



INTERNATIONAL BUSINESS MACHINES CORP

FORM ARS

(Annual Report To Security Holders)

Filed 03/11/24 for the Period Ending 12/31/23

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CIK 0000051143
Symbol IBM
SIC Code 3570 - Computer & office Equipment
Fiscal Year 12/31

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Let's Create



2023 Annual Report



Arvind Krishna
Chairman and Chief Executive Officer



Dear IBM Investor:

In 2023, we made significant progress in our journey to become a more innovative and focused company, built around the two most transformational technologies of our time: hybrid cloud and AI. We executed against a proven strategy, refined our portfolio, expanded our ecosystem of partners, and enhanced productivity throughout IBM.

We also continued to address the evolving needs of our clients. As AI becomes a top priority, our clients are using watsonx – IBM’s flagship AI and data platform – to help revolutionize customer service, modernize countless lines of code, and automate enterprise tasks to boost employee productivity.

I have never been more confident in IBM’s direction. Today’s IBM is more capable and more productive. We have a strong portfolio and a solid foundation to support sustainable growth. And we are delivering on our promise to be the catalyst that makes the world work better.

2023 performance

For the year, IBM generated \$61.9 billion in revenue, up 3% at constant currency, and \$11.2 billion of free cash flow, up \$1.9 billion year-over-year. We experienced growing demand for our new watsonx platform, marked by thousands of client interactions. This demand contributed to roughly doubling the book of business for watsonx and generative AI from the third to the fourth quarter.



Software



Consulting



Infrastructure

We also expanded profit margins by emphasizing high-value offerings in Consulting and Software and by digitally transforming our processes and scaling AI to enhance productivity within IBM.

Software revenues were up more than 5% at constant currency, as clients turned to our advanced software capabilities across hybrid cloud, data & AI, automation, transactions processing, and security. Our performance was led by Red Hat, and we had solid growth in our recurring revenue base.

Consulting revenues were up 6% at constant currency. We capitalized on the growing need for expertise in digital transformation and AI deployment, leveraging our consulting services in data and technology consulting, cloud modernization, application operations, and business transformation.

Infrastructure revenues decreased by 4% at constant currency, in line with the typical product cycle dynamics in this segment. IBM z16 is significantly outperforming previous cycles, demonstrating the enduring value this platform provides to our clients.

IBM's revenue growth and cash generation enabled us to make substantial investments in the business and deliver value to our shareholders. In 2023, IBM spent nearly \$7 billion on research and development, more than \$5 billion to acquire nine companies, and returned more than \$6 billion to stockholders through dividends.

Technology and expertise

AI and hybrid cloud continue to drive value creation, allowing businesses to scale, increase productivity, and seize new market opportunities. IBM has built two powerful platforms to capitalize on the strong demand for both technologies: watsonx for AI, and Red Hat OpenShift for hybrid cloud.

Watsonx is our comprehensive AI and data platform, built to deliver AI models and give our clients the ability to manage the entire lifecycle of AI for business, including the training, tuning, deployment, and ongoing governance of those models. As clients shift from experimenting with generative AI to building and deploying it throughout their enterprises, we are focused on practical and urgent business use cases, including code modernization, customer service, and digital labor.

Financial institutions like Citi, Bradesco, and NatWest are using watsonx to help increase productivity, improve code quality, and enhance customer experiences. Our enterprise-ready AI capabilities are being embedded into SAP solutions. EY launched EY.ai Workforce, a new solution that will use watsonx Orchestrate to automate HR tasks and processes. Service partners such as NTT Data Business Solutions, Wipro, and TCS are launching watsonx Centers of Excellence to scale AI-powered client innovations. And generative AI from watsonx, combined with expertise from Consulting, is enhancing the digital experiences of the U.S. Open, the Masters, Wimbledon, the GRAMMYS, and ESPN Fantasy Football.

IBMers are also embracing watsonx to unleash greater productivity, eliminate complexity, simplify workflows, and automate manual tasks. Examples include processing HR and IT tasks more easily, generating code up to 60% faster, and answering client inquiries more quickly.

