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 MARCH 31, 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	Name of each exchange on which registered
Capital stock, par value $.20 per share	IBM	New York Stock Exchange NYSE Chicago
0.500% Notes due 2021	IBM 21B	New York Stock Exchange
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 893,522,828 shares of common stock outstanding at March 31, 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 March 31, 2021	2020
Revenue:		
Services	$ 11,404	$ 11,373
Sales	6,083	5,895
Financing	242	302
Total revenue	17,730	17,571
Cost:		
Services	7,775	7,843
Sales	1,585	1,624
Financing	165	181
Total cost	9,525	9,649
Gross profit	8,204	7,922
Expense and other (income):		
Selling, general and administrative	5,174	5,955
Research, development and engineering	1,630	1,625
Intellectual property and custom development income	(147)	(116)
Other (income) and expense	362	182
Interest expense	280	326
Total expense and other (income)	7,299	7,972
Income/(loss) from continuing operations before income taxes	905	(49)
Provision for/(benefit from) income taxes	(51)	(1,226)
Income from continuing operations	$ 956	$ 1,176
Income/(loss) from discontinued operations, net of tax	(1)	(1)
Net income	$ 955	$ 1,175
Earnings/(loss) per share of common stock:		
Assuming dilution:		
Continuing operations	$ 1.06	$ 1.31
Discontinued operations	0.00	0.00
Total	$ 1.06	$ 1.31
Basic:		
Continuing operations	$ 1.07	$ 1.32
Discontinued operations	0.00	0.00
Total	$ 1.07	$ 1.32
Weighted-average number of common shares outstanding: (millions)		
Assuming dilution	901.7	895.0
Basic	893.6	888.0

(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 March 31, 2021	2020
Net income	$ 955	$ 1,175
Other comprehensive income/(loss), before tax:		
Foreign currency translation adjustments	549	(919)
Net changes related to available-for-sale securities:		
Unrealized gains/(losses) arising during the period	0	0
Reclassification of (gains)/losses to net income	—	—
Total net changes related to available-for-sale securities	0	0
Unrealized gains/(losses) on cash flow hedges:		
Unrealized gains/(losses) arising during the period	187	(180)
Reclassification of (gains)/losses to net income	160	91
Total unrealized gains/(losses) on cash flow hedges	347	(90)
Retirement-related benefit plans:		
Prior service costs/(credits)	0	(4)
Net (losses)/gains arising during the period	20	8
Curtailments and settlements	17	8
Amortization of prior service (credits)/costs	3	1
Amortization of net (gains)/losses	648	570
Total retirement-related benefit plans	689	582
Other comprehensive income/(loss), before tax	1,586	(427)
Income tax (expense)/benefit related to items of other comprehensive income	(505)	(260)
Other comprehensive income/(loss), net of tax	1,080	(686)
Total comprehensive income/(loss)	$ 2,036	$ 489

(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 March 31, 2021	At December 31, 2020
Assets:		
Current assets:		
Cash and cash equivalents	$ 10,531	$ 13,212
Restricted cash	142	463
Marketable securities	600	600
Notes and accounts receivable — trade (net of allowances of $345 in 2021 and $351 in 2020)	6,458	7,132
Short-term financing receivables (net of allowances of $200 in 2021 and $218 in 2020)	8,822	10,892
Other accounts receivable (net of allowances of $16 in 2021 and $28 in 2020)	787	714
Inventory, at lower of average cost or net realizable value:		
Finished goods	234	190
Work in process and raw materials	1,594	1,649
Total inventory	1,828	1,839
Deferred costs	2,223	2,107
Prepaid expenses and other current assets	2,647	2,206
Total current assets	34,038	39,165
Property, plant and equipment	32,269	33,176
Less: Accumulated depreciation	22,817	23,136
Property, plant and equipment — net	9,452	10,040
Operating right-of-use assets — net	4,483	4,686
Long-term financing receivables (net of allowances of $36 in 2021 and $45 in 2020)	5,922	7,086
Prepaid pension assets	7,800	7,610
Deferred costs	2,336	2,449
Deferred taxes	8,953	9,241
Goodwill	59,984	59,617
Intangible assets — net	13,535	13,796
Investments and sundry assets	2,125	2,282
Total assets	$ 148,629	$ 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 March 31, 2021	At December 31, 2020
Liabilities:		
Current liabilities:		
Taxes	$ 2,640	$ 3,301
Short-term debt	5,198	7,183
Accounts payable	4,140	4,908
Compensation and benefits	3,256	3,440
Deferred income	14,197	12,833
Operating lease liabilities	1,337	1,357
Other accrued expenses and liabilities	5,775	6,847
Total current liabilities	36,542	39,869
Long-term debt	51,206	54,355
Retirement and nonpension postretirement benefit obligations	17,346	18,248
Deferred income	4,153	4,301
Operating lease liabilities	3,379	3,574
Other liabilities	14,489	14,897
Total liabilities	127,116	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 - 2,244,015,188 2020 - 2,242,969,004	56,788	56,556
Retained earnings	162,218	162,717
Treasury stock - at cost Shares: 2021 - 1,350,492,360 2020 - 1,350,315,580	(169,360)	(169,339)
Accumulated other comprehensive income/(loss)	(28,257)	(29,337)
Total IBM stockholders' equity	21,389	20,597
Noncontrolling interests	124	129
Total equity	21,513	20,727
Total liabilities and equity	$ 148,629	$ 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)	Three Months Ended March 31, 2021	2020
Cash flows from operating activities:		
Net income	$ 955	$ 1,175
Adjustments to reconcile net income to cash provided by operating activities		
Depreciation	1,052	1,012
Amortization of intangibles	620	622
Stock-based compensation	213	189
Net (gain)/loss on asset sales and other	7	315
Changes in operating assets and liabilities, net of acquisitions/divestitures	2,066	1,162
Net cash provided by operating activities	4,914	4,476
Cash flows from investing activities:		
Payments for property, plant and equipment	(494)	(630)
Proceeds from disposition of property, plant and equipment	139	46
Investment in software	(175)	(153)
Acquisition of businesses, net of cash acquired	(1,120)	(13)
Divestitures of businesses, net of cash transferred	(15)	26
Non-operating finance receivables — net	(9)	(20)
Purchases of marketable securities and other investments	(875)	(1,096)
Proceeds from disposition of marketable securities and other investments	549	938
Net cash provided by/(used in) investing activities	(2,000)	(902)
Cash flows from financing activities:		
Proceeds from new debt	51	6,055
Payments to settle debt	(4,261)	(5,285)
Short-term borrowings/(repayments) less than 90 days — net	(89)	586
Common stock repurchases for tax withholdings	(41)	(44)
Financing — other	15	13
Cash dividends paid	(1,457)	(1,440)
Net cash provided by/(used in) financing activities	(5,783)	(115)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(134)	(403)
Net change in cash, cash equivalents and restricted cash	(3,002)	3,057
Cash, cash equivalents and restricted cash at January 1	13,675	8,314
Cash, cash equivalents and restricted cash at March 31	$ 10,673	$ 11,371

(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 - 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		955			955		955
Other comprehensive income/(loss)				1,080	1,080		1,080
Total comprehensive income/(loss)					$ 2,036		$ 2,036
Cash dividends paid — common stock ($1.63 per share)		(1,457)			(1,457)		(1,457)
Common stock issued under employee plans (1,046,184 shares)	232				232		232
Purchases (339,506 shares) and sales (162,726 shares) of treasury stock under employee plans — net		2	(21)		(18)		(18)
Changes in noncontrolling interests						(6)	(6)
Equity – March 31, 2021	$ 56,788	$ 162,218	$ (169,360)	$ (28,257)	$ 21,389	$ 124	$ 21,513

(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		1,175			1,175		1,175
Other comprehensive income/(loss)				(686)	(686)		(686)
Total comprehensive income/(loss)					$ 489		$ 489
Cash dividends paid — common stock ($1.62 per share)		(1,440)			(1,440)		(1,440)
Common stock issued under employee plans (935,486 shares)	197				197		197
Purchases (310,454 shares) and sales (156,471 shares) of treasury stock under employee plans — net		3	(24)		(21)		(21)
Changes in noncontrolling interests						(15)	(15)
Equity - March 31, 2020	$ 56,092	$ 162,626	$ (169,437)	$ (29,283)	$ 19,999	$ 129	$ 20,128

* Reflects the adoption of the FASB guidance on 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 October 8, 2020, the company announced that it will separate the managed infrastructure services unit of its Global Technology Services (GTS) segment into a new public company. The managed infrastructure services unit is comprised of outsourcing and other infrastructure modernization and management services and the name of the new company will be Kyndryl. The separation is expected to be achieved through a U.S. federal tax-free spin-off to IBM shareholders and completed by the end of 2021. It will be subject to customary market, regulatory and other closing conditions, including final IBM Board of Directors' approval. The announcement did not have any classification impact to the company's Consolidated Financial Statements or segment reporting. IBM will report the managed infrastructure services unit as discontinued operations after separation.

For the three months ended March 31, 2021, the company reported a benefit from income taxes of $51 million. The tax benefit was primarily driven by the resolution of certain tax audit matters in the first quarter of 2021. For the three months ended March 31, 2020, the company reported a benefit from income taxes of $1,226 million. The tax benefit was primarily related to the tax impacts of an intra-entity sale of certain of the company's intellectual property.

Noncontrolling interest amounts of $7.6 million and $4.5 million, net of tax, for the three months ended March 31, 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:

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 is continuing to evaluate the potential impact of the replacement of the LIBOR benchmark on its interest rate risk management activities; however, it is not expected 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) For the three months ended March 31:	2021	2020
Cloud & Data Platforms	$ 2,866	$ 2,536
Cognitive Applications	1,233	1,182
Transaction Processing Platforms	1,338	1,520
Total Cloud & Cognitive Software	$ 5,437	$ 5,238
Consulting	2,189	2,071
Application Management	1,770	1,840
Global Process Services	274	225
Total Global Business Services	$ 4,234	$ 4,136
Infrastructure & Cloud Services	4,853	4,916
Technology Support Services	1,517	1,550
Total Global Technology Services	$ 6,370	$ 6,467
Systems Hardware	1,114	997
Operating Systems Software	313	371
Total Systems	$ 1,427	$ 1,368
Global Financing*	240	299
Other	23	62
Total revenue	$ 17,730	$ 17,571

* 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) For the three months ended March 31:	2021	2020
Americas	$ 8,179	$ 8,166
Europe/Middle East/Africa	5,641	5,517
Asia Pacific	3,909	3,888
Total	$ 17,730	$ 17,571

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 March 31, 2021, the aggregate amount of the transaction price allocated to RPO related to customer contracts that are unsatisfied or partially unsatisfied was $114 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 months ended March 31, 2021, revenue was reduced by $45 million 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 March 31, 2021	At December 31, 2020
Notes and accounts receivable–trade (net of allowances of $345 in 2021 and $351 in 2020)	$ 6,458	$ 7,132
Contract assets*	522	497
Deferred income (current)	14,197	12,833
Deferred income (noncurrent)	4,153	4,301

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

The amount of revenue recognized during the three months ended March 31, 2021 that was included within the deferred income balance at December 31, 2020 was $4.2 billion 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 three months ended March 31, 2021 and the year ended December 31, 2020:

(Dollars in millions) January 1, 2021	Additions / (Releases)	Write-offs	Other*	March 31, 2021
$ 351	$ 1	$ (6)	$ (2)	$ 345

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.

