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, 2021

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
2.625% Notes due 2022	IBM 22A	New York Stock Exchange
1.250% Notes due 2023	IBM 23A	New York Stock Exchange
0.375% Notes due 2023	IBM 23B	New York Stock Exchange
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
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
1.750% Notes due 2031	IBM 31	New York Stock Exchange
0.650% Notes due 2032	IBM 32A	New York Stock Exchange
1.200% Notes due 2040	IBM 40	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
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 896,800,350 shares of common stock outstanding at September 30, 2021.

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Part I - Financial Information

Item 1. Consolidated Financial Statements:

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

(Dollars in millions except per share amounts)	Three Months Ended September 30, 2021	Three Months Ended September 30, 2020	Nine Months Ended September 30, 2021	Nine Months Ended September 30, 2020
Revenue:				
Services	$ 11,418	$ 11,180	$ 34,307	$ 33,490
Sales	5,978	6,106	19,079	18,918
Financing	222	275	706	845
Total revenue	17,618	17,560	54,093	53,253
Cost:				
Services	7,770	7,357	23,416	22,720
Sales	1,513	1,601	4,792	4,964
Financing	165	172	506	517
Total cost	9,447	9,130	28,714	28,202
Gross profit	8,171	8,430	25,379	25,052
Expense and other (income):				
Selling, general and administrative	4,860	4,647	15,368	15,849
Research, development and engineering	1,621	1,515	4,907	4,722
Intellectual property and custom development income	(153)	(134)	(435)	(453)
Other (income) and expense	234	253	911	614
Interest expense	291	323	852	971
Total expense and other (income)	6,852	6,603	21,603	21,704
Income from continuing operations before income taxes	1,319	1,827	3,776	3,348
Provision for/(benefit from) income taxes	188	128	365	(888)
Income from continuing operations	$ 1,130	$ 1,698	$ 3,411	$ 4,237
Income/(loss) from discontinued operations, net of tax	—	(1)	(1)	(2)
Net income	$ 1,130	$ 1,698	$ 3,410	$ 4,234
Earnings/(loss) per share of common stock:				
Assuming dilution:				
Continuing operations	$ 1.25	$ 1.89	$ 3.77	$ 4.72
Discontinued operations	—	0.00	0.00	0.00
Total	$ 1.25	$ 1.89	$ 3.77	$ 4.72
Basic:				
Continuing operations	$ 1.26	$ 1.90	$ 3.81	$ 4.76
Discontinued operations	—	0.00	0.00	0.00
Total	$ 1.26	$ 1.90	$ 3.81	$ 4.76
Weighted-average number of common shares outstanding: (millions)				
Assuming dilution	906.0	897.3	904.0	895.8
Basic	897.1	891.4	895.3	889.6

(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,	
	2021	2020	2021	2020
Net income	$ 1,130	$ 1,698	$ 3,410	$ 4,234
Other comprehensive income/(loss), before tax:				
Foreign currency translation adjustments	(114)	(439)	463	(1,354)
Net changes related to available-for-sale securities:				
Unrealized gains/(losses) arising during the period	0	(1)	0	0
Reclassification of (gains)/losses to net income	—	—	—	—
Total net changes related to available-for-sale securities	0	(1)	0	0
Unrealized gains/(losses) on cash flow hedges:				
Unrealized gains/(losses) arising during the period	109	(32)	262	(249)
Reclassification of (gains)/losses to net income	32	(69)	282	(37)
Total unrealized gains/(losses) on cash flow hedges	141	(101)	545	(285)
Retirement-related benefit plans:				
Prior service costs/(credits)	0	(1)	0	(5)
Net (losses)/gains arising during the period	1	0	23	65
Curtailments and settlements	13	21	46	42
Amortization of prior service (credits)/costs	3	0	8	1
Amortization of net (gains)/losses	638	586	1,929	1,722
Total retirement-related benefit plans	656	607	2,006	1,826
Other comprehensive income/(loss), before tax	683	66	3,014	187
Income tax (expense)/benefit related to items of other comprehensive income	(333)	106	(978)	(175)
Other comprehensive income/(loss), net of tax	350	172	2,035	12
Total comprehensive income	$ 1,480	$ 1,870	$ 5,446	$ 4,247

(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, 2021	At December 31, 2020
Assets:		
Current assets:		
Cash and cash equivalents	$ 7,455	$ 13,212
Restricted cash	352	463
Marketable securities	600	600
Notes and accounts receivable — trade (net of allowances of $277 in 2021 and $351 in 2020)	6,609	7,132
Short-term financing receivables (net of allowances of $183 in 2021 and $218 in 2020)	7,161	10,892
Other accounts receivable (net of allowances of $26 in 2021 and $28 in 2020)	899	714
Inventory, at lower of average cost or net realizable value:		
Finished goods	287	190
Work in process and raw materials	1,604	1,649
Total inventory	1,891	1,839
Deferred costs	2,046	2,107
Prepaid expenses and other current assets	2,954	2,206
Total current assets	29,967	39,165
Property, plant and equipment	32,349	33,176
Less: Accumulated depreciation	23,211	23,136
Property, plant and equipment — net	9,138	10,040
Operating right-of-use assets — net	4,253	4,686
Long-term financing receivables (net of allowances of $24 in 2021 and $45 in 2020)	5,046	7,086
Prepaid pension assets	8,197	7,610
Deferred costs	2,248	2,449
Deferred taxes	8,967	9,241
Goodwill	61,378	59,617
Intangible assets — net	13,025	13,796
Investments and sundry assets	1,996	2,282
Total assets	$ 144,214	$ 155,971

(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, 2021	At December 31, 2020
Liabilities:		
Current liabilities:		
Taxes	$ 2,159	$ 3,301
Short-term debt	7,575	7,183
Accounts payable	4,248	4,908
Compensation and benefits	3,780	3,440
Deferred income	12,264	12,833
Operating lease liabilities	1,285	1,357
Other accrued expenses and liabilities	4,520	6,847
Total current liabilities	35,832	39,869
Long-term debt	46,926	54,355
Retirement and nonpension postretirement benefit obligations	16,764	18,248
Deferred income	3,965	4,301
Operating lease liabilities	3,192	3,574
Other liabilities	15,179	14,897
Total liabilities	121,858	135,244
Equity:		
IBM stockholders' equity:		
Common stock, par value $0.20 per share, and additional paid-in capital Shares authorized: 4,687,500,000 Shares issued: 2021 - 2,247,465,474 2020 - 2,242,969,004	57,189	56,556
Retained earnings	161,747	162,717
Treasury stock - at cost Shares: 2021 - 1,350,665,124 2020 - 1,350,315,580	(169,406)	(169,339)
Accumulated other comprehensive income/(loss)	(27,302)	(29,337)
Total IBM stockholders' equity	22,228	20,597
Noncontrolling interests	129	129
Total equity	22,357	20,727
Total liabilities and equity	$ 144,214	$ 155,971

(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, 2021	2020
Cash flows from operating activities:		
Net income	$ 3,410	$ 4,234
Adjustments to reconcile net income to cash provided by operating activities		
Depreciation	3,139	3,138
Amortization of intangibles	1,897	1,858
Stock-based compensation	719	658
Net (gain)/loss on asset sales and other	(150)	80
Changes in operating assets and liabilities, net of acquisitions/divestitures	1,238	2,370
Net cash provided by operating activities	10,252	12,337
Cash flows from investing activities:		
Payments for property, plant and equipment	(1,612)	(1,940)
Proceeds from disposition of property, plant and equipment	312	147
Investment in software	(555)	(469)
Acquisition of businesses, net of cash acquired	(3,018)	(37)
Divestitures of businesses, net of cash transferred	26	510
Non-operating finance receivables — net	(1)	29
Purchases of marketable securities and other investments	(2,654)	(5,012)
Proceeds from disposition of marketable securities and other investments	2,202	4,302
Net cash provided by/(used in) investing activities	(5,300)	(2,470)
Cash flows from financing activities:		
Proceeds from new debt	394	10,337
Payments to settle debt	(7,321)	(8,802)
Short-term borrowings/(repayments) less than 90 days — net	840	(467)
Common stock repurchases for tax withholdings	(252)	(225)
Financing — other	71	72
Cash dividends paid	(4,395)	(4,343)
Net cash provided by/(used in) financing activities	(10,662)	(3,428)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(159)	(200)
Net change in cash, cash equivalents and restricted cash	(5,868)	6,239
Cash, cash equivalents and restricted cash at January 1	13,675	8,314
Cash, cash equivalents and restricted cash at September 30	$ 7,806	$ 14,553

(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, 2021	$ 56,912	$ 162,086	$ (169,404)	$ (27,652)	$ 21,942	$ 125	$ 22,067
Net income plus other comprehensive income/(loss):							
Net income		1,130			1,130		1,130
Other comprehensive income/(loss)				350	350		350
Total comprehensive income/(loss)					$ 1,480		$ 1,480
Cash dividends paid — common stock ($1.64 per share)		(1,471)			(1,471)		(1,471)
Common stock issued under employee plans (482,632 shares)	277				277		277
Purchases (124,146 shares) and sales (121,792 shares) of treasury stock under employee plans — net		1	(2)		0		0
Changes in noncontrolling interests						4	4
Equity – September 30, 2021	$ 57,189	$ 161,747	$ (169,406)	$ (27,302)	$ 22,228	$ 129	$ 22,357

(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, 2020	$ 56,135	$ 162,559	$ (169,386)	$ (28,757)	$ 20,551	$ 137	$ 20,688
Net income plus other comprehensive income/(loss):							
Net income		1,698			1,698		1,698
Other comprehensive income/(loss)				172	172		172
Total comprehensive income/(loss)					$ 1,870		$ 1,870
Cash dividends paid — common stock ($1.63 per share)		(1,453)			(1,453)		(1,453)
Common stock issued under employee plans (429,304 shares)	232				232		232
Purchases (110,415 shares) and sales (159,479 shares) of treasury stock under employee plans — net		2	7		9		9
Changes in noncontrolling interests						(11)	(11)
Equity - September 30, 2020	$ 56,366	$ 162,806	$ (169,380)	$ (28,584)	$ 21,208	$ 126	$ 21,334

(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, 2021	$ 56,556	$ 162,717	$ (169,339)	$ (29,337)	$ 20,597	$ 129	$ 20,727
Net income plus other comprehensive income/(loss):							
Net income		3,410			3,410		3,410
Other comprehensive income/(loss)				2,035	2,035		2,035
Total comprehensive income/(loss)					$ 5,446		$ 5,446
Cash dividends paid — common stock ($4.91 per share)		(4,395)			(4,395)		(4,395)
Common stock issued under employee plans (4,496,470 shares)	632				632		632
Purchases (1,797,733 shares) and sales (1,448,189 shares) of treasury stock under employee plans — net		15	(66)		(52)		(52)
Changes in noncontrolling interests						(1)	(1)
Equity - September 30, 2021	$ 57,189	$ 161,747	$ (169,406)	$ (27,302)	$ 22,228	$ 129	$ 22,357

(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, 2020	$ 55,895	$ 162,954	$ (169,413)	$ (28,597)	$ 20,841	$ 144	$ 20,985
Cumulative effect of change in accounting principle*		(66)			(66)		(66)
Net income plus other comprehensive income/(loss):							
Net income		4,234			4,234		4,234
Other comprehensive income/(loss)				12	12		12
Total comprehensive income/(loss)					$ 4,247		$ 4,247
Cash dividends paid — common stock ($4.88 per share)		(4,343)			(4,343)		(4,343)
Common stock issued under employee plans (3,661,059 shares)	471				471		471
Purchases (1,731,915 shares) and sales (2,017,518 shares) of treasury stock under employee plans — net		26	33		59		59
Changes in noncontrolling interests						(18)	(18)
Equity - September 30, 2020	$ 56,366	$ 162,806	$ (169,380)	$ (28,584)	$ 21,208	$ 126	$ 21,334

* Reflects the adoption of the FASB guidance on current expected credit losses. Refer to note 2, "Accounting Changes."

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

Notes to Consolidated 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, including the macroeconomic impacts of the COVID-19 pandemic. As a result, actual results may be different from these estimates.

On November 3, 2021, the company completed the previously announced 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. To effect the separation, IBM stockholders received one share of Kyndryl common stock for every five shares of IBM common stock held at the close of business on October 25, 2021, the record date for the distribution. The company retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation with the intent to dispose of such shares within twelve months after the distribution. The company's financial results for the third quarter and nine months ended September 30, 2021 include Kyndryl. With the completion of the separation, the historical results of Kyndryl will be presented as discontinued operations in the company's Consolidated Financial Statements beginning in the fourth quarter of 2021.

Effective immediately prior to the separation of Kyndryl, the company made a number of changes to its organizational structure and management system. These changes will impact the company's reportable segments beginning in the fourth quarter of 2021 but will not impact the company's Consolidated Financial Statements. Since these organizational changes did not occur until the fourth quarter of 2021, the periods presented in this Form 10-Q are reported under the historical segments. See note 4, "Segments" for additional information.

The continuing operations provision for income taxes for the third quarter of 2021 was $188 million, compared to $128 million in the third quarter of 2020. The increase primarily relates to higher discrete tax benefits in the prior year. The provision for income taxes for the third quarter of 2021 includes tax charges related to the Kyndryl separation, partially offset by tax benefits associated with third quarter events that resulted in the expected utilization of U.S. foreign tax credits. The continuing operations provision for income taxes for the first nine months of 2021 was $365 million, compared to a benefit from income taxes of $888 million for the first nine months of 2020. The benefit from income taxes for the first nine months of 2020 was primarily related to the tax impacts of an intra-entity sale of certain of the company's intellectual property.

Noncontrolling interest amounts of $8.3 million and $3.4 million, net of tax, for the three months ended September 30, 2021 and 2020, respectively, and $22.4 million and $14.7 million, net of tax, for the nine months ended September 30, 2021 and 2020, respectively, are included as a reduction within other (income) and expense in the Consolidated Income Statement.

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 2020 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:

New Standards to be Implemented

Revenue Contracts with Customers Acquired in a Business Combination

Standard/Description–Issuance date: October 2021. This guidance requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with ASC 606, *Revenue from Contracts with Customers*, as if it had originated the contracts. Deferred revenue acquired in a business combination is no longer required to be measured at its fair value, which had historically resulted in a deferred revenue impairment at the date of acquisition.

Effective Date and Adoption Considerations–The amendment is effective January 1, 2023 and early adoption is permitted.

Effect on Financial Statements or Other Significant Matters–The company is evaluating the impact of the guidance and adoption date.

Lessors-Certain Leases with Variable Lease Payments

Standard/Description–Issuance date: July 2021. This guidance modifies a lessor's accounting for certain leases with variable lease payments that resulted in the recognition of a day-one loss even if the lessor expected the arrangement to be profitable overall. The amendment requires these types of lease contracts to be classified as operating leases which eliminates any recognition of a day-one loss.

Effective Date and Adoption Considerations–The amendment is effective January 1, 2022 and early adoption is permitted. The company will adopt the guidance on a prospective basis as of the effective date.

Effect on Financial Statements or Other Significant Matters–The company does not expect the guidance to have a material impact in the consolidated financial results.

Standards Implemented

Simplifying the Accounting for Income Taxes

Standard/Description–Issuance date: December 2019. This guidance simplifies various aspects of income tax accounting by removing certain exceptions to the general principle of the guidance and also clarifies and amends existing guidance to improve consistency in application.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2021 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.

Reference Rate Reform

Standard/Description–Issuance date: March 2020, with amendments in 2021. This guidance provides optional expedients and exceptions for applying GAAP to contract modifications, hedging relationships, and other transactions that reference London Interbank Offered Rate (LIBOR) or another reference rate expected to be discontinued, subject to meeting certain criteria.

Effective Date and Adoption Considerations–The guidance is effective as of March 12, 2020 through December 31, 2022.

Effect on Financial Statements or Other Significant Matters–The company made a policy election in the first quarter of 2020 to adopt the practical expedient which allows for the continuation of fair value hedge accounting for interest rate derivative contracts upon the transition from LIBOR to Secured Overnight Financing Rate (SOFR) or another reference

rate alternative, without any impact to the Consolidated Income Statement. The company has evaluated the replacement of the LIBOR benchmark on its interest rate risk management activities and does not expect it to have a material impact in the consolidated financial results.

Simplifying the Test for Goodwill Impairment

Standard/Description–Issuance date: January 2017. This guidance simplifies the goodwill impairment test by removing Step 2. It also requires disclosure of any reporting units that have zero or negative carrying amounts if they have goodwill allocated to them.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2020 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.

Financial Instruments–Credit Losses

Standard/Description–Issuance date: June 2016, with amendments in 2018, 2019 and 2020. This changes the guidance for credit losses based on an expected loss model rather than an incurred loss model. It requires the consideration of all available relevant information when estimating expected credit losses, including past events, current conditions and forecasts and their implications for expected credit losses. It also expands the scope of financial instruments subject to impairment, including off-balance sheet commitments and residual value.

Effective Date and Adoption Considerations–The guidance was effective January 1, 2020 with one-year early adoption permitted. The company adopted the guidance as of the effective date, using the transition methodology whereby prior comparative periods were not retrospectively presented in the Consolidated Financial Statements.

Effect on Financial Statements or Other Significant Matters–At January 1, 2020, an increase in the allowance for credit losses of $81 million was recorded for accounts receivable–trade and financing receivables (inclusive of its related off-balance sheet commitments). Additionally, net deferred taxes were reduced by $14 million in the Consolidated Balance Sheet, resulting in a cumulative-effect net decrease to retained earnings of $66 million. Refer to note 8, “Financing Receivables,” and note 12, “Commitments,” for additional information.

3. Revenue Recognition:

Disaggregation of Revenue

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

Revenue by Major Products/Service Offerings

(Dollars in millions)	Three Months Ended September 30, 2021	Three Months Ended September 30, 2020	Nine Months Ended September 30, 2021	Nine Months Ended September 30, 2020
Cloud & Data Platforms	$ 3,046	$ 2,775	$ 9,032	$ 8,108
Cognitive Applications	1,314	1,317	3,938	3,745
Transaction Processing Platforms	1,332	1,461	4,257	4,687
Total Cloud & Cognitive Software	$ 5,692	$ 5,553	$ 17,227	$ 16,540
Consulting	2,292	1,966	6,717	5,973
Application Management	1,847	1,758	5,439	5,332
Global Process Services	287	240	846	687
Total Global Business Services	$ 4,427	$ 3,965	$ 13,002	$ 11,992
Infrastructure & Cloud Services	4,681	4,933	14,370	14,663
Technology Support Services	1,473	1,528	4,496	4,582
Total Global Technology Services	$ 6,154	$ 6,462	$ 18,866	$ 19,245
Systems Hardware	796	919	3,294	3,404
Operating Systems Software	312	338	957	1,074
Total Systems	$ 1,107	$ 1,257	$ 4,251	$ 4,477
Global Financing*	220	273	702	837
Other	18	50	45	163
Total revenue	$ 17,618	$ 17,560	$ 54,093	$ 53,253

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

Revenue by Geography

(Dollars in millions)	Three Months Ended September 30, 2021	Three Months Ended September 30, 2020	Nine Months Ended September 30, 2021	Nine Months Ended September 30, 2020
Americas	$ 8,217	$ 8,139	$ 25,216	$ 24,755
Europe/Middle East/Africa	5,593	5,564	17,272	16,775
Asia Pacific	3,808	3,857	11,605	11,723
Total	$ 17,618	$ 17,560	$ 54,093	$ 53,253

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, 2021, the aggregate amount of the transaction price allocated to RPO related to customer contracts that are unsatisfied or partially unsatisfied was $108 billion. Approximately 60 percent of the amount is expected to be recognized as revenue in the subsequent two years, approximately 30 percent in the subsequent three to five years and the balance (mostly Infrastructure & Cloud Services) thereafter.

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

For the three and nine months ended September 30, 2021, revenue was reduced by $49 million and $85 million, respectively, for performance obligations satisfied (or partially satisfied) in previous periods 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, 2021	At December 31, 2020
Notes and accounts receivable ─ trade (net of allowances of $277 in 2021 and $351 in 2020)	$ 6,609	$ 7,132
Contract assets*	566	497
Deferred income (current)	12,264	12,833
Deferred income (noncurrent)	3,965	4,301

* 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, 2021 that was included within the deferred income balance at June 30, 2021 and December 31, 2020 was $5.1 billion and $9.5 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, 2021 and the year ended December 31, 2020:

(Dollars in millions) January 1, 2021	Additions / (Releases)	Write-offs	Other*	September 30, 2021
$ 351	$ (44)	$ (30)	$ 0	$ 277

January 1, 2020	Additions / (Releases)	Write-offs	Other*	December 31, 2020
$ 316	$ 76	$ (46)	$ 5	$ 351

* Primarily represents translation adjustments.

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, in part, by the chief operating decision maker, both in evaluating the performance of, and in allocating resources to, each of the segments. See note 1, "Basis of Presentation" for additional information about the new operating segments, that will be effective in the fourth quarter of 2021.