Hybrid cloud architectures have seen massive adoption, with nearly 80% of IT decision makers operating hybrid cloud environments. But nearly two thirds of companies report difficulty managing these complex environments, a challenge that will grow as businesses deploy generative AI across multiple clouds. IBM's industry-leading hybrid cloud platform, based on Red Hat OpenShift, can solve this problem. It helps our clients move from architectures that are hybrid by default to architectures that are hybrid by design. It enables companies to run workloads seamlessly across multiple clouds, both public and private, to simplify operations, unify data and applications, and accelerate new innovations. And it complements our watsonx platform, allowing clients the flexibility to manage multi-model AI across complex, multi-cloud environments.

Virgin Money is harnessing IBM's hybrid cloud to enable new digital customer experiences and improve their credit card services. Red Hat OpenShift is now the preferred platform provider to Nokia's core network applications business. And the Boston Red Sox are leveraging our hybrid cloud technologies to improve the club's operations.

Experts from Consulting provide differentiated value as we establish IBM as a leader in AI for business, just as they did with our hybrid cloud business. Our extensive network of data and AI consultants has already facilitated thousands of hands-on client interactions. IBM combines technology with consulting services to deliver the data architecture, security, and governance our clients need to adopt trusted AI solutions.

IBM consultants are working with Riyadh Air on mission-critical technology and business capabilities to support the path to their first flight. NATO chose IBM to help detect and respond to cyber threats with greater speed. And Diageo partnered with Consulting and SAP on an ambitious five-year business transformation and cloud migration.

Throughout 2023, clients modernized their infrastructure with the z16 platform in alignment with their hybrid cloud and AI strategies. IBM launched a new suite of AI offerings for IBM Z

along with new machine learning, intelligence, and operational improvements for z/OS.

In addition, we enhanced IBM's portfolio with nine acquisitions in 2023, including Apptio, a suite of software to help our clients better understand their technology investment and the business value it delivers.

Client engagement and partnership

IBM's success is directly tied to the success of our clients. Their problems are our problems. And their opportunities are our opportunities. That is why we developed a more collaborative, experience-based approach that allows us to respond effectively to their needs.

The IBM Garage Method, now integrated across our business, combines agile development and design thinking to facilitate co-creation with our clients. Clients have embraced this highly collaborative way of working with IBM, turning ideas into outcomes with thousands of Garage engagements throughout the year.

Our approach to client engagement allows us to meet clients where they are, bringing together whatever technology and expertise are needed across our expanding partner ecosystem. That is why we strengthened our strategic partnerships with key industry players like Adobe, AWS, Microsoft, SAP, Salesforce, Samsung, and others. Strategic partnerships now make up more than 40% of our Consulting revenue and delivered double-digit growth in both signings and revenue for the year.

Research and development

In 2023, IBM Research advanced the fundamental science of several critical technologies, including AI, quantum computing, and semiconductors.

In AI, we demonstrated our ability to quickly transform research into commercial applications. We launched the watsonx AI and data platform, introduced the groundbreaking Granite AI foundational model, and developed new AI-optimized hardware.

We have IBM Quantum System One engagements with several leading organizations, including Cleveland Clinic, the Platform for Digital and Quantum Innovation of Quebec, Rensselaer Polytechnic Institute, and the University of Tokyo. We also

unveiled our 133-qubit Quantum Heron processor, which enhanced the performance, efficiency, and scalability of the newly deployed IBM Quantum System Two. And our work on error correction and mitigation is helping to lay the foundation for a new era of quantum utility.

Research also pushed the limits of semiconductor design and packaging, building on recent innovations such as the 2nm node chip, hybrid bonding, and vertical transistors. We are working with Rapidus to propel Japan's push for leadership in semiconductor research and manufacturing, and we are participating in an initiative with New York State, Micron, and others to jointly invest \$10 billion in semiconductor R&D.

The promise of IBM

IBM is in the business of shaping the future for our clients. That future must be built on trust.