SEGMENT INFORMATION

(Dollars in millions)	Cloud & Cognitive Software	Global Business Services	Global Technology Services	Systems	Global Financing	Total Segments
For the three months ended March 31, 2021:						
External revenue	$ 5,437	$ 4,234	$ 6,370	$ 1,427	$ 240	$ 17,707
Internal revenue	832	55	313	189	168	1,557
Total revenue	$ 6,269	$ 4,289	$ 6,683	$ 1,616	$ 408	$ 19,264
Pre-tax income/(loss) from continuing operations	$ 1,428	$ 390	$ 140	$ (2)	$ 166	$ 2,122
Revenue year-to-year change	3.6 %	2.5 %	(1.2)%	6.6 %	(20.2)%	1.3 %
Pre-tax income/(loss) year-to-year change	53.0 %	44.1 %	nm	nm	(14.2)%	111.6 %
Pre-tax income/(loss) margin	22.8 %	9.1 %	2.1 %	(0.1)%	40.8 %	11.0 %
For the three months ended March 31, 2020:						
External revenue	$ 5,238	$ 4,136	$ 6,467	$ 1,368	$ 299	$ 17,508
Internal revenue	813	46	294	148	212	1,514
Total revenue	$ 6,052	$ 4,183	$ 6,761	$ 1,516	$ 511	$ 19,023
Pre-tax income/(loss) from continuing operations	$ 933	$ 271	$ (178)	$ (217)	$ 194	$ 1,003
Pre-tax income/(loss) margin	15.4 %	6.5 %	(2.6)%	(14.3)%	37.9 %	5.3 %

nm - not meaningful

Reconciliations to IBM as Reported:

(Dollars in millions) For the three months ended March 31:	2021	2020
Revenue:		
Total reportable segments	$ 19,264	$ 19,023
Other–divested businesses	1	18
Other revenue	21	44
Eliminations of internal transactions	(1,557)	(1,514)
Total consolidated revenue	$ 17,730	$ 17,571
Pre-tax income from continuing operations:		
Total reportable segments	$ 2,122	$ 1,003
Amortization of acquired intangible assets	(452)	(473)
Acquisition-related (charges)/income	(16)	0
Non-operating retirement-related (costs)/income	(343)	(264)
Spin-off related charges	(61)	—
Elimination of internal transactions	(73)	(55)
Other–divested businesses	(8)	25
Unallocated corporate amounts	(263)	(284)
Total pre-tax income/(loss) from continuing operations	$ 905	$ (49)

5. Acquisitions & Divestitures:

Acquisitions

Purchase price consideration for all acquisitions was paid primarily in cash. All acquisitions, except 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 three months ended March 31, 2021, the company completed three acquisitions at an aggregate cost of $987 million.

The Global Business Services segment completed the acquisition of Nordcloud, a consulting company providing services in cloud implementation, application transformation and managed services; and Taos Mountain, LLC (Taos), a leading cloud professional and managed services provider. The Cloud & Cognitive Software segment, through Red Hat, completed the acquisition of StackRox, an innovator in container and Kubernetes-native security. 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.

The purchase consideration for the acquisition of Nordcloud includes a fair value estimate of contingent consideration to be paid annually through the first quarter of 2024 upon achieving certain revenue milestones. The annual payments are not expected to be material.

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocation as of March 31, 2021.

(Dollars in millions)	Amortization Life (in years)	Total Acquisitions
Current assets		$ 72
Property, plant and equipment/noncurrent assets		4
Intangible assets:		
Goodwill	N/A	746
Client relationships	7	134
Completed technology	3-7	114
Trademarks	2-6	27
Total assets acquired		$ 1,097
Current liabilities		48
Noncurrent liabilities		62
Total liabilities assumed		$ 110
Total purchase price		$ 987

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 overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.8 years. These 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. Goodwill of $501 million and $245 million was assigned to the Global Business Services segment and Cloud & Cognitive Software segment, respectively. It is expected that approximately 11 percent of the goodwill will be deductible for tax purposes.

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.

At December 31, 2020, the remaining cash to be remitted by the company related to certain fourth-quarter 2020 acquisitions was $323 million. This amount was classified as restricted cash in the Consolidated Balance Sheet at December 31, 2020. At March 31, 2021, the remaining amount to be remitted was not material.

Divestitures

In the fourth quarter of 2020, the company entered into a definitive agreement to sell certain remaining OEM commercial financing capabilities reported within the Global Financing segment. The financial terms related to this transaction are not material. The transaction is expected to be completed in the second half of 2021.

6. Earnings Per Share of Common Stock:

The following table provides the computation of basic and diluted earnings per share of common stock for the three months ended March 31, 2021 and 2020.

(Dollars in millions except per share amounts) For the three months ended March 31:	2021	2020
Number of shares on which basic earnings per share is calculated:		
Weighted-average shares outstanding during period	893,630,916	887,969,345
Add — Incremental shares under stock-based compensation plans	6,622,441	5,740,415
Add — Incremental shares associated with contingently issuable shares	1,492,709	1,329,477
Number of shares on which diluted earnings per share is calculated	901,746,065	895,039,238
Income from continuing operations	$ 956	$ 1,176
Income/(loss) from discontinued operations, net of tax	(1)	(1)
Net income on which basic earnings per share is calculated	$ 955	$ 1,175
Income from continuing operations	$ 956	$ 1,176
Net income applicable to contingently issuable shares	—	(2)
Income from continuing operations on which diluted earnings per share is calculated	$ 956	$ 1,174
Income/(loss) from discontinued operations, net of tax, on which basic and diluted earnings per share is calculated	(1)	(1)
Net income on which diluted earnings per share is calculated	$ 955	$ 1,173
Earnings/(loss) per share of common stock:		
Assuming dilution		
Continuing operations	$ 1.06	$ 1.31
Discontinued operations	0.00	0.00
Total	$ 1.06	$ 1.31
Basic		
Continuing operations	$ 1.07	$ 1.32
Discontinued operations	0.00	0.00
Total	$ 1.07	$ 1.32

Stock options to purchase 1,510,886 shares and 1,136,899 shares were outstanding as of March 31, 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 impairment for credit losses and no material non-credit impairment were recorded for the three months ended March 31, 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 months ended March 31, 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 March 31, 2021 and December 31, 2020.

(Dollars in millions)	Fair Value Hierarchy Level	At March 31, 2021 Assets (7)	At March 31, 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	$ 5,943	$ N/A	$ 7,668	$ N/A
Money market funds	1	141	N/A	148	N/A
U.S. government securities (2)	2	—	N/A	500	N/A
Total cash equivalents		$ 6,084	$ N/A	$ 8,316	$ N/A
Equity investments (3)	1	1	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	20	—	100	—
Foreign exchange contracts	2	404	276	111	580
Derivatives not designated as hedging instruments:					
Foreign exchange contracts	2	13	50	13	47
Equity contracts (6)	1,2	13	6	12	—
Total		$ 7,141	$ 332	$ 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) Primarily includes 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 March 31, 2021 were $386 million and $64 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 March 31, 2021 were $277 million and $55 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 March 31, 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 $51,206 million and $54,355 million, and the estimated fair value was $55,962 million and $61,598 million at March 31, 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:

	Client Financing Receivables			
(Dollars in millions) At March 31, 2021:	Client Loan and Installment Payment Receivables (Loans)	Investment in Sales-Type and Direct Financing Leases	Commercial Financing Receivables	Total
Financing receivables, gross	$ 10,218	$ 3,923	$ 1,119	$ 15,261
Unearned income	(421)	(290)	0	(711)
Residual value*	—	430	—	430
Amortized cost	$ 9,797	$ 4,064	$ 1,119	$ 14,980
Allowance for credit losses	(154)	(74)	(7)	(236)
Total financing receivables, net	$ 9,643	$ 3,989	$ 1,112	$ 14,744
Current portion	$ 6,050	$ 1,660	$ 1,112	$ 8,822
Noncurrent portion	$ 3,592	$ 2,329	$ —	$ 5,922

	Client Financing Receivables			
(Dollars in millions) At December 31, 2020:	Client Loan and Installment Payment Receivables (Loans)	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 $425 million and $482 million at March 31, 2021 and December 31, 2020, respectively. These borrowings are included in note 11, "Borrowings."

Transfer of Financial Assets

For the three months ended March 31, 2021, the company sold $995 million of client financing receivables to third parties, consisting of loan and lease receivables of $653 million and $342 million, respectively. More than half of the receivables sold were classified as current assets at the time of sale.

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 $1,167 million of commercial financing receivables under the agreement for the three months ended March 31, 2021. In addition, the company included $257 million and $383 million of commercial financing receivables classified as held for sale at March 31, 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 transfers of these receivables qualified as true sales and therefore reduced financing receivables, resulting in a benefit to cash flows from operating activities. The impacts to the Consolidated Income Statement, including fees and net gain or loss associated with the transfers of these receivables for the three months ended March 31, 2021 were not material. The company did not have any sales of financing receivables for the three months ended March 31, 2020.

Financing Receivables by Portfolio Segment

The following tables present the amortized cost basis for client financing receivables at March 31, 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 March 31, 2021:	Americas	EMEA	Asia Pacific	Total
Amortized cost	$ 6,867	$ 4,244	$ 2,750	$ 13,861
Allowance for credit losses				
Beginning balance at January 1, 2021	$ 141	$ 77	$ 37	$ 255
Write-offs	(2)	(1)	(6)	(9)
Recoveries	0	0	0	1
Additions/(releases)	(11)	2	(3)	(12)
Other*	(3)	(3)	0	(6)
Ending balance at March 31, 2021	$ 125	$ 76	$ 27	$ 229

(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 March 31, 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 for client financing receivables, including amortized cost aged over 90 days and still accruing, billed invoices aged over 90 days and still accruing, and amortized cost not accruing.

(Dollars in millions) At March 31, 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	$ 6,867	$ 271	$ 182	$ 11	$ 94
EMEA	4,244	102	14	3	93
Asia Pacific	2,750	32	9	4	24
Total client financing receivables	$ 13,861	$ 405	$ 205	$ 18	$ 212

(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 for financing receivables aged greater than 90 days.
(2) Of the amortized cost not accruing, there was a related allowance of $167 million and $178 million at March 31, 2021 and December 31, 2020, respectively. Financing income recognized on these receivables was immaterial for the three months ended March 31, 2021 and 2020, respectively.

Credit Quality Indicators

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

The following tables present the amortized cost basis for client financing receivables by credit quality indicator at March 31, 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 March 31, 2021:	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D	Aaa – Baa3	Ba1 – D
Vintage year:						
2021	$ 808	$ 421	$ 310	$ 349	$ 253	$ 105
2020	1,966	923	1,086	887	721	230
2019	871	457	471	431	499	94
2018	666	283	311	166	365	133
2017	206	117	43	103	165	40
2016 and prior	56	92	34	53	109	36
Total	$ 4,573	$ 2,294	$ 2,254	$ 1,989	$ 2,111	$ 639

(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 three months ended March 31, 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)		
For the three months ended March 31:	2021	2020
Lease income – sales-type and direct financing leases:		
Sales-type lease selling price	$ 363	$ 211
Less: Carrying value of underlying assets*	59	76
Gross profit	$ 304	$ 135
Interest income on lease receivables	51	74
Total sales-type and direct financing lease income	$ 355	$ 208
Lease income – operating leases	51	71
Variable lease income	57	30
Total lease income	$ 463	$ 310

* Excludes unguaranteed residual value.

10. Intangible Assets Including Goodwill:

Intangible Assets

The following table presents the company's intangible asset balances by major asset class.

(Dollars in millions)	At March 31, 2021 Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount*
Intangible asset class:			
Capitalized software	$ 1,854	$ (837)	$ 1,017
Client relationships	8,874	(2,275)	6,599
Completed technology	5,972	(1,784)	4,188
Patents/trademarks	2,196	(480)	1,717
Other**	56	(41)	14
Total	$ 18,952	$ (5,417)	$ 13,535

(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 March 31, 2021 and December 31, 2020 include a decrease in net intangible asset balances of $137 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 $261 million during the first three months of 2021, primarily due to intangible asset amortization, partially offset by additions of acquired intangibles and capitalized software. The aggregate intangible amortization expense was $620 million and $622 million for the quarters ended March 31, 2021 and 2020, respectively. In the first three months of 2021, the company retired $256 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 is estimated to be the following at March 31, 2021:

(Dollars in millions)	Capitalized Software	Acquired Intangibles	Total
Remainder of 2021	$ 469	$ 1,379	$ 1,848
2022	368	1,774	2,142
2023	168	1,459	1,627
2024	12	1,408	1,420
2025	—	1,389	1,389
Thereafter	—	5,109	5,109

Goodwill

The changes in the goodwill balances by segment for the three months ended March 31, 2021 and for the year ended December 31, 2020 are as follows:

(Dollars in millions) Segment	Balance 1/1/2021	Goodwill Additions	Purchase Price Adjustments	Foreign Currency Translation and Other Adjustments*	Balance 3/31/2021
Cloud & Cognitive Software	$ 43,934	$ 245	$ 6	$ (249)	$ 43,935
Global Business Services	6,145	501	0	(61)	6,585
Global Technology Services	7,245	—	—	(70)	7,175
Systems	2,293	—	0	(4)	2,289
Total	$ 59,617	$ 746	$ 6	$ (384)	$ 59,984

(Dollars in millions) Segment	Balance 1/1/2020	Goodwill Additions	Purchase Price Adjustments	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 three months of 2021 or full-year 2020 and the company has no accumulated impairment losses. Purchase price adjustments recorded in the first three 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 during the first three 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.