SEGMENT INFORMATION

(Dollars in millions)	Cloud & Cognitive Software	Global Business Services	Global Technology Services	Systems	Global Financing	Total Segments
For the three months ended September 30, 2021:						
External revenue	$ 5,692	$ 4,427	$ 6,154	$ 1,107	$ 220	$ 17,601
Internal revenue	764	53	317	176	153	1,463
Total revenue	$ 6,456	$ 4,480	$ 6,471	$ 1,283	$ 373	$ 19,064
Pre-tax income/(loss) from continuing operations	$ 1,675	$ 587	$ 383	$ (207)	$ 206	$ 2,644
Revenue year-to-year change	0.4 %	11.6 %	(4.5)%	(14.3)%	(22.3)%	(0.7)%
Pre-tax income year-to-year change	(8.7)%	3.0 %	(4.1)%	nm	5.1 %	(10.7)%
Pre-tax income/(loss) margin	25.9 %	13.1 %	5.9 %	(16.1)%	55.1 %	13.9 %
For the three months ended September 30, 2020:						
External revenue	$ 5,553	$ 3,965	$ 6,462	$ 1,257	$ 273	$ 17,510
Internal revenue	875	49	312	240	208	1,683
Total revenue	$ 6,428	$ 4,014	$ 6,774	$ 1,497	$ 480	$ 19,193
Pre-tax income/(loss) from continuing operations	$ 1,834	$ 570	$ 399	$ (37)	$ 196	$ 2,962
Pre-tax income/(loss) margin	28.5 %	14.2 %	5.9 %	(2.5)%	40.7 %	15.4 %

nm – not meaningful

Reconciliations to IBM as Reported:

(Dollars in millions) For the three months ended September 30:	2021	2020
Revenue:		
Total reportable segments	$ 19,064	$ 19,193
Other — divested businesses	(3)	4
Other revenue	20	46
Eliminations of internal transactions	(1,463)	(1,683)
Total consolidated revenue	$ 17,618	$ 17,560
Pre-tax income from continuing operations:		
Total reportable segments	$ 2,644	$ 2,962
Amortization of acquired intangible assets	(475)	(459)
Acquisition-related (charges)/income	(4)	(1)
Non-operating retirement-related (costs)/income	(328)	(291)
Separation-related charges	(277)	—
Elimination of internal transactions	(57)	(158)
Other — divested businesses	(10)	(20)
Unallocated corporate amounts	(175)	(206)
Total pre-tax income from continuing operations	$ 1,319	$ 1,827

SEGMENT INFORMATION

(Dollars in millions)	Cloud & Cognitive Software	Global Business Services	Global Technology Services	Systems	Global Financing	Total Segments
For the nine months ended September 30, 2021:						
External revenue	$ 17,227	$ 13,002	$ 18,866	$ 4,251	$ 702	$ 54,047
Internal revenue	2,322	166	956	606	581	4,631
Total revenue	$ 19,549	$ 13,168	$ 19,822	$ 4,857	$ 1,283	$ 58,678
Pre-tax income/(loss) from continuing operations	$ 4,822	$ 1,349	$ 903	$ (33)	$ 618	$ 7,659
Revenue year-to-year change	3.0 %	8.5 %	(1.7)%	(4.9)%	(14.3)%	1.4 %
Pre-tax income year-to-year change	7.8 %	12.1 %	91.9 %	nm	9.1 %	14.2 %
Pre-tax income/(loss) margin	24.7 %	10.2 %	4.6 %	(0.7)%	48.1 %	13.1 %
For the nine months ended September 30, 2020:						
External revenue	$ 16,540	$ 11,992	$ 19,245	$ 4,477	$ 837	$ 53,090
Internal revenue	2,431	150	911	628	660	4,780
Total revenue	$ 18,971	$ 12,142	$ 20,155	$ 5,106	$ 1,497	$ 57,870
Pre-tax income/(loss) from continuing operations	$ 4,475	$ 1,203	$ 471	$ (7)	$ 566	$ 6,708
Pre-tax income/(loss) margin	23.6 %	9.9 %	2.3 %	(0.1)%	37.8 %	11.6 %

nm – not meaningful

Reconciliations to IBM as Reported:

(Dollars in millions) For the nine months ended September 30:	2021	2020
Revenue:		
Total reportable segments	$ 58,678	$ 57,870
Other — divested businesses	(2)	36
Other revenue	47	127
Eliminations of internal transactions	(4,631)	(4,780)
Total consolidated revenue	$ 54,093	$ 53,253
Pre-tax income from continuing operations:		
Total reportable segments	$ 7,659	$ 6,708
Amortization of acquired intangible assets	(1,389)	(1,404)
Acquisition-related (charges)/income	(37)	(3)
Non-operating retirement-related (costs)/income	(998)	(829)
Separation-related charges	(513)	—
Eliminations of internal transactions	(269)	(334)
Other — divested businesses	(34)	(17)
Unallocated corporate amounts	(643)	(773)
Total pre-tax income from continuing operations	$ 3,776	$ 3,348

5. Acquisitions & Divestitures:

Acquisitions

Purchase price consideration for all acquisitions was paid primarily in cash. All acquisitions, except as 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, 2021, the company completed ten acquisitions at an aggregate cost of $3,049 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		
Nordcloud	Global Business Services	Consulting company providing services in cloud implementation, application transformation and managed services
Taos Mountain, LLC (Taos)	Global Business Services	Leading cloud professional and managed services provider
StackRox	Cloud & Cognitive Software	Innovator in container and Kubernetes-native security
Second Quarter		
Turbonomic, Inc. (Turbonomic)	Cloud & Cognitive Software	Application Resource Management and Network Performance Management software provider
ECX Copy Data Management business from Catalogic Software, Inc.	Cloud & Cognitive Software	Smart data protection solution
Waeg	Global Business Services	Leading Salesforce Consulting Partner
myInvenio	Cloud & Cognitive Software	Process mining software company
Third Quarter		
VEVRE Software business from Volta, Inc.	Cloud & Cognitive Software	Cloud-native virtual routing engine
BoxBoat Technologies	Global Business Services	Premier DevOps consultancy and enterprise Kubernetes certified service provider
Bluetab Solutions Group	Global Business Services	Data solutions service provider

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of September 30, 2021.

(Dollars in millions)	Amortization Life (in years)	Turbonomic	Other Acquisitions
Current assets		$ 126	$ 101
Property, plant and equipment/noncurrent assets		—	6
Intangible assets:			
Goodwill	N/A	1,439	912
Client relationships	4-10	290	173
Completed technology	4-7	117	134
Trademarks	1-6	18	29
Total assets acquired		$ 1,990	$ 1,356
Current liabilities		49	59
Noncurrent liabilities		113	76
Total liabilities assumed		$ 161	$ 135
Total purchase price		$ 1,829	$ 1,220

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.

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.

Turbonomic–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 8.9 years. Goodwill of $1,372 million and $67 million was assigned to the Cloud & Cognitive Software and Global Business Services segments, respectively. It is expected that none of the goodwill will be deductible for tax purposes.

Other acquisitions–The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.5 years. Goodwill of $628 million, $283 million and $2 million was assigned to the Global Business Services, Cloud & Cognitive Software and Global Technology Services segments, respectively. It is expected that approximately 9 percent of the goodwill will be deductible for tax purposes.

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.

In October 2021, the company entered into a definitive agreement to acquire a privately held application development and cloud computing services company. Upon closing, the acquired business will be integrated into the Global Business Services segment. In October 2021, the company also announced it had entered into a definitive agreement with McDonald's to acquire McD Tech Labs to further accelerate the development and deployment of its Automated Order Taking (AOT) technology. Upon closing, McD Tech Labs will be integrated into the Cloud & Cognitive Software segment. In November 2021, the company announced it had entered into a definitive agreement to acquire ReaQta, a provider of endpoint security solutions designed to leverage AI to automatically identify and manage threats. Upon closing, ReaQta will be integrated into the Cloud & Cognitive Software segment. All acquisitions are expected to close in the fourth quarter of 2021, subject to customary closing conditions, including regulatory clearance.

Divestitures

In the third quarter of 2021, the company completed the sale of its remaining OEM commercial financing capabilities reported within the Global Financing segment. In addition, IBM completed two divestitures in the Cloud & Cognitive Software segment one in the second quarter and one in the third quarter of 2021. The financial terms related to each of these transactions were not material.

In October 2021, the company entered into a definitive agreement to sell certain intelligence analysis capabilities reported within the Cloud & Cognitive Software segment. The transaction is expected to close in the fourth quarter of 2021, subject to the satisfaction of applicable regulatory requirements and customary closing conditions. The financial terms related to this transaction are not expected to have a material impact to IBM's consolidated financial statements.

6. Earnings 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, 2021 and 2020.

(Dollars in millions except per share amounts) **For the three months ended September 30:**	**2021**	**2020**
Number of shares on which basic earnings per share is calculated:		
Weighted-average shares outstanding during period	897,097,073	891,381,032
Add — Incremental shares under stock-based compensation plans	6,946,467	4,595,327
Add — Incremental shares associated with contingently issuable shares	1,909,573	1,315,874
Number of shares on which diluted earnings per share is calculated	905,953,114	897,292,233
Income from continuing operations	$ 1,130	$ 1,698
Income/(loss) from discontinued operations, net of tax	—	(1)
Net income on which basic earnings per share is calculated	$ 1,130	$ 1,698
Income from continuing operations	$ 1,130	$ 1,698
Net income applicable to contingently issuable shares	—	—
Income from continuing operations on which diluted earnings per share is calculated	$ 1,130	$ 1,698
Income/(loss) from discontinued operations, net of tax, on which basic and diluted earnings per share is calculated	—	(1)
Net income on which diluted earnings per share is calculated	$ 1,130	$ 1,698
Earnings/(loss) per share of common stock:		
Assuming dilution		
Continuing operations	$ 1.25	$ 1.89
Discontinued operations	—	0.00
Total	$ 1.25	$ 1.89
Basic		
Continuing operations	$ 1.26	$ 1.90
Discontinued operations	—	0.00
Total	$ 1.26	$ 1.90

Stock options to purchase 750,990 shares and 1,510,886 shares were outstanding as of September 30, 2021 and 2020, 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.

(Dollars in millions except per share amounts) For the nine months ended September 30:	2021	2020
Number of shares on which basic earnings per share is calculated:		
Weighted-average shares outstanding during period	895,257,004	889,595,181
Add — Incremental shares under stock-based compensation plans	7,000,190	4,875,369
Add — Incremental shares associated with contingently issuable shares	1,720,345	1,286,300
Number of shares on which diluted earnings per share is calculated	903,977,539	895,756,850
Income from continuing operations	$ 3,411	$ 4,237
Income/(loss) from discontinued operations, net of tax	(1)	(2)
Net income on which basic earnings per share is calculated	$ 3,410	$ 4,234
Income from continuing operations	$ 3,411	$ 4,237
Net income applicable to contingently issuable shares	—	(2)
Income from continuing operations on which diluted earnings per share is calculated	$ 3,411	$ 4,234
Income/(loss) from discontinued operations, net of tax, on which basic and diluted earnings per share is calculated	(1)	(2)
Net income on which diluted earnings per share is calculated	$ 3,410	$ 4,232
Earnings/(loss) per share of common stock:		
Assuming dilution		
Continuing operations	$ 3.77	$ 4.72
Discontinued operations	0.00	0.00
Total	$ 3.77	$ 4.72
Basic		
Continuing operations	$ 3.81	$ 4.76
Discontinued operations	0.00	0.00
Total	$ 3.81	$ 4.76

Stock options to purchase 879,289 shares and 1,386,591 shares (average of first, second and third quarter share amounts) were outstanding as of September 30, 2021 and 2020, 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.

7. 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 maintain principal by investing in very liquid and highly rated investment grade securities.

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, 2021 and 2020, respectively.

Certain non-financial assets such as property, plant and equipment, operating right-of-use assets, land, 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, 2021 and 2020, 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, 2021 and December 31, 2020.

(Dollars in millions)	Fair Value Hierarchy Level	At September 30, 2021 Assets (7)	At September 30, 2021 Liabilities (8)	At December 31, 2020 Assets (7)	At December 31, 2020 Liabilities (8)
Cash equivalents: (1)					
Time deposits and certificates of deposit (2)	2	$ 3,030	$ N/A	$ 7,668	$ N/A
Money market funds	1	130	N/A	148	N/A
U.S. government securities (2)	2	—	N/A	500	N/A
Total cash equivalents		$ 3,160	$ N/A	$ 8,316	$ N/A
Equity investments (3)	1	0	N/A	2	N/A
Debt securities-current (2)(4)	2	600	N/A	600	N/A
Debt securities-noncurrent (2)(5)	2	6	N/A	7	N/A
Derivatives designated as hedging instruments:					
Interest rate contracts	2	16	—	100	—
Foreign exchange contracts	2	367	95	111	580
Derivatives not designated as hedging instruments:					
Foreign exchange contracts	2	42	38	13	47
Equity contracts (6)	1,2	—	16	12	—
Total		$ 4,191	$ 149	$ 9,161	$ 627

(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) Included within investments and sundry assets in the Consolidated Balance Sheet.
(4) U.S. treasury bills that are reported within marketable securities in the Consolidated Balance Sheet.
(5) Primarily includes government debt securities that are reported within investments and sundry assets in the Consolidated Balance Sheet.
(6) Level 1 includes immaterial amounts related to equity futures contracts.
(7) 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, 2021 were $373 million and $52 million, respectively, and at December 31, 2020 were $85 million and $151 million, respectively.
(8) The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Balance Sheet at September 30, 2021 were $69 million and $80 million, respectively, and at December 31, 2020 were $587 million and $40 million, respectively.

N/A – not applicable

Financial Assets and Liabilities Not Measured at Fair Value

Short-Term Receivables and Payables

Notes and other accounts receivable 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 and including short-term finance lease liabilities) 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, 2021 and December 31, 2020, 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 $46,926 million and $54,355 million, and the estimated fair value was $52,150 million and $61,598 million at September 30, 2021 and December 31, 2020, 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.

8. Financing Receivables:

Financing receivables primarily consist of client loan and installment payment receivables (loans) and 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 generally for terms up to seven years. Investment in sales-type and direct financing leases relate principally to the company's Systems products and are for terms ranging generally from two to six years. Commercial financing 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:

(Dollars in millions) At September 30, 2021:	Client Financing Receivables Client Loan and Installment Payment Receivables (Loans)	Client Financing Receivables Investment in Sales-Type and Direct Financing Leases	Commercial Financing Receivables	Total
Financing receivables, gross	$ 8,708	$ 3,216	$ 727	$ 12,651
Unearned income	(355)	(228)	0	(583)
Residual value*	—	345	—	345
Amortized cost	$ 8,353	$ 3,333	$ 727	$ 12,413
Allowance for credit losses	(135)	(65)	(6)	(207)
Total financing receivables, net	$ 8,218	$ 3,268	$ 721	$ 12,207
Current portion	$ 5,022	$ 1,419	$ 721	$ 7,161
Noncurrent portion	$ 3,196	$ 1,850	$ —	$ 5,046

(Dollars in millions) At December 31, 2020:	Client Financing Receivables Client Loan and Installment Payment Receivables (Loans)	Client Financing Receivables Investment in Sales-Type and Direct Financing Leases	Commercial Financing Receivables	Total
Financing receivables, gross	$ 12,159	$ 4,001	$ 2,419	$ 18,580
Unearned income	(488)	(335)	0	(823)
Residual value*	—	485	—	485
Amortized cost	$ 11,671	$ 4,151	$ 2,419	$ 18,242
Allowance for credit losses	(173)	(82)	(8)	(263)
Total financing receivables, net	$ 11,498	$ 4,069	$ 2,411	$ 17,979
Current portion	$ 6,955	$ 1,525	$ 2,411	$ 10,892
Noncurrent portion	$ 4,542	$ 2,544	$ —	$ 7,086

* Includes guaranteed and unguaranteed residual value.

The company has a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties, with enhanced focus due to the current macroeconomic uncertainty. These actions may include credit insurance, financial guarantees, nonrecourse 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 nonrecourse borrowings were $396 million and $482 million at September 30, 2021 and December 31, 2020, respectively. These borrowings are included in note 11, "Borrowings."

Transfer of Financial Assets

For the nine months ended September 30, 2021, the company sold $2,970 million of client financing receivables to third parties, consisting of loan and lease receivables of $2,189 million and $781 million, respectively. More than half of the receivables sold were classified as current assets at the time of sale. For the nine months ended September 30, 2020, the company sold $1,610 million of client financing receivables to third parties, consisting of loan and lease receivables of $758 million and $852 million, respectively.

On December 24, 2020, the company entered into an agreement with a third-party investor to sell up to $3,000 million of IBM short-term commercial financing receivables, at any one time, on a revolving basis. The company sold $4,465 million of commercial financing receivables under the agreement for the nine months ended September 30, 2021. In addition, the company included $400 million and $383 million of commercial financing receivables classified as held for sale at September 30, 2021 and December 31, 2020, respectively, in short-term financing receivables in the Consolidated Balance Sheet. The carrying value of the receivables classified as held for sale approximates fair value. The company did not have any sales of commercial financing receivables for the nine months ended September 30, 2020.

The transfers 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 and the impacts to the Consolidated Income Statement, including fees and net gain or loss associated with the transfers of these receivables for the nine months ended September 30, 2021 and September 30, 2020, were not material.

Financing Receivables by Portfolio Segment

The following tables present the amortized cost basis of client financing receivables at September 30, 2021 and December 31, 2020, 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, 2021:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$ 5,966	$ 3,616	$ 2,105	$ 11,687
Allowance for credit losses:				
Beginning balance at January 1, 2021	$ 141	$ 77	$ 37	$ 255
Write-offs	$ (6)	$ (1)	$ (7)	$ (14)
Recoveries	—	—	1	1
Additions/(releases)	(20)	(10)	(6)	(36)
Other*	(2)	(3)	0	(5)
Ending balance at September 30, 2021	$ 113	$ 64	$ 24	$ 201

(Dollars in millions) At December 31, 2020:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$ 7,758	$ 5,023	$ 3,042	$ 15,822
Allowance for credit losses:				
Beginning balance at January 1, 2020	$ 142	$ 69	$ 41	$ 252
Write-offs	$ (28)	$ (3)	$ (3)	$ (34)
Recoveries	0	0	2	3
Additions/(releases)	33	5	(4)	34
Other*	(6)	6	1	1
Ending balance at December 31, 2020	$ 141	$ 77	$ 37	$ 255

* Primarily represents translation adjustments.

IBM continues to monitor the global impacts from the COVID-19 pandemic as well as its impact on external economic models. The company's allowance for credit losses at September 30, 2021 and December 31, 2020 reflects the qualitative process which is described further in note A, "Significant Accounting Policies" in the company's 2020 Annual Report. Any changes to economic models that occurred after the balance sheet date will be reflected in future periods.

Past Due Financing Receivables

The company summarizes information about the amortized cost basis of 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, 2021:	Total Amortized Cost	Amortized Cost > 90 Days (1)	Amortized Cost > 90 Days and Accruing (1)	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing (2)
Americas	$ 5,966	$ 179	$ 94	$ 15	$ 88
EMEA	3,616	89	3	2	89
Asia Pacific	2,105	28	6	3	22
Total client financing receivables	$ 11,687	$ 296	$ 103	$ 20	$ 200

(Dollars in millions) At December 31, 2020:	Total Amortized Cost	Amortized Cost > 90 Days (1)	Amortized Cost > 90 Days and Accruing (1)	Billed Invoices > 90 Days and Accruing	Amortized Cost Not Accruing (2)
Americas	$ 7,758	$ 295	$ 200	$ 12	$ 96
EMEA	5,023	119	28	5	95
Asia Pacific	3,042	42	12	4	32
Total client financing receivables	$ 15,822	$ 456	$ 241	$ 20	$ 223

(1) At a contract level, which includes total billed and unbilled amounts of financing receivables aged greater than 90 days.

(2) Of the amortized cost not accruing, there was a related allowance of $161 million and $178 million at September 30, 2021 and December 31, 2020, respectively. Financing income recognized on these receivables was immaterial for the three and nine months ended September 30, 2021, 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 of client financing receivables by credit quality indicator at September 30, 2021 and December 31, 2020, 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 reduces the risk to IBM.

(Dollars in millions)	Americas		EMEA		Asia Pacific	
At September 30, 2021:	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D
Vintage year:						
2021	$ 1,667	$ 858	$ 746	$ 614	$ 498	$ 174
2020	1,177	481	663	427	411	102
2019	657	282	335	341	335	60
2018	420	146	229	108	245	74
2017	137	59	23	62	100	23
2016 and prior	25	57	23	42	57	24
Total	$ 4,083	$ 1,883	$ 2,020	$ 1,595	$ 1,647	$ 458

(Dollars in millions)	Americas		EMEA		Asia Pacific	
At December 31, 2020:	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D
Vintage year:						
2020	$ 2,818	$ 1,449	$ 1,513	$ 1,427	$ 958	$ 351
2019	988	623	668	519	564	123
2018	829	360	329	245	419	167
2017	285	154	70	128	205	52
2016	90	52	33	46	114	33
2015 and prior	28	81	22	22	38	18
Total	$ 5,038	$ 2,720	$ 2,635	$ 2,387	$ 2,298	$ 743

Troubled Debt Restructurings

The company did not have any significant troubled debt restructurings during the nine months ended September 30, 2021 or for the year ended December 31, 2020.

9. Leases:

Accounting for Leases as a Lessor

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

(Dollars in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Lease income — sales-type and direct financing leases:				
Sales-type lease selling price	$ 120	$ 154	$ 877	$ 733
Less: Carrying value of underlying assets*	49	64	211	258
Gross profit	$ 71	$ 90	$ 666	$ 475
Interest income on lease receivables	44	56	142	195
Total sales-type and direct financing lease income	$ 115	$ 145	$ 808	$ 670
Lease income — operating leases	38	65	137	204
Variable lease income	18	25	97	82
Total lease income	$ 171	$ 235	$ 1,042	$ 956

* Excludes unguaranteed residual value.

10. 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, 2021 Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount*
Intangible asset class:			
Capitalized software	$ 1,864	$ (881)	$ 983
Client relationships	9,170	(2,746)	6,423
Completed technology	6,077	(2,126)	3,951
Patents/trademarks	2,217	(560)	1,658
Other**	44	(33)	11
Total	$ 19,372	$ (6,347)	$ 13,025

(Dollars in millions)	At December 31, 2020 Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount*
Intangible asset class:			
Capitalized software	$ 1,777	$ (814)	$ 963
Client relationships	8,838	(2,056)	6,783
Completed technology	5,957	(1,671)	4,286
Patents/trademarks	2,246	(499)	1,747
Other**	56	(39)	16
Total	$ 18,874	$ (5,079)	$ 13,796

* Amounts as of September 30, 2021 and December 31, 2020 included a decrease in net intangible asset balances of $179 million and an increase of $279 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 decreased $771 million during the first nine months of 2021, primarily due to intangible asset amortization, partially offset by additions of acquired intangibles and capitalized software. The aggregate intangible asset amortization expense was $646 million and $1,897 million for the third quarter and first nine months of 2021, respectively, compared to $613 million and $1,858 million for the third quarter and first nine months of 2020, respectively. In the first nine months of 2021, the company retired $581 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, 2021:

(Dollars in millions)	Capitalized Software	Acquired Intangibles	Total
Remainder of 2021	$ 171	$ 474	$ 645
2022	469	1,830	2,299
2023	268	1,517	1,786
2024	74	1,467	1,541
2025	0	1,444	1,444
Thereafter	0	5,310	5,310

Goodwill

The changes in the goodwill balances by segment for the nine months ended September 30, 2021 and for the year ended December 31, 2020 were as follows:

(Dollars in millions) Segment	Balance 1/1/2021	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments*	Balance 9/30/2021
Cloud & Cognitive Software	$ 43,934	$ 1,655	$ 8	$ (13)	$ (374)	$ 45,210
Global Business Services	6,145	695	(11)	—	(101)	6,727
Global Technology Services	7,245	2	—	—	(92)	7,155
Systems	2,293	—	0	—	(7)	2,286
Total	$ 59,617	$ 2,351	$ (3)	$ (13)	$ (575)	$ 61,378

(Dollars in millions) Segment	Balance 1/1/2020	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments*	Balance 12/31/2020
Cloud & Cognitive Software	$ 43,037	$ 362	$ (139)	$ —	$ 675	$ 43,934
Global Business Services	5,775	205	—	—	165	6,145
Global Technology Services	7,141	—	—	—	104	7,245
Systems	2,270	8	—	—	15	2,293
Total	$ 58,222	$ 575	$ (139)	$ —	$ 960	$ 59,617

* Primarily driven by foreign currency translation.

