 versus the prior-year period primarily driven by the pension settlement charge of $5.9 billion in the prior year, and benefits from productivity and transformation of our business processes; partially offset by the effects of currency and higher net spending to drive our hybrid cloud and AI strategy. Total operating (non-GAAP) expense and other (income) increased 4.5 percent year to year, driven primarily by the effects of currency and higher net spending to drive our strategy; partially offset by benefits from productivity and transformation initiatives.

Pre-tax income from continuing operations was $1.9 billion in the third quarter of 2023 compared with pre-tax loss of $4.5 billion in the prior year and pre-tax margin was 12.7 percent, an increase of 44.6 points versus the third quarter of 2022. The year-to-year improvements were primarily driven by the $5.9 billion pension settlement charge in the prior year, the combination of our revenue and gross margin performance and the benefits from productivity actions. The continuing operations provision for income taxes for the third quarter of 2023 was $0.2 billion, compared to a benefit of $1.3 billion in the third quarter of 2022. The prior-year tax benefit was primarily due to the pension settlement charge. Net income from continuing operations was $1.7 billion compared to a net loss of $3.2 billion in the third quarter of 2022 and the net income from continuing operations margin was 11.6 percent, up 34.4 points year to year.

Operating (non-GAAP) pre-tax income from continuing operations of $2.3 billion increased 17.0 percent compared to the prior-year period and the operating (non-GAAP) pre-tax margin from continuing operations increased 1.7 points to 15.6 percent. The combination of our revenue and gross margin performance and productivity actions resulted in strong operating (non-GAAP) pre-tax income growth in the current period. The operating (non-GAAP) income tax provision was $0.3 billion for the third quarter of 2023 and 2022. Operating (non-GAAP) net income from continuing operations of $2.0 billion increased 22.8 percent and the operating (non-GAAP) net income margin from continuing operations of 13.8 percent was up 2.0 points year to year.

Diluted earnings per share from continuing operations was $1.86 in the third quarter of 2023 compared to diluted loss per share of $3.55 in the prior-year period, which included an impact of $4.86 from the pension settlement charge. Operating (non-GAAP) diluted earnings per share of $2.20 increased 21.5 percent versus the prior-year period.

Cash provided by operating activities was $3.1 billion in the third quarter of 2023, an increase of $1.2 billion compared to the third quarter of 2022. Net cash used in investing activities was $2.0 billion, a decline of $0.3 billion and financing activities were a net use of cash of $3.1 billion in the third quarter of 2023 compared to a net source of cash of $0.7 billion in third quarter of 2022, due to higher debt maturities in the current year.

Financial Results Summary — Nine Months Ended September 30:

(Dollars and shares in millions except per share amounts) For the nine months ended September 30:	2023	2022*	Yr. to Yr. Percent/ Margin Change
Revenue	$ 44,479	$ 43,840	1.5 %**
Gross profit margin	54.0 %	52.6 %	1.4 pts.
Total expense and other (income)	$ 19,102	$ 25,212	(24.2) %
Income/(loss) from continuing operations before income taxes	$ 4,931	$ (2,156)	nm
Provision for/(benefit from) income taxes from continuing operations	$ 702	$ (1,070)	nm
Income/(loss) from continuing operations	$ 4,229	$ (1,087)	nm
Income/(loss) from continuing operations margin	9.5 %	(2.5) %	12.0 pts.
Income/(loss) from discontinued operations, net of tax	$ (15)	$ 16	nm
Net income/(loss)	$ 4,214	$ (1,071)	nm
Earnings/(loss) per share from continuing operations - assuming dilution	$ 4.59	$ (1.21)	nm
Consolidated earnings/(loss) per share - assuming dilution	$ 4.58	$ (1.19)	nm
Weighted-average shares outstanding - assuming dilution	920.3	901.6	2.1 %

	At 9/30/2023	At 12/31/2022	
Assets	$ 129,321	$ 127,243	1.6 %
Liabilities	$ 106,165	$ 105,222	0.9 %
Equity	$ 23,156	$ 22,021	5.2 %

* Includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) resulting in an impact of ($4.86) to diluted earnings/(loss) per share from continuing operations and consolidated diluted earnings/(loss) per share. See note 18, "Retirement-Related Benefits," for additional information.

** 2.7% percent adjusted for currency.

nm - not meaningful

The following table provides the company's operating (non-GAAP) earnings for the first nine months of 2023 and 2022.

(Dollars in millions except per share amounts) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Net income/(loss) as reported	$ 4,214	$ (1,071) *	nm
Income/(loss) from discontinued operations, net of tax	(15)	16	nm
Income/(loss) from continuing operations	$ 4,229	$ (1,087) *	nm
Non-operating adjustments (net of tax):			
Acquisition-related charges	$ 953	$ 1,019	(6.5) %
Non-operating retirement-related costs/(income)	11	4,856 *	(99.8)
U.S. tax reform impacts	91	(112)	nm
Kyndryl-related impacts	—	353	(100.0)
Operating (non-GAAP) earnings **	$ 5,283	$ 5,029	5.0 %
Diluted operating (non-GAAP) earnings per share **	$ 5.74	$ 5.52	4.0 %

* Includes a one-time, non-cash pension settlement charge of $4.4 billion net of tax.

** Refer to page 82 for a more detailed reconciliation of net income to operating earnings.

nm - not meaningful

Financial Performance Summary —Nine Months Ended September 30:

In the first nine months of 2023, we reported $44.5 billion in revenue, income from continuing operations of $4.2 billion and operating (non-GAAP) earnings of $5.3 billion. Diluted earnings per share from continuing operations was $4.59 as reported and $5.74 on an operating (non-GAAP) basis. We generated $9.5 billion in cash from operations and $5.1 billion in free cash flow, and delivered shareholder returns of $4.5 billion in dividends. Our year-to-date performance reflects the continued momentum in our growth areas of Software and Consulting, and a solid recurring revenue base driven by our high-value software.

Total revenue grew 1.5 percent as reported and 3 percent adjusted for currency compared to the prior-year period. Software delivered revenue growth of 5.9 percent as reported and 6 percent adjusted for currency, with growth in both Hybrid Platform & Solutions and Transaction Processing. Consulting revenue increased 4.2 percent as reported and 6 percent adjusted for currency, with growth across all lines of business. Infrastructure revenue decreased 7.6 percent as reported and 6 percent adjusted for currency, reflecting product cycle dynamics which impacted both Hybrid Infrastructure and Infrastructure Support.

From a geographic perspective, Americas revenue increased 0.9 percent year to year as reported (1 percent adjusted for currency). EMEA increased 3.5 percent (3 percent adjusted for currency). Asia Pacific was flat but grew 6 percent adjusted for currency.

Gross margin of 54.0 percent increased 1.4 points year to year with continued gross profit expansion across all reportable segments driven by our improving portfolio mix and productivity actions. Operating (non-GAAP) gross margin of 55.1 percent increased 1.3 points compared to the prior-year period due to the same dynamics.

Total expense and other (income) decreased 24.2 percent in the first nine months of 2023 versus the prior-year period primarily driven by the pension settlement charge of $5.9 billion in the prior year, higher interest income, prior-year impacts related to the Kyndryl retained shares and swap, and benefits from productivity and transformation of our business processes. This was partially offset by higher workforce rebalancing charges, higher interest expense, lower gains from divestitures, higher spending to drive our hybrid cloud and AI strategy and the effects of currency. Total operating (non-GAAP) expense and other (income) increased 4.3 percent year to year, driven primarily by higher workforce rebalancing charges, higher interest expense, lower gains from divestitures and higher net spending to drive our strategy; partially offset by higher interest income and benefits from productivity and transformation initiatives.

Pre-tax income from continuing operations was $4.9 billion in the first nine months of 2023 compared with pre-tax loss of $2.2 billion in the prior-year period and pre-tax margin was 11.1 percent, an increase of 16.0 points. Performance in the first nine months of 2023 benefited from the expense dynamics described above, improvements in portfolio mix and ongoing productivity actions. The continuing operations provision for income taxes for the first nine months of 2023 was $0.7 billion, compared to a benefit of $1.1 billion for the first nine months of 2022. The prior-year tax benefit was primarily due to the pension settlement charge in the third-quarter 2022. Net income from continuing operations was $4.2 billion compared with a net loss of $1.1 billion in the prior-year period and the net income from continuing operations margin was 9.5 percent, up 12.0 points year to year.

Operating (non-GAAP) pre-tax income from continuing operations of $6.1 billion increased 2.4 percent compared to the prior-year period and the operating (non-GAAP) pre-tax margin from continuing operations increased 0.1 points to 13.8 percent. The operating (non-GAAP) provision for income taxes for the first nine months of 2023 was $0.9 billion, compared to $1.0 billion for the first nine months of 2022. Operating (non-GAAP) income from continuing operations of $5.3 billion increased 5.0 percent and the operating (non-GAAP) income margin from continuing operations of 11.9 percent increased 0.4 points year to year.

Diluted earnings per share from continuing operations was $4.59 in the first nine months of 2023 compared to diluted loss per share of $1.21 in the prior-year period, which included an impact of $4.86 from the pension settlement charge. Operating (non-GAAP) diluted earnings per share of $5.74 increased 4.0 percent versus the prior-year period.

At September 30, 2023, the balance sheet remained strong with the flexibility to support and invest in the business. Cash and cash equivalents, restricted cash and marketable securities at September 30, 2023 of $11.0 billion increased $2.2 billion from December 31, 2022 and debt of $55.2 billion at September 30, 2023 increased $4.3 billion.

Total assets increased $2.1 billion ($2.9 billion adjusted for currency) from December 31, 2022 primarily driven by an increase in goodwill mainly related to the Apptio acquisition and an increase in cash and cash equivalents and marketable securities; partially offset by a decrease in receivables. Total liabilities increased $0.9 billion ($1.9 billion adjusted for currency) from December 31, 2022 primarily driven by an increase in debt; partially offset by decreases in accounts payable, taxes and derivative liabilities. Total equity of $23.2 billion increased $1.1 billion from December 31, 2022 primarily driven by year-to-date net income and common stock issuances; partially offset by dividends paid.

Cash provided by operating activities was $9.5 billion in the first nine months of 2023, an increase of $3.0 billion. Net cash used in investing activities of $9.9 billion increased $7.0 billion compared to the prior-year period. Net cash used in financing activities of $0.2 billion decreased $2.0 billion compared to the prior-year period.

Third Quarter and First Nine Months in Review

Results of Continuing Operations

Segment Details

The following tables present each reportable segment's revenue and gross margin results, followed by an analysis of the third quarter and first nine months of 2023 versus the third quarter and first nine months of 2022 reportable segments results.

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent/Margin Change	Yr. to Yr. Percent Change Adjusted For Currency
Revenue:				
Software	$ 6,265	$ 5,811	7.8 %	6.3 %
Gross margin	79.5 %	79.0 %	0.5 pts.	
Consulting	4,963	4,700	5.6 %	5.0 %
Gross margin	27.4 %	26.0 %	1.5 pts.	
Infrastructure	3,272	3,352	(2.4) %	(3.2) %
Gross margin	53.5 %	50.8 %	2.8 pts.	
Financing	186	174	6.9 %	5.1 %
Gross margin	49.7 %	32.8 %	16.9 pts.	
Other	67	70	(5.1) %	(14.1) %
Gross margin	(243.4) %	(197.7) %	(45.6) pts.	
Total revenue	$ 14,752	$ 14,107	4.6 %	3.5 %
Total gross profit	$ 8,023	$ 7,430	8.0 %	
Total gross margin	54.4 %	52.7 %	1.7 pts.	
Non-operating adjustments:				
Amortization of acquired intangible assets	162	165	(1.9) %	
Operating (non-GAAP) gross profit	$ 8,185	$ 7,595	7.8 %	
Operating (non-GAAP) gross margin	55.5 %	53.8 %	1.6 pts.	