11. Borrowings:

Short-Term Debt

(Dollars in millions)	At March 31, 2021	At December 31, 2020
Short-term loans	$ 36	$ 130
Long-term debt–current maturities	5,162	7,053
Total	$ 5,198	$ 7,183

The weighted-average interest rate for short-term loans was 5.3 percent and 5.7 percent at March 31, 2021 and December 31, 2020, respectively.

Long-Term Debt

Pre-Swap Borrowing

(Dollars in millions)	Maturities	Balance 3/31/2021	Balance 12/31/2020
U.S. dollar debt (weighted-average interest rate at March 31, 2021):*			
0.7%	2021	$ 2,635	$ 5,499
2.6%	2022	5,712	6,233
3.5%	2023	1,636	2,395
3.3%	2024	5,025	5,029
6.8%	2025	626	631
3.3%	2026	4,368	4,370
3.0%	2027	2,219	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
		$ 37,062	$ 41,218
Other currencies (weighted-average interest rate at March 31, 2021, in parentheses):*			
Euro (1.1%)	2021–2040	$ 17,618	$ 18,355
Pound sterling (2.6%)	2022	414	411
Japanese yen (0.3%)	2022–2026	1,316	1,409
Other (4.4%)	2021–2025	299	324
		$ 56,708	$ 61,718
Finance lease obligations (1.5%)	2021–2030	317	296
		$ 57,025	$ 62,013
Less: net unamortized discount		868	875
Less: net unamortized debt issuance costs		147	156
Add: fair value adjustment**		357	426
		$ 56,367	$ 61,408
Less: current maturities		5,162	7,053
Total		$ 51,206	$ 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 March 31, 2021, are as follows:

(Dollars in millions)	Total
Remainder of 2021	$ 4,060
2022	6,826
2023	4,928
2024	6,442
2025	4,144
Thereafter	30,625
Total	$ 57,025

Interest on Debt

(Dollars in millions) For the three months ended March 31:	2021	2020
Cost of financing	$ 106	$ 119
Interest expense	280	326
Interest capitalized	2	5
Total interest paid and accrued	$ 388	$ 449

Lines of Credit

IBM has a $10.25 billion Five-Year Credit Agreement, a $2.5 billion Three-Year Credit Agreement and a $2.5 billion 364-day Credit Agreement with respective maturity dates of July 20, 2024, July 20, 2023 and July 1, 2021.

At March 31, 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 $1.6 billion and $2.1 billion at March 31, 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 $4.7 billion and $5.2 billion at March 31, 2021 and December 31, 2020, respectively. 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 March 31, 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 March 31, 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	16	20
Accrual adjustments to reflect actual experience	(4)	(6)
Charges incurred	(23)	(26)
Balance at March 31	$ 72	$ 100

Extended Warranty Liability (Deferred Income)

(Dollars in millions)	2021	2020
Balance at January 1	$ 425	$ 477
Revenue deferred for new extended warranty contracts	18	40
Amortization of deferred revenue	(53)	(57)
Other*	(6)	(13)
Balance at March 31	$ 383	$ 447
Current portion	$ 199	$ 219
Noncurrent portion	$ 185	$ 228

* 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 March 31, 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.

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 is pending in a Pennsylvania court.

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 requires IBM to pay approximately $20 million in damages, plus interest and litigation costs. CISGIL is expected to seek permission from the Court of Appeal to appeal the judgment.

In May 2015, a putative class action was commenced in the United States District Court for the Southern District of New York related to the company's October 2014 announcement that it was divesting its global commercial semiconductor technology business, alleging violations of the Employee Retirement Income Security Act (ERISA). Management's Retirement Plans Committee and three current or former IBM executives are named as defendants. On September 29, 2017, the Court granted the defendants' motion to dismiss the first amended complaint. On December 10, 2018, the Second Circuit Court of Appeals reversed the District Court order. On January 14, 2020, the Supreme Court of the United States vacated the decision and remanded the case to the Second Circuit. On June 22, 2020, the Second

Circuit reinstated its prior decision and remanded the case to the District Court. In February 2021, the parties reached an agreement to settle the matter subject to court approval.

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 $700 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 March 31, 2021:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ 549	$ (228)	$ 321
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	$ 187	$ (47)	$ 140
Reclassification of (gains)/losses to:			
Cost of services	(14)	3	(10)
Cost of sales	22	(6)	16
Cost of financing	6	(2)	4
SG&A expense	15	(4)	11
Other (income) and expense	116	(29)	87
Interest expense	16	(4)	12
Total unrealized gains/(losses) on cash flow hedges	$ 347	$ (88)	$ 259
Retirement-related benefit plans (1):			
Prior service costs/(credits)	$ 0	$ 0	$ 0
Net (losses)/gains arising during the period	20	(6)	14
Curtailments and settlements	17	(5)	12
Amortization of prior service (credits)/costs	3	0	3
Amortization of net (gains)/losses	648	(177)	471
Total retirement-related benefit plans	$ 689	$ (189)	$ 500
Other comprehensive income/(loss)	$ 1,586	$ (505)	$ 1,080

(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 March 31, 2020:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss):			
Foreign currency translation adjustments	$ (919)	$ (122)	$ (1,041)
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	$ (180)	$ 45	$ (135)
Reclassification of (gains)/losses to:			
Cost of services	(10)	2	(7)
Cost of sales	(9)	2	(6)
Cost of financing	8	(2)	6
SG&A expense	(10)	2	(7)
Other (income) and expense	89	(22)	67
Interest expense	22	(5)	16
Total unrealized gains/(losses) on cash flow hedges	$ (90)	$ 23	$ (67)
Retirement-related benefit plans (1):			
Prior service costs/(credits)	$ (4)	$ 1	$ (3)
Net (losses)/gains arising during the period	8	(2)	6
Curtailments and settlements	8	(3)	6
Amortization of prior service (credits)/costs	1	1	1
Amortization of net (gains)/losses	570	(157)	412
Total retirement-related benefit plans	$ 582	$ (160)	$ 422
Other comprehensive income/(loss)	$ (427)	$ (260)	$ (686)

(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	140	321	14	0	475
Amount reclassified from accumulated other comprehensive income	119	—	486	—	606
Total change for the period	$ 259	$ 321	$ 500	$ 0	$ 1,080
March 31, 2021	$ (197)	$ (4,343)	$ (23,716)	$ (1)	$ (28,257)

* 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	(135)	(1,041)	3	0	(1,174)
Amount reclassified from accumulated other comprehensive income	68	—	419	—	488
Total change for the period	$ (67)	$ (1,041)	$ 422	$ 0	$ (686)
March 31, 2020	$ (246)	$ (4,741)	$ (24,296)	$ 0	$ (29,283)

* 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. No amount was recognized for the obligation to return or the right to reclaim cash collateral at March 31, 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 March 31, 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 March 31, 2021 and December 31, 2020, the total derivative asset and liability positions each would have been reduced by $181 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 March 31, 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 March 31, 2021 and December 31, 2020 was approximately 2.0 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 March 31, 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 March 31, 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 $170 million and net losses of $174 million (before taxes) at March 31, 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 March 31, 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 March 31, 2021 and December 31, 2020, the carrying value of debt designated as hedging instruments was $15.7 billion and $16.4 billion, respectively. The company also uses cross-currency swaps and foreign exchange forward contracts for this risk management purpose. At March 31, 2021 and December 31, 2020, the total notional amount of derivative instruments designated as net investment hedges was $8.2 billion and $7.2 billion, respectively. At March 31, 2021 and December 31, 2020, the weighted-average remaining maturity of these instruments was approximately 0.2 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 three years. At March 31, 2021 and December 31, 2020, the total notional amount of forward contracts designated as cash flow hedges of forecasted royalty and cost transactions was $7.7 billion and $8.0 billion, respectively. At March 31, 2021 and December 31, 2020, the weighted-average remaining maturity of these instruments was approximately 0.7 years at both periods.

At March 31, 2021 and December 31, 2020, in connection with cash flow hedges of anticipated royalties and cost transactions, the company recorded net gains of $115 million and net losses of $192 million (before taxes), respectively, in AOCI. The company estimates that $30 million (before taxes) of deferred net gains on derivatives in AOCI at March 31, 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 March 31, 2021, the maximum length of time remaining over which the company hedged its exposure is approximately seven years. At March 31, 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.

At March 31, 2021 and December 31, 2020, in connection with cash flow hedges of foreign currency denominated borrowings, the company recorded net losses of $199 million and net losses of $236 million (before taxes), respectively, in AOCI. The company estimates that $24 million (before taxes) of deferred net losses on derivatives in AOCI at March 31, 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 March 31, 2021 and December 31, 2020, the total notional amount of derivative instruments in economic hedges of foreign currency exposure was $6.1 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 March 31, 2021 and December 31, 2020, the total notional amount of derivative instruments in economic hedges of these compensation obligations was $1.3 billion at both periods.

Cumulative Basis Adjustments for Fair Value Hedges

At March 31, 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)	March 31, 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	$ (781)	$ (2,097)
Cumulative hedging adjustments included in the carrying amount — assets/(liabilities)*	(357)	(424)

* Includes ($340) million and ($353) million of hedging adjustments on discontinued hedging relationships at March 31, 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 March 31:	2021	2020	2021	2020
Cost of services	$ 7,775	$ 7,843	$ 14	$ 10
Cost of sales	1,585	1,624	(22)	9
Cost of financing	165	181	2	3
SG&A expense	5,174	5,955	34	(191)
Other (income) and expense	362	182	(160)	(101)
Interest expense	280	326	5	10

(Dollars in millions) For the three months ended March 31:	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	$ (1)	$ 18	$ 7	$ (13)
	Interest expense	(1)	49	18	(37)
Derivative instruments not designated as hedging instruments:					
Foreign exchange contracts	Other (income) and expense	(44)	(11)	N/A	N/A
Equity contracts	SG&A expense	49	(201)	N/A	N/A
Total		$ 3	$ (146)	$ 25	$ (50)

(Dollars in millions) For the three months ended March 31:	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	187	(180)	Cost of services	14	10	—	—
			Cost of sales	(22)	9	—	—
			Cost of financing	(5)	(7)	—	—
			SG&A expense	(15)	10	—	—
			Other (income) and expense	(116)	(89)	—	—
			Interest expense	(13)	(18)	—	—
Instruments in net investment hedges (4):							
Foreign exchange contracts	907	485	Cost of financing	—	—	2	7
			Interest expense	—	—	4	20
Total	$ 1,094	$ 304		$ (160)	$ (91)	$ 6	$ 27

(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 months ending March 31, 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) For the three months ended March 31:	2021	2020
Cost	$ 41	$ 27
Selling, general and administrative	123	117
Research, development and engineering	49	45
Pre-tax stock-based compensation cost	$ 213	$ 189
Income tax benefits	(52)	(45)
Total net stock-based compensation cost	$ 161	$ 144

Pre-tax stock-based compensation cost for the three months ended March 31, 2021 increased $24 million compared to the corresponding period in the prior year. This was due to increases in performance share units ($16 million) and restricted stock units ($8 million).

In the first quarter of 2021, the company's Executive Compensation and Management Resources Committee of the Board of Directors approved changes to certain outstanding performance share unit targets to include the impact of the planned spin-off of Kyndryl, along with actions taken to enable the separation and enable IBM's growth strategy under current market conditions. The impact under modification accounting was not material.

Total unrecognized compensation cost related to non-vested awards at March 31, 2021 was $1.2 billion and is expected to be recognized over a weighted-average period of approximately 2.1 years.