There were no goodwill impairment losses recorded during the first nine months of 2021 or full-year 2020 and the company has no accumulated impairment losses. Purchase price adjustments recorded in the first nine months of 2021 and full-year 2020 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 2021 were not material. In full-year 2020, net purchase price adjustments recorded to noncurrent tax assets and liabilities were related to the Red Hat acquisition.

At the date of issuance of the financial statements, the company's annual goodwill impairment analysis which is performed during the fourth quarter is not yet complete. In anticipation of the separation of Kyndryl that occurred on November 3, 2021 and the segment changes immediately prior to the separation, the company began performing the quantitative tests of goodwill impairment for all affected reporting units. Preliminary analysis indicates the fair value of the Infrastructure Services reporting unit which includes Kyndryl and is part of the GTS segment, approximates its carrying amount. This reporting unit had goodwill of $5.8 billion as of September 30, 2021. The final goodwill impairment analysis may differ significantly from the company's preliminary result.

Based on the preliminary analysis, all of the other reporting units with goodwill had a fair value that was substantially in excess of its carrying value.

11. Borrowings:

Short-Term Debt

(Dollars in millions)	At September 30, 2021	At December 31, 2020
Commercial paper	$ 900	$ —
Short-term loans	43	130
Long-term debt ─ current maturities	6,632	7,053
Total	$ 7,575	$ 7,183

The weighted-average interest rate for commercial paper at September 30, 2021 was 0.1 percent. The weighted-average interest rate for short-term loans was 3.8 percent and 5.7 percent at September 30, 2021 and December 31, 2020, respectively.

Long-Term Debt

Pre-Swap Borrowing

(Dollars in millions)	Maturities	Balance 9/30/2021	Balance 12/31/2020
U.S. dollar debt (weighted-average interest rate at September 30, 2021):*			
0.7%	2021	$ 1,107	$ 5,499
2.6%	2022	5,682	6,233
3.4%	2023	1,589	2,395
3.3%	2024	5,018	5,029
6.9%	2025	617	631
3.3%	2026	4,498	4,370
3.0%	2027	2,222	2,219
6.5%	2028	313	313
3.5%	2029	3,250	3,250
2.0%	2030	1,350	1,350
5.9%	2032	600	600
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
7.1%	2096	316	316
		$ 35,575	$ 41,218
Other currencies (weighted-average interest rate at September 30, 2021, in parentheses):*			
Euro (1.1%)	2023–2040	$ 16,222	$ 18,355
Pound sterling (2.6%)	2022	405	411
Japanese yen (0.3%)	2022–2026	1,304	1,409
Other (7.8%)	2021–2025	354	324
		$ 53,859	$ 61,718
Finance lease obligations (1.4%)	2021–2030	357	296
		$ 54,216	$ 62,013
Less: net unamortized discount		849	875
Less: net unamortized debt issuance costs		136	156
Add: fair value adjustment**		327	426
		$ 53,558	$ 61,408
Less: current maturities		6,632	7,053
Total		$ 46,926	$ 54,355

* 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 2020, the company issued an aggregate of $4.1 billion of Euro fixed-rate notes and the proceeds were primarily used to early redeem outstanding fixed-rate debt which was due in 2021 in the aggregate amount of $2.9 billion. The notes were redeemed at a price equal to 100 percent of the aggregate principal plus a make-whole premium and accrued interest. The company incurred a loss of $49 million upon redemption that was recorded in other (income) and expense in the Consolidated Income Statement.

In the first quarter of 2021, IBM Credit LLC early redeemed all of its outstanding fixed-rate debt in the aggregate amount of $1.75 billion with maturity dates ranging from 2021 to 2023 and deregistered with the U.S. Securities and Exchange Commission. The notes were redeemed at a price equal to 100 percent of the aggregate principal plus a make-whole premium and accrued interest. The company incurred a loss of approximately $22 million upon redemption that was recorded in other (income) and expense in the Consolidated Income Statement.

Pre-swap annual contractual obligations of long-term debt outstanding at September 30, 2021, were as follows:

(Dollars in millions)	Total
Remainder of 2021	$ 1,189
2022	6,889
2023	4,973
2024	6,497
2025	4,142
Thereafter	30,526
Total	$ 54,216

Interest on Debt

(Dollars in millions) For the nine months ended September 30:	2021	2020
Cost of financing	$ 312	$ 346
Interest expense	852	971
Interest capitalized	3	6
Total interest paid and accrued	$ 1,167	$ 1,323

Lines of Credit

On June 22, 2021, the company entered into a new $2.5 billion Three-Year Credit Agreement and $7.5 billion Five-Year Credit Agreement to replace the existing $2.5 billion Three-Year and $10.25 billion Five-Year Credit Agreements. The maturity dates for the new Three-Year and Five-Year Credit Agreements (the Credit Agreements) are June 21, 2024, and June 22, 2026, respectively. The Credit Agreements permit the company and its subsidiary borrowers to borrow up to $10 billion on a revolving basis. In connection with entering into the Credit Agreements, the company also terminated its $2.5 billion 364-Day Credit Agreement which was scheduled to expire on July 1, 2021. Subject to certain conditions stated in the Credit Agreements, the company may borrow, prepay and re-borrow amounts under the Credit Agreements at any time during the term of such agreements. Funds borrowed may be used for the general corporate purposes of the company.

Interest rates on borrowings under the Credit Agreements will be based on prevailing market interest rates, as further described in the Credit Agreements. The Credit Agreements contain customary representations and warranties, covenants, events of default, and indemnification provisions.

At September 30, 2021, there were no borrowings by the company, or its subsidiaries, under these credit facilities.

12. Commitments:

The company's extended lines of credit to third-party entities include unused amounts of $1.7 billion and $2.1 billion at September 30, 2021 and December 31, 2020, 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 $4.5 billion and $5.2 billion at September 30, 2021 and December 31, 2020, respectively. Approximately 35 percent of the future financing commitments reported at September 30, 2021 are in support of IBM's managed infrastructure services unit, and upon the separation of Kyndryl on November 3, 2021, are no longer obligations of IBM. 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 2020 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, 2021.

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, 2021 and December 31, 2020 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)	2021	2020
Balance at January 1	$ 83	$ 113
Current period accruals	50	56
Accrual adjustments to reflect actual experience	(2)	(15)
Charges incurred	(66)	(73)
Balance at September 30	$ 66	$ 80

Extended Warranty Liability

(Dollars in millions)	2021	2020
Balance at January 1	$ 425	$ 477
Revenue deferred for new extended warranty contracts	71	115
Amortization of deferred revenue	(154)	(169)
Other*	(9)	(3)
Balance at September 30	$ 334	$ 419
Current portion	$ 171	$ 196
Noncurrent portion	$ 163	$ 223

* Other primarily consists of foreign currency translation adjustments.

13. 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 or its clients could become 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, 2021 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.

The company is a defendant in an action filed on March 6, 2003 in state court in Salt Lake City, Utah by the SCO Group (SCO v. IBM). The company removed the case to Federal Court in Utah. Plaintiff is an alleged successor in interest to some of AT&T's UNIX IP rights, and alleges copyright infringement, unfair competition, interference with contract and breach of contract with regard to the company's distribution of AIX and Dynix and contribution of code to Linux and the company has asserted counterclaims. On September 14, 2007, plaintiff filed for bankruptcy protection, and all proceedings in this case were stayed. The court in another suit, the SCO Group, Inc. v. Novell, Inc., held a trial in March 2010. The jury found that Novell is the owner of UNIX and UnixWare copyrights; the judge subsequently ruled that SCO is obligated to recognize Novell's waiver of SCO's claims against IBM and Sequent for breach of UNIX license agreements. On August 30, 2011, the Tenth Circuit Court of Appeals affirmed the district court's ruling and denied SCO's appeal of this matter. In June 2013, the Federal Court in Utah granted SCO's motion to reopen the SCO v. IBM case. In February 2016, the Federal Court ruled in favor of IBM on all of SCO's remaining claims, and SCO appealed. On October 30, 2017, the Tenth Circuit Court of Appeals affirmed the dismissal of all but one of SCO's remaining claims, which was remanded to the Federal Court in Utah. In August 2021, the parties reached an agreement to settle the case, which has been approved by the bankruptcy court.

On March 9, 2017, the Commonwealth of Pennsylvania's Department of Labor and Industry sued IBM in Pennsylvania state court regarding a 2006 contract for the development of a custom software system to manage the Commonwealth's unemployment insurance benefits programs. The matter was settled in August 2021.

In December 2017, CIS General Insurance Limited (CISGIL) sued IBM UK regarding a contract entered into by IBM UK and CISGIL in 2015 to implement and operate an IT insurance platform. The contract was terminated by IBM UK in July 2017 for non-payment by CISGIL. CISGIL alleges wrongful termination, breach of contract and breach of warranty. In February 2021, the Technology & Construction Court in London rejected the majority of CISGIL's claims and ruled in IBM's favor on its counterclaim. The court's decision required IBM to pay approximately $20 million in

damages, plus interest and litigation costs. CISGIL was granted permission to appeal and the matter is now pending at the Court of Appeal in London.

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. IBM's claims for breaches of contract and promissory estoppel are proceeding.

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.

14. Equity Activity:

Reclassifications and Taxes Related to Items of Other Comprehensive Income

(Dollars in millions) For the three months ended September 30, 2021:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ (114)	$ (120)	$ (234)
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	$ 109	$ (28)	$ 82
Reclassification of (gains)/losses to:			
Cost of services	(12)	3	(9)
Cost of sales	(1)	1	(1)
Cost of financing	6	(1)	4
SG&A expense	1	0	1
Other (income) and expense	22	(6)	17
Interest expense	16	(4)	12
Total unrealized gains/(losses) on cash flow hedges	$ 141	$ (35)	$ 106
Retirement-related benefit plans (1):			
Prior service costs/(credits)	$ 0	$ 0	$ 0
Net (losses)/gains arising during the period	1	0	1
Curtailments and settlements	13	(4)	9
Amortization of prior service (credits)/costs	3	0	3
Amortization of net (gains)/losses	638	(174)	464
Total retirement-related benefit plans	$ 656	$ (178)	$ 478
Other comprehensive income/(loss)	$ 683	$ (333)	$ 350

(1) These accumulated other comprehensive income (AOCI) components are included in the computation of net periodic pension cost. Refer to note 17, "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, 2020:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ (439)	$ 247	$ (192)
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	$ (32)	$ 8	$ (24)
Reclassification of (gains)/losses to:			
Cost of services	(10)	2	(7)
Cost of sales	4	(1)	3
Cost of financing	6	(2)	5
SG&A expense	5	(1)	4
Other (income) and expense	(93)	23	(70)
Interest expense	19	(5)	14
Total unrealized gains/(losses) on cash flow hedges	$ (101)	$ 26	$ (75)
Retirement-related benefit plans (1):			
Prior service costs/(credits)	$ (1)	$ 0	$ 0
Net (losses)/gains arising during the period	0	0	0
Curtailments and settlements	21	(6)	14
Amortization of prior service (credits)/costs	0	1	1
Amortization of net (gains)/losses	586	(161)	425
Total retirement-related benefit plans	$ 607	$ (167)	$ 440
Other comprehensive income/(loss)	$ 66	$ 106	$ 172

(1) These AOCI components are included in the computation of net periodic pension cost. Refer to note 17, “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, 2021:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ 463	$ (304)	$ 160
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	$ 262	$ (66)	$ 196
Reclassification of (gains)/losses to:			
Cost of services	(33)	8	(25)
Cost of sales	30	(8)	23
Cost of financing	17	(4)	13
SG&A expense	32	(8)	24
Other (income) and expense	187	(47)	140
Interest expense	48	(12)	36
Total unrealized gains/(losses) on cash flow hedges	$ 545	$ (138)	$ 407
Retirement-related benefit plans (1):			
Prior service costs/(credits)	$ 0	$ 0	$ 0
Net (losses)/gains arising during the period	23	4	27
Curtailments and settlements	46	(14)	32
Amortization of prior service (credits)/costs	8	0	8
Amortization of net (gains)/losses	1,929	(526)	1,403
Total retirement-related benefit plans	$ 2,006	$ (537)	$ 1,469
Other comprehensive income/(loss)	$ 3,014	$ (978)	$ 2,035

(1) These AOCI components are included in the computation of net periodic pension cost. Refer to note 17, "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, 2020:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ (1,354)	$ 260	$ (1,094)
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	$ (249)	$ 63	$ (186)
Reclassification of (gains)/losses to:			
Cost of services	(18)	5	(14)
Cost of sales	(14)	4	(10)
Cost of financing	21	(5)	16
SG&A expense	(12)	3	(9)
Other (income) and expense	(74)	19	(55)
Interest expense	60	(15)	45
Total unrealized gains/(losses) on cash flow hedges	$ (285)	$ 73	$ (212)
Retirement-related benefit plans (1):			
Prior service costs/(credits)	$ (5)	$ 1	$ (3)
Net (losses)/gains arising during the period	65	(24)	41
Curtailments and settlements	42	(12)	30
Amortization of prior service (credits)/costs	1	2	3
Amortization of net (gains)/losses	1,722	(473)	1,249
Total retirement-related benefit plans	$ 1,826	$ (507)	$ 1,319
Other comprehensive income/(loss)	$ 187	$ (175)	$ 12

(1) These AOCI components are included in the computation of net periodic pension cost. Refer to note 17, "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, 2021	$ (456)	$ (4,665)	$ (24,216)	$ 0	$ (29,337)
Other comprehensive income before reclassifications	196	160	26	0	382
Amount reclassified from accumulated other comprehensive income	211	—	1,442	—	1,654
Total change for the period	$ 407	$ 160	$ 1,469	$ 0	$ 2,035
September 30, 2021	$ (49)	$ (4,505)	$ (22,747)	$ (1)	$ (27,302)

* Foreign currency translation adjustments are presented gross except for any associated hedges which are presented 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, 2020	$ (179)	$ (3,700)	$ (24,718)	$ 0	$ (28,597)
Other comprehensive income before reclassifications	(186)	(1,094)	37	0	(1,242)
Amount reclassified from accumulated other comprehensive income	(27)	—	1,281	—	1,255
Total change for the period	$ (212)	$ (1,094)	$ 1,319	$ 0	$ 12
September 30, 2020	$ (391)	$ (4,794)	$ (23,399)	$ 0	$ (28,584)

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

15. 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. The amount recognized in accounts payable for the obligation to return cash collateral was $24 million at September 30, 2021 and no amount was recognized at December 31, 2020. No amount was recognized for the right to reclaim cash collateral at September 30, 2021 and December 31, 2020. The company restricts the use of cash collateral received to rehypothecation, and therefore reports it in restricted cash in the Consolidated Balance Sheet. No amount was rehypothecated at September 30, 2021 and December 31, 2020. Additionally, if derivative exposures covered by a qualifying master netting agreement had been netted in the Consolidated Balance Sheet at September 30, 2021 and December 31, 2020, the total derivative asset and liability positions each would have been reduced by $91 million and $213 million, respectively.

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, 2021 and December 31, 2020, the total notional amount of the company's interest-

rate swaps was $0.4 billion and $3.0 billion, respectively. In the first quarter of 2021, in addition to the scheduled swap maturities, the company terminated $1.25 billion of interest-rate swaps concurrent with the early redemption of the underlying hedged fixed-rate debt. The weighted-average remaining maturity of these instruments at September 30, 2021 and December 31, 2020 was approximately 1.5 years and 1.2 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, 2021 and December 31, 2020.

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, 2021 and December 31, 2020.

In connection with cash flow hedges of forecasted interest payments related to the company's borrowings, the company recorded net losses of $161 million and $174 million (before taxes) at September 30, 2021 and December 31, 2020, respectively, in AOCI. The company estimates that $18 million (before taxes) of the deferred net losses on derivatives in AOCI at September 30, 2021 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, 2021 and December 31, 2020, the carrying value of debt designated as hedging instruments was $15.5 billion and $16.4 billion, respectively. The company also uses cross-currency swaps and foreign exchange forward contracts for this risk management purpose. At September 30, 2021 and December 31, 2020, the total notional amount of derivative instruments designated as net investment hedges was $7.5 billion and $7.2 billion, respectively. At September 30, 2021 and December 31, 2020, the weighted-average remaining maturity of these instruments was approximately 0.1 years and 0.3 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. The maximum remaining length of time over which the company hedged its exposure is approximately 2.9 years. At September 30, 2021 and December 31, 2020, the total notional amount of forward contracts designated as cash flow hedges of forecasted royalty and cost transactions was $7.5 billion and $8.0 billion, respectively. At September 30, 2021 and December 31, 2020, the weighted-average remaining maturity of these instruments was approximately 0.6 years and 0.7 years, respectively.

At September 30, 2021 and December 31, 2020, in connection with cash flow hedges of anticipated royalties and cost transactions, the company recorded net gains of $294 million and net losses of $192 million (before taxes), respectively, in AOCI. The company estimates that $216 million (before taxes) of deferred net gains on derivatives in AOCI at September 30, 2021 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 employs cross-currency swaps to convert fixed-rate foreign currency denominated debt to fixed-rate debt denominated in the functional currency of the borrowing entity. These swaps are accounted for as cash flow hedges. At September 30, 2021, the maximum length of time remaining over which the company hedged its exposure is approximately 6.4 years. At September 30, 2021 and December 31, 2020, the total notional amount of cross-currency swaps designated as cash flow hedges of foreign currency denominated debt was $1.5 billion at both periods.

In connection with cash flow hedges of foreign currency denominated borrowings, the company recorded net losses of $191 million and $236 million (before taxes) at September 30, 2021 and December 31, 2020, respectively, in AOCI. The company estimates that $25 million (before taxes) of deferred net losses on derivatives in AOCI at September 30, 2021 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying exposure.

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 foreign exchange 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, 2021 and December 31, 2020, the total notional amount of derivative instruments in economic hedges of foreign currency exposure was $7.8 billion and $6.8 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, 2021 and December 31, 2020, the total notional amount of derivative instruments in economic hedges of these compensation obligations was $1.4 billion and $1.3 billion, respectively.

Cumulative Basis Adjustments for Fair Value Hedges

At September 30, 2021 and December 31, 2020, the following amounts were recorded in the Consolidated Balance Sheet related to cumulative basis adjustments for fair value hedges:

(Dollars in millions)	September 30, 2021	December 31, 2020
Short-term debt:		
Carrying amount of the hedged item	$ —	$ (1,302)
Cumulative hedging adjustments included in the carrying amount — assets/(liabilities)	—	(2)
Long-term debt:		
Carrying amount of the hedged item	$ (752)	$ (2,097)
Cumulative hedging adjustments included in the carrying amount — assets/(liabilities)*	(327)	(424)

* Includes ($314) million and ($353) million of hedging adjustments on discontinued hedging relationships at September 30, 2021 and December 31, 2020, 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:	2021	2020	2021	2020
Cost of services	$ 7,770	$ 7,357	$ 12	$ 10
Cost of sales	1,513	1,601	1	(4)
Cost of financing	165	172	(1)	3
SG&A expense	4,860	4,647	(14)	58
Other (income) and expense	234	253	(7)	101
Interest expense	291	323	(2)	8

(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 2021	Recognized on Derivatives 2020	Attributable to Risk Being Hedged (2) 2021	Attributable to Risk Being Hedged (2) 2020
Derivative instruments in fair value hedges (1):					
Interest rate contracts	Cost of financing	$ 0	$ 0	$ 4	$ 7
	Interest expense	0	0	11	20
Derivative instruments not designated as hedging instruments:					
Foreign exchange contracts	Other (income) and expense	15	8	N/A	N/A
Equity contracts	SG&A expense	(13)	63	N/A	N/A
Total		$ 3	$ 71	$ 15	$ 27

(Dollars in millions) For the three months ended September 30:	Gain (Loss) Recognized in Consolidated Income Statement and Other Comprehensive Income: Recognized in OCI 2021	Recognized in OCI 2020	Consolidated Income Statement Line Item	Reclassified from AOCI 2021	Reclassified from AOCI 2020	Amounts Excluded from Effectiveness Testing (3) 2021	Amounts Excluded from Effectiveness Testing (3) 2020
Derivative instruments in cash flow hedges:							
Interest rate contracts	$ —	$ —	Cost of financing	$ (1)	$ (1)	$ —	$ —
			Interest expense	(3)	(3)	—	—
Foreign exchange contracts	109	(32)	Cost of services	12	10	—	—
			Cost of sales	1	(4)	—	—
			Cost of financing	(5)	(5)	—	—
			SG&A expense	(1)	(5)	—	—
			Other (income) and expense	(22)	93	—	—
			Interest expense	(13)	(15)	—	—
Instruments in net investment hedges (4):							
Foreign exchange contracts	477	(983)	Cost of financing	—	—	1	2
			Interest expense	—	—	3	7
Total	$ 587	$ (1,015)		$ (32)	$ 69	$ 5	$ 9

(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 in net income each period.
(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) For the nine months ended September 30:	Total 2021	Total 2020	Gains/(Losses) of Total Hedge Activity 2021	Gains/(Losses) of Total Hedge Activity 2020
Cost of services	$ 23,416	$ 22,720	$ 33	$ 18
Cost of sales	4,792	4,964	(30)	14
Cost of financing	506	517	1	9
SG&A expense	15,368	15,849	88	24
Other (income) and expense	911	614	(246)	92
Interest expense	852	971	3	24

(Dollars in millions) For the nine months ended September 30:	Consolidated Income Statement Line Item	Gain (Loss) Recognized in Consolidated Income Statement: Recognized on Derivatives 2021	Recognized on Derivatives 2020	Attributable to Risk Being Hedged (2) 2021	Attributable to Risk Being Hedged (2) 2020
Derivative instruments in fair value hedges (1):					
Interest rate contracts	Cost of financing	$ 0	$ 20	$ 15	$ (3)
	Interest expense	(1)	57	40	(9)
Derivative instruments not designated as hedging instruments:					
Foreign exchange contracts	Other (income) and expense	(59)	18	N/A	N/A
Equity contracts	SG&A expense	120	12	N/A	N/A
Total		$ 59	$ 108	$ 55	$ (13)

(Dollars in millions) For the nine months ended September 30:	Gain (Loss) Recognized in Consolidated Income Statement and Other Comprehensive Income: Recognized in OCI 2021	Recognized in OCI 2020	Consolidated Income Statement Line Item	Reclassified from AOCI 2021	Reclassified from AOCI 2020	Amounts Excluded from Effectiveness Testing (3) 2021	Amounts Excluded from Effectiveness Testing (3) 2020
Derivative instruments in cash flow hedges:							
Interest rate contracts	$ —	$ —	Cost of financing	$ (4)	$ (3)	$ —	$ —
			Interest expense	(10)	(10)	—	—
Foreign exchange contracts	262	(249)	Cost of services	33	18	—	—
			Cost of sales	(30)	14	—	—
			Cost of financing	(14)	(18)	—	—
			SG&A expense	(32)	12	—	—
			Other (income) and expense	(187)	74	—	—
			Interest expense	(38)	(50)	—	—
Instruments in net investment hedges (4):							
Foreign exchange contracts	1,207	(1,033)	Cost of financing	—	—	4	13
			Interest expense	—	—	11	37
Total	$ 1,470	$ (1,281)		$ (282)	$ 37	$ 15	$ 50

(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 in net income each period.
(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, 2021 and 2020, 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.