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent/Margin Change	Yr. to Yr. Percent Change Adjusted For Currency
Revenue:				
Software	$ 18,794	$ 17,749	5.9 %	6.5 %
Gross margin	79.4 %	79.0 %	0.4 pts.	
Consulting	14,938	14,337	4.2 %	6.4 %
Gross margin	26.2 %	24.8 %	1.4 pts.	
Infrastructure	9,988	10,805	(7.6) %	(6.4) %
Gross margin	53.8 %	51.9 %	1.9 pts.	
Financing	566	474	19.5 %	20.3 %
Gross margin	47.5 %	35.1 %	12.4 pts.	
Other*	192	475	(59.5) %	(60.5) %
Gross margin	(233.5) %	(63.6) %	(169.9) pts.	
Total revenue	$ 44,479	$ 43,840	1.5 %	2.7 %
Total gross profit	$ 24,033	$ 23,055	4.2 %	
Total gross margin	54.0 %	52.6 %	1.4 pts.	
Non-operating adjustments:				
Amortization of acquired intangible assets	460	526	(12.6) %	
Operating (non-GAAP) gross profit	$ 24,492	$ 23,582	3.9 %	
Operating (non-GAAP) gross margin	55.1 %	53.8 %	1.3 pts.	

*The year-to-year decline relates to the divestiture of our healthcare software assets in the second quarter of 2022.

Software

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Software revenue:	$ 6,265	$ 5,811	7.8 %	6.3 %
Hybrid Platform & Solutions	$ 4,506	$ 4,172	8.0 %	6.7 %
Red Hat			9.4	7.6
Automation			14.0	12.8
Data & AI			6.4	5.5
Security			(1.9)	(3.3)
Transaction Processing	1,759	1,640	7.3	5.3

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Software revenue:	$ 18,794	$ 17,749	5.9 %	6.5 %
Hybrid Platform & Solutions	$ 13,350	$ 12,641	5.6 %	6.2 %
Red Hat			9.5	9.7
Automation			4.6	5.4
Data & AI			5.9	6.6
Security			(1.6)	(0.8)
Transaction Processing	5,444	5,107	6.6	7.2

Software revenue of $6,265 million increased 7.8 percent as reported (6 percent adjusted for currency) in the third quarter of 2023 compared to the prior-year period, driven by revenue growth in both Hybrid Platform & Solutions and Transaction Processing. This revenue performance reflects continued growth in our recurring revenue base, which is approximately 80 percent of annual software revenue, as well as transactional revenue growth.

Hybrid Platform & Solutions revenue of $4,506 million increased 8.0 percent as reported (7 percent adjusted for currency) in the third quarter of 2023 compared to the prior-year period, driven by growth in Red Hat, Automation and Data & AI. Red Hat revenue increased 9.4 percent as reported (8 percent adjusted for currency). OpenShift and Ansible each contributed double-digit revenue growth in the third quarter of 2023 compared to the prior-year period and continued to gain market share. Automation revenue increased 14.0 percent as reported (13 percent adjusted for currency), with growth across all business areas. We had strength in AIOps and Management driven by good performance in Instana, Turbonomic and our most recent acquisition, Apptio as clients focus on optimizing their business outcomes and boost productivity. IT and business automation are top client priorities and we have been investing to capture this opportunity. Data & AI revenue increased 6.4 percent as reported (6 percent adjusted for currency), including growth in Data Fabric and Customer Care as enterprise clients prepare for and adopt generative AI solutions, leveraging watsonx. We also grew revenue in Asset & Supply Chain Management as we help enterprises run sustainable operations. Security revenue decreased 1.9 percent as reported (3 percent adjusted for currency) in the third quarter of 2023. While we had declines in managed security services, we had growth in security software, driven by Data Security and Identity & Access Management.

Across Hybrid Platform & Solutions, our annual recurring revenue (ARR) was $14.0 billion. ARR is a key performance metric management uses to assess the health and growth trajectory of our Hybrid Platform & Solutions business within the Software segment. ARR is calculated by estimating the current quarter's recurring, committed value for certain types of active contracts as of the period-end date and then multiplying that value by four. This value is based on each arrangement's contract value and start date, mitigating fluctuations during the contract term, and includes the following consumption models: (1) software subscription agreements, including committed term licenses, (2) as-a-service arrangements such as SaaS and PaaS, (3) maintenance and support contracts, and (4) security managed services contracts. ARR should be viewed independently of revenue as this performance metric and its inputs may not represent the amount of revenue recognized in the period and therefore is not intended to represent current period revenue or revenue that will be recognized in future periods. ARR is calculated at estimated constant currency.

Transaction Processing revenue of $1,759 million increased 7.3 percent as reported (5 percent adjusted for currency) in the third quarter of 2023 compared to the prior-year period, reflecting the success of the last two zSystems cycles which is driving demand for this mission-critical software.

For the first nine months of 2023, Software revenue of $18,794 million increased 5.9 percent as reported (6 percent adjusted for currency) compared to the same period in 2022, driven by solid growth in Hybrid Platform & Solutions, led by Red Hat, Automation and Data & AI, and Transaction Processing. This growth reflects clients' increased adoption of our hybrid cloud and AI solutions. In addition, our zSystems platform continues to drive client demand for our Transaction Processing software and, together with price increases, contributed to year-to-year growth in both recurring and transactional revenue in Transaction Processing.

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent/ Margin Change
Software:			
Gross profit	$ 4,981	$ 4,591	8.5 %
Gross profit margin	79.5 %	79.0 %	0.5 pts.
Pre-tax income	$ 1,486	$ 1,306	13.7 %
Pre-tax margin	23.7 %	22.5 %	1.2 pts.

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent/ Margin Change
Software:			
Gross profit	$ 14,924	$ 14,025	6.4 %
Gross profit margin	79.4 %	79.0 %	0.4 pts.
Pre-tax income	$ 4,154	$ 3,816	8.9 %
Pre-tax margin	22.1 %	21.5 %	0.6 pts.

Software gross profit margin increased 0.5 points to 79.5 percent in the third quarter of 2023 compared to the prior-year period, primarily due to revenue growth and portfolio mix. For the first nine months of 2023, gross profit margin increased 0.4 points to 79.4 percent, driven primarily by the same factors described for the third quarter.

In the third quarter, pre-tax income of $1,486 million increased 13.7 percent and pre-tax margin of 23.7 percent increased 1.2 points compared to the prior year. The pre-tax margin expansion reflects operating leverage from revenue growth and product mix, partially offset by more than 2 points of impact from currency. For the first nine months of 2023, pre-tax income of $4,154 million increased 8.9 percent and pre-tax margin of 22.1 percent increased 0.6 points compared to the prior-year period, which included more than 1 point of impact from currency.

Consulting

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Consulting revenue:	$ 4,963	$ 4,700	5.6 %	5.0 %
Business Transformation	$ 2,291	$ 2,165	5.9 %	5.1 %
Technology Consulting	961	943	2.0	1.4
Application Operations	1,710	1,593	7.4	6.9

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Consulting revenue:	$ 14,938	$ 14,337	4.2 %	6.4 %
Business Transformation	$ 6,869	$ 6,646	3.4 %	5.4 %
Technology Consulting	2,865	2,826	1.4	3.6
Application Operations	5,204	4,865	7.0	9.3

Consulting revenue of $4,963 million increased 5.6 percent as reported (5 percent adjusted for currency) in the third quarter of 2023 compared to the prior-year period, with growth across all three lines of business. Our focused hybrid cloud and AI strategy has become even more of a differentiator as we help clients understand how AI can be used to automate

tasks, make better decisions with speed and improve customer experiences. We continued to advance our strategic partnerships, which account for approximately 40 percent of Consulting revenue and continued to grow revenue and signings in the third quarter at a double-digit rate on a year-to-year basis. Additionally, our Red Hat consulting practice, which helps clients optimize how they build, deploy and manage applications for a hybrid cloud environment has continued to grow at a double-digit rate in the third quarter of 2023 on a year-to-year basis, with more than $1 billion in signings this quarter.

In the third quarter of 2023, Business Transformation revenue of $2,291 million increased 5.9 percent as reported (5 percent adjusted for currency) compared to the prior-year period, driven by data and technology transformations including AI and analytics-focused projects. Finance and supply chain transformations also contributed to revenue growth in the quarter.

Technology Consulting revenue of $961 million increased 2.0 percent as reported (1 percent adjusted for currency) in the third quarter of 2023 compared to the prior-year period. Growth in cloud-based application development and modernization work was partially offset by declines in on-premise application-focused projects.

Application Operations revenue of $1,710 million increased 7.4 percent as reported (7 percent adjusted for currency) compared to the third quarter of 2022, driven by cloud application management and platform engineering services. In platform engineering services, we help clients design an application environment that runs securely and smoothly at scale.

For the first nine months of 2023, Consulting revenue of $14,938 million increased 4.2 percent as reported (6 percent adjusted for currency) reflecting year-to-year growth across all three lines of business. Business Transformation revenue grew year to year led by growth in data and technology and customer experience transformation projects. In our Technology Consulting business, we had growth in client engagements focused on cloud application development and modernization. Through our Application Operations offerings, we continued to provide cloud application management and platform services to clients to help run their cloud platforms.

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent/ Margin Change
Consulting:			
Gross profit	$ 1,361	$ 1,220	11.6 %
Gross profit margin	27.4 %	26.0 %	1.5 pts.
Pre-tax income	$ 509	$ 462	10.0 %
Pre-tax margin	10.2 %	9.8 %	0.4 pts.

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent/ Margin Change
Consulting:			
Gross profit	$ 3,914	$ 3,559	10.0 %
Gross profit margin	26.2 %	24.8 %	1.4 pts.
Pre-tax income	$ 1,336	$ 1,154	15.8 %
Pre-tax margin	8.9 %	8.0 %	0.9 pts.

In the third quarter of 2023, Consulting gross profit margin of 27.4 percent increased 1.5 points on a year-to-year basis. Pre-tax income of $509 million increased 10.0 percent and pre-tax margin of 10.2 percent increased 0.4 points in third-quarter 2023 compared to the prior-year period. Our gross profit margin expansion and pre-tax margin performance reflect benefits from the pricing and productivity actions we have taken during the past year, which are partially offset by increased labor costs and approximately 1 point of pre-tax margin impact from currency.

For the first nine months of 2023, Consulting gross profit margin of 26.2 percent increased 1.4 points compared to the prior-year period. Pre-tax income of $1,336 million increased 15.8 percent and pre-tax margin of 8.9 percent increased 0.9

points in the first nine months of 2023 compared to the prior-year period. The nine-month margin performance was driven by the pricing, productivity and labor cost factors described above for the third quarter.

Consulting Signings and Book-to-Bill

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total Consulting signings	$ 5,834	$ 4,509	29.4 %	32.1 %

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total Consulting signings	$ 16,693	$ 14,300	16.7 %	20.4 %

In the third quarter of 2023, Consulting signings grew 29 percent as reported and 32 percent adjusted for currency and our book-to-bill ratio was over 1.15 over the last twelve months. Clients continue to prioritize transformation projects that enable cost savings and productivity, and our strong signings growth demonstrates that we are well positioned to meet these client needs in today's complex environment.