Capitalized stock-based compensation cost was not material at March 31, 2021 and 2020.

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 table provides the pre-tax cost for all retirement-related plans.

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Defined benefit and contribution pension plans — cost	$ 672	$ 584	15.2 %
Nonpension postretirement plans — cost	44	52	(14.5)
Total	$ 717	$ 636	12.8 %

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

Cost/(Income) of Pension Plans

(Dollars in millions)	U.S. Plan		Non-U.S. Plans	
For the three months ended March 31:	2021	2020	2021	2020
Service cost	$ —	$ —	$ 92	$ 95
Interest cost (1)	277	375	111	129
Expected return on plan assets (1)	(451)	(542)	(291)	(309)
Amortization of prior service costs/(credits) (1)	4	4	(2)	(5)
Recognized actuarial losses (1)	249	207	375	342
Curtailments and settlements (1)	—	—	17	8
Multi-employer plans	—	—	8	7
Other costs/(credits) (1)	—	—	11	5
Total net periodic pension (income)/cost of defined benefit plans	$ 80	$ 44	$ 322	$ 274
Cost of defined contribution plans	151	155	119	110
Total defined benefit and contribution pension plans cost recognized in the Consolidated Income Statement	$ 231	$ 199	$ 441	$ 385

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

The following table provides 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 March 31:	2021	2020	2021	2020
Service cost	$ 2	$ 2	$ 1	$ 1
Interest cost (1)	16	26	8	10
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	6
Curtailments and settlements (1)	—	—	—	0
Total nonpension postretirement plans cost recognized in the Consolidated Income Statement	$ 32	$ 36	$ 12	$ 16

(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 three months ended March 31:	2021	2020
U.S. nonpension postretirement benefit plan	$ 106	$ 136
Non-U.S. DB and multi-employer plans	66	82
Total plan contributions	$ 172	$ 217

During the three months ended March 31, 2021 and 2020, the company contributed $150 million and $185 million of U.S Treasury Securities, respectively, to the non-U.S. DB plans and nonpension postretirement benefit plans.

Additionally, during the three months ended March 31, 2021 and 2020, the company contributed $129 million and $70 million of U.S. Treasury Securities, respectively, to the Active Medical Trust. Contributions made with U.S. Treasury securities are considered a non-cash transaction.

18. Subsequent Events:

On April 27, 2021, the company announced that the Board of Directors approved an increase in the quarterly dividend to $1.64 per common share. The dividend is payable June 10, 2021 to shareholders of record on May 10, 2021.

Item 2.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION FOR THE THREE MONTHS ENDED MARCH 31, 2021

Snapshot

Financial Results Summary — Three Months Ended March 31:

(Dollars and shares in millions except per share amounts) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent/ Margin Change
Revenue	$ 17,730	$ 17,571	0.9 %*
Gross profit margin	46.3 %	45.1 %	1.2 pts.
Total expense and other (income)	$ 7,299	$ 7,972	(8.4)%
Income/(loss) from continuing operations before income taxes	$ 905	$ (49)	nm
Provision for/(benefit from) income taxes from continuing operations	$ (51)	$ (1,226)	(95.9)%
Income from continuing operations	$ 956	$ 1,176	(18.7)%
Income from continuing operations margin	5.4 %	6.7 %	(1.3)pts.
Net income	$ 955	$ 1,175	(18.7)%
Earnings per share from continuing operations - assuming dilution	$ 1.06	$ 1.31	(19.1)%
Weighted-average shares outstanding - assuming dilution	901.7	895.0	0.7 %
	At 3/31/2021	**At 12/31/2020**	
Assets	$ 148,629	$ 155,971	(4.7)%
Liabilities	$ 127,116	$ 135,244	(6.0)%
Equity	$ 21,513	$ 20,727	3.8 %

* (2.5) percent adjusted for currency; (2.4) percent excluding divested businesses and adjusted for currency.
nm - not meaningful

Organization of Information:

On October 8, 2020, we announced our plan to separate our managed infrastructure services unit of our Global Technology Services (GTS) segment into a new public company. The managed infrastructure services unit is comprised of outsourcing and other infrastructure modernization and management services and the name of the new company will be Kyndryl. The separation is expected to be achieved through a U.S. federal tax-free spin-off to IBM shareholders and completed by the end of 2021. It will be subject to customary market, regulatory and other closing conditions, including final IBM Board of Directors' approval. The announcement did not have any classification impact to our Consolidated Financial Statements or segment reporting. We will report the managed infrastructure services unit as discontinued operations after separation.

Currency:

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

other currencies, the growth at constant currency rates or adjusting for currency will be higher or lower than growth reported at actual exchange rates. Refer to "Currency Rate Fluctuations" for additional information.

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 divested businesses and at constant currency. These divested businesses are included in the category "Other–divested businesses."

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 managed infrastructure services spin-off 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 managed infrastructure services spin-off 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 charges. All other spending for the managed infrastructure services business operations 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 first quarter of 2021 and 2020.

(Dollars in millions except per share amounts) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change
Net income as reported	$ 955	$ 1,175	(18.7)%
Income/(loss) from discontinued operations, net of tax	(1)	(1)	(41.7)
Income from continuing operations	$ 956	$ 1,176	(18.7)%
Non-operating adjustments (net of tax):			
Acquisition-related charges	$ 335	$ 371	(9.8)%
Non-operating retirement-related costs/(income)	282	250	12.4
U.S. tax reform impacts	(19)	(149)	(87.4)
Spin-off-related charges	46	—	nm
Operating (non-GAAP) earnings*	$ 1,599	$ 1,649	(3.0)%
Diluted operating (non-GAAP) earnings per share*	$ 1.77	$ 1.84	(3.8)%

* Refer to page 71 for a more detailed reconciliation of net income to operating earnings.
nm - not meaningful

Separation of Kyndryl:

IBM is redefining its future as a hybrid cloud platform and AI company. The October 8, 2020 announcement of our plan to separate the managed infrastructure services unit of our GTS segment into a new public company will create two industry-leading companies, each with strategic focus and flexibility to capitalize on their respective missions and drive client and shareholder value. IBM will focus on its open hybrid cloud platform and AI capabilities to accelerate clients' digital transformations. Upon separation, Kyndryl will immediately be the world's leading managed infrastructure services provider and will have greater agility to design, run and modernize the infrastructure of the world's most important organizations. Both IBM and Kyndryl will have greater ability to focus on their operating and financial models, have more freedom to partner with others and both will align their investments and capital structure to their strategic focus areas. We continue to make good progress on executing the necessary financial, legal and regulatory milestones to enable the separation and remain on track to complete the separation by the end of 2021.

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.

We expect the rate and pace of recovery from the pandemic to differ by geography and industry. However, the overall spending environment is beginning to improve. For example, we saw improvement in project activity and client-based business volumes in the first quarter of 2021, including some of the industries most affected by the pandemic.

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.

Financial Performance Summary — Three Months Ended March 31:

In the first quarter of 2021, we reported $17.7 billion in revenue, $1.0 billion in income from continuing operations and operating (non-GAAP) earnings of $1.6 billion, resulting in diluted earnings per share from continuing operations of $1.06 as reported and $1.77 on an operating (non-GAAP) basis. We also generated $4.9 billion in cash from operations, $1.5 billion in free cash flow, which included $0.6 billion of cash impacts from the structural actions initiated in fourth-quarter 2020 and spin-off-related charges, and delivered shareholder returns of $1.5 billion through dividends. These results reflect sequential year-to-year improvement in revenue from the fourth-quarter 2020, gross and pre-tax margin expansion and solid cash generation.

Total consolidated revenue increased 0.9 percent as reported but decreased 2 percent adjusted for currency. On a segment basis, Cloud & Cognitive Software returned to growth and increased 3.8 percent as reported (1 percent adjusted for currency). Within this segment, Cloud & Data Platforms grew 13.0 percent as reported (10 percent adjusted for currency) with continued solid Red Hat performance led by Red Hat Enterprise Linux and our OpenShift hybrid cloud platform. Cognitive Applications revenue grew 4.3 percent as reported (2 percent adjusted for currency) compared to the prior-year period led by strength in Security, while Transaction Processing Platforms declined year to year as client buying behavior continued to focus on operating expense over capital expenditures. Global Business Services (GBS) grew 2.4 percent as reported (decreased 1 percent adjusted for currency), with sequential year-to-year improvement from the fourth-quarter 2020. Within GBS, Consulting returned to growth and Global Process Services (GPS) had strong double-digit growth, while Application Management decreased year to year. GTS decreased 1.5 percent as reported (5 percent adjusted for currency), but had sequential year-to-year improvement from the fourth-quarter 2020 as clients increased their project activity and business volumes, including some clients in industries most impacted by the pandemic. Systems increased 4.3 percent as reported (2 percent adjusted for currency) led by strong performance in IBM Z, partially offset by declines in Storage and Power.

Total cloud revenue of $6.5 billion in the first quarter of 2021 grew 21 percent as reported (17 percent adjusted for currency) and 18 percent excluding divested businesses and adjusted for currency. Over the trailing 12 months, total cloud revenue was $26.3 billion, up 19 percent as reported (17 percent adjusted for currency) and 18 percent excluding divested businesses and adjusted for currency.

From a geographic perspective, Americas revenue was essentially flat year to year as reported and adjusted for currency. Europe/Middle East/Africa (EMEA) increased 2.3 percent as reported, but decreased 6 percent adjusted for currency. Asia Pacific increased 0.6 percent year to year as reported, but decreased 4 percent adjusted for currency.

Total consolidated gross margin of 46.3 percent increased 1.2 points year to year, and the operating (non-GAAP) gross margin of 47.3 percent increased 1.1 points compared to the prior year, reflecting our focus on productivity, shift to higher-value offerings and portfolio mix with strong software contribution.

Total expense and other (income) of $7.3 billion decreased 8.4 percent in the first quarter of 2021 versus the prior-year period primarily driven by lower workforce rebalancing charges, reductions in travel and other expenses from COVID-19 restrictions and a decrease in expected credit loss expense, partially offset by the effects of currency, higher non-operating retirement-related costs and spin-off-related charges in the current year. Our expense dynamics also reflect continuing investment in innovation, skills and our ecosystem as we execute our hybrid cloud and AI strategy. Total operating (non-GAAP) expense and other (income) decreased 11.0 percent year to year, driven primarily by the factors above excluding the higher non-operating retirement-related costs and spin-off-related charges.

The pre-tax income from continuing operations was $0.9 billion in the first quarter of 2021 compared to a pre-tax loss of $49 million in the first quarter of 2020. The prior-year period included workforce rebalancing charges of $728

million compared to $146 million in the first quarter of 2021. The pre-tax margin from continuing operations was 5.1 percent, an increase of 5.4 points versus the prior-year period. The continuing operations benefit from income taxes in the first quarter of 2021 was $0.1 billion compared to a benefit from income taxes of $1.2 billion in the first quarter of 2020. The current-year benefit was primarily driven by the resolution of certain tax audit matters. The prior-year 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 in the first quarter of 2021 of $1.0 billion decreased 18.7 percent and the net income margin from continuing operations was 5.4 percent, a decrease of 1.3 points year to year.

Operating (non-GAAP) pre-tax income from continuing operations of $1.8 billion increased 158.3 percent compared to the prior-year period, primarily due to lower workforce rebalancing impacts of $582 million. The operating (non-GAAP) pre-tax margin from continuing operations increased 6.1 points to 10.0 percent. The operating (non-GAAP) income tax provision was $0.2 billion in the first quarter of 2021, compared to a benefit from income taxes of $1.0 billion in the first quarter of 2020. The operating (non-GAAP) income tax provision year-to-year change was primarily driven by the same factors described above. Operating (non-GAAP) income from continuing operations of $1.6 billion decreased 3.0 percent with an operating (non-GAAP) income margin from continuing operations of 9.0 percent, down 0.4 points year to year.

Diluted earnings per share from continuing operations of $1.06 in the first quarter of 2021 decreased 19.1 percent and operating (non-GAAP) diluted earnings per share of $1.77 decreased 3.8 percent versus the first quarter of 2020.