16. Stock-Based Compensation:

Stock-based compensation cost 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.

(Dollars in millions)	Three Months Ended September 30, 2021	Three Months Ended September 30, 2020	Nine Months Ended September 30, 2021	Nine Months Ended September 30, 2020
Cost	$ 45	$ 42	$ 127	$ 109
Selling, general and administrative	156	129	431	401
Research, development and engineering	61	50	160	147
Pre-tax stock-based compensation cost	$ 262	$ 222	$ 719	$ 658
Income tax benefits	(58)	(50)	(179)	(146)
Total net stock-based compensation cost	$ 204	$ 172	$ 540	$ 512

Pre-tax stock-based compensation cost for the three months ended September 30, 2021 increased $40 million compared to the corresponding period in the prior year. This was due to increases from performance share units ($21 million), conversion of stock options previously issued by acquired entities ($15 million) and restricted stock units ($4 million).

Pre-tax stock-based compensation cost for the nine months ended September 30, 2021 increased $61 million compared to the corresponding period in the prior year. This was due to increases related to performance share units ($29 million), restricted stock units ($19 million) and conversion of stock options previously issued by acquired entities ($13 million).

Total unrecognized compensation cost related to non-vested awards at September 30, 2021 was $1.6 billion and is expected to be recognized over a weighted-average period of approximately 2.5 years.

Capitalized stock-based compensation cost was not material at September 30, 2021 and 2020.

In connection with the separation of Kyndryl, as required by the company's stock-based incentive award plans, the number of shares underlying remaining unvested stock awards will be adjusted. The company will also adjust the exercise price and number of shares underlying outstanding stock options. All adjustments are made with the intent to preserve the intrinsic value of each award immediately before and after the separation.

17. Retirement-Related Benefits:

The company offers defined benefit 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:	2021	2020	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Defined benefit and contribution pension plans — cost	$ 647	$ 610	6.0 %
Nonpension postretirement plans — cost	45	50	(10.5)
Total	$ 692	$ 660	4.8 %

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Defined benefit and contribution pension plans — cost	$ 1,972	$ 1,789	10.2 %
Nonpension postretirement plans — cost	134	151	(11.8)
Total	$ 2,106	$ 1,941	8.5 %

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

Cost/(Income) of Pension Plans

(Dollars in millions) For the three months ended September 30:	U.S. Plans 2021	U.S. Plans 2020	Non-U.S. Plans 2021	Non-U.S. Plans 2020
Service cost	$ —	$ —	$ 94	$ 99
Interest cost (1)	277	375	109	142
Expected return on plan assets (1)	(451)	(542)	(286)	(323)
Amortization of prior service costs/(credits) (1)	4	4	(2)	(5)
Recognized actuarial losses (1)	249	207	365	360
Curtailments and settlements (1)	—	—	13	21
Multi-employer plans	—	—	3	7
Other costs/(credits) (1)	—	—	7	6
Total net periodic pension (income)/cost of defined benefit plans	$ 80	$ 44	$ 303	$ 307
Cost of defined contribution plans	152	148	112	111
Total defined benefit and contribution pension plans cost recognized in the Consolidated Income Statement	$ 232	$ 192	$ 415	$ 418

(Dollars in millions) For the nine months ended September 30:	U.S. Plans 2021	U.S. Plans 2020	Non-U.S. Plans 2021	Non-U.S. Plans 2020
Service cost	$ —	$ —	$ 281	$ 289
Interest cost (1)	832	1,126	332	408
Expected return on plan assets (1)	(1,352)	(1,627)	(867)	(943)
Amortization of prior service costs/(credits) (1)	12	12	(8)	(14)
Recognized actuarial losses (1)	747	622	1,110	1,041
Curtailments and settlements (1)	—	—	46	42
Multi-employer plans	—	—	17	22
Other costs/(credits) (1)	—	—	21	20
Total net periodic pension (income)/cost of defined benefit plans	$ 239	$ 133	$ 933	$ 865
Cost of defined contribution plans	455	457	345	334
Total defined benefit and contribution pension plans cost recognized in the Consolidated Income Statement	$ 694	$ 590	$ 1,278	$ 1,200

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

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

Cost of Nonpension Postretirement Plans

(Dollars in millions)	U.S. Plan		Non-U.S. Plans	
For the three months ended September 30:	**2021**	**2020**	**2021**	**2020**
Service cost	$ 2	$ 2	$ 1	$ 1
Interest cost (1)	16	26	8	8
Expected return on plan assets (1)	—	—	(1)	(1)
Amortization of prior service costs/(credits) (1)	1	1	0	0
Recognized actuarial losses (1)	13	7	4	5
Curtailments and settlements (1)	—	—	—	—
Total nonpension postretirement plans cost recognized in the Consolidated Income Statement	$ 32	$ 36	$ 13	$ 14

(Dollars in millions)	U.S. Plan		Non-U.S. Plans	
For the nine months ended September 30:	**2021**	**2020**	**2021**	**2020**
Service cost	$ 5	$ 7	$ 4	$ 4
Interest cost (1)	49	77	25	26
Expected return on plan assets (1)	—	—	(2)	(3)
Amortization of prior service costs/(credits) (1)	3	3	0	0
Recognized actuarial losses (1)	39	22	12	16
Curtailments and settlements (1)	—	—	0	0
Total nonpension postretirement plans cost recognized in the Consolidated Income Statement	$ 96	$ 109	$ 38	$ 43

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

The company does not anticipate any significant changes to the expected plan contributions in 2021 from the amounts disclosed in the 2020 Annual Report.

The table below includes contributions to the following plans:

(Dollars in millions)	Plan Contributions	
For the nine months ended September 30:	**2021**	**2020**
U.S. and non-U.S. nonpension postretirement benefit plans	$ 269	$ 265
Non-U.S. DB and multi-employer plans *	48	127
Total plan contributions	$ 317	$ 392

* Amounts reported net of refunds.

During the nine months ended September 30, 2021 and 2020, the company contributed $307 million and $315 million of U.S. Treasury Securities, respectively, to the non-U.S. DB plans and U.S. nonpension postretirement benefit plan. Additionally, during the nine months ended September 30, 2021 and 2020, the company contributed $311 million and $160 million in U.S. Treasury securities, respectively, to the Active Medical Trust. Contributions made with U.S. Treasury securities are considered a non-cash transaction.

18. Subsequent Events:

On November 3, 2021, the company completed the separation of its managed infrastructure services business into a new public company, Kyndryl. In addition, immediately preceding the separation of Kyndryl, the company made a

number of changes to its organizational structure and management system. Refer to note 1, “Basis of Presentation” for additional information.

On October 15, 2021, in preparation for the separation, Kyndryl completed the offering of $2.4 billion in aggregate principal amount of senior unsecured fixed-rate notes with maturities ranging from five to twenty years and coupons ranging from 2.05 to 4.10 percent. On November 1, 2021, Kyndryl entered into a $500 million three-year variable-rate term loan. Cash raised from the debt issuance and term loan was used to fund Kyndryl's opening cash balance, with the remaining proceeds transferred to IBM at separation. Following the completion of the Kyndryl separation on November 3, 2021, the notes and term loan are no longer obligations of IBM.

On October 26, 2021, the company announced that the Board of Directors approved a quarterly dividend of $1.64 per common share. The dividend is payable December 10, 2021 to shareholders of record on November 10, 2021.

Item 2.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2021

Snapshot

Financial Results Summary — Three Months Ended September 30:

(Dollars and shares in millions except per share amounts) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Revenue	$ 17,618	$ 17,560	0.3 %* **
Gross profit margin	46.4 %	48.0 %	(1.6)pts.
Total expense and other (income)	$ 6,852	$ 6,603	3.8 %
Income from continuing operations before income taxes	$ 1,319	$ 1,827	(27.8)%
Provision for income taxes from continuing operations	$ 188	$ 128	47.0 %
Income from continuing operations	$ 1,130 +	$ 1,698	(33.5)%
Income from continuing operations margin	6.4 %	9.7 %	(3.3)pts.
Net income	$ 1,130 +	$ 1,698	(33.4)%
Earnings per share from continuing operations - assuming dilution	$ 1.25 +	$ 1.89	(33.9)%
Weighted-average shares outstanding - assuming dilution	906.0	897.3	1.0 %

* (0.3) percent adjusted for currency; (0.2) percent excluding divested businesses and adjusted for currency.

** 2.5 percent normalized to exclude Kyndryl, 1.8 percent excluding Kyndryl and adjusted for currency, 1.9 percent excluding Kyndryl and divested businesses and adjusted for currency.

\+ Includes $0.5 billion of Kyndryl separation-related charges resulting in an impact to diluted earnings per share from continuing operations of ($0.56).

Organization of Information:

On November 3, 2021, we completed the previously announced separation of our managed infrastructure services unit into a new public company with the distribution of 80.1 percent of the outstanding common stock of Kyndryl to IBM stockholders on a pro rata basis. To effect the separation, IBM stockholders received one share of Kyndryl common stock for every five shares of IBM common stock held at the close of business on October 25, 2021, the record date for the distribution. IBM retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation with the intent to dispose of such shares within twelve months after the distribution. Our financial results for the third quarter and the nine months ended September 30, 2021 include Kyndryl. With the completion of the separation, the historical results of Kyndryl will be presented as discontinued operations in our Consolidated Financial Statements beginning in the fourth quarter of 2021.

Effective immediately prior to the separation of Kyndryl, we made a number of changes to our organizational structure and management system. These changes will impact our reportable segments beginning in the fourth quarter of 2021 but will not impact our Consolidated Financial Statements. Since these organizational changes did not occur until the fourth quarter of 2021, the periods presented in this Form 10-Q are reported under the historical segments. See note 4, "Segments" for additional information.

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 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.

Revenue Adjusted for Divested Businesses and Constant Currency:

To provide better transparency on the recurring performance of the ongoing business, the company provides total revenue, geographic revenue and cloud revenue growth rates excluding certain divested businesses and at constant currency. These divested businesses are included in the category "Other–divested businesses."

Revenue Adjusted for Kyndryl:

To provide investors with insight on the recurring performance and trends of the ongoing business, the company provides total revenue growth rates excluding an estimate of Kyndryl, which separated on November 3, 2021. The historical results of Kyndryl will be presented as discontinued operations in our Consolidated Financial Statements after separation, beginning in the fourth quarter of 2021.

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, discontinued operations and certain Kyndryl separation-related charges 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 include true-ups, accounting elections and any changes to regulations, laws, audit adjustments, etc. that affect the recorded one-time charge. Management also characterizes direct and incremental charges incurred to accomplish the Kyndryl separation as non-operating given their unique and non-recurring nature. These charges primarily relate to transaction and third-party support costs, business separation and applicable employee retention fees, pension settlement charges and related tax separation charges. All other spending for Kyndryl is included in both earnings from continuing operations and in operating (non-GAAP) earnings. 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. Throughout the Management Discussion, the impact of acquisitions over the prior 12-month period may be a driver of higher expense year to year. 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 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. Our reportable segment financial results reflect pre-tax operating earnings from continuing operations, consistent with our management and measurement system. In addition, these non-GAAP measures provide a perspective consistent with areas of interest we routinely receive from investors and analysts.

The following table provides the company's operating (non-GAAP) earnings for the third quarter of 2021 and 2020.

(Dollars in millions except per share amounts) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Net income as reported	$ 1,130	$ 1,698	(33.4)%
Income/(loss) from discontinued operations, net of tax	—	(1)	(100.0)
Income from continuing operations	$ 1,130	$ 1,698	(33.5)%
Non-operating adjustments (net of tax):			
Acquisition-related charges	$ 375	$ 358	4.6 %
Non-operating retirement-related costs/(income)	271	237	14.4
U.S. tax reform impacts	—	21	(100.0)
Separation-related charges	510	—	nm
Operating (non-GAAP) earnings*	$ 2,286	$ 2,315	(1.2)%
Diluted operating (non-GAAP) earnings per share*	$ 2.52	$ 2.58	(2.3)%

* Refer to page 92 for a more detailed reconciliation of net income to operating earnings and operating earnings per share.
nm - not meaningful

Environmental Dynamics:

On March 11, 2020, the World Health Organization (WHO) declared the novel coronavirus (COVID-19) a global pandemic which resulted in significant governmental measures being initiated around the globe to slow down and control the spread of the virus. The health of IBM employees, our clients, business partners and community continue to be our primary focus. We are actively engaged to ensure our plans continue to be aligned with recommendations of the WHO, the U.S. Centers for Disease Control and Prevention and governmental regulations.

This environment has only reinforced the need for clients to modernize their businesses to succeed in this new normal, with hybrid cloud and AI at the core of their digital transformations. The reliance on technology, particularly hybrid cloud and AI technologies that give clients the scalability and flexibility needed to adjust to the rapid market changes, has become more acute. We are helping to advise, build, move and manage our clients' journey to the cloud, working with our clients to apply AI, automation and other technologies to make their workflows more intelligent and responsive and partnering with clients to help them enhance employee engagement and productivity, reskill the workforce faster and reimagine ways of working.

The spending environment continues to improve and the economy is reopening in many parts of the world. From an industry standpoint, we have seen meaningful improvement in areas most affected by the pandemic such as travel, transportation, automotive and industrial products. The underlying fundamentals of our business continue to remain sound and provide some level of stability in our revenue, profit and cash as we continue to manage through this macroeconomic uncertainty. As the world recovers from the effects of the pandemic, IBM continues to be well positioned to support our clients to emerge even stronger.

Separation of Kyndryl

On November 3, 2021, IBM took an important step in advancing its focus on hybrid cloud and AI with the previously announced separation of its managed infrastructure services unit into a new public company, Kyndryl. The separation of Kyndryl creates two industry-leading companies, which will continue to have a strong commercial

relationship. Both IBM and Kyndryl will have increased clarity and ability to focus on their respective operating and financial models, including capital deployment, investment strategies, and investment grade capital structures. The separation will also enable greater freedom of action to partner and capture new opportunities. The outcome of all of these actions will be increased value for clients and investors.

Financial Performance Summary — Three Months Ended September 30:

In the third quarter of 2021, we reported $17.6 billion in revenue, $1.1 billion in income from continuing operations and diluted earnings per share from continuing operations were $1.25 as reported. Income and diluted earnings per share from continuing operations for the third quarter of 2021 include an impact from Kyndryl separation-related charges of $0.5 billion and ($0.56) per share, respectively. Operating (non-GAAP) earnings were $2.3 billion, resulting in diluted earnings per share from continuing operations of $2.52 on an operating (non-GAAP) basis. We also generated $2.7 billion in cash from operations, $0.6 billion in free cash flow, which includes $0.6 billion of cash impacts from the structural actions initiated in the fourth quarter of 2020 and Kyndryl separation-related charges, and delivered shareholder returns of $1.5 billion through dividends. These results reflect progress in our key growth areas driven by strong demand for technology products and services that help our clients advance in their digital transformation journeys. We continue to increase our investments in skills, innovation and our ecosystem, and our balance sheet and liquidity position remain strong.

Total consolidated revenue increased 0.3 percent as reported and was essentially flat excluding divested businesses and adjusted for currency compared to the prior-year period with strong performance in our key growth areas of Global Business Services (GBS) and software, offset by declines in other areas of the business. On a segment basis, Cloud & Cognitive Software increased 2.5 percent as reported and 2 percent adjusted for currency led by growth from Red Hat and our automation and security offerings. Cloud & Data Platforms grew 9.8 percent as reported (9 percent adjusted for currency), while Cognitive Applications decreased 0.2 percent (1 percent adjusted for currency) and Transaction Processing Platforms declined 8.8 percent (9 percent adjusted for currency). GBS grew 11.6 percent as reported (11 percent adjusted for currency) with growth across all lines of business. Within GBS, Consulting increased 16.6 percent (16 percent adjusted for currency) with solid demand as we leverage our skills and ecosystem partners to transform business processes and modernize applications based on OpenShift. GTS decreased 4.8 percent as reported (5 percent adjusted for currency) as clients paused on new project activity in advance of the separation of Kyndryl in the fourth quarter of 2021. Systems decreased 11.9 percent as reported (12 percent adjusted for currency) reflecting product cycle dynamics in IBM Z and Power Systems, partially offset by growth in Storage Systems.

Total cloud revenue of $6.7 billion in the third quarter of 2021 grew 12 percent as reported (12 percent adjusted for currency and excluding divested businesses and adjusted for currency). Over the trailing 12 months, total cloud revenue was $27.8 billion, up 14 percent as reported (11 percent adjusted for currency and excluding divested businesses and adjusted for currency).

From a geographic perspective, Americas revenue grew 1.0 percent year to year as reported, but was flat adjusted for currency. Europe/Middle East/Africa (EMEA) increased 0.5 percent as reported but decreased 1 percent adjusted for currency. Asia Pacific declined 1.3 percent year to year as reported, but was flat year to year adjusted for currency.

Total consolidated gross margin of 46.4 percent decreased 1.6 points year to year and the operating (non-GAAP) gross margin of 48.0 percent decreased 1.0 point versus the prior-year period. Overall, gross margin was impacted by the significant investments we are making to drive our hybrid cloud and AI strategy as well as our product cycle dynamics. However, there was improvement in the GTS gross margin reflecting the benefits from the productivity actions taken in 2020 to improve the margin and profit profile of the business in advance of the Kyndryl separation.

Total expense and other (income) of $6.9 billion increased 3.8 percent in the third quarter of 2021 versus the prior-year period. Our expense dynamics reflect a higher level of investment in innovation, skills and our ecosystem, both organically and through acquisitions, as we execute our hybrid cloud and AI strategy. We are scaling our garage footprint, increasing our research spend in areas including quantum, hybrid cloud and AI, and expanding our ecosystem.

The year-to-year increase in expense was also driven by $0.2 billion of Kyndryl separation-related charges in the current-year period. Total operating (non-GAAP) expense and other (income) increased 0.5 percent year to year, driven primarily by the factors above excluding the separation-related charges.

The pre-tax income from continuing operations of $1.3 billion decreased 27.8 percent year to year, and the pre-tax margin from continuing operations was 7.5 percent, a decrease of 2.9 points. Kyndryl separation-related charges impacted pre-tax income by $0.3 billion and pre-tax margin by 1.6 points. The continuing operations provision for income taxes was $0.2 billion in the third quarter of 2021, compared to $0.1 billion in the third quarter of 2020. Net income from continuing operations of $1.1 billion decreased 33.4 percent, and the net income margin from continuing operations was 6.4 percent, a decrease of 3.3 points year to year.

Operating (non-GAAP) pre-tax income from continuing operations of $2.4 billion decreased 6.8 percent year to year and the operating (non-GAAP) pre-tax margin from continuing operations decreased 1.0 point to 13.6 percent. The operating (non-GAAP) provision for income taxes was $0.1 billion in the third quarter of 2021, compared to $0.3 billion in the third quarter of 2020. Operating (non-GAAP) income from continuing operations of $2.3 billion decreased 1.2 percent with an operating (non-GAAP) income margin from continuing operations of 13.0 percent, down 0.2 points year to year.

Diluted earnings per share from continuing operations of $1.25 in the third quarter of 2021 decreased 33.9 percent and operating (non-GAAP) diluted earnings per share of $2.52 decreased 2.3 percent versus the third quarter of 2020. Diluted earnings per share from continuing operations includes impacts related to the amortization of purchased intangibles assets and other acquisition-related charges, retirement-related charges, U.S. tax reform enactment impacts and Kyndryl separation-related charges. The impact of the Kyndryl separation-related charges for third-quarter 2021 was ($0.56) per share.

For the three months ended September 30, 2021, we generated $2.7 billion in cash flow provided by operating activities, a decrease of $1.6 billion compared to the third quarter of 2020, primarily driven by a decrease in cash provided by receivables of $1.4 billion. Net cash from operating activities also included approximately $0.5 billion of cash impacts from our structural actions initiated in the fourth quarter of 2020 and Kyndryl separation-related charges. In the third quarter of 2021, investing activities were a net use of cash of $0.6 billion, an increase of $0.3 billion compared to the prior-year period, primarily driven by a decrease in cash provided by net proceeds from marketable securities. Financing activities were a net use of cash of $1.7 billion in the third quarter of 2021, essentially flat compared to the prior-year period.

Financial Results Summary —Nine Months Ended September 30:

(Dollars and shares in millions except per share amounts) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Revenue	$ 54,093	$ 53,253	1.6 %*
Gross profit margin	46.9 %	47.0 %	(0.1)pts.
Total expense and other (income)	$ 21,603	$ 21,704	(0.5)%
Income from continuing operations before income taxes	$ 3,776	$ 3,348	12.8 %
Provision for/(benefit from) income taxes from continuing operations	$ 365	$ (888)	nm
Income from continuing operations	$ 3,411 **	$ 4,237	(19.5)%
Income from continuing operations margin	6.3 %	8.0 %	(1.6)pts.
Net income	$ 3,410 **	$ 4,234	(19.5)%
Earnings per share from continuing operations - assuming dilution	$ 3.77 **	$ 4.72	(20.1)%
Weighted-average shares outstanding - assuming dilution	904.0	895.8	0.9 %
	At 9/30/2021	**At 12/31/2020**	
Assets	$ 144,214	$ 155,971	(7.5)%
Liabilities	$ 121,858	$ 135,244	(9.9)%
Equity	$ 22,357	$ 20,727	7.9 %

* (1.1) percent adjusted for currency; (1.0) percent excluding divested businesses and adjusted for currency.
** Includes $0.7 billion of Kyndryl separation-related charges resulting in an impact to diluted earnings per share from continuing operations of ($0.76).
nm - not meaningful

The following table provides the company's operating (non-GAAP) earnings for the first nine months of 2021 and 2020.