Book-to-bill represents the ratio of IBM Consulting signings to its revenue over the same period. The metric is a useful indicator of the demand of our business over time. Signings are management's initial estimate of the value of a client's commitment under a services contract within IBM Consulting. There are no third-party standards or requirements governing the calculation of signings. The calculation used by management involves estimates and judgments to gauge the extent of a client's commitment, including the type and duration of the agreement, and the presence of termination charges or wind-down costs.

Contract extensions and increases in scope are treated as signings only to the extent of the incremental new value. Total signings can vary over time due to a variety of factors including, but not limited to, the timing of signing a small number of larger contracts. Signings associated with an acquisition will be recognized on a prospective basis.

Management believes the estimated values of signings disclosed provide an indication of our forward-looking revenue. Signings are used to monitor the performance of the business and viewed as useful information for management and shareholders. The conversion of signings into revenue may vary based on the types of services and solutions, contract duration, customer decisions, and other factors, which may include, but are not limited to, the macroeconomic environment.

Infrastructure

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Infrastructure revenue:	$ 3,272	$ 3,352	(2.4) %	(3.2) %
Hybrid Infrastructure	$ 1,943	$ 1,931	0.6 %	(0.3) %
zSystems			9.3	8.8
Distributed Infrastructure			(4.5)	(5.6)
Infrastructure Support	1,329	1,421	(6.5)	(7.2)

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Infrastructure revenue:	$ 9,988	$ 10,805	(7.6) %	(6.4) %
Hybrid Infrastructure	$ 5,912	$ 6,392	(7.5) %	(6.8) %
zSystems			(11.4)	(10.7)
Distributed Infrastructure			(4.7)	(4.0)
Infrastructure Support	4,076	4,413	(7.6)	(5.8)

Infrastructure revenue of $3,272 million decreased 2.4 percent as reported (3 percent adjusted for currency) in the third quarter of 2023 compared to the prior-year period, reflecting product cycle dynamics which impacted both Hybrid Infrastructure and Infrastructure Support.

Hybrid Infrastructure revenue of $1,943 million increased 0.6 percent as reported, but was flat adjusted for currency in the third quarter of 2023 compared to the prior-year period. Within Hybrid Infrastructure, zSystems revenue increased 9.3 percent as reported (9 percent adjusted for currency) in the third quarter which is typically a seasonally lower revenue quarter. After six quarters of availability, revenue for z16 continues to exceed the prior cycles, reflecting clients' growing enterprise workload requirements and the economic value at scale of the platform. Clients also continue to value the security, resiliency and hybrid cloud capabilities of the zSystems platform. Distributed Infrastructure revenue decreased 4.5 percent as reported (6 percent adjusted for currency), driven primarily by declines in Storage Systems partially offset by growth in Power Systems. This performance compares to strong revenue growth in the prior year as we introduced innovation across Storage Systems and Power10.

Infrastructure Support revenue of $1,329 million decreased 6.5 percent as reported (7 percent adjusted for currency) in the third quarter of 2023 compared to the prior-year period, driven primarily by a decline in IBM logo product support.

For the first nine months of 2023, Infrastructure revenue of $9,988 million decreased 7.6 percent as reported (6 percent adjusted for currency) compared to the prior-year period, driven by declines in Hybrid Infrastructure and Infrastructure Support. Within Hybrid Infrastructure, the revenue decline was primarily driven by zSystems due to the strong launch of the z16 program in second-quarter 2022. The revenue decline in Infrastructure Support for the first nine months of 2023 reflects product cycle dynamics.

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent/ Margin Change
Infrastructure:			
Gross profit	$ 1,752	$ 1,702	2.9 %
Gross profit margin	53.5 %	50.8 %	2.8 pts.
Pre-tax income	$ 387	$ 280	38.3 %
Pre-tax margin	11.8 %	8.3 %	3.5 pts.

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent/ Margin Change
Infrastructure:			
Gross profit	$ 5,375	$ 5,607	(4.1) %
Gross profit margin	53.8 %	51.9 %	1.9 pts.
Pre-tax income	$ 1,236	$ 1,236	0.0 %
Pre-tax margin	12.4 %	11.4 %	0.9 pts.

Infrastructure gross profit margin of 53.5 percent increased 2.8 points in the third quarter of 2023 compared to the prior-year period. This increase was driven by margin expansion in Hybrid Infrastructure reflecting the solid revenue performance and margin improvement in zSystems, partially offset by margin decline in Infrastructure Support due to product cycle dynamics. For the first nine months of 2023, gross profit margin of 53.8 percent increased 1.9 points compared to the prior-year period, driven primarily by margin expansion in Distributed Infrastructure, partially offset by a margin decline in Infrastructure Support.

In the third quarter of 2023, Infrastructure pre-tax income of $387 million increased 38.3 percent and pre-tax margin of 11.8 percent increased 3.5 points compared to the prior-year period. This performance reflects an increase in gross profit contribution from Hybrid Infrastructure, primarily from zSystems, partially offset by a decline in profit contribution from Infrastructure Support due to product cycle dynamics. The increase in pre-tax margin also reflects a benefit from the changes in the useful life of servers and network equipment, an increase in IP and custom development income and continued productivity actions. Pre-tax margin in the third quarter included more than 1 point of impact from currency.

For the first nine months of 2023, Infrastructure pre-tax income of $1,236 million was flat and pre-tax margin of 12.4 percent increased 0.9 points compared to the prior-year period. This performance reflects an increase in gross profit contribution from Hybrid Infrastructure, driven primarily by margin expansion in Distributed Infrastructure, partially offset by a decline in profit contribution from Infrastructure Support due to product cycle dynamics. The increase in pre-tax margin also reflects the change in useful life, increase in IP and custom development income and productivity actions. Pre-tax margin for the first nine months of 2023 included more than 1 point of impact from currency.

Financing

See pages 78 through 80 for a discussion of Financing's segment results.

Geographic Revenue

In addition to the revenue presentation by reportable segment, we also measure revenue performance on a geographic basis.

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total Revenue	$ 14,752	$ 14,107	4.6 %	3.5 %
Americas	$ 7,686	$ 7,416	3.6 %	3.9 %
Europe/Middle East/Africa (EMEA)	4,223	3,959	6.7	0.0
Asia Pacific	2,843	2,732	4.1	7.4

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total Revenue	$ 44,479	$ 43,840	1.5 %	2.7 %
Americas	$ 22,810	$ 22,614	0.9 %	1.5 %
Europe/Middle East/Africa (EMEA)	13,156	12,716	3.5	2.7
Asia Pacific	8,513	8,509	0.0	5.9

Total revenue of $14,752 million increased 4.6 percent as reported and 3.5 percent adjusted for currency in the third quarter of 2023 compared to the prior-year period.

Americas revenue of $7,686 million increased 3.6 percent as reported and 4 percent adjusted for currency. The U.S. increased 1.9 percent. Canada increased 6.6 percent as reported and 9 percent adjusted for currency. Latin America increased 15.6 percent as reported and 16 percent adjusted for currency, with Brazil increasing 32.3 percent as reported and 27 percent adjusted for currency.

In EMEA, total revenue of $4,223 million increased 6.7 percent as reported and was flat adjusted for currency. France increased 11.4 percent as reported and 4 percent adjusted for currency. Germany increased 7.1 percent as reported and was flat adjusted for currency. Italy and the UK increased 4.8 percent and 3.3 percent, respectively, as reported, but decreased 2 percent and 4 percent, respectively, adjusted for currency.

Asia Pacific revenue of $2,843 million increased 4.1 percent as reported and 7 percent adjusted for currency. Japan increased 6.0 percent as reported and 11 percent adjusted for currency. India and Australia increased 17.2 percent and 15.8 percent, respectively, as reported, and each increased 21 percent adjusted for currency. China decreased 21.1 percent as reported and 18 percent adjusted for currency.

For the first nine months of 2023, total revenue of $44,479 million increased 1.5 percent as reported and 3 percent adjusted for currency compared to the prior-year period.

Americas revenue of $22,810 million increased 0.9 percent as reported and 1 percent adjusted for currency. The U.S. decreased 0.3 percent compared to the prior-year period. Canada decreased 2.1 percent as reported, but increased 2 percent adjusted for currency. Latin America increased 16.1 percent as reported and 18 percent adjusted for currency, with Brazil increasing 20.1 percent as reported and 18 percent adjusted for currency.

In EMEA, total revenue of $13,156 million increased 3.5 percent as reported and 3 percent adjusted for currency. Italy and France increased 4.4 percent and 4.2 percent, respectively, as reported, and each increased 3 percent adjusted for currency. The UK and Germany decreased 2.4 percent and 3.8 percent, respectively, as reported, and 1 percent and 5 percent, respectively, adjusted for currency.

Asia Pacific revenue of $8,513 million was flat as reported and increased 6 percent adjusted for currency. Japan increased 1.9 percent as reported and 10 percent adjusted for currency. India increased 9.9 percent as reported and 17 percent adjusted for currency. Australia decreased 5.1 percent as reported, but was flat adjusted for currency. China decreased 21.5 percent as reported and 18 percent adjusted for currency.

Expense

Total Expense and Other (Income)

(Dollars in millions) For the three months ended September 30:	2023		2022		Yr. to Yr. Percent Change	
Total expense and other (income)	$ 6,150		$ 11,931	*	(48.5)	%
Non-operating adjustments:						
Amortization of acquired intangible assets	$ (252)		$ (253)		(0.2)	%
Acquisition-related charges	(25)		(1)		nm	
Non-operating retirement-related (costs)/income	12		(6,062)	*	nm	
Kyndryl-related impacts	—		14		(100.0)	
Operating (non-GAAP) expense and other (income)	$ 5,885		$ 5,630		4.5	%
Total expense-to-revenue ratio	41.7	%	84.6	%	(42.9)	pts.
Operating (non-GAAP) expense-to-revenue ratio	39.9	%	39.9	%	0.0	pts.

* Includes a one-time, non-cash pension settlement charge of $5.9 billion. See note 18, "Retirement-Related Benefits," for additional information.
nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2023		2022		Yr. to Yr. Percent Change	
Total expense and other (income)	$ 19,102		$ 25,212	*	(24.2)	%
Non-operating adjustments:						
Amortization of acquired intangible assets	$ (735)		$ (810)		(9.3)	%
Acquisition-related charges	(35)		(9)		272.3	
Non-operating retirement-related (costs)/income	16		(6,455)	*	nm	
Kyndryl-related impacts	—		(353)		(100.0)	
Operating (non-GAAP) expense and other (income)	$ 18,348		$ 17,584		4.3	%
Total expense-to-revenue ratio	42.9	%	57.5	%	(14.6)	pts.
Operating (non-GAAP) expense-to-revenue ratio	41.3	%	40.1	%	1.1	pts.

* Includes a one-time, non-cash pension settlement charge of $5.9 billion. See note 18, "Retirement-Related Benefits," for additional information.
nm - not meaningful

For additional information regarding total expense and other (income) for both expense presentations, see the following analyses by category.