In the first quarter, we continued to take actions to further enhance our balance sheet and liquidity position. At March 31, 2021, the balance sheet remained strong with flexibility to support and invest in the business. Cash and cash equivalents, restricted cash and marketable securities at March 31, 2021 were $11.3 billion, a decrease of $3.0 billion from December 31, 2020. In line with our overall debt pay down strategy, we have reduced total debt by $5.1 billion from December 31, 2020 and $16.6 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 $7.3 billion ($5.5 billion adjusted for currency) from December 31, 2020 driven by:

- A decrease in cash and cash equivalents, restricted cash and marketable securities of $3.0 billion (2.8 billion adjusted for currency); and

- A decrease in receivables of $3.8 billion ($3.3 billion adjusted for currency) primarily due to collections of seasonally higher year-end balances and sales of financing receivables.

Total liabilities decreased $8.1 billion ($5.7 billion adjusted for currency) from December 31, 2020 driven by:

- A decrease in total debt of $5.1 billion ($4.4 billion adjusted for currency) primarily due to maturities of $4.2 billion, including a $1.8 billion early redemption of outstanding IBM Credit LLC (IBM Credit) debt;

- A decrease in other accrued expenses and liabilities of $1.1 billion ($0.9 billion adjusted for currency) primarily due to payments of $0.7 billion for workforce rebalancing actions and cash payments related to fourth-quarter 2020 acquisitions; and

- Decreases in retirement and nonpension postretirement benefit obligations of $0.9 billion ($0.4 billion adjusted for currency) and accounts payable of $0.8 billion ($0.7 billion adjusted for currency); partially offset by

- An increase in deferred income of $1.2 billion ($1.6 billion adjusted for currency) primarily driven by annual customer billings and higher software renewal rates.

Total equity of $21.5 billion increased $0.8 billion from December 31, 2020 as a result of:

- An increase in accumulated other comprehensive income of $1.1 billion primarily related to retirement-related benefit plans and foreign currency translation; and
- Net income of $1.0 billion; partially offset by
- Dividends paid of $1.5 billion.

We generated $4.9 billion in cash flow provided by operating activities, an increase of $0.4 billion compared to the first quarter of 2020. In the first quarter of 2021, investing activities were a net use of cash of $2.0 billion compared to $0.9 billion in the prior year. The $1.1 billion change year to year was primarily driven by an increase in cash used for acquisitions. Financing activities were a use of cash of $5.8 billion in the first quarter of 2021 compared to $0.1 billion in the prior-year period. The year-to-year change was driven primarily by a decrease in net cash provided by debt transactions of $5.7 billion.

First Quarter in Review

Results of Continuing Operations

Segment Details

The following is an analysis of the first quarter of 2021 versus the first quarter of 2020 reportable segment external revenue and gross margin results. Segment pre-tax income/(loss) 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 March 31:	2021	2020	Yr. to Yr. Percent/Margin Change	Yr. to Yr. Percent Change Adjusted For Currency
Revenue:				
Cloud & Cognitive Software	$ 5,437	$ 5,238	3.8 %	0.8 %
Gross margin	76.0 %	75.4 %	0.6 pts.	
Global Business Services	4,234	4,136	2.4 %	(1.4)%
Gross margin	28.2 %	27.2 %	1.0 pts.	
Global Technology Services	6,370	6,467	(1.5)%	(5.3)%
Gross margin	34.5 %	34.0 %	0.6 pts.	
Systems	1,427	1,368	4.3 %	2.2 %
Gross margin	54.5 %	50.2 %	4.3 pts.	
Global Financing	240	299	(20.0)%	(21.9)%
Gross margin	31.9 %	40.7 %	(8.8)pts.	
Other	23	62	(63.8)%	(64.5)%
Gross margin	nm	(254.3)%	nm	
Total consolidated revenue	$ 17,730	$ 17,571	0.9 %*	(2.5)%
Total consolidated gross profit	$ 8,204	$ 7,922	3.6 %	
Total consolidated gross margin	46.3 %	45.1 %	1.2 pts.	
Non-operating adjustments:				
Amortization of acquired intangible assets	175	188	(7.0)%	
Spin-off-related charges	3	—	nm	
Operating (non-GAAP) gross profit	$ 8,382	$ 8,110	3.3 %	
Operating (non-GAAP) gross margin	47.3 %	46.2 %	1.1 pts.	

* (2.4) percent excluding divested businesses and adjusted for currency.
nm – not meaningful

Cloud & Cognitive Software

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Cloud & Cognitive Software external revenue:	$ 5,437	$ 5,238	3.8 %	0.8 %
Cloud & Data Platforms	$ 2,866	$ 2,536	13.0 %	9.7 %
Cognitive Applications	1,233	1,182	4.3	1.6
Transaction Processing Platforms	1,338	1,520	(12.0)	(14.7)

Cloud & Cognitive Software revenue of $5,437 million increased 3.8 percent as reported (1 percent adjusted for currency) in the first quarter of 2021 compared to the prior year, driven by Cloud & Data Platforms and Cognitive Applications. We continued to increase our software subscription and support renewal rates across the segment.

In the first quarter, Cloud & Data Platforms revenue of $2,866 million increased 13.0 percent as reported (10 percent adjusted for currency) compared to the prior year driven by continued solid performance in Red Hat, led by Red Hat Enterprise Linux and OpenShift, both of which have gained share. With approximately 3,000 hybrid cloud platform clients, we have now tripled the revenue base of OpenShift since we acquired Red Hat.

Cognitive Applications first-quarter revenue of $1,233 million increased 4.3 percent as reported (2 percent adjusted for currency) compared to the prior year, led by strength across Security software and services, which was partially offset by declines in our Watson Health offerings. Our Cloud Pak for Security solution helped enterprises manage threats and protect their digital workloads, data and identities across hybrid cloud environments. Our clients opted for accelerated time to value and ease of operation with QRadar on Cloud to rapidly detect cybersecurity attacks and network breaches.

Transaction Processing Platforms revenue of $1,338 million decreased 12.0 percent as reported (15 percent adjusted for currency) in the first quarter compared to the prior year. We offer clients flexibility in how they purchase our software and clients' buying behaviors have been shifting toward more consumption-based models. As a result, we are seeing a continued preference for operating expense over capital expenditures, putting pressure on our sales of perpetual licenses. In the first quarter, we had strong renewals in our Transaction Processing Platforms' software, which provides mission-critical capabilities to our clients.

Within Cloud & Cognitive Software, cloud revenue of $1.8 billion grew 38 percent as reported (34 percent adjusted for currency) in the first quarter of 2021, reflecting the investments and actions we have taken to capture the hybrid cloud opportunity with solutions such as Red Hat OpenShift and Cloud Paks.

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent/ Margin Change
Cloud & Cognitive Software:			
External gross profit	$ 4,132	$ 3,951	4.6 %
External gross profit margin	76.0 %	75.4 %	0.6 pts.
Pre-tax income	$ 1,428	$ 933	53.0 %
Pre-tax margin	22.8 %	15.4 %	7.4 pts.

Cloud & Cognitive Software gross profit margin increased 0.6 points to 76.0 percent in the first quarter of 2021 compared to the first-quarter 2020. The gross profit margin expansion was driven primarily by the contribution from Red Hat and year-to-year improvement in services margin, partially offset by a decline in transaction processing software margin.

In the first quarter, pre-tax income of $1,428 million increased 53.0 percent year to year and pre-tax margin increased 7.4 points to 22.8 percent compared to the prior year. The pre-tax margin improvement was driven primarily by higher gross profit contribution and lower workforce rebalancing charges year to year, partially offset by our continued investment in new innovation and our software ecosystem.

Global Business Services

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Global Business Services external revenue:	$ 4,234	$ 4,136	2.4 %	(1.4)%
Consulting	$ 2,189	$ 2,071	5.7 %	1.9 %
Application Management	1,770	1,840	(3.8)	(7.5)
Global Process Services	274	225	21.8	18.7

Global Business Services revenue of $4,234 million increased 2.4 percent as reported, but decreased 1 percent adjusted for currency in the first quarter of 2021 compared to the prior year, with growth in Consulting and Global Process Services, offset by declines in Application Management. GBS revenue improved sequentially year to year compared to the fourth quarter of 2020 both as reported and adjusted for currency. This revenue performance reflects the trend that clients are digitally transforming their businesses using hybrid cloud and AI to capture new growth opportunities, increase productivity and create operating flexibility.

In the first quarter, Consulting revenue of $2,189 million grew 5.7 percent as reported and 2 percent adjusted for currency. We had growth in our consulting offerings that advise clients and help them build and modernize their applications, reflecting our expanding practices with our ecosystem partners and strong momentum in our Red Hat engagements. In the first quarter, the number of Red Hat client engagements doubled year to year to more than 150. In addition, we had double-digit growth in offerings which leverage data and AI to transform client processes in areas such as finance and supply chain.

Application Management revenue of $1,770 million decreased 3.8 percent as reported and 8 percent adjusted for currency compared to the first quarter of 2020. We had growth in offerings which build and move applications to the cloud, offset by declines in the more traditional on-premise services. Our application incumbency enables GBS to be the partner of choice for a client's digital transformation, which brings high value to our clients and is an important component of IBM's hybrid cloud strategy and platform adoption.

Global Process Services first-quarter revenue of $274 million grew 21.8 percent as reported and 19 percent adjusted for currency. We had broad-based growth in areas such as finance, and talent and transformation as clients leveraged hybrid cloud to scale their activities to capture productivity and gain insights.

Within GBS, cloud revenue of $1.7 billion grew 33 percent as reported (28 percent adjusted for currency) in the first quarter of 2021. Cloud revenue growth accelerated with the year-to-year growth rate in first-quarter 2021 doubling compared to fourth-quarter 2020, with strong growth across the portfolio.

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent/ Margin Change
Global Business Services:			
External gross profit	$ 1,194	$ 1,125	6.2 %
External gross profit margin	28.2 %	27.2 %	1.0 pts.
Pre-tax income	$ 390	$ 271	44.1 %
Pre-tax margin	9.1 %	6.5 %	2.6 pts.

GBS first-quarter gross profit margin of 28.2 percent grew 1.0 points on a year-to-year basis, driven primarily by margin expansion across all three areas of business reflecting our shift to higher-value offerings, increased productivity, improvements in delivery capabilities and a reduction in client-related travel. Pre-tax income increased 44.1 percent to $390 million compared to the prior year. Pre-tax margin increased 2.6 points to 9.1 percent in the first-quarter 2021

compared to the prior-year period, driven primarily by the gross profit margin expansion and lower workforce rebalancing charges year to year. We continued to invest, organically and inorganically, to accelerate revenue performance, including closing two acquisitions in the quarter, building and expanding practices with ecosystem partners and hiring to expand our sales and delivery capacity.

Global Technology Services

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Global Technology Services external revenue:	$ 6,370	$ 6,467	(1.5)%	(5.3)%
Infrastructure & Cloud Services	$ 4,853	$ 4,916	(1.3)%	(5.5)%
Technology Support Services	1,517	1,550	(2.1)	(4.8)

Global Technology Services revenue of $6,370 million decreased 1.5 percent as reported (5 percent adjusted for currency) in the first quarter of 2021 compared to the prior year, reflecting a sequential improvement in the year-to-year growth rate compared to the fourth quarter of 2020.

In the first quarter, Infrastructure & Cloud Services revenue of $4,853 million decreased 1.3 percent as reported and 5 percent adjusted for currency compared to the prior-year period. There was an improved trajectory in project activity and client-based business volumes in the first-quarter 2021, including with clients in some industries most affected by the pandemic, such as retail and consumer products. Infrastructure services signings were down year to year, a reflection of the strong signings in the first-quarter 2020 driven by large renewals. In the first-quarter 2021, we had growth in our mid-sized signings as enterprises continued to recognize the long-term value for GTS to design, run and manage the most modern, efficient and reliable technology infrastructures. We continued to make progress on our plan to separate our managed infrastructure services business by the end of 2021 and are deeply engaged with our clients to ensure a smooth transition.

Technology Support Services (TSS) first-quarter revenue of $1,517 million decreased 2.1 percent as reported (5 percent adjusted for currency) reflecting the Systems hardware product cycles.