IBM is at the forefront of technologies, like AI and quantum computing, which will fundamentally change the way we work and live. We bear significant responsibility to develop those technologies ethically and deploy them with transparency and trust. That is why we built powerful AI governance into our watsonx platform and developed quantum-safe cryptography to secure sensitive data. It is why we advocate for smart AI regulation, including holding those who develop and deploy AI accountable for fraudulent, discriminatory, and harmful activity. And it is why IBM and Meta announced the formation of the AI Alliance, a group of more than 70 organizations dedicated to advancing open, safe, and responsible AI.

We also earn trust by operating with integrity, staying true to our values, and addressing the needs of all stakeholders. We continue to advance our efforts on the environment, ethics, and education. IBM has achieved a 63% reduction in greenhouse gas emissions against base year 2010. We announced a new program to train 1,000 suppliers in

technology ethics by 2025. And IBM committed to training two million learners in AI by the end of 2026 to address the technology skills gap.

But IBM's commitment to trust goes beyond our citizenship, products, and policies. We earn trust by delivering on our promises.

We articulated a clear vision for the future of IBM in the spring of 2020. We promised a more focused company built around two powerful technologies: hybrid cloud and AI. We promised fundamental changes to our go-to-market strategy, putting clients at the center of everything we do and transforming competitors into partners. And we promised operational changes to simplify our internal processes and increase our productivity. As this report details, we are fulfilling those promises.

As we look ahead, we renew our commitment to the journey we began in 2020. We will continue to innovate, to execute with speed and purpose, find more opportunities for operational efficiency, and further enhance our productivity by employing the same technologies we use to drive growth for our clients. And as always, we will be the catalyst that makes the world work better, bringing together our colleagues, clients, and partners with a simple invitation: Let's Create.

This is the promise of IBM.



Arvind Krishna
Chairman and Chief Executive Officer

In an effort to provide additional and useful information regarding the company's financial results and other financial information, as determined by generally accepted accounting principles (GAAP), these materials contain non-GAAP financial measures on a continuing operations basis, including revenue growth rates adjusted for constant currency and free cash flow. The rationale for management's use of this non-GAAP information is included on page 6 and 31 of the company's 2023 Annual Report, which is Exhibit 13 to the Form 10-K submitted with the SEC on February 26, 2024. For reconciliation of these non-GAAP financial measures to GAAP and other information, please refer to pages 17 and 31 of the company's 2023 Annual Report. For watsonx and generative AI, book of business includes Software transactional revenue, SaaS Annual Contract Value and Consulting signings.

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Report of Independent Registered Public Accounting Firm

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OVERVIEW

The financial section of the International Business Machines Corporation (IBM or the company) 2023 Annual Report includes the Management Discussion, the Consolidated Financial Statements and the Notes to Consolidated Financial Statements. This Overview is designed to provide the reader with some perspective regarding the information contained in the financial section.