Selling, General and Administrative Expense

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change	
Selling, general and administrative expense:				
Selling, general and administrative — other	$ 3,730	$ 3,681	1.3	%
Advertising and promotional expense	303	297	2.1	
Workforce rebalancing charges	34	13	165.2	
Amortization of acquired intangible assets	252	252	0.0	
Stock-based compensation	148	138	7.0	
Provision for/(benefit from) expected credit loss expense	(9)	11	nm	
Total selling, general and administrative expense	$ 4,458	$ 4,391	1.5	%
Non-operating adjustments:				
Amortization of acquired intangible assets	$ (252)	$ (252)	0.0	%
Acquisition-related charges	(25)	(1)	nm	
Kyndryl-related impacts	—	0	nm	
Operating (non-GAAP) selling, general and administrative expense	$ 4,181	$ 4,138	1.0	%

nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Selling, general and administrative expense:			
Selling, general and administrative — other	$ 11,607	$ 11,501	0.9 %
Advertising and promotional expense	989	1,028	(3.8)
Workforce rebalancing charges	410	46	nm
Amortization of acquired intangible assets	734	808	(9.2)
Stock-based compensation	465	427	8.9
Provision for/(benefit from) expected credit loss expense	7	33	(80.0)
Total selling, general and administrative expense	$ 14,212	$ 13,843	2.7 %
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (734)	$ (808)	(9.2) %
Acquisition-related charges	(34)	(9)	262.2
Kyndryl-related impacts	—	0	nm
Operating (non-GAAP) selling, general and administrative expense	$ 13,444	$ 13,025	3.2 %

nm - not meaningful

Total selling, general and administrative (SG&A) expense increased 1.5 percent in the third quarter of 2023 versus the prior-year period driven primarily by the following factors:

- Higher net spending (1 point) reflecting our continued investment to drive our hybrid cloud and AI strategy, expenses of acquired businesses and higher commissions expense, partially offset by benefits from productivity actions; and
- The effects of currency (1 point).

Operating (non-GAAP) expense increased 1.0 percent year to year, driven primarily by the same factors.

SG&A expense increased 2.7 percent in the first nine months of 2023 versus the prior-year period driven primarily by the following factors:

- Higher workforce rebalancing charges (3 points) to address remaining stranded cost from portfolio actions; and
- Higher net spending (1 point) driven by the same factors above; partially offset by
- The effects of currency (1 point).

Operating (non-GAAP) expense increased 3.2 percent year to year, driven primarily by the same factors.

Provisions for expected credit loss expense in the first nine months of 2023 decreased $26 million compared to the prior-year period, driven primarily by lower specific reserve requirements in the current year. The receivables provision coverage was 2.8 percent at September 30, 2023, excluding receivables classified as held for sale, an increase of 40 basis points compared to December 31, 2022. The increase in coverage was primarily driven by the overall decrease in total receivables.

Research, Development and Engineering

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Research, development and engineering expense	$ 1,685	$ 1,611	4.6 %

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Research, development and engineering expense	$ 5,027	$ 4,963	1.3 %

Research, development and engineering (RD&E) expense in the third quarter of 2023 increased 4.6 percent year to year primarily driven by higher spending (5 points) which includes expenses of acquired businesses and our continued investment to deliver innovation in AI, hybrid cloud and quantum. RD&E expense in the first nine months of 2023 increased 1.3 percent year to year primarily driven by higher spending (3 points); partially offset by effects of currency (1 point).

Intellectual Property and Custom Development Income

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Intellectual property and custom development income:			
Licensing of intellectual property including royalty-based fees	$ 76	$ 62	22.6 %
Custom development income	114	59	92.8
Sales/other transfers of intellectual property	—	1	(100.0)
Total	$ 190	$ 121	56.3 %

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Intellectual property and custom development income:			
Licensing of intellectual property including royalty-based fees	$ 264	$ 246	7.3 %
Custom development income	349	164	112.7
Sales/other transfers of intellectual property	5	8	(37.0)
Total	$ 618	$ 418	47.8 %

Total intellectual property and custom development income increased 56.3 percent year to year in the third quarter, and 47.8 percent in the first nine months of 2023 compared to the prior-year period. The increase was primarily driven by a three-year joint development and licensing agreement signed in the fourth quarter of 2022 with a Japanese consortium to leverage our intellectual property and expertise on advanced semiconductors.

The timing and amount of licensing, sales or other transfers of IP may vary significantly from period to period depending upon the timing of licensing agreements, economic conditions, industry consolidation and the timing of new patents and know-how development.

Other (Income) and Expense

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Other (income) and expense:			
Foreign currency transaction losses/(gains)	$ (260)	$ (352)	(26.2) %
(Gains)/losses on derivative instruments	316	189	67.1
Interest income	(156)	(53)	195.9
Net (gains)/losses from securities and investment assets	(5)	(11)	(50.3)
Retirement-related costs/(income)	(12)	6,062 *	nm
Other	(97)	(80)	21.6
Total other (income) and expense	$ (215)	$ 5,755 *	nm
Non-operating adjustments:			
Amortization of acquired intangible assets	$ —	$ (1)	(100.0) %
Non-operating retirement-related (costs)/income	12	(6,062) *	nm
Kyndryl-related impacts	—	14	(100.0)
Operating (non-GAAP) other (income) and expense	$ (203)	$ (293)	(30.8) %

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Other (income) and expense:			
Foreign currency transaction losses/(gains)	$ (338)	$ (1,021)	(66.9) %
(Gains)/losses on derivative instruments	315	730	(56.8)
Interest income	(527)	(98)	nm
Net (gains)/losses from securities and investment assets	3	262	(98.9)
Retirement-related costs/(income)	(16)	6,455 *	nm
Other	(158)	(407)	(61.1)
Total other (income) and expense	$ (721)	$ 5,921 *	nm
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (1)	$ (2)	(55.6) %
Acquisition-related charges	(1)	—	nm
Non-operating retirement-related (costs)/income	16	(6,455) *	nm
Kyndryl-related impacts	—	(353)	(100.0)
Operating (non-GAAP) other (income) and expense	$ (707)	$ (889)	(20.5) %

* Includes a one-time, non-cash pension settlement charge of $5.9 billion.
nm - not meaningful

Total other (income) and expense was income of $215 million in the third quarter of 2023 compared to expense of $5,755 million in the prior-year period. The year-to-year change was primarily driven by:

- Lower non-operating retirement-related cost ($6,074 million) primarily due to a one-time, non-cash pension settlement charge in the prior year. Refer to note 18, "Retirement-Related Benefits," for additional information; and
- Higher interest income ($104 million) driven by higher average interest rates and a higher average cash balance in the current year; partially offset by
- Net exchange losses (including derivative instruments) in the current year versus net exchange gains in the prior year ($219 million).

Operating (non-GAAP) other (income) and expense was income of $203 million in the third quarter of 2023 and decreased $90 million compared to the prior-year period. The year-to-year change was primarily driven by the factors described above, excluding the lower non-operating retirement-related costs.

Total other (income) and expense was income of $721 million in the first nine months of 2023 compared to expense of $5,921 million in the prior-year period. The year-to-year change was primarily driven by:

- Lower non-operating retirement-related cost ($6,471 million) primarily driven by the pension settlement charge in 2022. Refer to note 18, "Retirement-Related Benefits," for additional information; and
- Higher interest income ($429 million) driven by higher average interest rates and a higher average cash balance in the current year; and
- Losses on Kyndryl retained shares ($267 million) in the prior year; partially offset by
- Lower net exchange gains (including derivative instruments) in the current year ($268 million). The prior-year (gains)/losses on derivative instruments also includes a loss on the cash-settled swap related to the Kyndryl retained shares ($85 million); and
- Lower gains on divestitures ($264 million) primarily driven by the divestiture of our healthcare software assets in the second quarter 2022 (included in "Other").

Operating (non-GAAP) other (income) and expense was income of $707 million in the first nine months of 2023 and decreased $183 million compared to the prior-year period. The year-to-year change was primarily driven by the factors described above, excluding the lower non-operating retirement-related costs and the prior year Kyndryl retained shares and swap.

Interest Expense

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Interest expense	$ 412	$ 295	39.5 %

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Interest expense	$ 1,202	$ 903	33.2 %

Interest expense increased $117 million and $299 million year to year in the third quarter and first nine months of 2023, respectively. Interest expense is presented in cost of financing in the Consolidated Income Statement if the related external borrowings are to support the Financing external business. Overall interest expense (excluding capitalized interest) for the third quarter and first nine months of 2023 was $494 million and $1,457 million, respectively, an increase of $100 million and $291 million, respectively, compared to the prior-year periods. The year-to-year dynamics for both the third quarter and first nine months of 2023 were primarily driven by higher average interest rates and a higher average debt balance in the current year.

Retirement-Related Plans

The following tables provide the total pre-tax cost for all retirement-related plans. The operating cost amounts are included in the Consolidated Income Statement within the caption (e.g., Cost, SG&A, RD&E) relating to the job function of the plan participants. The non-operating cost amounts are included in other (income) and expense.

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Service cost	$ 46	$ 59	(21.8) %
Multi-employer plans	4	4	(1.0)
Cost of defined contribution plans	245	225	8.8
Total operating costs	$ 295	$ 288	2.4 %
Interest cost	$ 604	$ 436	38.6 %
Expected return on plan assets	(745)	(679)	9.8
Recognized actuarial losses	126	381	(66.8)
Amortization of prior service costs/(credits)	(2)	3	nm
Curtailments/settlements	2	5,913 *	(100.0)
Other costs	3	8	(66.6)
Total non-operating costs/(income)	$ (12)	$ 6,062 *	nm
Total retirement-related plans — cost	$ 283	$ 6,350 *	(95.5) %

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Service cost	$ 138	$ 186	(25.9) %
Multi-employer plans	10	11	(7.7)
Cost of defined contribution plans	756	697	8.5
Total operating costs	$ 905	$ 894	1.2 %
Interest cost	$ 1,807	$ 1,363	32.6 %
Expected return on plan assets	(2,229)	(2,162)	3.1
Recognized actuarial losses	384	1,283	(70.1)
Amortization of prior service costs/(credits)	(6)	16	nm
Curtailments/settlements	7	5,931 *	(99.9)
Other costs	22	24	(8.7)
Total non-operating costs/(income)	$ (16)	$ 6,455 *	nm
Total retirement-related plans — cost	$ 888	$ 7,350 *	(87.9) %

* Includes a one-time, non-cash pension settlement charge of $5.9 billion. See note 18, "Retirement-Related Benefits," for additional information.
nm - not meaningful

Total pre-tax retirement-related plan cost decreased by $6,067 million compared to the third quarter of 2022 primarily driven by a decrease in curtailments/settlements ($5,911 million) due to a one-time, non-cash pension settlement charge in the prior year, and a decrease in recognized actuarial losses ($254 million), partially offset by higher interest costs ($168 million). Total cost for the first nine months of 2023 decreased $6,461 million compared to the first nine months of 2022, primarily driven by a decrease in curtailments/settlements ($5,925 million) due to the pension settlement charge in the prior year, and a decrease in recognized actuarial losses ($899 million), partially offset by higher interest costs ($444 million).

As described in the “Operating (non-GAAP) Earnings” section, management characterizes certain retirement-related costs as operating and others as non-operating. Utilizing this characterization, operating retirement-related costs in the third quarter of 2023 were $295 million, an increase of $7 million compared to the third quarter of 2022, primarily driven by higher cost of defined contribution plans ($20 million), partially offset by lower service cost ($13 million). For the first nine months of 2023, operating retirement-related costs were $905 million, an increase of $10 million compared to the prior-year period, primarily driven by higher cost of defined contribution plans ($59 million), partially offset by lower service cost ($48 million). Non-operating costs/(income) was $12 million of income in the third quarter of 2023 compared to cost of $6,062 million in third quarter of 2022 and for the first nine months of 2023 was $16 million of income compared to cost of $6,455 million in the prior-year period. The year-to-year changes were primarily driven by the pension settlement charge in the prior year, and a decrease in recognized actuarial losses, partially offset by higher interest costs.

The year-to-year decrease in recognized actuarial losses was primarily driven by the December 2022 remeasurement of our retirement and postretirement plans which resulted in a significant reduction to our pension plan benefit obligations and an improvement in our overall funded status primarily due to higher discount rates. In addition, we transferred $16 billion of our U.S. Qualified PPP obligations and related plan assets to Insurers in the third-quarter of 2022 as described in note 18, "Retirement-Related Benefits," which resulted in the accelerated recognition of actuarial losses in the prior year.