Within GTS, cloud revenue of $2.4 billion grew 6 percent as reported (2 percent adjusted for currency) in the first quarter of 2021.

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent/ Margin Change
Global Technology Services:			
External gross profit	$ 2,200	$ 2,196	0.2 %
External gross profit margin	34.5 %	34.0 %	0.6 pts.
Pre-tax income/(loss)	$ 140	$ (178)	nm
Pre-tax margin	2.1 %	(2.6)%	4.7 pts.

nm - not meaningful

Global Technology Services gross profit margin increased 0.6 points to 34.5 percent in the first quarter of 2021 as compared to the prior year. The increase in project activity and client-based business volumes in the first-quarter 2021 contributed to the expanded gross profit margin reflecting improved utilization of existing resources. The improvement in gross margin also reflects the benefit from the productivity actions taken in 2020 which have not yet been fully realized. GTS had pre-tax income of $140 million in the first quarter of 2021 as compared to a pre-tax loss of $178 million in the first quarter of 2020, primarily driven by higher workforce rebalancing charges in the prior year.

Services Backlog and Signings

(Dollars in billions)	At March 31, 2021	At March 31, 2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total backlog	$ 104.8	$ 107.8	(2.8)%	(6.5)%

The estimated total services backlog at March 31, 2021 was $104.8 billion, a decrease of 2.8 percent as reported (7 percent adjusted for currency).

Total services backlog includes Infrastructure & Cloud Services, Security Services, Consulting, Global Process Services, Application Management and Technology Support Services. 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.

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Total signings	$ 6,733	$ 8,928	(24.6)%	(27.3)%

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. Technology Support Services are 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.

Systems

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change	Yr. to Yr. Percent Change Adjusted For Currency
Systems external revenue:	$ 1,427	$ 1,368	4.3 %	2.2 %
Systems Hardware	$ 1,114	$ 997	11.8 %	9.7 %
IBM Z			50.3	48.7
Power Systems			(10.3)	(12.7)
Storage Systems			(11.6)	(14.0)
Operating Systems Software	313	371	(15.7)	(17.9)

Systems revenue of $1,427 million increased 4.3 percent as reported and 2 percent adjusted for currency in the first quarter of 2021 compared to the prior year. Systems Hardware revenue of $1,114 million increased 11.8 percent as reported and 10 percent adjusted for currency, driven by strong performance in IBM Z, partially offset by declines in Power Systems and Storage Systems. Operating Systems Software revenue of $313 million decreased 15.7 percent as reported and 18 percent adjusted for currency compared to the prior year driven primarily by declines in IBM Z operating systems due to higher transactional revenue in the prior-year first quarter.

IBM Z revenue increased 50.3 percent as reported (49 percent adjusted for currency) year to year reflecting very strong growth more than six quarters into the z15 product cycle. In the first quarter of 2021, we had growth in areas such as financial services where robust market volatility drove demand for increased capacity. Clients also purchased z15 for its enterprise-grade security and unmatched reliability for regulatory requirements. The innovations we bring to each new generation of IBM Z continue to spur renewed interest and drive client demand, and as of the end of the first quarter of 2021, z15 has shipped the largest capacity in the platform's history. The IBM Z platform is an important element in our hybrid cloud strategy, attracting new workloads, integrating cloud-native capabilities including Red Hat, and supporting our industry-specific cloud solutions.

Power Systems revenue decreased 10.3 percent as reported (13 percent adjusted for currency) year to year, reflecting product cycle dynamics. We had double-digit growth in high-end systems, offset by declines in mid-range and low-end systems.

Storage Systems revenue decreased 11.6 percent as reported (14 percent adjusted for currency) driven primarily by a decline in high-end storage systems as some clients continued to delay large capital purchases and leverage their existing capacity for the near term.

Within Systems, cloud revenue of $0.5 billion increased 23 percent as reported (21 percent adjusted for currency) in the first quarter of 2021.

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent/ Margin Change
Systems:			
External Systems Hardware gross profit	$ 528	$ 380	39.2 %
External Systems Hardware gross profit margin	47.4 %	38.1 %	9.3 pts.
External Operating Systems Software gross profit	$ 249	$ 307	(18.9)%
External Operating Systems Software gross profit margin	79.8 %	82.9 %	(3.1)pts.
External total gross profit	$ 778	$ 687	13.2 %
External total gross profit margin	54.5 %	50.2 %	4.3 pts.
Pre-tax loss	$ (2)	$ (217)	nm
Pre-tax margin	(0.1)%	(14.3)%	14.2 pts.

nm - not meaningful

Systems gross profit margin increased 4.3 points to 54.5 percent in the first quarter of 2021 compared to the prior year. Systems margin improvement was primarily driven by IBM Z and Power Systems margin expansion and a mix to IBM Z, partially offset by margin declines in Storage Systems and Operating Systems Software.

The pre-tax loss of $2 million in the first quarter of 2021 decreased $215 million compared to the first-quarter loss in 2020. The pre-tax margin increased 14.2 points year to year to (0.1) points, primarily driven by the Systems Hardware margin expansion and lower workforce rebalancing charges in first-quarter 2021 compared to the prior year.

Global Financing

See pages 68 through 70 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 March 31:	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	$ 17,730	$ 17,571	0.9 %	(2.5)%	(2.4)%
Americas	$ 8,179	$ 8,166	0.2 %	0.2 %	0.3 %
Europe/Middle East/Africa (EMEA)	5,641	5,517	2.3	(5.6)	(5.5)
Asia Pacific	3,909	3,888	0.6	(3.7)	(3.6)

Total revenue of $17,730 million increased 0.9 percent as reported, but declined 2 percent adjusted for currency compared to the prior year.

Americas revenue of $8,179 million was essentially flat as reported and adjusted for currency. Within Americas, the U.S. increased 0.7 percent compared to the prior year. Canada increased 7.6 percent as reported and 1 percent adjusted for currency. Latin America decreased 9.7 percent as reported and 3 percent adjusted for currency, with Brazil declining 15.1 percent as reported and 1 percent adjusted for currency.

In EMEA, total revenue of $5,641 million increased 2.3 percent as reported, but declined 6 percent adjusted for currency. Within EMEA, as reported, the UK, Germany and Italy increased 7.1 percent, 3.3 percent and 2.7 percent, respectively, but declined 1 percent, 5 percent and 6 percent, respectively, adjusted for currency. France decreased 4.7 percent as reported and 12 percent adjusted for currency.

Asia Pacific revenue of $3,909 million increased 0.6 percent as reported, but declined 4 percent adjusted for currency. Within Asia Pacific, Japan was flat as reported, but declined 3 percent adjusted for currency compared to the prior year. Australia increased 15.9 percent as reported, but decreased 2 percent adjusted for currency. As reported, India and China decreased 11.7 percent and 10.3 percent, respectively, and declined 12 percent and 15 percent, respectively, adjusted for currency.

Expense

Total Expense and Other (Income)

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change
Total consolidated expense and other (income)	$ 7,299	$ 7,972	(8.4)%
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (278)	$ (285)	(2.6)%
Acquisition-related charges	(16)	0	nm
Non-operating retirement-related (costs)/income	(343)	(264)	29.7
Spin-off-related charges	(58)	—	nm
Operating (non-GAAP) expense and other (income)	$ 6,604	$ 7,422	(11.0)%
Total consolidated expense-to-revenue ratio	41.2 %	45.4 %	(4.2)pts.
Operating (non-GAAP) expense-to-revenue ratio	37.3 %	42.2 %	(5.0)pts.

nm — not meaningful

Total expense and other (income) decreased 8.4 percent in the first quarter of 2021 versus the prior year primarily driven by lower workforce rebalancing charges, reductions in travel and other expenses from COVID-19 restrictions and a decrease in expected credit loss expense, partially offset by the effects of currency, higher non-operating retirement-related costs and spin-off-related charges in the current year. Our expense dynamics also reflect continuing investment in innovation, skills and our ecosystem as we execute our hybrid cloud and AI strategy. Total operating (non-GAAP) expense and other (income) decreased 11.0 percent year to year, driven primarily by the factors described above excluding the higher non-operating retirement-related costs and spin-off-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 March 31:	2021	2020	Yr. to Yr. Percent Change
Selling, general and administrative expense:			
Selling, general and administrative — other	$ 4,306	$ 4,341	(0.8)%
Advertising and promotional expense	352	428	(17.9)
Workforce rebalancing charges	146	728	(79.9)
Amortization of acquired intangible assets	277	284	(2.6)
Stock-based compensation	123	117	5.7
Provision for/(benefit from) expected credit loss expense	(29)	56	nm
Total consolidated selling, general and administrative expense	$ 5,174	$ 5,955	(13.1)%
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (277)	$ (284)	(2.6)%
Acquisition-related charges	(16)	0	nm
Spin-off-related charges	(58)	—	nm
Operating (non-GAAP) selling, general and administrative expense	$ 4,823	$ 5,670	(14.9)%

nm — not meaningful

Total selling, general and administrative (SG&A) expense decreased 13.1 percent in the first quarter of 2021 versus the prior year driven primarily by the following factors:

- Lower workforce rebalancing charges (9 points);
- Lower spending (3 points) including reductions in travel and other expenses associated with COVID-19 restrictions, partially offset by continuing investment in innovation, skills and our ecosystem; and
- A benefit from expected credit loss expense compared to a provision in the prior-year period (1 point); partially offset by
- The effects of currency (1 point); and
- Spin-off-related charges in the current year (1 point).

Operating (non-GAAP) expense decreased 14.9 percent year to year primarily driven by the same factors excluding the spin-off-related charges.

Provisions for expected credit loss expense decreased $86 million year to year in the first three months of 2021 primarily driven by higher expense for specific reserves in the prior-year period and a decrease in general reserves in the current year. The receivables provision coverage was 2.6 percent at March 31, 2021, an increase of 20 basis points from December 31, 2020 and an increase of 50 basis points from March 31, 2020 driven by the overall decline in total receivables.

Research, Development and Engineering

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change
Research, development and engineering expense	$ 1,630	$ 1,625	0.3 %

Research, development and engineering (RD&E) expense was 9.2 percent of revenue in the first quarter of 2021 and the prior-year period reflecting our continuing investment in innovation.

RD&E expense in the first quarter of 2021 increased 0.3 percent year to year primarily driven by the effects of currency (2 points), partially offset by lower spending (1 point).

Intellectual Property and Custom Development Income

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change
Intellectual Property and Custom Development Income:			
Licensing of intellectual property including royalty-based fees	$ 72	$ 34	111.1 %
Custom development income	69	76	(9.2)
Sales/other transfers of intellectual property	6	7	(4.6)
Total	$ 147	$ 116	26.3 %

Total intellectual property and custom development income increased 26.3 percent year to year driven by an increase in licensing of intellectual property including royalty-based fees. 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 March 31:	2021	2020	Yr. to Yr. Percent Change
Other (income) and expense:			
Foreign currency transaction losses/(gains)	$ (109)	$ (126)	(13.8)%
(Gains)/losses on derivative instruments	160	101	59.1
Interest income	(14)	(51)	(73.5)
Net (gains)/losses from securities and investment assets	(6)	(5)	8.0
Retirement-related costs/(income)	343	264	29.7
Other	(13)	0	nm
Total consolidated other (income) and expense	$ 362	$ 182	98.4 %
Non-operating adjustments:			
Amortization of acquired intangible assets	$ (1)	$ (1)	—
Non-operating retirement-related (costs)/income	(343)	(264)	29.7 %
Operating (non-GAAP) other (income) and expense	$ 18	$ (83)	nm

nm - not meaningful

Total consolidated other (income) and expense was expense of $362 million in the first quarter of 2021 compared to expense of $182 million in the prior-year period. The year-to-year change was primarily driven by:

- Higher non-operating retirement-related costs ($78 million). Refer to “Retirement-Related Plans” for additional information;
- Net exchange losses (including derivative instruments) in the current year versus net exchange gains in the prior year ($77 million); and
- Lower interest income ($38 million) driven by lower interest rates in the current-year period.

Operating (non-GAAP) other (income) and expense was expense of $18 million in the first quarter of 2021 compared to income of $83 million in the prior-year period. The year-to-year change was driven primarily by the same factors excluding the higher non-operating retirement-related costs.