(Dollars in millions except per share amounts) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Net income as reported	$ 3,410	$ 4,234	(19.5)%
Income/(loss) from discontinued operations, net of tax	(1)	(2)	(76.1)
Income from continuing operations	$ 3,411	$ 4,237	(19.5)%
Non-operating adjustments (net of tax):			
Acquisition-related charges	$ 1,082	$ 1,095	(1.1)%
Non-operating retirement-related costs/(income)	813	710	14.6
U.S. tax reform impacts	(6)	(128)	(95.7)
Separation-related charges	687	—	nm
Operating (non-GAAP) earnings*	$ 5,988	$ 5,913	1.3 %
Diluted operating (non-GAAP) earnings per share*	$ 6.62	$ 6.60	0.3 %

* Refer to page 93 for a more detailed reconciliation of net income to operating earnings and operating earnings per share.
nm - not meaningful

Financial Performance Summary —Nine Months Ended September 30:

In the first nine months of 2021, we reported $54.1 billion in revenue, $3.4 billion in income from continuing operations and diluted earnings per share from continuing operations were $3.77 as reported. Income and diluted earnings per share from continuing operations for the third quarter of 2021 include an impact from Kyndryl separation-related charges of $0.7 billion and ($0.76) per share, respectively. Operating (non-GAAP) earnings were $6.0 billion, resulting in diluted earnings per share from continuing operations of $6.62 on an operating (non-GAAP) basis. We generated $10.3 billion in cash from operations, $3.2 billion in free cash flow, which included $1.8 billion of cash

impacts from the structural actions initiated in the fourth quarter of 2020 and Kyndryl separation-related charges, and delivered shareholder returns of $4.4 billion through dividends.

Total consolidated revenue increased 1.6 percent as reported but declined 1 percent excluding divested businesses and adjusted for currency. Cloud & Cognitive Software increased 4.2 percent as reported (2 percent adjusted for currency). Within this segment, Cloud & Data Platforms grew 11.4 percent as reported (9 percent adjusted for currency) with continued solid Red Hat performance led by Red Hat Enterprise Linux (RHEL) and our OpenShift hybrid cloud platform. Cognitive Applications grew 5.1 percent as reported (3 percent adjusted for currency), while Transaction Processing Platforms declined 9.2 percent as reported (12 percent adjusted for currency). GBS increased 8.4 percent as reported (6 percent adjusted for currency) with strong growth in Consulting and Global Process Services. Application Management increased 2.0 percent as reported, but declined 1 percent adjusted for currency. GTS decreased 2.0 percent as reported (5 percent adjusted for currency) with declines in Infrastructure & Cloud Services and Technology Support Services. Systems decreased 5.1 percent as reported (7 percent adjusted for currency) and was impacted by product cycle dynamics in the current-year period.

Total cloud revenue of $20.3 billion in the first nine months of 2021 grew 15 percent as reported (12 percent adjusted for currency and excluding divested businesses and adjusted for currency).

From a geographic perspective, Americas revenue grew 1.9 percent year to year as reported (1 percent adjusted for currency). EMEA increased 3.0 percent as reported but decreased 3 percent adjusted for currency. Asia Pacific declined 1.0 percent year to year as reported (3 percent adjusted for currency).

Total consolidated gross margin of 46.9 percent decreased 0.1 point year to year with declines in GBS and Systems reflecting investment and product cycle dynamics, offset by margin improvements in Cloud & Cognitive Software and GTS. The improvement in GTS reflects the benefits from the productivity actions taken in 2020 in advance of the Kyndryl separation. Operating (non-GAAP) gross margin of 48.2 percent increased 0.1 point compared to the prior-year period.

Total expense and other (income) decreased 0.5 percent in the first nine months of 2021 versus the prior-year period. Our expense reflects the higher level of investment we are making in innovation, skills and our ecosystem, both organically and through acquisitions, more than offset by lower workforce rebalancing charges, a benefit from expected credit loss expense, and lower interest expense in the current-year period. Expense also reflects an increase from the effects of currency, Kyndryl separation-related charges in the current-year period and higher non-operating retirement-related costs. Total operating (non-GAAP) expense and other (income) decreased 3.2 percent year to year, driven primarily by the factors above excluding the separation-related charges and non-operating retirement-related costs.

Pre-tax income from continuing operations of $3.8 billion increased 12.8 percent compared to the first nine months of 2020. The pre-tax margin from continuing operations was 7.0 percent, an increase of 0.7 points versus the prior-year period. In the prior-year period, workforce rebalancing charges were $0.9 billion, compared to $0.2 billion in the current year. The current-year period also includes $0.5 billion of Kyndryl separation-related charges. The continuing operations provision for income taxes in the first nine months of 2021 was $0.4 billion compared to a benefit from income taxes of $0.9 billion in the first nine months of 2020. The prior year tax benefit was primarily related to the tax impacts of an intra-entity sale of certain of the company's intellectual property. Net income from continuing operations of $3.4 billion decreased 19.5 percent, and the net income margin from continuing operations was 6.3 percent, a decrease of 1.6 points year to year.

Operating (non-GAAP) pre-tax income from continuing operations of $6.7 billion increased 20.2 percent year to year and the operating (non-GAAP) pre-tax margin from continuing operations increased 1.9 points to 12.4 percent. These results reflect higher workforce rebalancing charges in 2020 as described above. The operating (non-GAAP) provision for income taxes was $0.7 billion in the first nine months of 2021, compared to a benefit from income taxes of $0.3 billion in the first nine months of 2020. The prior year operating (non-GAAP) benefit from income taxes was

primarily driven by the same factor described above. Operating (non-GAAP) income from continuing operations of $6.0 billion increased 1.3 percent with an operating (non-GAAP) income margin from continuing operations of 11.1 percent.

Diluted earnings per share from continuing operations of $3.77 in the first nine months of 2021 decreased 20.1 percent and operating (non-GAAP) diluted earnings per share of $6.62 increased 0.3 percent versus the first nine months of 2020. Diluted earnings per share from continuing operations includes impacts related to the amortization of purchased intangibles assets and other acquisition-related charges, retirement-related charges, U.S. tax reform enactment impacts and Kyndryl separation-related charges. The impact of the Kyndryl separation-related charges for the first nine months of 2021 was ($0.76) per share.

In the third quarter, we continued to take actions to further enhance our balance sheet and liquidity position. At September 30, 2021, 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, 2021 were $8.4 billion, a decrease of $5.9 billion from December 31, 2020, primarily due to debt reduction payments and acquisitions. In line with our overall debt pay down strategy, we have reduced total debt by $7.0 billion from December 31, 2020 and $18.5 billion since the second quarter of 2019 (immediately preceding the Red Hat transaction).

Key drivers in the balance sheet and total cash flows were:

Total assets decreased $11.8 billion ($9.2 billion adjusted for currency) from December 31, 2020 driven by:

- A decrease in cash and cash equivalents, restricted cash and marketable securities of $5.9 billion ($5.7 billion adjusted for currency); and
- A decrease in financing receivables of $5.8 billion ($5.3 billion adjusted for currency) primarily as a result of collections of seasonally higher year-end balances and sales of receivables; partially offset by
- An increase in goodwill of $1.8 billion ($2.3 billion adjusted for currency) from new acquisitions.

Total liabilities decreased $13.4 billion ($10.2 billion adjusted for currency) from December 31, 2020 driven by:

- A decrease in total debt of $7.0 billion ($6.1 billion adjusted for currency) primarily driven by debt maturities and early retirements of $7.3 billion;
- A decrease in other accrued expenses and liabilities of $2.3 billion ($1.9 billion adjusted for currency) primarily due to payments of $1.4 billion for workforce rebalancing actions and a decrease of $0.5 billion in derivative liabilities;
- A decrease in retirement and nonpension postretirement benefit obligations of $1.5 billion ($0.8 billion adjusted for currency);
- A decrease in taxes payable of $1.1 billion ($1.0 billion adjusted for currency) primarily driven by tax payments and a decline in reserves as a result of the resolution of certain tax audit matters; and
- A decrease in accounts payable of $0.7 billion ($0.6 billion adjusted for currency) reflecting declines from seasonally higher year-end balances.

Total equity of $22.4 billion increased $1.6 billion from December 31, 2020 as a result of:

- Net income of $3.4 billion; and

- An increase in accumulated other comprehensive income of $2.0 billion primarily due to retirement-related benefit plans and cash flow hedge derivatives; partially offset by

- Dividends paid of $4.4 billion.

We generated $10.3 billion in cash flow provided by operating activities, a decrease of $2.1 billion compared to the first nine months of 2020. Cash flows from operating activities includes approximately $1.7 billion of cash impacts from our structural actions initiated in the fourth quarter of 2020 and Kyndryl separation-related charges. In the first nine months of 2021, investing activities were a net use of cash of $5.3 billion compared to $2.5 billion in the prior-year period. The $2.8 billion increase year to year was driven primarily by an increase in net cash used for acquisitions ($3.0 billion) and a decrease in cash provided by divestitures ($0.5 billion), partially offset by a decrease in cash used for capital expenditures ($0.4 billion). Financing activities were a net use of cash of $10.7 billion in the first nine months of 2021 compared to $3.4 billion in the prior-year period. The $7.2 billion increase year to year was primarily driven by a decrease in net cash provided by debt transactions consistent with our overall debt pay down strategy.

Third Quarter and First Nine Months in Review

Results of Continuing Operations

Segment Details

The following is an analysis of the third quarter and first nine months of 2021 versus the third quarter and first nine months of 2020 reportable segment external revenue and gross margin results. Segment pre-tax income includes transactions between segments that are intended to reflect an arm's-length transfer price and excludes certain unallocated corporate items.

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent/Margin Change	Yr. to Yr. Percent Change Adjusted For Currency
Revenue:				
Cloud & Cognitive Software	$ 5,692	$ 5,553	2.5 %	1.9 %
Gross margin	77.0 %	77.1 %	(0.1)pts.	
Global Business Services	4,427	3,965	11.6 %	11.0 %
Gross margin	29.8 %	32.9 %	(3.1)pts.	
Global Technology Services	6,154	6,462	(4.8)%	(5.4)%
Gross margin	36.2 %	35.0 %	1.2 pts.	
Systems	1,107	1,257	(11.9)%	(12.4)%
Gross margin	41.3 %	51.2 %	(9.9)pts.	
Global Financing	220	273	(19.2)%	(19.8)%
Gross margin	25.6 %	37.5 %	(11.9)pts.	
Other	18	50	(64.9)%	(64.9)%
Gross margin	nm	(336.2)%	nm	
Total consolidated revenue	$ 17,618	$ 17,560	0.3 %*	(0.3)%
Total consolidated gross profit	$ 8,171	$ 8,430	(3.1)%	
Total consolidated gross margin	46.4 %	48.0 %	(1.6)pts.	
Non-operating adjustments:				
Amortization of acquired intangible assets	184	180	2.2 %	
Acquisition-related charges	—	—	nm	
Separation-related charges	108	—	nm	
Operating (non-GAAP) gross profit	$ 8,463	$ 8,610	(1.7)%	
Operating (non-GAAP) gross margin	48.0 %	49.0 %	(1.0)pts.	

* (0.2) percent excluding divested businesses and adjusted for currency.
nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent/Margin Change	Yr. to Yr. Percent Change Adjusted For Currency
Revenue:				
Cloud & Cognitive Software	$ 17,227	$ 16,540	4.2 %	1.7 %
Gross margin	77.1 %	76.6 %	0.5 pts.	
Global Business Services	13,002	11,992	8.4 %	5.5 %
Gross margin	28.6 %	29.5 %	(0.9)pts.	
Global Technology Services	18,866	19,245	(2.0)%	(4.9)%
Gross margin	35.3 %	34.4 %	1.0 pts.	
Systems	4,251	4,477	(5.1)%	(7.0)%
Gross margin	51.3 %	53.7 %	(2.3)pts.	
Global Financing	702	837	(16.2)%	(18.0)%
Gross margin	28.4 %	39.0 %	(10.6)pts.	
Other	45	163	(72.1)%	(72.3)%
Gross margin	nm	(305.4)%	nm	
Total consolidated revenue	$ 54,093	$ 53,253	1.6 %*	(1.1)%
Total consolidated gross profit	$ 25,379	$ 25,052	1.3 %	
Total consolidated gross margin	46.9 %	47.0 %	(0.1)pts.	
Non-operating adjustments:				
Amortization of acquired intangible assets	540	556	(2.9)%	
Acquisition-related charges	—	—	nm	
Separation-related charges	168	—	nm	
Operating (non-GAAP) gross profit	$ 26,087	$ 25,608	1.9 %	
Operating (non-GAAP) gross margin	48.2 %	48.1 %	0.1 pts.	

* (1.0) percent excluding divested businesses and adjusted for currency.
nm - not meaningful

Cloud & Cognitive Software

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Cloud & Cognitive Software external revenue:	$ 5,692	$ 5,553	2.5 %	1.9 %
Cloud & Data Platforms	$ 3,046	$ 2,775	9.8 %	9.2 %
Cognitive Applications	1,314	1,317	(0.2)	(1.0)
Transaction Processing Platforms	1,332	1,461	(8.8)	(9.5)

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Cloud & Cognitive Software external revenue:	$ 17,227	$ 16,540	4.2 %	1.7 %
Cloud & Data Platforms	$ 9,032	$ 8,108	11.4 %	8.9 %
Cognitive Applications	3,938	3,745	5.1	2.8
Transaction Processing Platforms	4,257	4,687	(9.2)	(11.6)

Cloud & Cognitive Software revenue of $5,692 million increased 2.5 percent as reported and 2 percent adjusted for currency in the third quarter of 2021 compared to the prior-year period, led by Red Hat, security, automation and Cloud Paks across our software. We had strong growth in Cloud & Data Platforms, partially offset by declines in Transaction

Processing Platforms and Cognitive Applications was flat. We have a strong recurring revenue base in software and our renewal rates for subscription and support increased again this quarter. For the first nine months of 2021, Cloud & Cognitive Software revenue of $17,227 million increased 4.2 percent as reported and 2 percent adjusted for currency driven by growth in Cloud & Data Platforms and Cognitive Applications, partially offset by a decrease in Transaction Processing Platforms.

In the third quarter, Cloud & Data Platforms revenue of $3,046 million increased 9.8 percent as reported and 9 percent adjusted for currency compared to the prior-year period, led by continued growth in Red Hat driven by double-digit growth in both Infrastructure and Application Development and emerging technologies. We also had over 40 percent growth in OpenShift recurring revenue as well as growth in automation led by key solutions such as Cloud Pak for Integration and Cloud Pak for Business Automation, and a strong start to our recent Instana and Turbonomic acquisitions. Our Data and AI revenue was down modestly, driven by declines in the on-premises DataOps portfolio and supply chain as compared to a strong third quarter in the prior year.

Cognitive Applications third-quarter revenue of $1,314 million was flat as reported and decreased 1 percent adjusted for currency compared to the prior-year period. We had continued growth in Security revenue in the third quarter, led by threat management software and services as clients respond to the evolving cybersecurity environment. Security remains a key strategic focus area as we help clients adopt a Zero Trust architecture with Cloud Pak for Security and XForce services.

Transaction Processing Platforms revenue of $1,332 million decreased 8.8 percent as reported and 9 percent adjusted for currency in the third quarter compared to the prior-year period. We provide flexibility to our clients in how they purchase this mission-critical software. In the quarter, clients continued their preference for operating expenses over capital expenditures, which continued to put pressure on perpetual licenses, in favor of more consumption-like models. However, our continued strong software renewals in the quarter reflect that clients recognize the long-term value in our offerings.

Within Cloud & Cognitive Software, cloud revenue of $2.1 billion grew 21 percent as reported (20 percent adjusted for currency) in the third quarter of 2021 compared to the prior-year period. For the first nine months of 2021, cloud revenue of $6.1 billion grew 28 percent as reported (26 percent adjusted for currency) compared to the first nine months of the prior year. Over the last 12 months, Software cloud revenue of $8.3 billion grew 31 percent as reported and 28 percent adjusted for currency.

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Cloud & Cognitive Software:			
External gross profit	$ 4,385	$ 4,281	2.4 %
External gross profit margin	77.0 %	77.1 %	(0.1)pts.
Pre-tax income	$ 1,675	$ 1,834	(8.7)%
Pre-tax margin	25.9 %	28.5 %	(2.6)pts.

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Cloud & Cognitive Software:			
External gross profit	$ 13,278	$ 12,665	4.8 %
External gross profit margin	77.1 %	76.6 %	0.5 pts.
Pre-tax income	$ 4,822	$ 4,475	7.8 %
Pre-tax margin	24.7 %	23.6 %	1.1 pts.

Cloud & Cognitive Software gross profit margin decreased 0.1 points to 77.0 percent in the third quarter of 2021 compared to the prior-year period. We had margin decline in services which was partially offset by margin expansion in software. For the first nine months of 2021, gross profit margin increased 0.5 points to 77.1 percent, with margin expansion in software and services.

In the third quarter, pre-tax income of $1,675 million decreased 8.7 percent and pre-tax margin decreased 2.6 points to 25.9 percent compared to the prior year. We expanded our pre-tax margin sequentially compared to the second-quarter 2021, while we continued to invest in new innovation and our ecosystem. For the first nine months of 2021, pre-tax income of $4,822 million increased 7.8 percent and pre-tax margin of 24.7 percent increased 1.1 points compared to the prior year, primarily driven by the gross margin expansion and lower workforce rebalancing charges in the current year.

Global Business Services

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Global Business Services external revenue:	$ 4,427	$ 3,965	11.6 %	11.0 %
Consulting	$ 2,292	$ 1,966	16.6 %	15.8 %
Application Management	1,847	1,758	5.1	4.5
Global Process Services	287	240	19.5	19.3

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Global Business Services external revenue:	$ 13,002	$ 11,992	8.4 %	5.5 %
Consulting	$ 6,717	$ 5,973	12.5 %	9.5 %
Application Management	5,439	5,332	2.0	(0.9)
Global Process Services	846	687	23.1	20.9

Global Business Services revenue of $4,427 million grew 11.6 percent as reported and 11 percent adjusted for currency in the third quarter of 2021 compared to the prior-year period. We had growth across all three business areas and our Consulting business accelerated revenue growth to a double-digit rate. We are helping our clients capture new growth opportunities and increase operational flexibility and productivity with hybrid cloud and AI. Our Red Hat practice continued to drive client adoption of our hybrid cloud platform, with more than 180 new Red Hat engagements in the third quarter. In addition, our teams work alongside our clients to co-create business products and solutions, and, as of September 30, 2021, we have done more than 4,000 IBM Garage engagements. For the first nine months of 2021, GBS revenue of $13,002 million increased 8.4 percent as reported and 6 percent adjusted for currency reflecting strong year-to-year growth in Consulting and Global Process Services (GPS). We continue to expand the opportunities to connect Consulting and Business Process Outsourcing within GPS to transform client workflows using hybrid cloud and AI.

In the third-quarter 2021, Consulting revenue of $2,292 million grew 16.6 percent as reported and 16 percent adjusted for currency. We are leveraging our skills and ecosystem partners to transform business processes and modernize applications based on OpenShift.

Application Management revenue of $1,847 million increased 5.1 percent as reported and 5 percent adjusted for currency in the third quarter of 2021 reflecting the impacts of the pandemic in the prior-year period. Our growth this quarter was driven by management of applications in a multi-cloud environment.

GPS third-quarter revenue of $287 million grew 19.5 percent as reported and 19 percent adjusted for currency compared to the prior-year period. Our offerings in finance, procurement, and talent and transformation grew at double-digit rates.

Within GBS, cloud revenue of $2.0 billion grew 38 percent as reported (37 percent adjusted for currency) in the third quarter of 2021 compared to the prior-year period. For the first nine months of 2021, cloud revenue of $5.6 billion grew 35 percent as reported (32 percent adjusted for currency) compared to the same period in 2020. Over the last 12 months, GBS cloud revenue of $7.3 billion grew 30 percent as reported and 27 percent adjusted for currency.

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Global Business Services:			
External gross profit	$ 1,321	$ 1,306	1.1 %
External gross profit margin	29.8 %	32.9 %	(3.1)pts.
Pre-tax income	$ 587	$ 570	3.0 %
Pre-tax margin	13.1 %	14.2 %	(1.1)pts.

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Global Business Services:			
External gross profit	$ 3,724	$ 3,538	5.3 %
External gross profit margin	28.6 %	29.5 %	(0.9)pts.
Pre-tax income	$ 1,349	$ 1,203	12.1 %
Pre-tax margin	10.2 %	9.9 %	0.3 pts.

GBS third-quarter gross profit margin of 29.8 percent decreased 3.1 points on a year-to-year basis, but improved sequentially compared to the second-quarter 2021. Our gross margin performance reflects our investment in strategic partnerships, new offerings and practices, and integrating and scaling our acquisitions. We are investing to increase our go-to-market resources as well as to scale our practices built around our ecosystem partners and Red Hat.

Pre-tax income of $587 million increased 3.0 percent and pre-tax margin of 13.1 percent decreased 1.1 points in the third quarter of 2021 compared to the prior-year period. The pre-tax income and margin performance reflects our solid growth in revenue and increased gross profit dollars, offset by higher level of investments described above. For the first nine months of 2021, pre-tax income of $1,349 million increased 12.1 percent and pre-tax margin of 10.2 percent increased 0.3 points compared to the prior-year period, driven primarily by revenue growth, lower costs due to prior workforce rebalancing actions and lower workforce rebalancing charges year to year.

Global Technology Services

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Global Technology Services external revenue:	$ 6,154	$ 6,462	(4.8)%	(5.4)%
Infrastructure & Cloud Services	$ 4,681	$ 4,933	(5.1)%	(5.6)%
Technology Support Services	1,473	1,528	(3.7)	(4.6)

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Global Technology Services external revenue:	$ 18,866	$ 19,245	(2.0)%	(4.9)%
Infrastructure & Cloud Services	$ 14,370	$ 14,663	(2.0)%	(5.1)%
Technology Support Services	4,496	4,582	(1.9)	(4.5)

Global Technology Services revenue of $6,154 million decreased 4.8 percent as reported and 5 percent adjusted for currency in the third quarter of 2021 compared to the prior-year period. For the first nine months of 2021, GTS revenue of $18,866 million decreased 2.0 percent as reported and 5 percent adjusted for currency as compared to the prior-year period.