Taxes

The continuing operations provision for income taxes for the third quarter of 2023 was $159 million, compared to a benefit of $1,287 million in the third quarter of 2022. The prior-year tax benefit was primarily due to the transfer of a portion of the Qualified PPP's defined benefit pension obligations and related plan assets. The operating (non-GAAP) income tax provision for the third quarter of 2023 was $268 million, compared to $312 million in the third quarter of 2022.

The continuing operations provision for income taxes for the first nine months of 2023 was $702 million, compared to a benefit of $1,070 million for the first nine months of 2022. The prior-year tax benefit was primarily due to the defined benefit pension transfer. The operating (non-GAAP) provision for income taxes for the first nine months of 2023 was $861 million, compared to $969 million for the first nine months of 2022.

IBM’s tax provision and effective tax rate are impacted by recurring factors including the geographical mix of income before taxes, incentives, changes in unrecognized tax benefits and discrete tax events, such as the settlement of income tax audits and changes in or new interpretations of tax laws. The GAAP tax provision and effective tax rate could also be affected by adjustments to the previously recorded charges for U.S. tax reform attributable to any changes in law, new regulations and guidance, and audit adjustments, among others.

During the fourth quarter of 2020, the U.S. Internal Revenue Service (IRS) concluded its examination of the company’s U.S. income tax returns for 2013 and 2014 and issued a final Revenue Agent's Report (RAR) proposing adjustments related to certain cross-border transactions that occurred in 2013. These adjustments, if sustained, would have resulted in additional taxable income of approximately $4.5 billion. The company filed its IRS Appeals protest in the first quarter of 2021, and in October of 2023 the IRS issued a revised RAR. The adjustments in the revised RAR, if sustained, would result in additional taxable income of approximately $4.2 billion. The company continues to strongly disagree with the IRS position and will pursue resolution at IRS Appeals and then court, if necessary. In the third quarter of 2018, the IRS commenced its audit of the company’s U.S. tax returns for 2015 and 2016. The company anticipates that this audit will be completed in 2023. In the fourth quarter of 2021, the IRS commenced its audit of the company’s U.S. tax returns for 2017 and 2018. With respect to major U.S. state and foreign taxing jurisdictions, the company is generally no longer subject to tax examinations for years prior to 2016. The company is no longer subject to income tax examination of its U.S. federal tax return for years prior to 2013. The open years contain matters that could be subject to differing interpretations of applicable tax laws and regulations as they relate to the amount and/or timing of income, deductions, and tax credits.

Although the outcome of tax audits is always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

The company is involved in a number of income tax-related matters in India challenging tax assessments issued by the India Tax Authorities. As of September 30, 2023, the company had recorded $589 million as prepaid income taxes in India. A significant portion of this balance represents cash tax deposits paid over time to protect the company's right to appeal various income tax assessments made by the India Tax Authorities. Although the outcome of tax audits is always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

The amount of unrecognized tax benefits at September 30, 2023 is $8,720 million which can be reduced by $550 million associated with timing adjustments, potential transfer pricing adjustments, and state income taxes. The net amount of $8,170 million, if recognized, would favorably affect the company's effective tax rate.

Earnings Per Share

Basic earnings per share is computed on the basis of the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share is computed on the basis of the weighted-average number of shares of common stock outstanding plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding stock options and stock awards.

For the three and nine months ended September 30, 2022, the one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion net of tax) resulted in net losses as reported. Therefore, otherwise dilutive potential shares of common stock were excluded from the computation of diluted earnings/(loss) per share as the effect would be antidilutive. See note 7, "Earnings Per Share of Common Stock," for additional information.

For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Earnings per share of common stock from continuing operations:			
Assuming dilution	$ 1.86	$ (3.55) *	nm
Basic	$ 1.88	$ (3.55) *	nm
Diluted operating (non-GAAP)	$ 2.20	$ 1.81	21.5 %
Weighted-average shares outstanding: (in millions)			
Assuming dilution	923.7	904.1	2.2 %
Basic	912.8	904.1	1.0 %
Assuming dilution (non-GAAP)	923.7	912.8	1.2 %

For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Earnings per share of common stock from continuing operations:			
Assuming dilution	$ 4.59	$ (1.21) *	nm
Basic	$ 4.65	$ (1.21) *	nm
Diluted operating (non-GAAP)	$ 5.74	$ 5.52	4.0 %
Weighted-average shares outstanding: (in millions)			
Assuming dilution	920.3	901.6	2.1 %
Basic	910.1	901.6	0.9 %
Assuming dilution (non-GAAP)	920.3	911.1	1.0 %

* The $5.9 billion one-time, non-cash, pre-tax pension settlement charge resulted in an impact of ($4.86) to diluted earnings/(loss) per share from continuing operations for the three and nine months ended September 30, 2022 and an impact of ($4.88) and ($4.90) to basic earnings/(loss) per share for the three and nine months ended September 30, 2022, respectively.

nm - not meaningful

Actual shares outstanding at September 30, 2023 were 913.1 million. The weighted-average number of common shares outstanding assuming dilution during the third quarter and first nine months of 2023 were 19.6 million shares (2.2 percent) and 18.7 million shares (2.1 percent) higher, respectively, than the same periods of 2022. The year-to-year increase was primarily due to the exclusion of dilutive potential common shares in the prior-year computation and common stock issued under employee plans. The weighted-average number of common shares outstanding assuming dilution used in the non-GAAP diluted earnings per share calculation for the third quarter and first nine months of 2023 were 10.8 million (1.2 percent) and 9.3 million (1.0 percent) shares higher, respectively, than the same periods of 2022, primarily driven by common stock issued under employee plans.

Financial Position

Dynamics

Our balance sheet at September 30, 2023 continues to provide us with flexibility to support and invest in the business.

Cash and cash equivalents, restricted cash and marketable securities at September 30, 2023 were $10,996 million, an increase of $2,156 million compared to December 31, 2022, and a decrease of $5,333 million compared to June 30, 2023 primarily due to the acquisition of Apptio. Total debt of $55,242 million at September 30, 2023 increased $4,293 million from December 31, 2022 primarily due to debt issuances. We were opportunistic in accessing the debt market and issued $9,463 million of debt in the first quarter of 2023 to prudently plan for our debt maturity obligations in 2023 and 2024 as well as capital allocation priorities. We continue to manage our debt levels while being acquisitive and without sacrificing investments in our business or our secure and modestly growing dividend policy.

In the first nine months of 2023, we generated $9,468 million in cash from operating activities, an increase of $2,997 million compared to the first nine months of 2022. Our free cash flow for the nine months ended September 30, 2023 was $5,123 million, an increase of $1,040 million versus the prior-year period. See pages 76 through 77 for additional information on free cash flow. Our strong cash generation has enabled us to be acquisitive and increase our investment in R&D, strengthening our future AI and hybrid cloud capabilities, while supporting continued shareholder returns through dividends. We completed seven acquisitions and returned $4,522 million to shareholders through dividends in the first nine months of 2023.

Our pension plans were well funded at the end of 2022, with worldwide qualified plans funded at 114 percent. Overall pension funded status as of the end of September 2023 was fairly consistent with year-end 2022. We expect contributions for all retirement-related plans to be approximately $1.9 billion in 2023, a decrease of approximately $0.1 billion compared to 2022.

IBM Working Capital

(Dollars in millions)	At September 30, 2023	At December 31, 2022
Current assets	$ 27,705	$ 29,118
Current liabilities	30,606	31,505
Working capital	$ (2,900)	$ (2,387)
Current ratio	0.91:1	0.92:1

Working capital decreased $513 million from the year-end 2022 position. Current assets decreased $1,413 million ($1,041 million adjusted for currency) primarily in receivables mainly from collections of seasonally higher year-end balances; partially offset by an increase in cash and cash equivalents and marketable securities. Current liabilities decreased $899 million ($522 million adjusted for currency) primarily in accounts payable, taxes payable and derivative liabilities; partially offset by an increase in short-term debt driven by reclassifications from long-term debt net of maturities.

Receivables and Allowances

Roll Forward of Total IBM Receivables Allowance for Credit Losses

(Dollars in millions) January 1, 2023	Additions / (Releases) *	Write-offs **	Foreign currency and other+	September 30, 2023
$ 495	$ 7	$ (77)	$ 38	$ 464

* Additions/(Releases) for allowance for credit losses are recorded in expense.
** Refer to note A, "Significant Accounting Policies," in our 2022 Annual Report for additional information regarding allowance for credit loss write-offs.
\+ Other includes additions/(releases) related to discontinued operations.

Excluding receivables classified as held for sale, the total IBM receivables provision coverage was 2.8 percent at September 30, 2023, an increase of 40 basis points compared to December 31, 2022. The increase in coverage was primarily driven by the overall decrease in total receivables. The majority of the write-offs during the nine months ended September 30, 2023 related to receivables which had been previously reserved.

Financing Segment Receivables and Allowances

The following table presents external Financing segment receivables excluding receivables classified as held for sale, and immaterial miscellaneous receivables.

(Dollars in millions)	At September 30, 2023	At December 31, 2022
Amortized cost *	$ 9,991	$ 12,843
Specific allowance for credit losses	117	127
Unallocated allowance for credit losses	43	46
Total allowance for credit losses	159	173
Net financing receivables	$ 9,831	$ 12,670
Allowance for credit losses coverage	1.6 %	1.3 %

* Includes deferred initial direct costs which are expensed in IBM's consolidated financial results.

The percentage of Financing segment receivables reserved increased from 1.3 percent at December 31, 2022 to 1.6 percent at September 30, 2023, primarily driven by the decline in amortized cost.

Roll Forward of Financing Segment Receivables Allowance for Credit Losses (included in Total IBM)

(Dollars in millions) January 1, 2023	Additions / (Releases)*	Write-offs **	Foreign currency and other	September 30, 2023
$ 173	$ (11)	$ (9)	$ 7	$ 159

* Additions/(Releases) for allowance for credit losses are recorded in expense.
** Refer to note A, "Significant Accounting Policies," in our 2022 Annual Report for additional information regarding allowance for credit loss write-offs.

Financing's expected credit loss expense (including reserves for off-balance sheet commitments which are recorded in other liabilities) was a net release of $7 million for the three months ended September 30, 2023, compared to a net release of $3 million for the three months ended September 30, 2022. The year-to-year decrease in expected credit loss expense was due to lower specific reserve requirements in the current year.

Expected credit loss expense was a net release of $12 million for the nine months ended September 30, 2023, compared to a net release of $15 million for the nine months ended September 30, 2022. The lower year-to-year net release was due to lower unallocated reserve releases.

Noncurrent Assets and Liabilities

(Dollars in millions)	At September 30, 2023	At December 31, 2022
Noncurrent assets	$ 101,616	$ 98,125
Long-term debt	$ 48,828	$ 46,189
Noncurrent liabilities (excluding debt)	$ 26,731	$ 27,528

The increase in noncurrent assets of $3,491 million ($3,912 million adjusted for currency) was primarily due to goodwill and intangible assets mainly related to the Apptio acquisition; partially offset by a decrease in long-term financing receivables as a result of declines from seasonally higher year-end balances.

Long-term debt increased $2,639 million ($2,940 million adjusted for currency) primarily driven by debt issuances; partially offset by reclassifications to short-term debt to reflect upcoming maturities.

Noncurrent liabilities (excluding debt) decreased $797 million ($525 million adjusted for currency) primarily driven by a decrease in retirement and postretirement benefit obligations and deferred income.

Debt

Our funding requirements are continually monitored as we execute our strategies to manage the overall asset and liability profile. Additionally, we maintain sufficient flexibility to access global funding sources as needed.