Organization of Information

- The Management Discussion is designed to provide readers with an overview of the business and a narrative on our financial results and certain factors that may affect our future prospects from the perspective of management. The "Management Discussion Snapshot" presents an overview of the key performance drivers in 2023.
- Beginning with the "Year in Review," the Management Discussion contains the results of operations for each reportable segment of the business, a discussion of our financial position and a discussion of cash flows as reflected in the Consolidated Statement of Cash Flows. Other key sections within the Management Discussion include: "Looking Forward" and "Liquidity and Capital Resources," the latter of which includes a description of management's definition and use of free cash flow.
- The Consolidated Financial Statements provide an overview of income and cash flow performance and financial position.
- The Notes follow the Consolidated Financial Statements. Among other items, the Notes contain our accounting policies, revenue information, acquisitions and divestitures, certain commitments and contingencies and retirement-related plans information.
- On November 3, 2021 we completed the separation of our managed infrastructure services unit into a new public company, Kyndryl. The accounting requirements for reporting the separation of Kyndryl as a discontinued operation were met when the separation was completed. Accordingly, the historical results of Kyndryl are presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. Refer to note E, "Acquisitions & Divestitures," for additional information.
- In September 2022, the IBM Qualified Personal Pension Plan (Qualified PPP) purchased two separate nonparticipating single premium group annuity contracts from The Prudential Insurance Company of America and Metropolitan Life Insurance Company (collectively, the Insurers) and irrevocably transferred to the Insurers approximately \$16 billion of the Qualified PPP's defined benefit pension obligations and related plan assets, thereby reducing our pension obligations and assets by the same amount. The group annuity contracts were purchased using assets of the Qualified PPP and no additional funding contribution was required from IBM. The transaction resulted in no changes to the benefits to be received by the plan participants. As a result of this transaction we recognized a one-time, non-cash, pre-tax pension settlement charge of \$5.9 billion (\$4.4 billion net of tax) in the third quarter of 2022, primarily related to the accelerated recognition of accumulated actuarial losses of the Qualified PPP. Refer to note V, "Retirement-Related Benefits," for additional information.
- Effective January 1, 2023, due to advances in technology, we increased the estimated useful lives of our server and network equipment from five to six years for new assets and from three to four years for used assets. Based on the carrying amount of server and network equipment included in property, plant and equipment-net in our Consolidated Balance Sheet as of December 31, 2022, the effect of this change in accounting estimate was an increase in income from continuing operations before income taxes of \$208 million or \$0.18 per basic and diluted share for the year ended December 31, 2023.
- In 2023, we executed workforce rebalancing actions to address remaining stranded costs from portfolio actions over the last couple of years resulting in charges to pre-tax income from continuing operations of \$438 million. In addition, beginning in the first quarter of 2023, we updated our measure of segment pre-tax income to no longer allocate workforce rebalancing actions to our reportable segments, consistent with our management system. Workforce rebalancing charges in 2022 and 2021 of \$40 million and \$182 million, respectively, were included in the segments.
- The references to "adjusted for currency" or "at constant currency" in the Management Discussion do not include operational impacts that could result from fluctuations in foreign currency rates. When we refer to growth rates at constant currency or adjust such growth rates for currency, it is done so that certain financial results can be viewed without the impact of fluctuations in foreign currency exchange rates, thereby facilitating period-to-period comparisons of business performance. Financial results adjusted for currency are calculated by translating current period activity in local currency using the comparable prior-year period's currency conversion rate. This approach is used for countries where the functional currency is the local currency. Generally, when the dollar either strengthens or weakens against other currencies, the growth at constant currency rates or adjusting for currency will be higher or lower than growth reported at actual exchange rates. Refer to "Currency Rate Fluctuations" for additional information.
- Within the financial statements and tables in this Annual Report, 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 numbers. Certain prior-year amounts have been reclassified to conform to the change in current year presentation. This is annotated where applicable.

Operating (non-GAAP) Earnings

In an effort to provide better transparency into the operational results of the business, supplementally, management separates business results into operating and non-operating categories. Operating earnings from continuing operations is a non-GAAP measure that excludes the effects of certain acquisition-related charges, intangible asset amortization, expense resulting from basis differences on equity method investments, retirement-related costs, certain impacts from the Kyndryl separation and their related tax impacts. Due to the unique, non-recurring nature of the enactment of the U.S. Tax Cuts and Jobs Act (U.S. tax reform), management characterizes the one-time provisional charge recorded in the fourth quarter of 2017 and adjustments to that charge as non-operating. Adjustments primarily include true-ups, accounting elections and any changes to regulations, laws, audit adjustments that affect the recorded one-time charge. Management characterizes direct and incremental charges incurred related to the Kyndryl separation as non-operating given their unique and non-recurring nature. In 2022, these charges primarily related to any net gains or losses on the Kyndryl common stock and the related cash-settled swap with a third-party financial institution, which were recorded in other (income) and expense in the Consolidated Income Statement. As of November 2, 2022, the company no longer held an ownership interest in Kyndryl. For acquisitions, operating (non-GAAP) earnings exclude the amortization of purchased intangible assets and acquisition-related charges such as in-process research and development, transaction costs, applicable retention, restructuring and related expenses, tax charges related to acquisition integration and pre-closing charges, such as financing costs. These charges are excluded as they may be inconsistent in amount and timing from period to period and are significantly impacted by the size, type and frequency of our acquisitions. Given its unique and temporary nature, management has also characterized as non-operating expense, the mark-to-market impact on the foreign exchange call option contracts to economically hedge the foreign currency exposure related to the purchase price of our announced acquisition of StreamSets and webMethods from Software AG. The mark-to-market impact is recorded in other (income) and expense in the Consolidated Income Statement and reflects the fair value changes in the derivative contracts. All other spending for acquired companies is included in both earnings from continuing operations and in operating (non-GAAP) earnings. For retirement-related costs, management characterizes certain items as operating and others as non-operating, consistent with GAAP. We include defined benefit plan and nonpension postretirement benefit plan service costs, multi-employer plan costs and the cost of defined contribution plans in operating earnings. Non-operating retirement-related costs include defined benefit plan and nonpension postretirement benefit plan amortization of prior service costs, interest cost, expected return on plan assets, amortized actuarial gains/losses, the impacts of any plan curtailments/settlements including the one-time, non-cash, pre-tax settlement charge of \$5.9 billion (\$4.4 billion, net of tax) in the third quarter of 2022 and pension insolvency costs and other costs. Non-operating retirement-related costs are primarily related to changes in pension plan assets and liabilities which are tied to financial market performance, and we consider 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 our pension plans; improves visibility to management decisions and their impacts on operational performance; enables better comparison to peer companies; and allows us to provide a long-term strategic view of the business going forward. In addition, these non-GAAP measures provide a perspective consistent with areas of interest we routinely receive from investors and analysts. Our reportable segment financial results reflect pre-tax operating earnings from continuing operations, consistent with our management and measurement system.