Interest Expense

(Dollars in millions) For the three months ended March 31:	2021	2020	Yr. to Yr. Percent Change
Interest expense	$ 280	$ 326	(13.9)%

Interest expense decreased $45 million in the first quarter of 2021 compared to the prior-year period. 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 first quarter of 2021 was $386 million, a decrease of $58 million versus the comparable prior-year period, primarily driven by a lower average debt balance and lower average interest rates in the current year.

Retirement-Related Plans

The following table provides 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 March 31:	2021	2020	Yr. to Yr. Percent Change
Retirement-related plans — cost:			
Service cost	$ 95	$ 99	(3.2)%
Multi-employer plans	8	7	3.6
Cost of defined contribution plans	271	265	2.1
Total operating costs	$ 374	$ 371	0.7 %
Interest cost	$ 413	$ 540	(23.5)%
Expected return on plan assets	(742)	(852)	(12.9)
Recognized actuarial losses	640	563	13.8
Amortization of prior service costs/(credits)	3	1	nm
Curtailments/settlements	17	8	106.5
Other costs	11	5	106.7
Total non-operating costs/(income)	$ 343	$ 264	29.7 %
Total retirement-related plans — cost	$ 717	$ 636	12.8 %

nm - not meaningful

Total pre-tax retirement-related plan cost increased by $81 million compared to the first quarter of 2020, primarily driven by lower expected return on plan assets ($110 million) and an increase in recognized actuarial losses ($78 million), partially offset by lower interest costs ($127 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 first quarter of 2021 were $374 million, an increase of $3 million compared to the first quarter of 2020, primarily driven by higher defined contribution plans cost ($5 million). Non-operating costs of $343 million in the first quarter of 2021 increased $78 million year to year, driven by lower expected return on plan assets ($110 million) and an increase in recognized actuarial losses ($78 million), partially offset by lower interest costs ($127 million).

Taxes

The continuing operations benefit from income taxes for the first quarter of 2021 was $51 million, compared to a benefit from income taxes of $1,226 million in the first quarter of 2020. The operating (non-GAAP) income tax provision for the first quarter of 2021 was $179 million, compared to a benefit from income taxes of $961 million in the first quarter of 2020.

The benefit from income taxes in the first quarter of 2021 was primarily driven by the resolution of certain tax audit matters. The benefit from income taxes in the first quarter 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) income tax provision year-to-year change was primarily driven by the same factors.

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 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 March 31, 2021, the company had recorded $739 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 March 31, 2021 is $8,392 million which can be reduced by $568 million associated with timing adjustments, U.S. tax credits, potential transfer pricing adjustments, and state income taxes. The net amount of $7,824 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 March 31:	2021	2020	Yr. to Yr. Percent Change
Earnings per share of common stock from continuing operations:			
Assuming dilution	$ 1.06	$ 1.31	(19.1)%
Basic	$ 1.07	$ 1.32	(18.9)%
Diluted operating (non-GAAP)	$ 1.77	$ 1.84	(3.8)%
Weighted-average shares outstanding: (in millions)			
Assuming dilution	901.7	895.0	0.7 %
Basic	893.6	888.0	0.6 %

Actual shares outstanding at March 31, 2021 were 893.5 million. The weighted-average number of common shares outstanding assuming dilution during the first quarter of 2021 was 6.7 million shares (0.7 percent) higher than the same period of 2020.

Financial Position

Dynamics

At March 31, 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 March 31, 2021 were $11,273 million, a decrease of $3,002 million from December 31, 2020. Financing receivables declined $3,235 million to $14,744 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 $56,404 million at March 31, 2021 decreased $5,134 million from December 31, 2020 and $16,635 million since the end of the second quarter of 2019 (immediately preceding the Red Hat acquisition). We have made good progress in deleveraging, without sacrificing investments in our business or our solid dividend policy. We have consistently generated strong cash flow from operations and continue to have access to additional sources of liquidity through the capital markets and $15,250 million of our unused credit facilities. In the first three months of 2021, we generated $4,914 million in net cash from operations, compared to $4,476 million in the first three months of 2020.

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 March 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 68, are supplementary data presented to facilitate an understanding of the Global Financing business.

IBM Working Capital

(Dollars in millions)	At March 31, 2021	At December 31, 2020
Current assets	$ 34,038	$ 39,165
Current liabilities	36,542	39,869
Working capital	$ (2,505)	$ (705)
Current ratio	0.93:1	0.98:1

Working capital decreased $1,800 million from the year-end 2020 position. The key changes are described below:

Current assets decreased $5,127 million ($4,563 million adjusted for currency) due to:

- A decrease of $3,002 million ($2,798 million adjusted for currency) in cash, restricted cash, and marketable securities; and
- A decrease in receivables of $2,671 million ($2,311 million adjusted for currency) primarily due collections of higher year-end balances and sales of financing receivables; partially offset by
- An increase in prepaid expenses and other current assets of $442 million ($380 million adjusted for currency) primarily driven by an increase in derivative assets.

Current liabilities decreased $3,327 million ($2,588 million adjusted for currency) as a result of:

- A decrease in short-term debt of $1,985 million ($1,975 million adjusted for currency) due to maturities of $2,952 million, including a $500 million early redemption of IBM Credit debt; partially offset by reclassifications of $1,090 million from long-term debt to reflect upcoming maturities; and
- A decrease in other accrued expenses and liabilities of $1,072 million ($866 million adjusted for currency) primarily due to payments of $702 million for workforce rebalancing actions and cash payments related to fourth-quarter 2020 acquisitions; and
- A decrease in accounts payable of $768 million ($695 million adjusted for currency) reflecting declines from seasonally higher year-end balances; and
- A decrease in taxes payable of $661 million ($572 million adjusted for currency); partially offset by
- An increase in deferred income of $1,363 million ($1,623 million adjusted for currency) driven by annual customer billings and an increase in software renewal rates.

Receivables and Allowances

Roll Forward of Total IBM Receivables Allowance for Credit Losses

(Dollars in millions) January 1, 2021	Additions / (Releases) *	Write-offs **	Other +	March 31, 2021
$ 644	$ (24)	$ (16)	$ (7)	$ 597

* 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 2.6 percent at March 31, 2021, an increase of 20 basis points compared to December 31, 2020. The increase in coverage and decrease in the allowance was primarily driven by the overall decrease in total receivables. The majority of the write-offs during the three months ended March 31, 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 March 31, 2021	At December 31, 2020
Amortized cost *	$ 15,004	$ 18,264
Specific allowance for credit losses	174	184
Unallocated allowance for credit losses	63	79
Total allowance for credit losses	236	263
Net financing receivables	$ 14,768	$ 18,001
Allowance for credit losses coverage	1.6 %	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 1.6 percent at March 31, 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 +	March 31, 2021
$ 263	$ (12)	$ (9)	$ (5)	$ 236

* 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 net release of $18 million for the three months ended March 31, 2021, compared to an addition of $11 million for the same period in 2020. The decrease was primarily driven by lower unallocated reserves in Americas and EMEA in the current year reflecting lower asset balances at March 31, 2021 when compared to the same period in the prior year.

Noncurrent Assets and Liabilities

(Dollars in millions)	At March 31, 2021	At December 31, 2020
Noncurrent assets	$ 114,591	$ 116,806
Long-term debt	$ 51,206	$ 54,355
Noncurrent liabilities (excluding debt)	$ 39,368	$ 41,020

Noncurrent assets decreased $2,215 million ($944 million adjusted for currency) due to:

- A decrease in long-term financing receivables of $1,165 million ($1,006 million adjusted for currency) primarily as a result of reductions from seasonally higher year-end volumes and sales of receivables; and
- A decrease in net property, plant and equipment of $588 million ($405 million adjusted for currency); partially offset by
- An increase in goodwill and net intangible assets of $107 million ($629 million adjusted for currency) due to additions from new acquisitions; partially offset by intangibles amortization and currency impacts.

Long-term debt decreased $3,150 million ($2,454 million adjusted for currency) due to:

- Early redemption of IBM Credit debt of $1,250 million;
- Reclassifications to short-term debt of $1,090 million to reflect upcoming maturities; and
- The impacts of currency.

Noncurrent liabilities (excluding debt) decreased $1,652 million ($656 million adjusted for currency) primarily due to:

- A decrease in retirement and postretirement benefit obligations of $901 million ($379 million adjusted for currency);
- A decrease in other liabilities of $409 million ($113 million adjusted for currency).

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 March 31, 2021	At December 31, 2020
Total company debt	$ 56,404	$ 61,538
Total Global Financing segment debt	$ 18,307	$ 21,167
Debt to support external clients	14,941	17,819
Debt to support internal clients	3,366	3,348
Non-Global Financing debt	$ 38,096	$ 40,371

Total debt of $56,404 million decreased $5,134 million ($4,428 million adjusted for currency) from December 31, 2020, driven by debt maturities and early retirements of $4,241 million. Total debt has decreased $16,635 million since the end of the second quarter 2019 (immediately preceding the Red Hat acquisition).

Non-Global Financing debt of $38,096 million decreased $2,275 million ($1,842 million adjusted for currency) from December 31, 2020 due to scheduled debt maturities in the first quarter of 2021.

Global Financing debt of $18,307 million decreased $2,859 million ($2,586 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 IBM'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 will wind down with the separation of the managed infrastructure services business as Global Financing refocuses its portfolio to support IBM's open hybrid cloud platform and AI capabilities.

The debt used to fund Global Financing assets is composed primarily 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 March 31, 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" and in note 4, "Segments." In the Consolidated Income Statement, the external debt-related interest expense supporting Global Financing's internal financing to IBM is reclassified from cost of financing to interest expense.

Equity

Total equity increased $786 million from December 31, 2020, primarily due to an increase in accumulated other comprehensive income of $1,080 million mainly due to retirement-related benefit plans of $500 million and an increase in foreign currency translation gains of $321 million, and an increase from net income of $955 million; partially offset by dividends paid of $1,457 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 three months ended March 31:	2021	2020
Net cash provided by/(used in) continuing operations:		
Operating activities	$ 4,914	$ 4,476
Investing activities	(2,000)	(902)
Financing activities	(5,783)	(115)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(134)	(403)
Net change in cash, cash equivalents and restricted cash	$ (3,002)	$ 3,057

Net cash provided by operating activities increased $438 million as compared to the first three months of 2020 driven primarily by:

- An increase of cash provided by receivables of $262 million primarily driven by sales of financing receivables;
- A decrease in interest payments on debt of approximately $190 million; and
- Performance-related improvements within net income; partially offset by
- An increase in workforce rebalancing payments of $585 million.

Net cash used in investing activities increased $1,098 million driven primarily by:

- An increase in cash used for acquisitions of $1,107 million; and
- An increase in cash used for net purchases of marketable securities and other investments of $168 million; partially offset by
- A decrease in cash used for net capital expenditures of $208 million.

Net cash used in financing activities increased $5,668 million driven primarily by:

- A decrease in net cash provided by debt transactions of $5,656 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 consistent with our overall debt pay down strategy.

Looking Forward

Separation of Kyndryl

On October 8, 2020 we announced our plan to separate the managed infrastructure services unit of our GTS segment into a new public company, to be named Kyndryl. The separation is expected to be achieved through a U.S. federal tax-free spin-off to IBM shareholders and be completed by the end of 2021. The separation will create two industry-leading companies, each with strategic focus and flexibility to capitalize on their respective missions and drive client and shareholder value. IBM will accelerate our open hybrid cloud platform growth strategy and AI capabilities to drive clients' digital transformations. Upon separation, Kyndryl will immediately be the world's leading managed infrastructure services provider and will have greater agility to design, run and modernize the infrastructure of the world's most important organizations. Both IBM and Kyndryl will have greater ability to focus on their operating and financial models, have more freedom to partner with others and both will align their investments and capital structure to their strategic focus areas. We have made good progress on executing the necessary financial, legal and regulatory milestones to enable the separation and remain on track to complete the separation by the end of 2021.