(Dollars in millions)	At September 30, 2023	At December 31, 2022
Total debt	$ 55,242	$ 50,949
Financing segment debt*	$ 9,860	$ 12,872
Non-Financing debt	$ 45,381	$ 38,077

* Refer to Financing's "Financial Position" on page 79 for additional details.

Total debt of $55,242 million increased $4,293 million ($4,585 million adjusted for currency) from December 31, 2022, primarily driven by proceeds from issuances of $9,586 million; partially offset by maturities of $4,973 million.

Non-Financing debt of $45,381 million increased $7,304 million ($7,536 million adjusted for currency) from December 31, 2022, primarily driven by our first quarter debt issuances to plan for debt maturity obligations in 2023 and 2024 as well as capital allocation priorities.

Financing segment debt of $9,860 million decreased $3,011 million ($2,952 million adjusted for currency) from December 31, 2022, primarily due to lower funding requirements associated with financing receivables.

Financing provides financing solutions predominantly for IBM's external client assets, and the debt used to fund Financing assets is primarily composed of intercompany loans. Total debt changes generally correspond with the level of client and commercial financing receivables, the level of cash and cash equivalents, the change in intercompany and external payables and the change in intercompany investment from IBM. The terms of the intercompany loans are set by the company to substantially match the term, currency and interest rate variability underlying the financing receivable. The Financing debt-to-equity ratio remained at 9.0 to 1 at September 30, 2023.

We measure Financing as a stand-alone entity, and accordingly, interest expense relating to debt supporting Financing's external client and internal business is included in the "Financing Results of Operations" and in note 4, "Segments."

Equity

Total equity increased $1,135 million from December 31, 2022, primarily driven by an increase from net income of $4,214 million and common stock of $970 million; partially offset by dividends paid of $4,522 million.

Cash Flow

Our cash flows from operating, investing and financing activities, as reflected in the Consolidated Statement of Cash Flows on page 7, are summarized in the table below. These amounts also include the cash flows associated with the Financing business.

(Dollars in millions) For the nine months ended September 30:	2023	2022
Net cash provided by/(used in):		
Operating activities	$ 9,468	$ 6,470
Investing activities	(9,906)	(2,883)
Financing activities	(154)	(2,106)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(120)	(463)
Net change in cash, cash equivalents and restricted cash	$ (713)	$ 1,018

Net cash provided by operating activities increased $2,997 million as compared to the first nine months of 2022. This was due to an increase in cash provided by financing receivables, performance-related improvements within net income and sales cycle working capital efficiencies; partially offset by an increase in performance-based compensation payments in 2023, given our strong results in 2022.

Net cash used in investing activities increased $7,023 million mainly driven by the Apptio acquisition, higher net purchases of marketable securities and other investments and a decrease in cash provided by divestitures.

Net cash used in financing activities decreased $1,951 million mainly due to an increase in net cash provided by debt of $2,048 million primarily driven by a higher level of net additions in the current year.

Results of Discontinued Operations

Loss from discontinued operations, net of tax was $10 million in the third quarter of 2023 compared to income of $18 million in the prior-year period. For the first nine months of 2023, loss from discontinued operations, net of tax was $15 million compared to income of $16 million in the prior-year period. The results for all periods reflect the net impact of changes in separation-related estimates and the settlement of assets and liabilities in accordance with the separation and distribution agreement. The prior-year results also reflect a gain on sale of a joint venture historically managed by Kyndryl, which was sold to Kyndryl in the first quarter of 2022 upon receiving regulatory approval.

Looking Forward

Technology continues to serve as a fundamental source of competitive advantage. Clients are looking to leverage technology to offer better services, scale more quickly and fuel growth without increasing their footprint. This has been driving demand for technologies that boost productivity and competitiveness, such as hybrid cloud and AI.

To advance our hybrid cloud and AI strategy, we continue to invest, both organically and inorganically, to deliver new innovation to our clients and to shape the technologies of the future. In third quarter 2023, we launched watsonx, our enterprise-ready generative AI and data platform, and we are building additional capabilities to help clients and partners capitalize on the AI opportunity. We have over 20,000 data and AI consultants, including a center of excellence to help clients navigate the AI landscape and to provide valuable and real-time feedback to our product teams. We delivered Granite, a multi-billion parameter foundation model on watsonx.ai which excels in both language and code. We also introduced the watsonx Code Assistant, including the watsonx Code Assistant for Z to help clients accelerate the modernization of mainframe code and applications. And before the end of 2023, we plan to launch watsonx.governance to provide governance tools businesses need to mitigate risks and ensure compliance through the AI lifecycle. We also brought to market new innovations to our industry-leading hybrid cloud platform, Red Hat OpenShift, and are making good progress in quantum computing that puts us on a path toward building practical quantum computers that can solve hard problems in areas such as risk, finance and materials. To complement our innovations, we closed seven acquisitions in the first nine months of 2023, including the acquisition of Apptio, a leader in financial and operational IT management and optimization software.

We are driving productivity initiatives which range from simplifying our application environment to digitally transforming our business processes by applying AI at scale. We are ahead of pace to achieve our target of $2.0 billion in savings from these productivity initiatives by the end of 2024. This will enable reinvestment in the business, increase financial flexibility and contribute to both gross and pre-tax margin expansion.

We remain confident in our strategy and in the fundamentals of our business. Our balance sheet and liquidity position remain strong with financial flexibility to support our business into the future. At September 30, 2023, we had $11.0 billion of cash and cash equivalents, restricted cash and marketable securities. We issued $9.5 billion of debt in the first quarter of 2023 to prudently plan for our debt maturity obligations in 2023 and 2024 as well as capital allocation priorities. We continued to manage our debt levels while being acquisitive and without sacrificing investments in our business or our secure and modestly growing dividend policy.

Today's IBM is a higher-growth, higher-value business with solid cash generation – a business well positioned for the future. We are executing a strategy that closely resonates with our clients' needs, and this is propelling our business forward. We expect to continue our progress as a leading hybrid cloud and AI company with a focus on revenue growth and cash generation.

Retirement-Related Plans

Our pension plans are well funded. Contributions for all retirement-related plans are expected to be approximately $1.9 billion in 2023, a decrease of approximately $0.1 billion compared to 2022, of which $0.1 billion generally relates to legally required contributions to non-U.S. defined benefit and multi-employer plans. We expect 2023 pre-tax retirement-related plan cost to be approximately $1.2 billion, a decrease of approximately $6.5 billion compared to 2022. The decrease is primarily driven by a $5.9 billion settlement charge in the third quarter of 2022 resulting from the transfer of a portion of the U.S. Qualified PPP to insurance companies. This estimate reflects current pension plan assumptions at December 31, 2022. Within total retirement-related plan cost, operating retirement-related plan cost is expected to be approximately $1.2 billion, approximately flat versus 2022. Non-operating retirement-related plan cost is expected to be immaterial compared to $6.5 billion in 2022, primarily driven by the third-quarter 2022 settlement charge and lower recognized actuarial losses, partially offset by higher interest cost.

Currency Rate Fluctuations

Changes in the relative values of non-U.S. currencies to the USD affect our financial results and financial position. At September 30, 2023, currency changes resulted in assets and liabilities denominated in local currencies being translated into fewer dollars than at year-end 2022. We use financial hedging instruments to limit specific currency risks related to foreign currency-based transactions.

Movements in currency, and the fact that we do not hedge 100 percent of our currency exposures, will result in a currency impact to our revenues, profit and cash flows throughout 2023. We execute a hedging program which defers, versus eliminates, the volatility of currency impacts on our financial results. During periods of sustained movements in currency, the marketplace and competition adjust to the changing rates over time.

We translate revenue, cost and expense in our non-U.S. operations at current exchange rates in the reported period. References to "adjusted for currency" or "constant currency" reflect adjustments based upon a simple mathematical formula. However, this constant currency methodology that we utilize to disclose this information does not incorporate any operational actions that management could take to mitigate fluctuating currency rates. Based on the currency rate movements in the third quarter of 2023, revenue from continuing operations increased 4.6 percent as reported and 3.5 percent at constant currency versus the third quarter of 2022. In the first nine months of 2023, revenue from continuing operations increased 1.5 percent as reported and 2.7 percent at constant currency, compared to the same period in 2022. Currency translation and hedging impacted year-to-year pre-tax income growth and operating (non-GAAP) pre-tax income growth by approximately $200 million in the third quarter of 2023, and approximately $500 million in the first nine months of 2023. From a segment perspective, in the third quarter of 2023, currency translation and hedging impacted our Software pre-tax income margin year-to-year growth by more than two points, Infrastructure by more than a point and Consulting by approximately a point. In the first nine months of 2023, currency translation and hedging impacted our Software and Infrastructure pre-tax income margin year-to-year growth by more than a point each. We view these amounts as a theoretical maximum impact to our as-reported financial results. Hedging and certain underlying foreign currency transaction gains and losses are allocated to our segment results. Considering the operational responses mentioned above,

movements of exchange rates, and the nature and timing of hedging instruments, it is difficult to predict future currency impacts on any particular period.

For non-U.S. subsidiaries and branches that operate in U.S. dollars or whose economic environment is highly inflationary, translation adjustments are reflected in results of operations. Generally, we manage currency risk in these entities by linking prices and contracts to U.S. dollars.

Liquidity and Capital Resources

In our 2022 Annual Report, on pages 33 to 35, there is a discussion of our liquidity including two tables that present three years of data. The table presented on page 33 includes net cash from operating activities, cash and cash equivalents, restricted cash and short-term marketable securities, and the size of our global credit facilities for each of the past three years. For the nine months ended, or at, as applicable, September 30, 2023, those amounts are $9.5 billion of net cash from operating activities, $11.0 billion of cash and cash equivalents, restricted cash and short-term marketable securities and $10.0 billion in global credit facilities, respectively. While we have no current plans to draw on these credit facilities, they are available as back-up liquidity.

The major rating agencies' ratings on our debt securities at September 30, 2023 appear in the following table and remain unchanged from June 30, 2023.

IBM RATINGS:	STANDARD AND POOR'S	MOODY'S INVESTORS SERVICE
Senior long-term debt	A-	A3
Commercial paper	A-2	Prime-2

IBM has ample financial flexibility, supported by our strong liquidity position and cash flows, to operate at a single A credit rating. In the first quarter of 2023, we issued $9.5 billion of debt primarily to plan for our debt maturity obligations in 2023 and 2024 as well as capital allocation priorities. Debt levels have increased $4.3 billion from December 31, 2022, driven by debt issuances; partially offset by maturities.

We do not have "ratings trigger" provisions in our debt covenants or documentation, which would allow the holders to declare an event of default and seek to accelerate payments thereunder in the event of a change in credit rating. Our debt covenants are well within the required levels. Our contractual agreements governing derivative instruments contain standard market clauses which can trigger the termination of the agreement if our credit rating were to fall below investment grade. At September 30, 2023, the fair value of those instruments that were in a liability position was $864 million, before any applicable netting, and this position is subject to fluctuations in fair value period to period based on the level of our outstanding instruments and market conditions. We have no other contractual arrangements that, in the event of a change in credit rating, would result in a material adverse effect on our financial position or liquidity.

Effective December 31, 2022, the use of LIBOR was substantially eliminated for purposes of any new financial contract executions. The UK's Financial Conduct Authority (FCA) extended the phase out of LIBOR in the case of U.S. dollar settings for certain tenors until the end of June 2023. Any legacy USD LIBOR based financial contracts were addressed using the LIBOR rates published through the June 2023 extension period. The replacement of the LIBOR benchmark within the company's risk management activities did not have a material impact in the consolidated financial results.