In the third-quarter 2021, Infrastructure & Cloud Services revenue of $4,681 million decreased 5.1 percent as reported and 6 percent adjusted for currency compared to the prior-year period. In the first half of 2021, we had modest improvements in client-based business volumes and project activity which contributed to in-period revenue. However, this quarter, clients paused on new project activity in advance of the separation of Kyndryl in the fourth-quarter 2021.

Technology Support Services (TSS) third-quarter revenue of $1,473 million decreased 3.7 percent as reported and 5 percent adjusted for currency in the third-quarter 2021 compared to the prior-year period, reflecting the Systems hardware product cycles.

Within GTS, cloud revenue of $2.4 billion increased 1 percent as reported and was flat adjusted for currency in the third quarter of 2021 compared to the same period in the prior year. For the first nine months of 2021, cloud revenue of $7.1 billion grew 2 percent as reported, but declined 1 percent adjusted for currency compared to the first nine months of 2020. Over the last 12 months, GTS cloud revenue of $9.6 billion grew 2 percent as reported, but declined 1 percent adjusted for currency.

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Global Technology Services:			
External gross profit	$ 2,230	$ 2,264	(1.5)%
External gross profit margin	36.2 %	35.0 %	1.2 pts.
Pre-tax income	$ 383	$ 399	(4.1)%
Pre-tax margin	5.9 %	5.9 %	0.0 pts.

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Global Technology Services:			
External gross profit	$ 6,667	$ 6,618	0.7 %
External gross profit margin	35.3 %	34.4 %	1.0 pts.
Pre-tax income	$ 903	$ 471	91.9 %
Pre-tax margin	4.6 %	2.3 %	2.2 pts.

Global Technology Services gross profit margin increased 1.2 points to 36.2 percent in the third quarter of 2021 as compared to the prior-year period, driven primarily by margin improvement in Infrastructure & Cloud Services which reflects the benefits from the structural actions taken in 2020 to improve the margin and profit profile of the business in advance of the Kyndryl separation in the fourth-quarter 2021.

Pre-tax income of $383 million decreased 4.1 percent and pre-tax margin of 5.9 percent was flat in the third quarter of 2021 compared to the same period in 2020, driven primarily by the gross profit margin expansion. For the first nine months of 2021, pre-tax income of $903 million increased 91.9 percent and pre-tax margin of 4.6 percent increased 2.2 points compared to the prior-year period, driven primarily by gross profit margin expansion and lower workforce rebalancing charges in the current year.

Services Backlog and Signings

(Dollars in billions)	At September 30, 2021	At September 30, 2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total backlog	$ 99.8	$ 108.0	(7.5)%	(7.1)%

The estimated total services backlog at September 30, 2021 was $99.8 billion, a decrease of 7.5 percent as reported (7 percent adjusted for currency) on a year-to-year basis. The year-to-year decline was driven primarily by GTS as clients paused on new project activity in advance of the Kyndryl separation. GBS backlog grew year to year driven by Consulting, Security and GPS.

Total services backlog includes Infrastructure & Cloud Services, Security Services, Consulting, Global Process Services, Application Management and TSS. Total backlog is intended to be a statement of overall work under contract which is either non-cancellable, or which historically has very low likelihood of termination, given the criticality of certain services to the company's clients. Total backlog does not include as-a-Service arrangements that allow for termination under contractual commitment terms. Backlog estimates are subject to change and are affected by several factors, including terminations, changes in the scope of contracts, periodic revalidations, adjustments for revenue not materialized and adjustments for currency.

Services signings are management's initial estimate of the value of a client's commitment under a services contract. 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.

Signings include Infrastructure & Cloud Services, Security Services, Consulting, Global Process Services and Application Management contracts. Contract extensions and increases in scope are treated as signings only to the extent of the incremental new value. Total services 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, such as in Infrastructure & Cloud Services or Global Process Services. TSS is generally not included in signings as the maintenance contracts tend to be more steady state, where revenues equal renewals. Certain longer-term TSS contracts that have characteristics similar to outsourcing contracts are included in signings.

Contract portfolios purchased in an acquisition are treated as positive backlog adjustments provided those contracts meet the company's requirements for initial signings. A new signing will be recognized if a new services agreement is signed incidental or coincidental to an acquisition or divestiture.

Management believes that the estimated values of services backlog and signings disclosed herein provide insight into our potential future revenue, which is used by management as a tool to monitor the performance of the business and viewed as useful decision-making information for investors. The conversion of signings and backlog into revenue may vary based on the types of services and solutions, customer decisions, and as well as other factors, which may include, but are not limited to, macroeconomic environment or external events.

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total signings	$ 8,419	$ 9,529	(11.7)%	(11.7)%

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total signings	$ 24,330	$ 26,663	(8.8)%	(10.8)%

In the third quarter, the GTS renewal rate with existing clients improved 5 points year to year, however, clients paused signing new project activity in advance of the Kyndryl separation. GBS signings grew compared to the prior-year period, with strength in our practices with ecosystem partners and in application modernization offerings built on Red Hat.

Systems

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Systems external revenue:	$ 1,107	$ 1,257	(11.9)%	(12.4)%
Systems Hardware	$ 796	$ 919	(13.4)%	(13.9)%
IBM Z			(33.0)	(33.5)
Power Systems			(24.4)	(24.8)
Storage Systems			11.4	10.9
Operating Systems Software	312	338	(7.8)	(8.4)

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Systems external revenue:	$ 4,251	$ 4,477	(5.1)%	(7.0)%
Systems Hardware	$ 3,294	$ 3,404	(3.2)%	(5.2)%
IBM Z			0.6	(1.4)
Power Systems			(11.4)	(13.3)
Storage Systems			(3.2)	(5.3)
Operating Systems Software	957	1,074	(10.8)	(12.8)

Systems revenue of $1,107 million decreased 11.9 percent as reported and 12 percent adjusted for currency in the third quarter of 2021 compared to the prior-year period. Systems Hardware revenue of $796 million declined 13.4 percent as reported and 14 percent adjusted for currency, driven by product cycles in IBM Z and Power Systems, partially offset by growth in Storage Systems. Operating Systems Software revenue of $312 million decreased 7.8 percent as reported and 8 percent adjusted for currency, driven primarily by declines in IBM Z and Power Systems operating systems software. For the first nine months of 2021, Systems revenue of $4,251 million decreased 5.1 percent as reported and 7 percent adjusted for currency compared to the prior-year period. The decline was primarily driven by Power Systems and Storage Systems and a decline in Operating Systems Software.

IBM Z revenue decreased 33.0 percent as reported and 33 percent adjusted for currency in the third quarter compared to the prior-year period. While the z15 program continues to outpace the strong z14 program, the magnitude

of that overachievement declined slightly in the third quarter as we near the end of the cycle. This is the ninth quarter of z15 availability, and IBM Z continues to be an enduring platform given market needs for scalability, reliability, security and, more recently, cloud native development. These characteristics, together with our newer, flexible consumption offerings, further demonstrate the value of the IBM Z platform within our hybrid cloud and AI strategy.

Power Systems revenue decreased 24.4 percent as reported and 25 percent adjusted for currency in the third quarter of 2021 compared to the prior-year period. Late in the quarter, we started the rollout of our next generation Power 10, starting with the high-end system which has unique hardware innovations including a processor specifically optimized for data intensive workloads such as SAP S/4 HANA. The mid-range and low-end Power 10 systems will be available during 2022.

Storage Systems revenue increased 11.4 percent as reported and 11 percent adjusted for currency in the third-quarter 2021 compared to the prior-year period driven by demand from hyperscalers for our tape products and growth in entry-level all-flash storage following our product refresh earlier this year.

Within Systems, cloud revenue of $0.3 billion decreased 42 percent as reported (43 percent adjusted for currency) in the third quarter of 2021 compared to the same quarter in 2020. For the first nine months of 2021, cloud revenue of $1.5 billion decreased 13 percent as reported (15 percent adjusted for currency) compared to the same prior-year period. Over the last 12 months, Systems cloud revenue of $2.6 billion declined 15 percent as reported and 17 percent adjusted for currency due to product cycle dynamics.

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Systems:			
External Systems Hardware gross profit	$ 211	$ 371	(43.0)%
External Systems Hardware gross profit margin	26.6 %	40.4 %	(13.8)pts.
External Operating Systems Software gross profit	$ 246	$ 273	(9.9)%
External Operating Systems Software gross profit margin	79.0 %	80.9 %	(1.8)pts.
External total gross profit	$ 458	$ 644	(29.0)%
External total gross profit margin	41.3 %	51.2 %	(9.9)pts.
Pre-tax income/(loss)	$ (207)	$ (37)	nm
Pre-tax margin	(16.1)%	(2.5)%	(13.6)pts.

nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
Systems:			
External Systems Hardware gross profit	$ 1,419	$ 1,522	(6.8)%
External Systems Hardware gross profit margin	43.1 %	44.7 %	(1.7)pts.
External Operating Systems Software gross profit	$ 763	$ 880	(13.3)%
External Operating Systems Software gross profit margin	79.7 %	82.0 %	(2.3)pts.
External total gross profit	$ 2,182	$ 2,402	(9.2)%
External total gross profit margin	51.3 %	53.7 %	(2.3)pts.
Pre-tax income/(loss)	$ (33)	$ (7)	nm
Pre-tax margin	(0.7)%	(0.1)%	(0.5)pts.

nm - not meaningful

Systems gross profit margin decreased 9.9 points to 41.3 percent in the third-quarter 2021 compared to the prior-year period, driven primarily by declines in Power Systems and Storage Systems margins and a revenue mix to Storage

Systems. For the first nine months of 2021, Systems gross profit margin decreased 2.3 points to 51.3 percent compared to the same period in 2020, driven primarily by a decline in Storage Systems margin, partially offset by margin expansion in IBM Z.

In the third quarter of 2021, Systems pre-tax loss increased $170 million to ($207) million and pre-tax margin decreased 13.6 points to (16.1) percent compared to the prior-year period, driven primarily by the IBM Z and Power Systems product cycles, partially offset by lower costs in the current year as a result of prior workforce rebalancing actions. For the first nine months of 2021, Systems pre-tax loss increased $26 million to ($33) million and pre-tax margin decreased 0.5 points to (0.7) percent compared to the prior-year period, driven primarily by the decline in Storage Systems gross profit margin and product cycle dynamics, partially offset by lower costs due to prior workforce rebalancing actions and lower workforce rebalancing charges in the current year.

Global Financing

See pages 88 through 91 for a discussion of Global 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:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency	Yr. to Yr. Percent Change Excluding Divested Businesses And Adjusted For Currency
Total Revenue	$ 17,618	$ 17,560	0.3 %	(0.3)%	(0.2)%
Americas	$ 8,217	$ 8,139	1.0 %	0.4 %	0.4 %
Europe/Middle East/Africa (EMEA)	5,593	5,564	0.5	(1.3)	(1.2)
Asia Pacific	3,808	3,857	(1.3)	(0.2)	(0.2)

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency	Yr. to Yr. Percent Change Excluding Divested Businesses And Adjusted For Currency
Total Revenue	$ 54,093	$ 53,253	1.6 %	(1.1)%	(1.0)%
Americas	$ 25,216	$ 24,755	1.9 %	1.2 %	1.3 %
Europe/Middle East/Africa (EMEA)	17,272	16,775	3.0	(3.3)	(3.2)
Asia Pacific	11,605	11,723	(1.0)	(2.8)	(2.8)

Total revenue of $17,618 million increased 0.3 percent as reported and was down modestly excluding divested businesses and adjusted for currency in the third quarter of 2021 compared to the prior-year period.

Americas revenue of $8,217 million increased 1.0 percent as reported and was flat adjusted for currency. Within Americas, the U.S. was flat compared to the prior year. Canada increased 9.6 percent as reported and 4 percent adjusted for currency. Latin America increased 1.2 percent as reported and 1 percent adjusted for currency, with Brazil revenue increasing 5.3 percent as reported and 3 percent adjusted for currency.

In EMEA, total revenue of $5,593 million increased 0.5 percent as reported, but decreased 1 percent adjusted for currency. Within EMEA, Germany grew 4.0 percent as reported and 3 percent adjusted for currency while the UK grew 4.4 percent as reported, but declined 2 percent adjusted for currency. Italy and France decreased 6.7 percent and 0.5 percent, respectively, as reported and 7 percent and 1 percent, respectively, adjusted for currency.

Asia Pacific revenue of $3,808 million decreased 1.3 percent as reported and was flat adjusted for currency. Within Asia Pacific, Japan decreased 5.0 percent as reported and 1 percent adjusted for currency. China and Australia increased 2.8 percent and 0.8 percent, respectively, as reported, but each declined 2 percent adjusted for currency. India grew 8.1 percent as reported and 8 percent adjusted for currency.

For the first nine months of 2021, total revenue of $54,093 million increased 1.6 percent as reported, but declined 1 percent excluding divested businesses and adjusted for currency compared to the prior-year period.

Americas revenue of $25,216 million increased 1.9 percent as reported and 1 percent adjusted for currency. Within Americas, the U.S. increased 0.8 percent compared to the prior year. Canada increased 16.9 percent as reported and 8 percent adjusted for currency. Latin America decreased 3.5 percent as reported and 1 percent adjusted for currency, with Brazil revenue declining 3.5 percent as reported and flat adjusted for currency.

In EMEA, total revenue of $17,272 million increased 3.0 percent as reported, but declined 3 percent adjusted for currency. Within EMEA, the UK increased 8.3 percent as reported and was flat adjusted for currency. France, Germany and Italy increased 4.6 percent, 3.8 percent and 2.2 percent, respectively, as reported, but declined 2 percent, 2 percent and 4 percent, respectively, adjusted for currency.

Asia Pacific revenue of $11,605 million decreased 1.0 percent as reported and 3 percent adjusted for currency. Within Asia Pacific, Japan decreased 2.6 percent as reported and 2 percent adjusted for currency. China decreased 3.9 percent as reported and 9 percent adjusted for currency and India decreased 3.2 percent as reported and 4 percent adjusted for currency. Australia grew 3.2 percent as reported, but declined 8 percent adjusted for currency.

Expense

Total Expense and Other (Income)

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Total consolidated expense and other (income)	$ 6,852	$ 6,603	3.8 %
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (290)	$ (279)	4.1 %
Acquisition-related charges	(4)	(1)	154.7
Non-operating retirement-related (costs)/income	(328)	(291)	12.9
Separation-related charges	(169)	—	nm
Operating (non-GAAP) expense and other (income)	$ 6,061	$ 6,032	0.5 %
Total consolidated expense-to-revenue ratio	38.9 %	37.6 %	1.3 pts.
Operating (non-GAAP) expense-to-revenue ratio	34.4 %	34.4 %	0.0 pts.

nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Total consolidated expense and other (income)	$ 21,603	$ 21,704	(0.5)%
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (849)	$ (848)	0.1 %
Acquisition-related charges	(37)	(3)	nm
Non-operating retirement-related (costs)/income	(998)	(829)	20.5
Separation-related charges	(344)	—	nm
Operating (non-GAAP) expense and other (income)	$ 19,374	$ 20,024	(3.2)%
Total consolidated expense-to-revenue ratio	39.9 %	40.8 %	(0.8)pts.
Operating (non-GAAP) expense-to-revenue ratio	35.8 %	37.6 %	(1.8)pts.

nm - not meaningful

Total expense and other (income) increased 3.8 percent in the third quarter of 2021 versus the prior year period. Our expense dynamics reflect a higher level of investment in innovation, skills and our ecosystem, both organically and through acquisitions, as we execute our hybrid cloud and AI strategy. We are aggressively hiring, scaling our garage footprint, increasing our research spend in areas including quantum, hybrid cloud and AI, and expanding our ecosystem. The year-to-year increase in expense was also driven by separation-related charges in the current-year period and includes higher expense from acquired businesses. Total operating (non-GAAP) expense and other (income) increased 0.5 percent year to year, driven primarily by the factors described above excluding the separation-related charges.

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:	2021	2020	Yr. to Yr. Percent Change
Selling, general and administrative expense:			
Selling, general and administrative — other	$ 4,087	$ 3,864	5.8 %
Advertising and promotional expense	349	361	(3.3)
Workforce rebalancing charges	0	18	nm
Amortization of acquired intangible assets	289	278	4.1
Stock-based compensation	156	129	20.6
Provision for/(benefit from) expected credit loss expense	(21)	(4)	nm
Total consolidated selling, general and administrative expense	$ 4,860	$ 4,647	4.6 %
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (289)	$ (278)	4.1 %
Acquisition-related charges	(4)	(1)	154.7
Separation-related charges	(169)	—	nm
Operating (non-GAAP) selling, general and administrative expense	$ 4,398	$ 4,367	0.7 %

nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Selling, general and administrative expense:			
Selling, general and administrative — other	$ 12,844	$ 12,444	3.2 %
Advertising and promotional expense	1,099	1,152	(4.6)
Workforce rebalancing charges	241	883	(72.7)
Amortization of acquired intangible assets	847	846	0.1
Stock-based compensation	431	401	7.5
Provision for/(benefit from) expected credit loss expense	(94)	122	nm
Total consolidated selling, general and administrative expense	$ 15,368	$ 15,849	(3.0)%
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (847)	$ (846)	0.1 %
Acquisition-related charges	(37)	(3)	nm
Separation-related charges	(343)	—	nm
Operating (non-GAAP) selling, general and administrative expense	$ 14,141	$ 15,000	(5.7)%

nm - not meaningful

Total selling, general and administrative (SG&A) expense increased 4.6 percent in the third quarter of 2021 versus the prior year reflecting the higher level of investments we are making, both organically and through acquisitions, to execute our hybrid cloud and AI strategy. The year-to-year increase was primarily driven by:

- Kyndryl separation-related charges in the current-year period (4 points); and
- Higher spending (1point) including expenses of acquired businesses.

Operating (non-GAAP) expense increased 0.7 percent year to year and excluded the separation-related charges.

SG&A expense decreased 3.0 percent in the first nine months of 2021 versus the prior year driven primarily by the following factors:

- Lower workforce rebalancing charges (4 points);
- A benefit from expected credit loss expense compared to a provision in the prior-year period (1 point); partially offset by
- Kyndryl separation-related charges in the current-year period (2 points); and
- The effects of currency (1 point).

Operating (non-GAAP) expense decreased 5.7 percent year to year, primarily driven by the same factors excluding the separation-related charges.

Provisions for expected credit loss expense decreased $216 million in the first nine months of 2021 compared to the prior-year period, primarily driven by decreases in both specific and general reserves in the current year compared to increases in the prior-year period. In the prior year, the global pandemic resulted in some deterioration in customer credit quality and/or bankruptcies which had an impact to provisions in the first half of 2020. We have started to see improvement in credit quality and some emergence from bankruptcies in the current year as economies have begun to reopen in many parts of the world. The receivables provision coverage was 2.5 percent at September 30, 2021, an increase of 10 basis points from December 31, 2020, due to the decline in total receivables balance, and a decrease of 10 basis points from September 30, 2020.

Research, Development and Engineering

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Research, development and engineering expense	$ 1,621	$ 1,515	7.0 %
Non-operating adjustment:			
Separation-related charges	$ (1)	$ —	nm
Operating (non-GAAP) research, development and engineering expense	$ 1,620	$ 1,515	6.9 %

nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Research, development and engineering expense	$ 4,907	$ 4,722	3.9 %
Non-operating adjustment:			
Separation-related charges	$ (1)	$ —	nm
Operating (non-GAAP) research, development and engineering expense	$ 4,906	$ 4,722	3.9 %

nm - not meaningful

Research, development and engineering (RD&E) expense was 9.2 percent and 9.1 percent of revenue in the third quarter and first nine months of 2021, respectively, compared to 8.6 percent and 8.9 percent in the prior-year periods, respectively, reflecting our continuing investment in innovation as we increase spending in areas including quantum, hybrid cloud and AI.

RD&E expense in the third quarter of 2021 increased 7.0 percent year to year, primarily driven by higher spending (6 points) and the effects of currency (1 point).

RD&E expense in the first nine months of 2021 increased 3.9 percent year to year, primarily driven by higher spending (2 points) and the effects of currency (2 points).

Intellectual Property and Custom Development Income

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Intellectual Property and Custom Development Income:			
Licensing of intellectual property including royalty-based fees	$ 69	$ 60	14.7 %
Custom development income	74	62	18.9
Sales/other transfers of intellectual property	10	11	(10.9)
Total	$ 153	$ 134	14.5 %

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Intellectual Property and Custom Development Income:			
Licensing of intellectual property including royalty-based fees	$ 205	$ 222	(7.7)%
Custom development income	210	212	(0.8)
Sales/other transfers of intellectual property	20	19	5.0
Total	$ 435	$ 453	(3.9)%

Total intellectual property and custom development income increased 14.5 percent year to year in the third quarter, but decreased 3.9 percent in the first nine months of 2021 compared to the prior-year period. 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:	2021	2020	Yr. to Yr. Percent Change
Other (income) and expense:			
Foreign currency transaction losses/(gains)	$ (21)	$ 109	nm
(Gains)/losses on derivative instruments	7	(101)	nm
Interest income	(14)	(15)	(10.6)%
Net (gains)/losses from securities and investment assets	3	(6)	nm
Retirement-related costs/(income)	328	291	12.9
Other	(69)	(25)	179.3
Total consolidated other (income) and expense	$ 234	$ 253	(7.3)%
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (1)	$ (1)	—
Non-operating retirement-related (costs)/income	(328)	(291)	12.9 %
Operating (non-GAAP) other (income) and expense	$ (94)	$ (39)	144.2 %

nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Other (income) and expense:			
Foreign currency transaction losses/(gains)	$ (145)	$ 45	nm
(Gains)/losses on derivative instruments	246	(92)	nm
Interest income	(39)	(90)	(56.8)%
Net (gains)/losses from securities and investment assets	(3)	(11)	(74.9)
Retirement-related costs/(income)	998	829	20.5
Other	(148)	(67)	120.9
Total consolidated other (income) and expense	$ 911	$ 614	48.4 %
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (2)	$ (2)	—
Non-operating retirement-related (costs)/income	(998)	(829)	20.5 %
Operating (non-GAAP) other (income) and expense	$ (90)	$ (217)	(58.6)%

nm - not meaningful

Total consolidated other (income) and expense was $234 million of expense in the third quarter of 2021 compared to $253 million in the prior-year period. The year-to-year decrease was primarily driven by:

- Net exchange gains (including derivative instruments) in the current year versus net exchange losses (including derivative instruments) in the prior year ($22 million); and
- Gains on land/building dispositions and divestitures ($44 million) included in “Other”; partially offset by

- Higher non-operating retirement-related costs ($37 million). Refer to "Retirement-Related Plans" for additional information.