IBM's Hybrid Cloud and AI Strategy

We are reshaping our future as a hybrid cloud platform and AI company. Businesses have made significant investments in their IT infrastructure and are dealing with specific constraints such as compliance, data sovereignty and latency needs in their operations. They need an environment that is not only hybrid, but a hybrid platform that is flexible, secure and built from open source innovation. This gives them a credible path to modernizing legacy systems with advanced cloud services and building cloud-native applications. This is what we have built our platform for and why we have such confidence in our strategy.

To accelerate our strategy, we are increasing our investment, both organic and inorganic in skills, ecosystem and innovation. Our hiring is up year to year and we closed six acquisitions since mid-December 2020. We have redesigned our go-to-market model and expect to yield benefits as we move through the year. We are building out pre-sales garages to co-create solutions with our clients, adding go-to-market delivery capabilities in GBS and technical skills in Red Hat and we are increasing R&D in areas like AI and quantum to drive innovation.

We are executing the structural actions initiated in the fourth quarter of 2020, which will continue through the first half of 2021. While the savings from the structural actions will improve the profit profile of Kyndryl, we expect more of the savings to be reinvested in IBM's remaining business. We have also taken actions to enhance our balance sheet strength and liquidity. At March 31, 2021, we had $11.3 billion of cash and cash equivalents, restricted cash and marketable securities. We have refocused our Global Financing business on IBM's hybrid cloud and AI offerings, reducing our capital needs. Debt levels have decreased $16.6 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.

Looking forward, there is tremendous opportunity for us to help our clients become digital businesses. We continue to take prudent actions to improve our operating model and accelerate our strategic priorities. 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 our solid and modestly growing dividend policy.

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 $0.3 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 March 31, 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 three months of 2021. Based on the currency rate movements in the first three months of 2021, total revenue increased 0.9 percent as reported, but decreased 2.5 percent at constant currency versus the first three 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 $100 million in the first three months of 2021 on an as-reported basis and an increase of approximately $125 million on an operating (non-GAAP) basis. The same mathematical exercise also resulted in an increase of approximately $60 million in the first three months of 2020 on an as-reported basis and an increase of approximately $50 million on an operating (non-GAAP) basis. We view these amounts as a theoretical maximum impact to its 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, the company manages 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 three months ended, or at, as applicable, March 31, 2021, those amounts are $4.9 billion of net cash from operating activities, $11.3 billion of cash and cash equivalents, restricted cash and short-term marketable securities and $15.3 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, the company suspended its share repurchase program at the time of the Red Hat acquisition closing.

The major rating agencies' ratings on our debt securities at March 31, 2021 appear in the following table and remain unchanged from December 31, 2020.

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

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 $5.1 billion from December 31, 2020 and $16.6 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 March 31, 2021, the fair value of those instruments that were in a liability position was $332 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 are continuing to evaluate the potential impact of the replacement of the LIBOR benchmark interest rate, including risk management, internal operational readiness and 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 63. 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 three months of 2021 and 2020 prepared in a manner consistent with the description above.

(Dollars in millions) For the three months ended March 31:	2021	2020
Net cash from operating activities per GAAP	$ 4,914	$ 4,476
Less: change in Global Financing receivables	2,863	2,381
Net cash from operating activities, excluding Global Financing receivables	$ 2,052	$ 2,095
Capital expenditures, net	(529)	(737)
Free cash flow	$ 1,522	$ 1,358
Acquisitions	(1,120)	(13)
Divestitures	(15)	26
Common stock repurchases for tax withholdings	(41)	(44)
Dividends	(1,457)	(1,440)
Non-Global Financing debt	(1,725)	3,503
Other (includes Global Financing net receivables and Global Financing debt)	(166)	(382)
Change in cash, cash equivalents, restricted cash and short-term marketable securities	$ (3,002)	$ 3,008

In the first three months of 2021, we generated free cash flow of $1.5 billion, an increase of $0.2 billion versus the prior year. The current-year period includes cash impacts from structural actions initiated by the company in the fourth quarter of 2020 and spin-off-related charges in the amount of $0.6 billion. In the first quarter of 2021, we also continued to return value to shareholders with $1.5 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 $300 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 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 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 March 31:	2021	2020	Yr. to Yr. Percent/ Margin Change
External revenue	$ 240	$ 299	(20.0)%
Internal revenue	168	212	(20.6)
Total revenue	$ 408	$ 511	(20.2)%
Pre-tax income	$ 166	$ 194	(14.2)%

Return on Equity Calculation

(Dollars in millions) For the three months ended March 31:	2021	2020
Numerator		
Global Financing after-tax income*	$ 123	$ 192
Annualized after-tax income (1)	$ 492	$ 766
Denominator		
Average Global Financing equity (2)**	$ 2,191	$ 2,610
Global Financing return on equity (1)/(2)	22.5 %	29.4 %

* 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.

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 entered into agreements to sell certain financing receivables to third parties. While these strategic actions continue to be a driver of the decline in 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 20.2 percent in the first quarter of 2021 compared to the prior year. External revenue decreased 20.0 percent (22 percent adjusted for currency), driven by external financing (down 21.4 percent to $185 million). Internal revenue declined 20.6 percent due to decreases in internal financing (down 55.5 percent to $37 million), partially offset by internal used equipment sales (up 1.8 percent to $131 million). The decreases in external and internal financing were due to lower average asset balances and yields.

Sales of used equipment of $186 million decreased 3.7 percent for the three months ended March 31, 2021 as compared to the prior-year period. The gross profit margin on used equipment sales was 54.0 percent and 52.0 percent for the three months ended March 31, 2021 and 2020, respectively.

Global Financing pre-tax income decreased 14.2 percent year to year primarily driven by a decline in gross profit of $37 million due to lower revenue, partially offset by a decrease in expense of $10 million.

Global Financing return on equity was 22.5 percent for the three months ended March 31, 2021, compared to 29.4 percent for the three months ended March 31, 2020. The decrease in return on equity in the first quarter of 2021 was driven by lower year-to-year net income.

Financial Position

(Dollars in millions)	At March 31, 2021	At December 31, 2020
Cash and cash equivalents	$ 1,492	$ 1,862
Client financing receivables:		
Net investment in sales-type and direct financing leases [1]	4,013	4,092
Client loans	9,643	11,498
Total client financing receivables	13,656	15,590
Commercial financing receivables	1,112	2,411
Other receivables	49	91
Total external receivables [2]	14,817	18,092
Intercompany financing receivables [3] [4]	3,982	3,959
Other assets	1,424	1,162
Total assets	$ 21,715	$ 25,075
Intercompany payables [3]	$ 321	$ 303
Debt [5]	18,307	21,167
Other liabilities	1,056	1,254
Total liabilities	19,685	22,723
Total equity	2,030	2,352
Total liabilities and equity	$ 21,715	$ 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 $3.3 billion (from $18.1 billion in 2020 to $14.8 billion in 2021) and the $2.9 billion change in Global Financing receivables disclosed in the free cash flow presentation on page 67 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 comprised primarily of intercompany loans.

At March 31, 2021, approximately 64 percent of the total external portfolio was with investment-grade clients with no direct exposure to consumers, an increase of 2 points year to year. 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 the company's cash and liquidity management.

During the three months ended March 31, 2021, the company sold $995 million of client financing receivables to third parties, consisting of loan and lease receivables of $653 million and $342 million, respectively. More than half of the receivables sold were classified as current assets at the time of sale.

In addition, the company sold $1,167 million of commercial financing receivables for the three months ended March 31, 2021 to a third-party investor. The company also classified $257 million and $383 million of IBM commercial financing receivables as held for sale at March 31, 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 may be sold to a third-party investor on a revolving basis.

The reduction of financing receivables due to these sales resulted in a benefit to cash flows from operating activities, however had no impact to free cash flow. The impact to the Consolidated Income Statement, including fees and net gain or loss associated with the transfer of these receivables for the three months ended March 31, 2021, was not material. For additional information relating to the sales of financing receivables refer to note 8, "Financing Receivables."

Refer to pages 60 through 62 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 March 31, 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 March 31, 2021 and December 31, 2020, is expected to be returned to the company

Unguaranteed Residual Value

(Dollars in millions)	At December 31, 2020	At March 31, 2021	Estimated Run Out of March 31, 2021 Balance			
			2021	2022	2023	2024 and Beyond
Sales-type and direct financing leases	$ 469	$ 421	$ 68	$ 136	$ 138	$ 80
Operating leases	48	39	31	4	1	3
Total unguaranteed residual value	$ 516	$ 460	$ 99	$ 140	$ 139	$ 83

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 the company's rationale for presenting operating earnings information.

(Dollars in millions except per share amounts) For the three months ended March 31, 2021:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Spin-off-Related Charges	Operating (non-GAAP)
Gross profit	$ 8,204	$ 175	$ —	$ —	$ 3	$ 8,382
Gross profit margin	46.3 %	1.0 pts.	— pts.	— pts.	0.0 pts.	47.3 %
S,G&A	$ 5,174	$ (293)	$ —	$ —	$ (58)	$ 4,823
Other (income) and expense	362	(1)	(343)	—	—	18
Total expense and other (income)	7,299	(294)	(343)	—	(58)	6,604
Pre-tax income from continuing operations	905	469	343	—	61	1,777
Pre-tax margin from continuing operations	5.1 %	2.6 pts.	1.9 pts.	— pts.	0.3 pts.	10.0 %
Provision for (benefit from) income taxes*	$ (51)	$ 134	$ 61	$ 19	$ 15	$ 179
Effective tax rate	(5.6)%	9.0 pts.	4.5 pts.	1.1 pts.	1.0 pts.	10.1 %
Income from continuing operations	$ 956	$ 335	$ 282	$ (19)	$ 46	$ 1,599
Income margin from continuing operations	5.4 %	1.9 pts.	1.6 pts.	(0.1)pts.	0.3 pts.	9.0 %
Diluted earnings per share from continuing operations	$ 1.06	$ 0.37	$ 0.31	$ (0.02)	$ 0.05	$ 1.77

(Dollars in millions except per share amounts) For the three months ended March 31, 2020:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Spin-off-Related Charges	Operating (non-GAAP)
Gross profit	$ 7,922	$ 188	$ —	$ —	$ —	$ 8,110
Gross profit margin	45.1 %	1.1 pts.	— pts.	— pts.	— pts.	46.2 %
S,G&A	$ 5,955	$ (285)	$ —	$ —	$ —	$ 5,670
Other (income) and expense	182	(1)	(264)	—	—	(83)
Total expense and other (income)	7,972	(285)	(264)	—	—	7,422
Pre-tax income/(loss) from continuing operations	(49)	473	264	—	—	688
Pre-tax margin from continuing operations	(0.3)%	2.7 pts.	1.5 pts.	— pts.	— pts.	3.9 %
Provision for (benefit from) income taxes* **	$ (1,226)	$ 102	$ 14	$ 149	$ —	$ (961)
Income from continuing operations	$ 1,176	$ 371	$ 250	$ (149)	$ —	$ 1,649
Income margin from continuing operations	6.7 %	2.1 pts.	1.4 pts.	(0.8)pts.	— pts.	9.4 %
Diluted earnings per share from continuing operations	$ 1.31	$ 0.42	$ 0.28	$ (0.17)	$ —	$ 1.84

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

** The effective tax rate is not displayed, as the calculated rate for the three months ended March 31, 2020 was not meaningful.

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 that the proposed separation of the managed infrastructure services unit of the company's Global Technology Services segment will not be completed within the anticipated time period or at all, the possibility of disruption or unanticipated costs in connection with the proposed separation 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 first 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*
January 1, 2021 - January 31, 2021	—	$ —	—	$ 2,007,611,768
February 1, 2021 - February 28, 2021	—	$ —	—	$ 2,007,611,768
March 1, 2021 - March 31, 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 March 31, 2021 there was approximately $2.0 billion in authorized funds remaining for purchases under this program.

Item 6. Exhibits

Exhibit Number	
10.1	Form of LTPP equity award agreement for performance share units, effective January 1, 2021.
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: April 27, 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: April 27, 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: April 27, 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 March 31, 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
April 27, 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 March 31, 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
April 27, 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 OMITTED FROM THIS DOCUMENT

Form of LTPP equity award agreement for performance share units, effective January 1, 2021.

Copies of this exhibit may be obtained without charge from Computershare Trust Company, N.A., P.O. Box 505005, Louisville, Kentucky 40233-5005.