We prepare our Consolidated Statement of Cash Flows in accordance with applicable accounting standards for cash flow presentation on page 7 of this Form 10-Q and highlight causes and events underlying sources and uses of cash in that format on page 74. For the purpose of running its business, IBM manages, monitors and analyzes cash flows in a different manner.

Management uses free cash flow as a measure to evaluate its operating results, plan shareholder return levels, strategic investments and assess its ability and need to incur and service debt. The entire free cash flow amount is not necessarily available for discretionary expenditures. We define free cash flow as net cash from operating activities less the change in Financing receivables and net capital expenditures, including the investment in software. A key objective of the Financing business is to generate strong returns on equity, and our Financing receivables are the basis for that growth. Accordingly,

management considers Financing receivables as a profit-generating investment, not as working capital that should be minimized for efficiency. Therefore, management includes presentations of both free cash flow and net cash from operating activities that exclude the effect of Financing receivables.

The following is management's view of cash flows for the first nine months of 2023 and 2022 prepared in a manner consistent with the description above.

(Dollars in millions) **For the nine months ended September 30:**	**2023**	**2022***
Net cash from operating activities per GAAP	$ 9,468	$ 6,470
Less: change in Financing receivables	3,119	1,071
Net cash from operating activities, excluding Financing receivables	$ 6,349	$ 5,399
Capital expenditures, net	(1,226)	(1,317)
Free cash flow	$ 5,123	$ 4,082
Acquisitions	(4,945)	(1,020)
Divestitures	(4)	1,271
Dividends	(4,522)	(4,454)
Non-Financing debt	7,572	4,686
Other (includes Financing net receivables and Financing debt)	(1,068)	(2,395) **
Change in cash, cash equivalents, restricted cash and short-term marketable securities	$ 2,156	$ 2,171

* Includes immaterial cash flows from discontinued operations.
** Recast to conform to current-year presentation.

In the first nine months of 2023, we generated $5.1 billion in free cash flow, an increase of $1.0 billion versus the prior-year period. The increase was driven primarily by performance-related improvements within net income and sales cycle working capital efficiencies; partially offset by higher performance-based compensation payments in 2023 given our strong results in 2022. In the first nine months of 2023, net cash used in acquisitions was $4.9 billion and we continued to return value to shareholders with $4.5 billion in dividends.

Events that could temporarily change the historical cash flow dynamics discussed previously and in our 2022 Annual Report include significant changes in operating results, material changes in geographic sources of cash, unexpected adverse impacts from litigation, future pension funding requirements, periods of severe downturn in the capital markets or the timing of tax payments. Whether any litigation has such an adverse impact will depend on a number of variables, which are more completely described in note 14, "Contingencies," in this Form 10-Q. With respect to pension funding, we expect to make legally mandated pension plan contributions to certain non-U.S. defined benefit plans of approximately $100 million in 2023. Contributions related to all retirement-related plans are expected to be approximately $1.9 billion in 2023. Financial market performance could increase the legally mandated minimum contributions in certain non-U.S. countries that require more frequent remeasurement of the funded status. We are not quantifying any further impact from pension funding because it is not possible to predict future movements in the capital markets or changes in pension plan funding regulations. In 2023, we are not legally required to make any contributions to the U.S. defined benefit pension plans.

Our cash flows are sufficient to fund our current operations and obligations, including investing and financing activities such as dividends and debt service. When additional requirements arise, we have several liquidity options available. These options may include the ability to borrow additional funds at reasonable interest rates and utilizing our committed global credit facilities. With our share repurchase program suspended since the close of the Red Hat acquisition, our overall shareholder payout remains at a comfortable level and we remain fully committed to our secure and modestly growing dividend policy.

Financing

Financing is a reportable segment that is measured as a stand-alone entity. Financing facilitates IBM clients' acquisition of IBM information technology systems, software and services by providing financing solutions in the areas where the company has the expertise, while generating solid returns on equity.

Results of Operations

(Dollars in millions) For the three months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Revenue	$ 186	$ 174	6.9 %
Pre-tax income	$ 91	$ 79	16.0 %

(Dollars in millions) For the nine months ended September 30:	2023	2022	Yr. to Yr. Percent Change
Revenue	$ 566	$ 474	19.5 %
Pre-tax income	$ 256	$ 265	(3.2) %

For the three months ended September 30, 2023, financing revenue increased 6.9 percent as reported (5 percent adjusted for currency) compared to the prior year, driven by client financing revenue up $11 million to $183 million. For the nine months ended September 30, 2023, financing revenue increased 19.5 percent as reported (20 percent adjusted for currency) compared to the prior year, driven by client financing up $88 million to $557 million. The increase in client financing revenue in both periods in 2023 was primarily driven by an increase in client financing asset yields.

Financing pre-tax income increased 16.0 percent to $91 million in the third quarter of 2023, compared to the prior-year period and the pre-tax margin of 49.2 percent increased 3.9 points year to year. The increase in pre-tax income for the third quarter was primarily driven by a decrease in SG&A expenses and lower specific reserve requirements in the current year. For the nine months ended September 30, 2023, Financing pre-tax income decreased 3.2 percent to $256 million compared to the prior year and the pre-tax margin of 45.3 percent decreased 10.6 points year to year, primarily driven by year-to-year foreign currency impacts.

Financial Position

(Dollars in millions)	At September 30, 2023	At December 31, 2022	
Cash and cash equivalents	$ 558	$ 699	
Client financing receivables:			
Net investment in sales-type and direct financing leases [1]	3,627	4,047	
Client loans	5,897	8,329	
Total client financing receivables	$ 9,524	$ 12,376	
Commercial financing receivables:			
Held for investment	308	293	
Held for sale	593	939	
Other receivables	42	66	
Total external receivables [2]	$ 10,466	$ 13,674	
Intercompany assets [3]	722	988	[4]
Other assets	295	395	[4]
Total assets	$ 12,042	$ 15,757	
Intercompany payables [3]	$ 444	$ 637	
Debt [5]	9,860	12,872	
Other liabilities	642	814	
Total liabilities	$ 10,946	$ 14,323	
Total equity	$ 1,096	$ 1,433	
Total liabilities and equity	$ 12,042	$ 15,757	

(1) Includes deferred initial direct costs which are expensed in IBM's consolidated financial results.
(2) The difference between the decrease in total external receivables of $3.2 billion (from $13.7 billion in December 2022 to $10.5 billion in September 2023) and the $3.1 billion change in Financing segment's receivables disclosed in the free cash flow presentation on page 77 is primarily attributable to currency impacts.
(3) This entire amount is eliminated for purposes of IBM's consolidated financial results and therefore does not appear in the Consolidated Balance Sheet.
(4) Prior period amounts have been recast to conform to 2023 presentation.
(5) Financing segment debt is primarily composed of intercompany loans.

Total external receivables decreased $3,208 million primarily due to collections of higher year-end balances. Intercompany assets decreased $267 million primarily driven by intercompany financing receivables at December 31, 2022 that settled in the first half of 2023. These declines had corresponding reductions in debt funding.

We continue to apply our rigorous credit policies. Approximately 72 percent of the total external portfolio was with investment-grade clients with no direct exposure to consumers at September 30, 2023, flat year-to-year and a decrease of 1 point as compared to June 30, 2023. This investment grade percentage is based on the credit ratings of the companies in the portfolio and reflects certain mitigating actions taken to reduce the risk to IBM.

We have a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties. These actions may include credit insurance, financial guarantees, nonrecourse secured borrowings, transfers of receivables recorded as true sales in accordance with accounting guidance or sales of equipment under operating lease. Sale of receivables arrangements are also utilized in the normal course of business as part of our cash and liquidity management. For additional information relating to financing receivables refer to note 9, "Financing Receivables." Refer to pages 72 through 73 for additional information related to Financing segment receivables, allowance for credit losses and debt.

Return on Equity Calculation

(Dollars in millions)	For Three Months Ended September 30, 2023	For Three Months Ended September 30, 2022	For Nine Months Ended September 30, 2023	For Nine Months Ended September 30, 2022
Numerator:				
Financing after-tax income*	$ 79	$ 64	$ 214	$ 217
Annualized after-tax income (1)	$ 315	$ 257	$ 285	$ 289
Denominator:				
Average Financing equity (2)**	$ 1,134	$ 1,306	$ 1,217	$ 1,378
Financing return on equity (1)/(2)	27.8 %	19.7 %	23.4 %	21.0 %

* Calculated based upon an estimated tax rate principally based on Financing's geographic mix of earnings as IBM's provision for income taxes is determined on a consolidated basis.

** Average of the ending equity for Financing for the last two quarters and three quarters, for the three months ended September 30 and for the nine months ended September 30, respectively.

Return on equity was 27.8 percent and 23.4 percent for the three and nine months ended September 30, 2023, respectively, compared to 19.7 percent and 21.0 percent for the same periods in 2022. The change in the three months ended September 30, 2023 was driven by an increase in net income and a lower average equity balance. The change in the nine months ended September 30, 2023 was driven by a lower average equity balance.

Residual Value

The estimated residual value represents the estimated fair value of the equipment under lease at the end of the lease. The company estimates the future fair value of leased equipment by using historical models, analyzing the current market for new and used equipment and obtaining forward-looking product information such as marketing plans and technology innovations.

The company optimizes the recovery of residual values by extending lease arrangements with, or selling leased equipment to existing clients and periodically reassesses the realizable value of its lease residual values.

The following table presents the recorded amount of unguaranteed residual value for sales-type and direct financing leases at September 30, 2023 and December 31, 2022. In addition, the table presents the run out of when the unguaranteed residual value assigned to equipment on leases at September 30, 2023 is expected to be returned to the company. The unguaranteed residual value for operating leases at September 30, 2023 and December 31, 2022 was not material.

Unguaranteed Residual Value

(Dollars in millions)	At December 31, 2022	At September 30, 2023	Estimated Run Out of September 30, 2023 Balance: 2023	2024	2025	2026 and Beyond
Sales-type and direct financing leases	$ 422	$ 403	$ 21	$ 58	$ 135	$ 188

GAAP Reconciliation

The tables below provide a reconciliation of our income statement results as reported under GAAP to our operating earnings presentation which is a non-GAAP measure. Management's calculation of operating (non-GAAP) earnings, as presented, may differ from similarly titled measures reported by other companies. Refer to the "Operating (non-GAAP) Earnings" section for management's rationale for presenting operating earnings information.