FORWARD-LOOKING AND CAUTIONARY STATEMENTS

Certain statements contained in this Annual Report may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any forward-looking statement in this Annual Report speaks only as of the date on which it is made; IBM assumes no obligation to update or revise any such statements except as required by law. Forward-looking statements are based on IBM's current assumptions regarding future business and financial performance; these statements, by their nature, address matters that are uncertain to different degrees. Forward-looking statements involve a number of risks, uncertainties and other factors that could cause actual results to be materially different, as discussed more fully elsewhere in this Annual Report and in the company's filings with the Securities and Exchange Commission (SEC), including IBM's 2023 Form 10-K filed on February 26, 2024.

Management Discussion

International Business Machines Corporation and Subsidiary Companies

MANAGEMENT DISCUSSION SNAPSHOT

(\$ and shares in millions except per share amounts)

For year ended December 31:	2023	2022 ⁽¹⁾	Yr.-to-Yr. Percent/Margin Change
Revenue ⁽²⁾	\$ 61,860	\$ 60,530	2.2 %
Gross profit margin	55.4 %	54.0 %	1.4 pts.
Total expense and other (income)	\$ 25,610	\$ 31,531	(18.8) %
Income from continuing operations before income taxes	\$ 8,690	\$ 1,156	NM
Provision for/(benefit from) income taxes from continuing operations	\$ 1,176	\$ (626)	NM
Income from continuing operations	\$ 7,514	\$ 1,783	NM
Income from continuing operations margin	12.1 %	2.9 %	9.2 pts.
Loss from discontinued operations, net of tax	\$ (12)	\$ (143)	(91.8) %
Net income	\$ 7,502	\$ 1,639	NM
Earnings per share from continuing operations—assuming dilution	\$ 8.15	\$ 1.95	NM
Consolidated earnings per share—assuming dilution	\$ 8.14	\$ 1.80	NM
Weighted-average shares outstanding—assuming dilution	922.1	912.3	1.1 %
Assets ⁽³⁾	\$ 135,241	\$ 127,243	6.3 %
Liabilities ⁽³⁾	\$ 112,628	\$ 105,222	7.0 %
Equity ⁽³⁾	\$ 22,613	\$ 22,021	2.7 %

(1) Includes a one-time, non-cash, pre-tax pension settlement charge of \$5.9 billion (\$4.4 billion net of tax) resulting in an impact of (\$4.84) to diluted earnings per share from continuing operations and an impact of (\$4.83) to consolidated diluted earnings per share. Refer to note V, "Retirement-Related Benefits," for additional information.

(2) Year-to-year revenue growth of 2.9 percent adjusted for currency.

(3) At December 31.