Operating (non-GAAP) other (income) and expense was $94 million of income in the third quarter of 2021 and increased $56 million compared to the prior-year period. The year-to-year change was driven primarily by the factors described above, excluding the higher non-operating retirement-related costs.

Total consolidated other (income) and expense was $911 million of expense in the first nine months of 2021 compared to $614 million in the prior year. The year-to-year increase was primarily driven by:

- Higher non-operating retirement-related costs ($170 million). Refer to "Retirement-Related Plans" for additional information;

- Net exchange losses (including derivative instruments) in the current year versus net exchange gains (including derivative instruments) in the prior year ($149 million); and

- Lower interest income ($51 million) primarily due to lower interest rates in the current-year period.

Operating (non-GAAP) other (income) and expense was $90 million of income in the first nine months of 2021 and decreased $127 million compared to the prior-year period. The year-to-year change was driven primarily by the effects of currency and lower interest income described above.

Interest Expense

(Dollars in millions) For the three months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Interest expense	$ 291	$ 323	(10.0)%

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Interest expense	$ 852	$ 971	(12.3)%

Interest expense decreased $32 million and $119 million year to year in the third quarter and first nine months of 2021, respectively. Interest expense is presented in cost of financing in the Consolidated Income Statement if the related external borrowings are to support the Global Financing external business. Overall interest expense (excluding capitalized interest) for the third quarter and first nine months of 2021 was $392 million and $1,164 million, respectively, a decrease of $40 million and $154 million versus the comparable prior-year periods. The decrease for the third quarter was primarily driven by a lower average debt balance, partially offset by higher average interest rates compared to the prior-year period. The year-to-year decrease for the first nine months of 2021 was primarily driven by a lower average debt balance in the current-year period.

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:	2021	2020	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Service cost	$ 97	$ 103	(5.8)%
Multi-employer plans	3	7	(62.3)
Cost of defined contribution plans	264	259	1.9
Total operating costs	$ 364	$ 369	(1.5)%
Interest cost	$ 411	$ 551	(25.4)%
Expected return on plan assets	(737)	(867)	(14.9)
Recognized actuarial losses	631	579	8.9
Amortization of prior service costs/(credits)	3	0	nm
Curtailments/settlements	13	21	(38.5)
Other costs	7	6	19.7
Total non-operating costs/(income)	$ 328	$ 291	12.9 %
Total retirement-related plans — cost	$ 692	$ 660	4.8 %

nm - not meaningful

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Service cost	$ 290	$ 300	(3.1)%
Multi-employer plans	17	22	(20.5)
Cost of defined contribution plans	800	791	1.1
Total operating costs	$ 1,107	$ 1,112	(0.4)%
Interest cost	$ 1,237	$ 1,637	(24.4)%
Expected return on plan assets	(2,221)	(2,573)	(13.7)
Recognized actuarial losses	1,907	1,701	12.1
Amortization of prior service costs/(credits)	8	1	nm
Curtailments/settlements	46	42	9.9
Other costs	21	20	6.3
Total non-operating costs/(income)	$ 998	$ 829	20.5 %
Total retirement-related plans — cost	$ 2,106	$ 1,941	8.5 %

nm - not meaningful

Total pre-tax retirement-related plan cost increased by $32 million compared to the third quarter of 2020 primarily driven by lower expected return on plan assets ($130 million) and an increase in recognized actuarial losses ($52 million), partially offset by lower interest costs ($140 million). Total cost for the first nine months of 2021 increased $165 million versus the first nine months of 2020, primarily driven by lower expected return on plan assets ($352 million) and an increase in recognized actuarial losses ($206 million), partially offset by lower interest costs ($400 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 2021 were $364 million, a decrease of $6 million compared to the third quarter of 2020. For the first nine months of 2021, operating retirement-related costs were $1,107 million, a decrease of $5 million compared to the prior-year period. Non-operating costs of $328 million in the third quarter of 2021 increased $37 million year to year and for the first nine months of 2021 were $998 million, an increase of $170 million compared to the prior-year period. These non-operating cost increases were driven primarily by the same factors as described above.

Taxes

The continuing operations provision for income taxes for the third quarter of 2021 was $188 million, compared to $128 million in the third quarter of 2020. The increase primarily relates to higher discrete tax benefits in the prior year. The provision for income taxes for the third quarter of 2021 includes discrete tax charges related to the Kyndryl separation, partially offset by tax benefits associated with third quarter events that resulted in the expected utilization of U.S. foreign tax credits. The operating (non-GAAP) provision for income taxes for the third quarter of 2021 was $115 million, compared to $263 million in the third quarter of 2020. The decrease in the operating (non-GAAP) provision for income taxes was primarily due the tax benefits described above.

The continuing operations provision for income taxes for the first nine months of 2021 was $365 million, compared to a benefit from income taxes of $888 million for the first nine months of 2020. The operating (non-GAAP) provision for income taxes for the first nine months of 2021 was $725 million, compared to a benefit from income taxes of $329 million for the first nine months of 2020. The benefit from income taxes for the first nine months of 2020 was primarily related to the tax impacts of an intra-entity sale of certain of the company's intellectual property. The operating (non-GAAP) benefit from income taxes was primarily driven by the same factor.

IBM's full-year tax provision and effective tax rate are impacted by recurring factors including the geographic mix of income before taxes, state and local taxes, the effects of various global income tax strategies and any 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, 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, which had a specific focus on certain cross-border transactions that occurred in 2013 and issued a final Revenue Agent's Report (RAR). The IRS' proposed adjustments relative to these cross-border transactions, if sustained, would result in additional taxable income of approximately $4.5 billion. The company strongly disagrees with the IRS on these specific matters and filed its IRS Appeals protest in the first quarter of 2021. 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 the fourth quarter of 2021. 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 2015. 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 it relates 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, 2021, the company had recorded $735 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 are 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, 2021 is $8,633 million which can be reduced by $917 million associated with timing adjustments, U.S. tax credits, potential transfer pricing adjustments, and state income taxes. The net amount of $7,716 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 months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Earnings per share of common stock from continuing operations:			
Assuming dilution	$ 1.25	$ 1.89	(33.9)%
Basic	$ 1.26	$ 1.90	(33.7)%
Diluted operating (non-GAAP)	$ 2.52	$ 2.58	(2.3)%
Weighted-average shares outstanding: (in millions)			
Assuming dilution	906.0	897.3	1.0 %
Basic	897.1	891.4	0.6 %

For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent Change
Earnings per share of common stock from continuing operations:			
Assuming dilution	$ 3.77	$ 4.72	(20.1)%
Basic	$ 3.81	$ 4.76	(20.0)%
Diluted operating (non-GAAP)	$ 6.62	$ 6.60	0.3 %
Weighted-average shares outstanding: (in millions)			
Assuming dilution	904.0	895.8	0.9 %
Basic	895.3	889.6	0.6 %

Actual shares outstanding at September 30, 2021 were 896.8 million. The weighted-average number of common shares outstanding assuming dilution during the third quarter and first nine months of 2021 were 8.7 million (1.0 percent) and 8.2 million (0.9 percent) shares higher, respectively, than the same periods of 2020.

Financial Position

Dynamics

At September 30, 2021, our balance sheet remained strong with flexibility to support the business. We continue to manage the investment portfolio to meet our capital preservation and liquidity objectives and have continued to take actions to enhance our balance sheet strength and liquidity position.

Cash, restricted cash and marketable securities at September 30, 2021 were $8,406 million, a decrease of $5,868 million from December 31, 2020, primarily due to debt reduction payments and acquisitions. Financing receivables declined $5,772 million to $12,207 million since the end of 2020 primarily resulting from collections of seasonally higher year-end balances and our strategic actions to re-focus our Global Financing portfolio. Total debt of $54,501 million at September 30, 2021 decreased $7,037 million from December 31, 2020, and $18,538 million since the end of the second quarter 2019 (immediately preceding the Red Hat acquisition). We have made good progress in deleveraging while being acquisitive and without sacrificing investments in our business or our solid dividend policy. In the first nine months of 2021, we generated $10,252 million in net cash from operations, compared to $12,337 million in the first nine

months of 2020. Our cash from operations in the first nine months of 2021 includes $1.7 billion of cash impacts from the structural actions we initiated in the fourth quarter of 2020 and Kyndryl separation-related charges. We have consistently generated strong cash flow from operations and continue to have access to additional sources of liquidity through the capital markets and our unused credit facilities.

Our pension plans were well funded at the end of 2020, with worldwide qualified plans funded at 102 percent. Overall pension funded status as of the end of September was fairly consistent with year-end 2020, and we currently have no change to expected plan contributions in 2021.

The assets and debt associated with the Global Financing business are a significant part of our financial position. The financial position amounts appearing on pages 5 and 6 are the consolidated amounts including Global Financing. The amounts appearing in the separate "Global Financing" section, beginning on page 88, are supplementary data presented to facilitate an understanding of the Global Financing business.

IBM Working Capital

(Dollars in millions)	At September 30, 2021	At December 31, 2020
Current assets	$ 29,967	$ 39,165
Current liabilities	35,832	39,869
Working capital	$ (5,865)	$ (705)
Current ratio	0.84:1	0.98:1

Working capital decreased $5,160 million from the year-end 2020 position. The key changes are described below:

Current assets decreased $9,198 million ($8,405 million adjusted for currency) due to:

- A decrease of $5,868 million ($5,666 million adjusted for currency) in cash, restricted cash and marketable securities; and
- A decrease in financing receivables of $3,732 million ($3,485 million adjusted for currency) primarily due to collections of higher year-end balances and sales of financing receivables; partially offset by
- An increase in prepaid expenses and other current assets of $749 million ($820 million adjusted for currency) primarily driven by an increase in derivative assets.

Current liabilities decreased $4,038 million ($2,909 million adjusted for currency) as a result of:

- A decrease in other accrued expenses and liabilities of $2,328 million ($1,893 million adjusted for currency) primarily due to payments of $1,440 million for workforce rebalancing actions and a decrease of $518 million in derivative liabilities;
- A decrease in taxes payable of $1,142 million ($1,023 million adjusted for currency) primarily driven by tax payments and a decline in reserves as a result of the resolution of certain tax audit matters;
- A decrease in accounts payable of $659 million ($565 million adjusted for currency) reflecting declines from seasonally higher year-end balances; and
- A decrease in deferred income of $570 million ($248 million adjusted for currency); partially offset by

- An increase in short-term debt of $392 million ($403 million adjusted for currency) due to reclassifications from long-term debt to reflect upcoming maturities and a net increase in commercial paper; partially offset by maturities.

Receivables and Allowances

Roll Forward of Total IBM Receivables Allowance for Credit Losses

(Dollars in millions) January 1, 2021	Additions / (Releases) *	Write-offs **	Other +	September 30, 2021
$ 644	$ (85)	$ (45)	$ (5)	$ 510

* Additions/(Releases) for Allowance for Credit Losses are recorded in expense.
**Refer to note A, "Significant Accounting Policies," in our 2020 Annual Report for additional information regarding allowance for credit loss write-offs.
\+ Primarily represents translation adjustments.

The total IBM receivables provision coverage was 2.5 percent at September 30, 2021, an increase of 10 basis points compared to December 31, 2020. The increase in coverage and decrease in allowance were primarily driven by the overall decrease in total receivables. In the prior year, the global pandemic resulted in some deterioration in customer credit quality and/or bankruptcies which had an impact to provisions in the first nine months of 2020. We have started to see improvement in credit quality and some emergence from bankruptcies in the current year as economies have begun to reopen in many parts of the world. The majority of the write-offs during the nine months ended September 30, 2021 related to receivables which had been previously reserved.

Global Financing Receivables and Allowances

The following table presents external Global Financing receivables excluding immaterial miscellaneous receivables.

(Dollars in millions)	At September 30, 2021	At December 31, 2020
Amortized cost *	$ 12,426	$ 18,264
Specific allowance for credit losses	167	184
Unallocated allowance for credit losses	40	79
Total allowance for credit losses	207	263
Net financing receivables	$ 12,219	$ 18,001
Allowance for credit losses coverage	1.7 %	1.4 %

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

The percentage of Global Financing receivables reserved increased from 1.4 percent at December 31, 2020, to 1.7 percent at September 30, 2021, primarily driven by the decline in amortized cost.

Roll Forward of Global Financing Receivables Allowance for Credit Losses

(Dollars in millions) January 1, 2021	Additions / (Releases)*	Write-offs **	Other +	September 30, 2021
$ 263	$ (38)	$ (14)	$ (4)	$ 207

* Additions/(Releases) for Allowance for Credit Losses are recorded in expense.
**Refer to note A, "Significant Accounting Policies," in our 2020 Annual Report for additional information regarding allowance for credit loss write-offs.
\+ Primarily represents translation adjustments.

Global Financing's expected credit loss expense (including impacts from off-balance sheet commitments which are recorded in other liabilities) was a release of $18 million and $47 million for the three and nine months ended September 30, 2021, respectively, compared to an addition of $5 million and $44 million for the three and nine months ended September 30, 2020, respectively. The decreases in both periods in 2021 were primarily driven by lower unallocated reserves in Americas and EMEA.

Noncurrent Assets and Liabilities

(Dollars in millions)	At September 30, 2021	At December 31, 2020
Noncurrent assets	$ 114,248	$ 116,806
Long-term debt	$ 46,926	$ 54,355
Noncurrent liabilities (excluding debt)	$ 39,100	$ 41,020

Noncurrent assets decreased $2,558 million ($815 million adjusted for currency) due to:

- A decrease in long-term financing receivables of $2,040 million ($1,848 million adjusted for currency) as a result of reductions from seasonally higher year-end balances and sales of receivables;
- A decrease in net property, plant and equipment of $901 million ($674 million adjusted for currency); and
- A decrease of $992 million ($579 million adjusted for currency) in total operating right-of-use assets, deferred taxes and investments and sundry assets; partially offset by
- An increase in goodwill and net intangible assets of $990 million ($1,744 million adjusted for currency) due to additions from new acquisitions, partially offset by intangibles amortization; and
- An increase in prepaid pension assets of $588 million ($689 million adjusted for currency).

Long-term debt decreased $7,429 million ($6,528 million adjusted for currency) due to:

- Reclassifications to short-term debt of $5,434 million to reflect upcoming maturities; and
- Early redemption of IBM Credit debt of $1,250 million.

Noncurrent liabilities (excluding debt) decreased $1,919 million ($794 million adjusted for currency) due to:

- A decrease in retirement and nonpension postretirement benefit obligations of $1,483 million ($831 million adjusted for currency); and
- A decrease in long-term operating lease liabilities of $382 million ($277 million adjusted for currency) related primarily to real estate leases; partially offset by
- An increase in other liabilities of $282 million ($535 million adjusted for currency) related primarily to income tax reserves related to the separation of Kyndryl.

Debt

Our funding requirements are continually monitored and strategies are executed 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, 2021	At December 31, 2020
Total company debt	$ 54,501	$ 61,538
Total Global Financing segment debt	$ 15,868	$ 21,167
Debt to support external clients	12,677	17,819
Debt to support internal clients	3,191	3,348
Non-Global Financing debt	$ 38,633	$ 40,371

Total debt of $54,501 million decreased $7,037 million ($6,125 million adjusted for currency) from December 31, 2020, driven by debt maturities and early retirements of $7,301 million. Total debt has decreased $18,538 million since the end of the second quarter 2019 (immediately preceding the Red Hat acquisition).

Non-Global Financing debt of $38,633 million decreased $1,739 million ($1,151 million adjusted for currency) from December 31, 2020 due to scheduled debt maturities in the first nine months of 2021.

Global Financing debt of $15,868 million decreased $5,298 million ($4,974 million adjusted for currency) from December 31, 2020, primarily due to lower funding requirements associated with financing receivables. In the first quarter of 2021, IBM Credit early redeemed all of its outstanding fixed-rate debt in the aggregate amount of $1.75 billion and deregistered with the U.S. Securities and Exchange Commission.

Global Financing provides financing predominantly for the company's external client assets, as well as for assets under contract by other IBM units. These assets, primarily for Global Technology Services, generate long-term, stable revenue streams similar to the Global Financing asset portfolio. Based on their attributes, these Global Technology Services assets are leveraged with the balance of the Global Financing asset base. Global Financing's funding of the Global Technology Services assets supporting the managed infrastructure services unit will wind down with the separation of Kyndryl as Global Financing refocuses its portfolio to support IBM's hybrid cloud platform and AI capabilities.

The debt used to fund Global 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 and are based on arm's-length pricing. The Global Financing debt-to-equity ratio remained at 9.0 to 1 at September 30, 2021.

We measure Global Financing as a stand-alone entity, and accordingly, interest expense relating to debt supporting Global Financing's external client and internal business is included in the "Global Financing Results of Operations" on pages 88 to 89 and in note 4, "Segments." In the Consolidated Income Statement, the external debt-related interest expense supporting Global Financing's internal financing to the company is reclassified from cost of financing to interest expense.

Equity

Total equity increased $1,630 million from December 31, 2020, primarily due to an increase from net income of $3,410 million, an increase in accumulated other comprehensive income of $2,035 million mainly due to retirement-related benefit plans of $1,469 million and cash flow hedge derivatives of $407 million, partially offset by dividends paid of $4,395 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 following table. These amounts include the cash flows associated with the Global Financing business.

(Dollars in millions) For the nine months ended September 30:	2021	2020
Net cash provided by/(used in) continuing operations:		
Operating activities	$ 10,252	$ 12,337
Investing activities	(5,300)	(2,470)
Financing activities	(10,662)	(3,428)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(159)	(200)
Net change in cash, cash equivalents and restricted cash	$ (5,868)	$ 6,239

Net cash provided by operating activities decreased $2,085 million as compared to the first nine months of 2020 driven primarily by:

- A decrease in cash provided by receivables of $1,463 million primarily driven by business volume;
- An increase in workforce rebalancing payments of $802 million; and
- A decrease in payroll tax and value-added tax deferrals of approximately $660 million primarily driven by prior-year tax relief under the U.S. CARES Act and other non-U.S. government assistance programs related to COVID-19; partially offset by
- Performance-related improvements within net income;
- A net decrease in cash payments for income taxes of $296 million primarily due to a withholding tax payment on intercompany dividends in the second quarter of 2020; and
- A decrease in interest payments on debt of approximately $260 million.

Net cash used in investing activities increased $2,830 million as compared to the first nine months of 2020 driven by:

- An increase in cash used for acquisitions of $2,981 million to enhance our hybrid cloud and AI software capabilities and to add skills in strategic GBS ecosystem partners; and
- A decrease in cash provided by divestitures of $483 million; partially offset by
- A decrease in cash used for net capital expenditures of $407 million.

Net cash used in financing activities increased $7,234 million driven primarily by:

- A decrease in net cash provided by debt transactions of $7,153 million primarily driven by a higher level of net additions in the prior year; partially offset by a lower level of maturities in the current year.

Looking Forward

Hybrid Cloud and AI Progress

On November 3, 2021, IBM took an important step in advancing its focus on hybrid cloud and AI with the separation of Kyndryl. The separation of Kyndryl creates two industry-leading companies, which will continue to have a strong commercial relationship. Both IBM and Kyndryl will have increased clarity and ability to focus on their respective operating and financial models, including capital deployment, investment strategies, and investment grade capital structures. The separation will also enable greater freedom of action to partner and capture new opportunities. The outcome of all of these actions will be increased value for clients and investors. The separation of Kyndryl is just one of many actions we are taking to focus our business on hybrid cloud and AI and to improve our financial profile.

IBM is addressing the hybrid cloud and AI opportunity with a platform-centric approach. Effective immediately prior to the separation of Kyndryl, the company made a number of changes to its organizational structure and management system. Our new management structure will reflect four reportable segments: Software, Consulting, Infrastructure and Financing. These segment changes align our operating model to our platform-centric approach, reflect a simpler and more streamlined business and will provide greater transparency into segment trends. These changes will impact our reportable segments beginning in the fourth quarter of 2021 but will not impact our Consolidated Financial Statements.

Across every industry, enterprises are using technology to redesign business processes. These digital transformations are enabled by a hybrid cloud environment. Our platform-centric approach is designed to meet clients wherever they are in their journey. The platform we have built is open, secure, and flexible and continues to gain traction in the marketplace. More clients are leveraging our platform capability and our expertise to unlock business value. As of the end of the third quarter, we have more than 3,500 clients using our hybrid cloud platform. This not only fuels our Red Hat revenue performance, but also provides a solid base for the multiplier effect across our software and services. GBS (IBM Consulting post segment change) is helping to drive this platform adoption, and had over 180 new Red Hat engagements in the third quarter. We work alongside our clients to co-create business products and solutions, and have done more than 4,000 Garage engagements as of the third quarter 2021. There is tremendous opportunity for us to help our clients become digital businesses. This is what we have built our platform for and why we have such confidence in our strategy.

To accelerate our strategy, we are taking decisive steps and making the necessary investments to strengthen our portfolio. We continue to leverage our ecosystem to bring joint solutions to market, and to accelerate client transformations. We are investing organically and inorganically to deliver innovation. During the third quarter of 2021, we announced new products in Software and Systems to further differentiate our hybrid cloud and AI capabilities. We are increasing investments in R&D to deliver innovations in our hybrid cloud platform, AI and emerging technologies like quantum. To complement these organic investments, we completed three acquisitions in the third quarter, enhancing our hybrid cloud consulting capabilities. We continue to aggressively hire, bringing in technical talent in Red Hat and highly skilled expertise in consulting. We are scaling resources in our garages to provide a more experiential consulting and sales approach and adding client success managers to help clients get the most value out of their IBM solutions.

With the actions we have taken to simplify our operating model, the fundamentals of our business model remain solid. Our balance sheet and liquidity position remain strong. At September 30, 2021, we had $8.4 billion of cash and cash equivalents, restricted cash and marketable securities. We have made good progress in deleveraging, while being acquisitive and without sacrificing investments in our business or our solid dividend policy. We have reduced our debt by $7.0 billion since the end of 2020 and $18.5 billion from our peak level at June 30, 2019 (immediately preceding the Red Hat acquisition).