(Dollars in millions except per share amounts) For the three months ended September 30, 2023:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	$ 8,023	$ 162	$ —	$ —	$ —	$ 8,185
Gross profit margin	54.4 %	1.1 pts.	— pts.	— pts.	— pts.	55.5 %
SG&A	$ 4,458	$ (277)	$ —	$ —	$ —	$ 4,181
Other (income) and expense	$ (215)	$ —	$ 12	$ —	$ —	$ (203)
Total expense and other (income)	$ 6,150	$ (277)	$ 12	$ —	$ —	$ 5,885
Pre-tax income from continuing operations	$ 1,873	$ 438	$ (12)	$ —	$ —	$ 2,299
Pre-tax margin from continuing operations	12.7 %	3.0 pts.	(0.1) pts.	— pts.	— pts.	15.6 %
Provision for income taxes**	$ 159	$ 99	$ (14)	$ 24	$ —	$ 268
Effective tax rate	8.5 %	2.7 pts.	(0.5) pts.	1.0 pts.	— pts.	11.7 %
Income from continuing operations	$ 1,714	$ 340	$ 1	$ (24)	$ —	$ 2,031
Income margin from continuing operations	11.6 %	2.3 pts.	$ 0.0 pts.	(0.2) pts.	— pts.	13.8 %
Diluted earnings per share from continuing operations	$ 1.86	$ 0.37	$ 0.00	$ (0.03)	$ —	$ 2.20

(Dollars in millions except per share amounts) For the three months ended September 30, 2022:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments*	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	$ 7,430	$ 165	$ —	$ —	$ —	$ 7,595
Gross profit margin	52.7 %	1.2 pts.	— pts.	— pts.	— pts.	53.8 %
SG&A	$ 4,391	$ (253)	$ —	$ —	$ 0	$ 4,138
Other (income) and expense	$ 5,755	$ (1)	$ (6,062)	$ —	$ 14	$ (293)
Total expense and other (income)	$11,931	$ (253)	$ (6,062)	$ —	$ 14	$ 5,630
Pre-tax income/(loss) from continuing operations	$ (4,501)	$ 418	$ 6,062	$ —	$ (14)	$ 1,965
Pre-tax margin from continuing operations	(31.9) %	3.0 pts.	43.0 pts.	— pts.	(0.1) pts.	13.9 %
Provision for/(benefit from) income taxes**	$ (1,287)	$ 103	$ 1,495	$ —	$ —	$ 312
Effective tax rate	28.6 %	(0.8) pts.	(12.1) pts.	— pts.	0.2 pts.	15.9 %
Income/(loss) from continuing operations	$ (3,214)	$ 315	$ 4,566	$ —	$ (14)	$ 1,653
Income/(loss) margin from continuing operations	(22.8) %	2.2 pts.	32.4 pts.	— pts.	(0.1) pts.	11.7 %
Diluted earnings/(loss) per share from continuing operations +	$ (3.55)	$ 0.35	$ 5.05	—	$ (0.02)	$ 1.81

* Retirement-Related Adjustments in 2022 includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion after tax). See note 18 "Retirement-Related Benefits," for additional information.

** The tax impact on operating (non-GAAP) pre-tax income from continuing operations is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

\+ Operating (non-GAAP) earnings per share in 2022 was calculated using 912.8 million shares, which includes 8.8 million dilutive potential shares under our stock-based compensation plans and contingently issuable shares. Due to the GAAP net loss for the three months ended September 30, 2022, these dilutive potential shares were excluded from the GAAP loss per share calculation as the effect would have been antidilutive. The difference in share count resulted in an additional ($0.02) reconciling item.

(Dollars in millions except per share amounts) For the nine months ended September 30, 2023:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	$24,033	$ 460	$ —	$ —	$ —	$ 24,492
Gross profit margin	54.0 %	1.0 pts.	— pts.	— pts.	— pts.	55.1 %
SG&A	$14,212	$ (768)	$ —	$ —	$ —	$ 13,444
Other (income) and expense	$ (721)	$ (2)	$ 16	$ —	$ —	$ (707)
Total expense and other (income)	$19,102	$ (770)	$ 16	$ —	$ —	$ 18,348
Pre-tax income from continuing operations	$ 4,931	$ 1,229	$ (16)	$ —	$ —	$ 6,144
Pre-tax margin from continuing operations	11.1 %	2.8 pts.	0.0 pts.	— pts.	— pts.	13.8 %
Provision for income taxes**	$ 702	$ 277	$ (27)	$ (91)	$ —	$ 861
Effective tax rate	14.2 %	1.7 pts.	(0.4) pts.	(1.5) pts.	— pts.	14.0 %
Income from continuing operations	$ 4,229	$ 953	$ 11	$ 91	$ —	$ 5,283
Income margin from continuing operations	9.5 %	2.1 pts.	0.0 pts.	0.2 pts.	— pts.	11.9 %
Diluted earnings per share from continuing operations	$ 4.59	$ 1.04	$ 0.01	$ 0.10	$ —	$ 5.74

(Dollars in millions except per share amounts) For the nine months ended September 30, 2022:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments*	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	$23,055	$ 526	$ —	$ —	$ —	$ 23,582
Gross profit margin	52.6 %	1.2 pts.	— pts.	— pts.	— pts.	53.8 %
SG&A	$13,843	$ (818)	$ —	$ —	$ 0	$ 13,025
Other (income) and expense	$ 5,921	$ (2)	$ (6,455)	$ —	$ (353)	$ (889)
Total expense and other (income)	$25,212	$ (820)	$ (6,455)	$ —	$ (353)	$ 17,584
Pre-tax income/(loss) from continuing operations	$ (2,156)	$ 1,346	$ 6,455	$ —	$ 353	$ 5,998
Pre-tax margin from continuing operations	(4.9) %	3.1 pts.	14.7 pts.	— pts.	0.8 pts.	13.7 %
Provision for/(benefit from) income taxes**	$ (1,070)	$ 327	$ 1,599	$ 112	$ —	$ 969
Effective tax rate	49.6 %	(5.7) pts.	(26.7) pts.	1.9 pts.	(2.9) pts.	16.1 %
Income/(loss) from continuing operations	$ (1,087)	$ 1,019	$ 4,856	$ (112)	$ 353	$ 5,029
Income/(loss) margin from continuing operations	(2.5) %	2.3 pts.	11.1 pts.	(0.3) pts.	0.8 pts.	11.5 %
Diluted earnings/(loss) per share from continuing operations +	$ (1.21)	$ 1.13	$ 5.39	$ (0.12)	$ 0.39	$ 5.52

* Retirement-Related Adjustments in 2022 includes a one-time, non-cash, pre-tax pension settlement charge of $5.9 billion ($4.4 billion after tax). See note 18 “Retirement-Related Benefits,” for additional information.

** The tax impact on operating (non-GAAP) pre-tax income from continuing operations is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

\+ Operating (non-GAAP) earnings per share in 2022 was calculated using 911.1 million shares, which includes 9.4 million dilutive potential shares under our stock-based compensation plans and contingently issuable shares. Due to the GAAP net loss for the nine months ended September 30, 2022, these dilutive potential shares were excluded from the GAAP loss per share calculation as the effect would have been antidilutive. The difference in share count resulted in an additional ($0.06) reconciling item.

Forward-Looking and Cautionary Statements

Except for the historical information and discussions contained herein, statements contained in this Form 10-Q may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on the company's current assumptions regarding future business and financial performance. These statements involve a number of risks, uncertainties and other factors that could cause actual results to differ materially, including, but not limited to, the following: a downturn in economic environment and client spending budgets; a failure of the company's innovation initiatives; damage to the company's reputation; risks from investing in growth opportunities; failure of the company's intellectual property portfolio to prevent competitive offerings and the failure of the company to obtain necessary licenses; the company's ability to successfully manage acquisitions, alliances and dispositions, including integration challenges, failure to achieve objectives, the assumption of liabilities and higher debt levels; fluctuations in financial results; impact of local legal, economic, political, health and other conditions; the company's failure to meet growth and productivity objectives; ineffective internal controls; the company's use of accounting estimates; impairment of the company's goodwill or amortizable intangible assets; the company's ability to attract and retain key employees and its reliance on critical skills; impacts of relationships with critical suppliers; product quality issues; impacts of business with government clients; reliance on third party distribution channels and ecosystems; cybersecurity and data privacy considerations; adverse effects related to climate change and environmental matters; tax matters; legal proceedings and investigatory risks; the company's pension plans; currency fluctuations and customer financing risks; impact of changes in market liquidity conditions and customer credit risk on receivables; potential failure of the separation of Kyndryl Holdings, Inc. to qualify for tax-free treatment; risk factors related to IBM securities; and other risks, uncertainties and factors discussed in the company's Form 10-Qs, Form 10-K and in the company's other filings with the U.S. Securities and Exchange Commission or in materials incorporated therein by reference. Any forward-looking statement in this Form 10-Q speaks only as of the date on which it is made. Except as required by law, the company assumes no obligation to update or revise any forward-looking statements.

Item 4. Controls and Procedures

The company's management evaluated, with the participation of the Chief Executive Officer and Chief Financial Officer, the effectiveness of the company's disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that the company's disclosure controls and procedures were effective as of the end of the period covered by this report. There has been no change in the company's internal control over financial reporting that occurred during the quarter covered by this report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting.

Part II — Other Information

Item 1. Legal Proceedings

Refer to note 14, "Contingencies," in this Form 10-Q.

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

The following table provides information relating to the company's repurchase of common stock for the third quarter of 2023.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Approximate Dollar Value of Shares that May Yet Be Purchased Under The Program*
July 1, 2023 - July 31, 2023	—	$ —	—	$ 2,007,611,768
August 1, 2023 - August 31, 2023	—	$ —	—	$ 2,007,611,768
September 1, 2023 - September 30, 2023	—	$ —	—	$ 2,007,611,768
Total	—	$ —	—	

* On October 30, 2018, the Board of Directors authorized $4.0 billion in funds for use in the company's common stock repurchase program. The company stated that it would repurchase shares on the open market or in private transactions depending on market conditions. The common stock repurchase program does not have an expiration date. This table does not include shares tendered to satisfy the exercise price in connection with cashless exercises of employee stock options or shares tendered to satisfy tax withholding obligations in connection with employee equity awards. The company suspended its share repurchase program at the time of the Red Hat closing in 2019.

Item 5. Other Information

Amendment to By-Laws

On July 31, 2023, the company announced that Michael Miebach had been elected to the IBM Board of Directors, effective October 30, 2023. As a result, Article III, Section 2 of the company's By-Laws was amended to increase the number of directors to thirteen, effective October 30, 2023. The full text of IBM's By-Laws, as amended effective October 30, 2023, is included as Exhibit 3.2 to this report.

Item 6. Exhibits

Exhibit Number	
3.2	The By-Laws of IBM, as amended through October 30, 2023.
31.1	Certification by principal executive officer pursuant to Rule 13A-14(a) or 15D-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by principal financial officer pursuant to Rule 13A-14(a) or 15D-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification by principal executive officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification by principal financial officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document – the instance document does not appear on the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File – the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document

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.

International Business Machines Corporation
(Registrant)

Date: October 31, 2023

By: /s/ Nicolás A. Fehring
Nicolás A. Fehring
Vice President and Controller

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13A-14(a) OR 15D-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Arvind Krishna, certify that:

1. I have reviewed this quarterly report on Form 10-Q of International Business Machines Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 31, 2023

/s/ Arvind Krishna

Arvind Krishna
Chairman and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13A-14(a) OR 15D-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, James J. Kavanaugh, certify that:

1. I have reviewed this quarterly report on Form 10-Q of International Business Machines Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 31, 2023

/s/ James J. Kavanaugh

James J. Kavanaugh
Senior Vice President and Chief Financial Officer

Exhibit 32.1

INTERNATIONAL BUSINESS MACHINES CORPORATION

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 International Business Machines Corporation (the "Company") on Form 10-Q for the period ending September 30, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Arvind Krishna, Chairman and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

(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/ Arvind Krishna

Arvind Krishna
Chairman and Chief Executive Officer
October 31, 2023

A signed original of this written statement required by Section 906 has been provided to IBM and will be retained by IBM and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

INTERNATIONAL BUSINESS MACHINES CORPORATION

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 International Business Machines Corporation (the "Company") on Form 10-Q for the period ending September 30, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James J. Kavanaugh, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

(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/ James J. Kavanaugh

James J. Kavanaugh
Senior Vice President and Chief Financial Officer
October 31, 2023

A signed original of this written statement required by Section 906 has been provided to IBM and will be retained by IBM and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT OMITTED FROM THIS DOCUMENT

The By-Laws of IBM, as amended through October 30, 2023.

Copies of these exhibits may be obtained without charge from Computershare Trust Company, N.A., P.O. Box 43078, Providence, Rhode Island 02940-3078