NM—Not meaningful

The following table provides the company's operating (non-GAAP) earnings for 2023 and 2022. Refer to page 28 for additional information.

(\$ in millions except per share amounts)

For year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change
Net income as reported ⁽¹⁾	\$ 7,502	\$ 1,639	NM
Loss from discontinued operations, net of tax	(12)	(143)	(91.8) %
Income from continuing operations ⁽¹⁾	\$ 7,514	\$ 1,783	NM
Non-operating adjustments (net of tax)			
Acquisition-related charges	1,292	1,329	(2.8) %
Non-operating retirement-related costs/(income) ⁽¹⁾	(30)	4,933	NM
U.S. tax reform impacts	95	(70)	NM
Kyndryl-related impacts	—	351	(100.0) %
Operating (non-GAAP) earnings	\$ 8,870	\$ 8,326	6.5 %
Diluted operating (non-GAAP) earnings per share	\$ 9.62	\$ 9.13	5.4 %

(1) 2022 includes a one-time, non-cash pension settlement charge of \$4.4 billion net of tax.

NM—Not meaningful

Macroeconomic Environment

Our business profile positions us well in challenging macroeconomic times. Our diversification across geographies, industries, clients and business mix and our recurring revenue base provides some stability in revenue, profit and cash generation. In the current environment, technology demand continues to be a major driving force behind global economic and business growth. Businesses and governments around the world are looking for opportunities to scale, offer better services, drive efficiencies and seize new market opportunities. More recently, geopolitical events and the interest rate environment are adding to the uncertainty. In response, clients are leveraging technologies like hybrid cloud and artificial intelligence (AI) that boost productivity and competitiveness.

For the year ended December 31, 2023, movements in global currencies continued to impact our reported year-to-year revenue and profit. We execute hedging programs which defer, but do not eliminate, the impact of currency. The (gains)/losses from these hedging programs are reflected primarily in other (income) and expense. Refer to “Currency Rate Fluctuations,” for additional information. We saw progress from the actions we have taken to mitigate the impacts of escalating labor and component costs and a strong U.S. dollar (USD).

Financial Performance Summary

In 2023, we reported \$61.9 billion in revenue, income from continuing operations of \$7.5 billion, and operating (non-GAAP) earnings of \$8.9 billion. Diluted earnings per share from continuing operations was \$8.15 as reported and diluted earnings per share was \$9.62 on an operating (non-GAAP) basis. We generated \$13.9 billion in cash from operations and \$11.2 billion in free cash flow, and returned \$6.0 billion to shareholders in dividends. We are pleased with the fundamentals of our business and progress we have made in executing our strategy. Our 2023 performance demonstrates the strength of our diversified portfolio and sustainability of our revenue growth. We increased our investment in innovation and talent and completed nine acquisitions in 2023, strengthening our hybrid cloud and AI capabilities, all while continuing to return value to shareholders through our dividend.

Total revenue grew 2.2 percent year to year as reported and 3 percent adjusted for currency compared to the prior year, led by Software and Consulting. Software revenue increased 5.1 percent as reported and 5 percent adjusted for currency, with growth in Hybrid Platform & Solutions and Transaction Processing. Hybrid Platform & Solutions increased 4.6 percent as reported and 5 percent adjusted for currency, with growth across Red Hat, Automation and Data & AI. Transaction Processing increased 6.2 percent as reported and 6 percent adjusted for currency, reflecting the success of our zSystems platform which continued to drive client demand. Consulting revenue increased 4.6 percent as reported and 6 percent adjusted for currency with growth across all lines of business, highlighting the solid demand for data and technology transformation and application modernization projects. Infrastructure decreased 4.5 percent year to year as reported and 4 percent adjusted for currency, reflecting product cycle dynamics.

From a geographic perspective, Americas revenue grew 2.0 percent year to year as reported (2 percent adjusted for currency). Europe/Middle East/Africa (EMEA) increased 3.0 percent as reported (1 percent adjusted for currency). Asia Pacific grew 1.6 percent as reported (7 percent adjusted for currency).