The fourth quarter of 2021 is a major milestone as we transition to the future IBM. We continue to take prudent actions to improve our operating model and accelerate our strategy. We are optimizing our portfolio, increasing our focus and agility to better serve clients and we are generating strong free cash flow to enable our investments while

providing shareholder returns. We are managing for the long-term and are confident in the direction and focus of our business. We expect to continue our progress as a leading hybrid cloud and AI company with a focus on revenue growth and cash generation while maintaining a strong dividend policy.

Retirement-Related Plans

Our pension plans are well funded. Contributions for all retirement-related plans are expected to be approximately $2.3 billion in 2021, an increase of approximately $100 million compared to 2020, of which $0.2 billion generally relates to legally required contributions to non-U.S. defined benefit and multi-employer plans. We expect 2021 pre-tax retirement-related plan cost to be approximately $2.9 billion, an increase of approximately $300 million compared to 2020. This estimate reflects current pension plan assumptions at December 31, 2020. Within total retirement-related plan cost, operating retirement-related plan cost is expected to be approximately $1.5 billion, approximately flat versus 2020. Non-operating retirement-related plan cost is expected to be approximately $1.4 billion, an increase of approximately $300 million compared to 2020, primarily driven by lower income from expected return on assets.

Currency Rate Fluctuations

Changes in the relative values of non-U.S. currencies to the U.S. dollar (USD) affect our financial results and financial position. At September 30, 2021, currency changes resulted in assets and liabilities denominated in local currencies being translated into fewer dollars than at year-end 2020. We use financial hedging instruments to limit specific currency risks related to financing transactions and other foreign currency-based transactions.

During periods of sustained movements in currency, the marketplace and competition adjust to the changing rates. For example, when pricing offerings in the marketplace, we may use some of the advantage from a weakening U.S. dollar to improve our position competitively, and price more aggressively to win the business, essentially passing on a portion of the currency advantage to our customers. Competition will frequently take the same action. Consequently, we believe that some of the currency-based changes in cost impact the prices charged to clients. We also maintain currency hedging programs for cash management purposes which temporarily mitigate, but do not eliminate, the volatility of currency impacts on our financial results.

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. Currency movements impacted our year-to-year revenue and earnings per share growth in the first nine months of 2021. Based on the currency rate movements in the first nine months of 2021, total revenue increased 1.6 percent as reported but decreased 1.1 percent at constant currency versus the first nine months of 2020. On an income from continuing operations before income tax basis, these translation impacts, mitigated by the net impact of hedging activities, resulted in a theoretical maximum (assuming no pricing or sourcing actions) increase of approximately $200 million in the first nine months of 2021 on an as-reported basis and an increase of approximately $240 million on an operating (non-GAAP) basis. The same mathematical exercise resulted in an increase of approximately $270 million in the first nine months of 2020 on both an as-reported basis and operating (non-GAAP) basis. We view these amounts as a theoretical maximum impact to our as-reported financial 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, but we believe it could be substantially less than the theoretical maximum given the competitive pressure in the marketplace.

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 2020 Annual Report, on pages 56 to 58, there is a discussion of our liquidity including two tables that present three years of data. The table presented on page 56 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, 2021, those amounts are $10.3 billion of net cash from operating activities, $8.4 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.

On July 9, 2019, we closed the acquisition of Red Hat for cash consideration of $34.8 billion. The transaction was funded through a combination of cash on hand and proceeds from debt issuances. In order to reduce this debt and return to target leverage ratios within a couple of years, we suspended our share repurchase program at the time of the Red Hat acquisition closing.

The major rating agencies' ratings on our debt securities at September 30, 2021 appear in the following table.

IBM RATINGS:	STANDARD AND POOR'S	MOODY'S INVESTORS SERVICE
Senior long-term debt	A-	A2
Commercial paper	A-2	Prime-1

In October 2021, Moody's downgraded our long-term debt rating from A2 to A3 and our commercial paper rating from Prime-1 to Prime-2. IBM has ample financial flexibility, supported by our strong liquidity position and cash flows, to operate at a single A credit rating. Debt levels have decreased $7.0 billion from December 31, 2020 and $18.5 billion from our peak levels at June 30, 2019 (immediately preceding the Red Hat acquisition) and we will continue to deleverage throughout 2021 utilizing our debt maturities schedule.

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, 2021, the fair value of those instruments that were in a liability position was $149 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.

In July 2017, the UK's Financial Conduct Authority (FCA), which regulates the London Interbank Offered Rate (LIBOR), announced that it intends to phase out LIBOR by the end of 2021. In March 2021, the FCA announced an extension of the phase out in the case of U.S. dollar settings for certain tenors until the end of June 2023. Various central bank committees and working groups continue to discuss replacement of benchmark rates, the process for amending existing LIBOR-based contracts, and the potential economic impacts of different alternatives. The Alternative Reference Rates Committee has identified the Secured Overnight Financing Rate (SOFR) as its preferred alternative rate for USD LIBOR. SOFR is a measure of the cost of borrowing cash overnight, collateralized by U.S. Treasury securities, and is based on directly observable U.S. Treasury-backed repurchase transactions. We have evaluated the replacement of the LIBOR benchmark interest rate, including risk management and internal operational readiness and we are monitoring the FASB standard-setting process to address financial reporting issues that might arise in connection with transition from LIBOR to a new benchmark rate. However, it is not expected to 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 83. 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 Global Financing receivables and net capital expenditures, including the investment in software. A key objective of the Global Financing business is to generate strong returns on equity, and our Global Financing receivables are the basis for growth. Accordingly, management considers Global 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 Global Financing receivables.

The following is management's view of cash flows for the first nine months of 2021 and 2020 prepared in a manner consistent with the description above.

Net cash from operating activities and free cash flow in 2021 include significant cash impacts from the workforce rebalancing actions we initiated in the fourth quarter of 2020 and Kyndryl separation-related charges.

(Dollars in millions) **For the nine months ended September 30:**	**2021**	**2020**
Net cash from operating activities per GAAP	$ 10,252	$ 12,337
Less: change in Global Financing receivables	5,235	5,324
Net cash from operating activities, excluding Global Financing receivables	$ 5,018	$ 7,014
Capital expenditures, net	(1,855)	(2,262)
Free cash flow	$ 3,162	$ 4,751
Acquisitions	(3,018)	(37)
Divestitures	26	510
Common stock repurchases for tax withholdings	(252)	(225)
Dividends	(4,395)	(4,343)
Non-Global Financing debt	(1,143)	4,977
Other (includes Global Financing net receivables and Global Financing debt)	(249)	1,111
Change in cash, cash equivalents, restricted cash and short-term marketable securities	$ (5,868)	$ 6,744

In the first nine months of 2021, we generated free cash flow of $3.2 billion, a decrease of $1.6 billion versus the prior year. The current-year period includes cash impacts from structural actions we initiated in the fourth quarter of 2020 and separation-related charges in the amount of $1.8 billion. In the first nine months of 2021, we also continued to return value to shareholders with $4.4 billion in dividends.

Events that could temporarily change the historical cash flow dynamics discussed previously and in our 2020 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 13, "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 $200 million in 2021. Contributions related to all retirement-related plans are expected to be approximately $2.3 billion in 2021. 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 2021, 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 acquisitions, 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 dividend.

Global Financing

Global Financing is a reportable segment that is measured as a stand-alone entity. Global Financing facilitates IBM clients' acquisition of 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:	2021	2020	Yr. to Yr. Percent/ Margin Change
External revenue	$ 220	$ 273	(19.2)%
Internal revenue	153	208	(26.3)
Total revenue	$ 373	$ 480	(22.3)%
Pre-tax income	$ 206	$ 196	5.1 %

(Dollars in millions) For the nine months ended September 30:	2021	2020	Yr. to Yr. Percent/ Margin Change
External revenue	$ 702	$ 837	(16.2)%
Internal revenue	581	660	(12.0)
Total revenue	$ 1,283	$ 1,497	(14.3)%
Pre-tax income	$ 618	$ 566	9.1 %

We have refocused our Global Financing business on IBM's products and services. The wind down of our OEM commercial financing operations is complete. In 2020, we began entering into agreements to sell certain financing receivables to third parties. While these strategic actions continue to impact external revenue and pre-tax income on a year-to-year basis, our repositioning of the Global Financing business has strengthened our liquidity position, improved the quality of our portfolio and lowered our debt needs.

Global Financing total revenue decreased 22.3 percent in the third quarter of 2021 compared to the prior year. External revenue decreased 19.2 percent (20 percent adjusted for currency), driven by external financing (down 25.2 percent to $151 million). Internal revenue was down 26.3 percent primarily due to a decrease in internal used equipment sales (down 22.1 percent to $126 million) which reflects a decrease in sales to GTS.

Global Financing total revenue decreased 14.3 percent in the first nine months of 2021 compared to the same period in 2020. External revenue decreased 16.2 percent (18 percent adjusted for currency), primarily driven by a decline in external financing (down 23.2 percent to $496 million). Internal revenue decreased 12.0 percent primarily driven by a decline in internal financing (down 49.0 percent to $93 million).

For both the three and nine months ended September 30, 2021, the decreases in external financing were due to a lower average asset balance, partially driven by the strategic actions, and the decreases in internal financing were primarily due to a lower average asset balance.

Global Financing pre-tax income increased 5.1 percent to $206 million in the third quarter of 2021 and 9.1 percent to $618 million in the first nine months of 2021, compared to the same periods in 2020. The increase in both periods was primarily driven by improvements in provisions for credit losses, partially offset by a decrease in gross profit which reflects the strategic actions described above.

Return on Equity Calculation

(Dollars in millions)	For Three Months Ended September 30, 2021	For Three Months Ended September 30, 2020	For Nine Months Ended September 30, 2021	For Nine Months Ended September 30, 2020
Numerator				
Global Financing after-tax income*	$ 152	$ 150	$ 454	$ 489
Annualized after-tax income (1)	$ 610	$ 600	$ 605	$ 651
Denominator				
Average Global Financing equity (2)**	$ 1,852	$ 2,376	$ 2,022	$ 2,493
Global Financing return on equity (1)/(2)	32.9 %	25.2 %	30.0 %	26.1 %

* Calculated based upon an estimated tax rate principally based on Global 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 Global Financing for the last two quarters and four quarters, for the three months ended September 30 and for the nine months ended September 30, respectively.

Global Financing return on equity was 32.9 percent for the three months ended September 30, 2021, compared to 25.2 percent for the three months ended September 30, 2020. The increase was driven by a lower average equity balance. Return on equity was 30.0 percent for the nine months ended September 30, 2021, compared to 26.1 percent for the nine months ended September 30, 2020. The increase was driven by a lower average equity balance, partially offset by a decrease in net income, which included a discrete tax benefit of $40 million in the first quarter of 2020.

Financial Position

(Dollars in millions)	At September 30, 2021	At December 31, 2020
Cash and cash equivalents	$ 1,298	$ 1,862
Client financing receivables:		
Net investment in sales-type and direct financing leases [1]	3,280	4,092
Client loans	8,218	11,498
Total client financing receivables	11,498	15,590
Commercial financing receivables	721	2,411
Other receivables	61	91
Total external receivables [2]	12,280	18,092
Intercompany financing receivables [3] [4]	3,876	3,959
Other assets	1,871	1,162
Total assets	$ 19,326	$ 25,075
Intercompany payables [3]	$ 424	$ 303
Debt [5]	15,868	21,167
Other liabilities	1,271	1,254
Total liabilities	17,563	22,723
Total equity	1,763	2,352
Total liabilities and equity	$ 19,326	$ 25,075

(1) Includes deferred initial direct costs which are expensed in IBM's consolidated financial results.
(2) The difference between the year-to-date decrease in total external receivables of $5.8 billion (from $18.1 billion in 2020 to $12.3 billion in 2021) and the $5.2 billion change in Global Financing receivables disclosed in the free cash flow presentation on page 87 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) These assets, along with all other financing assets in this table, are leveraged at the value in the table using Global Financing debt.
(5) Global Financing debt is primarily composed of intercompany loans.

At September 30, 2021, approximately 66 percent of the total external portfolio was with investment-grade clients with no direct exposure to consumers, an increase of 9 points year to year and an increase of 2 points compared to June 30, 2021. We continue to apply our rigorous credit policies, particularly in industries and countries disrupted by COVID-19, as it relates to the origination of new business. This investment grade percentage is based on the credit ratings of the companies in the portfolio and reflects mitigating credit enhancement actions taken by the client 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, with enhanced focus due to current macroeconomic uncertainty. These actions may include credit insurance, financial guarantees, nonrecourse 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 the nine months ended September 30, 2021, we sold $2,970 million of client financing receivables to third parties, consisting of loan and lease receivables of $2,189 million and $781 million, respectively. More than half of the receivables sold were classified as current assets at the time of sale. For the nine months ended September 30, 2020, we sold $1,610 million of client financing receivables to third parties, consisting of loan and lease receivables of $758 million and $852 million, respectively.

In addition, we sold $4,465 million of commercial financing receivables for the nine months ended September 30, 2021, to a third-party investor. We also classified $400 million and $383 million of IBM commercial financing receivables as held for sale at September 30, 2021 and December 31, 2020, respectively, in short-term financing

receivables in the Consolidated Balance Sheet. Payment terms for commercial financing receivables generally range from 30 to 90 days and sales are made to the investor on a revolving basis. We did not have any sales of commercial financing receivables for the nine months ended September 30, 2020.

The transfers 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, with no impact to free cash flow, and the impacts to the Consolidated Income Statement, including fees and net gain or loss associated with the transfers of these receivables for the nine months ended September 30, 2021 and September 30, 2020, were not material. For additional information relating to the sales of financing receivables refer to note 8, "Financing Receivables."

Refer to pages 80 through 82 for additional information related to Global Financing receivables, allowance for credit losses and debt.

Residual Value

Residual value is a risk unique to the financing business, and management of this risk is dependent upon the ability to accurately project future equipment values at lease inception. Global Financing has insight into product plans and cycles for IBM products. Based upon this product information, Global Financing continually monitors projections of future equipment values and compares them with the residual values reflected in the portfolio.

Global Financing optimizes the recovery of residual values by selling assets sourced from end of lease, leasing used equipment to new clients, or extending lease arrangements with current clients.

The following table presents the recorded amount of unguaranteed residual value for sales-type and direct financing leases, as well as operating leases at September 30, 2021 and December 31, 2020. In addition, the table presents the run out of when the unguaranteed residual value assigned to equipment on leases at September 30, 2021 and December 31, 2020, is expected to be returned to the company.

Unguaranteed Residual Value

	At	At	Estimated Run Out of September 30, 2021 Balance			
(Dollars in millions)	December 31, 2020	September 30, 2021	2021	2022	2023	2024 and Beyond
Sales-type and direct financing leases	$ 469	$ 342	$ 31	$ 96	$ 126	$ 90
Operating leases	48	20	12	4	1	2
Total unguaranteed residual value	$ 516	$ 362	$ 43	$ 100	$ 126	$ 92

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, 2021:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Separation-Related Charges	Operating (non-GAAP)
Gross profit	$ 8,171	$ 184	$ —	$ —	$ 108	$ 8,463
Gross profit margin	46.4 %	1.0 pts.	— pts.	— pts.	0.6 pts.	48.0 %
S,G&A	$ 4,860	$ (293)	$ —	$ —	$ (169)	$ 4,398
R,D&E	1,621	—	—	—	(1)	1,620
Other (income) and expense	234	(1)	(328)	—	—	(94)
Total expense and other (income)	6,852	(294)	(328)	—	(169)	6,061
Pre-tax income from continuing operations	1,319	478	328	—	277	2,402
Pre-tax margin from continuing operations	7.5 %	2.7 pts.	1.9 pts.	— pts.	1.6 pts.	13.6 %
Provision for income taxes*	$ 188	$ 103	$ 57	$ —	$ (233)	$ 115
Effective tax rate	14.3 %	1.5 pts.	0.4 pts.	— pts.	(11.4)pts.	4.8 %
Income from continuing operations	$ 1,130	$ 375	$ 271	$ —	$ 510	$ 2,286
Income margin from continuing operations	6.4 %	2.1 pts.	1.5 pts.	— pts.	2.9 pts.	13.0 %
Diluted earnings per share from continuing operations	$ 1.25	$ 0.41	$ 0.30	$ —	$ 0.56	$ 2.52

(Dollars in millions except per share amounts) For the three months ended September 30, 2020:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Separation-Related Charges	Operating (non-GAAP)
Gross profit	$ 8,430	$ 180	$ —	$ —	$ —	$ 8,610
Gross profit margin	48.0 %	1.0 pts.	— pts.	— pts.	— pts.	49.0 %
S,G&A	$ 4,647	$ (279)	$ —	$ —	$ —	$ 4,367
R,D&E	1,515	—	—	—	—	1,515
Other (income) and expense	253	(1)	(291)	—	—	(39)
Total expense and other (income)	6,603	(280)	(291)	—	—	6,032
Pre-tax income from continuing operations	1,827	460	291	—	—	2,578
Pre-tax margin from continuing operations	10.4 %	2.6 pts.	1.7 pts.	— pts.	— pts.	14.7 %
Provision for income taxes*	$ 128	$ 102	$ 54	$ (21)	$ —	$ 263
Effective tax rate	7.0 %	2.7 pts.	1.3 pts.	(0.8)pts.	— pts.	10.2 %
Income from continuing operations	$ 1,698	$ 358	$ 237	$ 21	$ —	$ 2,315
Income margin from continuing operations	9.7 %	2.0 pts.	1.4 pts.	0.1 pts.	— pts.	13.2 %
Diluted earnings per share from continuing operations	$ 1.89	$ 0.40	$ 0.26	$ 0.03	$ —	$ 2.58

* 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.

(Dollars in millions except per share amounts) For the nine months ended September 30, 2021:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Separation-Related Charges	Operating (non-GAAP)
Gross profit	$ 25,379	$ 540	$ —	$ —	$ 168	$ 26,087
Gross profit margin	46.9 %	1.0 pts.	— pts.	— pts.	0.3 pts.	48.2 %
S,G&A	$ 15,368	$ (884)	$ —	$ —	$ (343)	$ 14,141
R,D&E	4,907	—	—	—	(1)	4,906
Other (income) and expense	911	(2)	(998)	—	—	(90)
Total expense and other (income)	21,603	(886)	(998)	—	(344)	19,374
Pre-tax income from continuing operations	3,776	1,426	998	—	513	6,713
Pre-tax margin from continuing operations	7.0 %	2.6 pts.	1.8 pts.	— pts.	0.9 pts.	12.4 %
Provision for income taxes*	$ 365	$ 344	$ 185	$ 6	$ (174)	$ 725
Effective tax rate	9.7 %	3.1 pts.	1.3 pts.	0.1 pts.	(3.3)pts.	10.8 %
Income from continuing operations	$ 3,411	$ 1,082	$ 813	$ (6)	$ 687	$ 5,988
Income margin from continuing operations	6.3 %	2.0 pts.	1.5 pts.	0.0 pts.	1.3 pts.	11.1 %
Diluted earnings per share from continuing operations	$ 3.77	$ 1.20	$ 0.90	$ (0.01)	$ 0.76	$ 6.62

(Dollars in millions except per share amounts) For the nine months ended September 30, 2020:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Separation-Related Charges	Operating (non-GAAP)
Gross profit	$ 25,052	$ 556	$ —	$ —	$ —	$ 25,608
Gross profit margin	47.0 %	1.0 pts.	— pts.	— pts.	— pts.	48.1 %
S,G&A	$ 15,849	$ (849)	$ —	$ —	$ —	$ 15,000
R,D&E	4,722	—	—	—	—	4,722
Other (income) and expense	614	(2)	(829)	—	—	(217)
Total expense and other (income)	21,704	(851)	(829)	—	—	20,024
Pre-tax income from continuing operations	3,348	1,407	829	—	—	5,584
Pre-tax margin from continuing operations	6.3 %	2.6 pts.	1.6 pts.	— pts.	— pts.	10.5 %
Provision for (benefit from) income taxes*	$ (888)	$ 312	$ 119	$ 128	$ —	$ (329)
Effective tax rate	(26.5)%	12.3 pts.	6.1 pts.	2.3 pts.	— pts.	(5.9)%
Income from continuing operations	$ 4,237	$ 1,095	$ 710	$ (128)	$ —	$ 5,913
Income margin from continuing operations	8.0 %	2.1 pts.	1.3 pts.	(0.2)pts.	— pts.	11.1 %
Diluted earnings per share from continuing operations	$ 4.72	$ 1.23	$ 0.79	$ (0.14)	$ —	$ 6.60

* 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.

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 possibility of disruption or unanticipated costs in connection with the separation of Kyndryl or the possibility that the separation will not achieve its intended benefits; 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 from 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; 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 13, "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 2021.

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, 2021 - July 31, 2021	—	$ —	—	$ 2,007,611,768
August 1, 2021 - August 31, 2021	—	$ —	—	$ 2,007,611,768
September 1, 2021 - September 30, 2021	—	$ —	—	$ 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. At September 30, 2021 there was approximately $2.0 billion in authorized funds remaining for purchases under this program.

Item 5. Other Information

Disclosure pursuant to Section 13(r) of the Securities Exchange Act of 1934

On March 2, 2021, the U.S. government designated the Russian Federal Security Service (FSB) as a blocked party under Executive Order 13382. On the same day, the U.S. Department of the Treasury's Office of Foreign Assets Control issued Cyber-related General License 1B "Authorizing Certain Transactions with the Federal Security Service" (GL 1B), which generally authorizes U.S. companies to engage in certain licensing, permitting, certification, notification and related transactions with the FSB to the extent such activities are required for the importation, distribution or use of information technology products in the Russian Federation, though the fact of such activities are now to be disclosed under the Securities Exchange Act of 1934 in companies' periodic filings.

During the quarter ended September 30, 2021, as permitted under GL 1B, IBM filed notifications with the FSB as required in connection with the importation and distribution of our products in the Russian Federation. No payments were issued or received, and no gross revenue or net profits were generated in connection with these filing activities. IBM and its subsidiaries do not sell products or provide services to the FSB. To the extent permitted by applicable law, IBM and its subsidiaries expect to continue to file notifications with the FSB and may apply for import licenses and permits from the FSB in connection the importation and distribution of our products in the Russian Federation.

Item 6. Exhibits

Exhibit Number	
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: November 5, 2021

By: /s/ Robert F. Del Bene
Robert F. Del Bene
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: November 5, 2021

/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: November 5, 2021

/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, 2021, 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
November 5, 2021

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, 2021, 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
November 5, 2021

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.