Gross margin of 55.4 percent increased 1.4 points year to year, with continued margin expansion across all reportable segments driven by revenue growth, improving portfolio mix and productivity actions. Operating (non-GAAP) gross margin of 56.5 percent increased 1.3 points versus the prior year, due to the same dynamics.

Total expense and other (income) decreased 18.8 percent in 2023 versus the prior year primarily driven by the one-time, non-cash pension settlement charge of \$5.9 billion in 2022 and the benefits from productivity actions we have taken; partially offset by the effects of currency, higher workforce rebalancing charges to address remaining stranded cost from portfolio actions, and higher spending reflecting our continued focus on talent and portfolio innovation to drive our strategy. Total operating (non-GAAP) expense and other (income) increased 4.5 percent year to year, driven primarily by the effects of currency, higher workforce rebalancing charges and higher spending to drive our strategy; partially offset by benefits from productivity actions.

Pre-tax income from continuing operations was \$8.7 billion in 2023 compared with \$1.2 billion in the prior year and pre-tax margin was 14.0 percent, an increase of 12.1 points versus 2022. The year-to-year improvements were primarily driven by the \$5.9 billion pension settlement charge in the prior year, the combination of our revenue growth and gross margin performance and the benefits from productivity actions. The continuing operations effective tax rate for 2023 was 13.5 percent compared to (54.2) percent in 2022. The prior-year effective tax rate was primarily driven by the pension settlement charge. Net income from continuing operations was \$7.5 billion in 2023 compared with \$1.8 billion in the prior year and net income from continuing operations margin was 12.1 percent, an increase of 9.2 points year to year. Operating (non-GAAP) pre-tax income from continuing operations of \$10.3 billion increased 5.0 percent year to year and the operating (non-GAAP) pre-tax margin from continuing operations increased 0.4 points to 16.7 percent. The combination of our revenue and gross margin performance and productivity actions resulted in strong operating (non-GAAP) pre-tax income growth in 2023. The operating (non-GAAP) effective tax rate for 2023 was 14.0 percent

compared to 15.2 percent in 2022. Operating (non-GAAP) income from continuing operations of \$8.9 billion increased 6.5 percent and the operating (non-GAAP) income margin from continuing operations of 14.3 percent was up 0.6 points year to year.

Diluted earnings per share from continuing operations was \$8.15 in 2023 compared with \$1.95 in 2022, which included an impact of \$4.84 from the prior-year pension settlement charge. Operating (non-GAAP) diluted earnings per share of \$9.62 increased 5.4 percent versus 2022.

At December 31, 2023, the balance sheet remained strong with increased financial flexibility to support and invest in the business. Cash and cash equivalents, restricted cash and marketable securities at year end were \$13.5 billion, an increase of \$4.6 billion from December 31, 2022. During 2023, we invested \$5.1 billion in acquisitions and returned \$6.0 billion to shareholders through dividends. Total debt of \$56.5 billion at December 31, 2023 increased \$5.6 billion driven by net debt issuances. We were opportunistic in accessing the debt market and issued \$9.5 billion of debt in the first quarter of 2023 to plan for our debt maturity obligations in 2023 and 2024 as well as capital allocation priorities.

Total assets increased \$8.0 billion (\$7.1 billion adjusted for currency) from December 31, 2022 primarily driven by an increase in cash and cash equivalents and goodwill; partially offset by a decrease in prepaid pension assets. Total liabilities increased \$7.4 billion (\$6.6 billion adjusted for currency) from December 31, 2022 primarily driven by an increase in debt, deferred income and retirement and postretirement benefit obligations. Total equity of \$22.6 billion increased \$0.6 billion from December 31, 2022, driven by 2023 net income and common stock issuances; partially offset by dividends paid and an increase in accumulated other comprehensive loss due to retirement-related benefit plans.

Cash provided by operating activities was \$13.9 billion in 2023, an increase of \$3.5 billion compared to 2022, driven by an increase in cash provided by financing receivables, performance-related improvements within net income and sales cycle working capital efficiencies. Our free cash flow was \$11.2 billion, an increase of \$1.9 billion versus the prior year. Refer to page 31 for additional information on free cash flow. Net cash used in investing activities of \$7.1 billion increased \$2.9 billion compared to the prior year, mainly driven by the Apptio acquisition, and a decrease in cash provided by divestitures; partially offset by higher net proceeds from marketable securities and other investments. Net cash used in financing activities of \$1.8 billion decreased \$3.2 billion compared to 2022, mainly due to an increase in net cash provided by debt.

DESCRIPTION OF BUSINESS

Please refer to IBM's Annual Report on Form 10-K filed with the SEC on February 26, 2024, for Item 1A, entitled "Risk Factors."

IBM is addressing the hybrid cloud and AI opportunity with a platform-centric approach, focused on providing client value through a combination of technology and business expertise. We provide integrated solutions and products that leverage: data, information technology, deep expertise in industries and business processes, with trust and security and a broad ecosystem of partners and alliances. Our hybrid cloud platform and AI technology and services capabilities support clients' digital transformations and help them engage with their customers and employees in new ways. These solutions draw from an industry-leading portfolio of capabilities in software, consulting services and a deep incumbency in mission-critical systems, all bolstered by one of the world's leading research organizations.

IBM Strategy

IBM continues to focus its strategy on hybrid cloud and AI, today's most transformative technologies. Businesses are pursuing digital-first strategies as a critical imperative for driving revenue growth, boosting productivity, mitigating risks including cyberattacks, and meeting sustainability commitments. Technology is increasingly distributed across environments spanning multiple clouds, data centers, and myriad edge devices, making hybrid cloud the default approach for most enterprises. 77 percent of business and IT decision makers use hybrid cloud environments (Harris Poll survey). In parallel, generative AI has become a top priority for boards and the C-Suite. Over 80 percent of C-suite executives expect that generative AI will fundamentally transform their organization's workflows and how people do their jobs (IBM Institute for Business Value survey).

Our strategy aligns with the needs of our clients

Client demand for technology to drive business outcomes is accelerating. Our two strategic platforms deliver impact to serve that demand: Red Hat OpenShift in hybrid cloud and watsonx in AI.

These two strategic platforms complement one another. AI benefits from hybrid cloud through seamless access to data and applications across heterogeneous environments. Conversely, hybrid cloud is differentiated by AI's delivery of insights and automation to streamline business, IT, and security processes.

In 2023, we launched watsonx as our AI platform for business. Built on Red Hat OpenShift, watsonx offers the power of state-of-the-art IBM and open-source models for clients to run AI wherever they need it. The depth and breadth of our consulting expertise in generative AI can make a crucial difference in accelerating time-to-value for clients. Our offerings are uniquely differentiated, delivering to clients an open and responsible approach to use multiple models, trusted AI governance solutions, and targeted use cases with proven value, including digital labor, customer service and software development. Watsonx and our Consulting capabilities to deploy AI at-scale are a powerful combination distinctive to IBM.

Red Hat OpenShift is the market-leading hybrid cloud application platform. OpenShift is built on open-source technologies including Linux, containers, and Kubernetes. With hybrid cloud becoming the industry's dominant architecture, OpenShift allows clients to build and run applications in a consistent way across environments enabling organizations to *write once, run anywhere*. A 2023 study by IBM Consulting profiled hybrid cloud practices used by organizations and found most to be implementing a siloed 'hybrid by default' approach. Leading enterprises have embraced a 'hybrid by design' architecture to leverage common platforms and practices throughout environments. The study shows that clients taking a 'hybrid by design' platform approach can expect over three times higher return on investment in their digital transformation efforts. OpenShift's market leadership make it the best choice for clients seeking the value of a 'hybrid by design' approach.

IBM's hybrid cloud and AI strategy addresses an enormous market need. The hybrid cloud market is projected to grow to more than \$1.5 trillion over 3 years. In conjunction, the AI market is expected to grow at 30 percent powered by generative AI (International Data Corporation). As technology evolves beyond IT to being a differentiator in every industry and business function, we continue to expect strong tailwinds in the markets we serve.

IBM's differentiated portfolio value

All our businesses benefit Red Hat OpenShift and watsonx by extending, implementing, or delivering them. In turn, the platforms differentiate our businesses in the unique capabilities they bring. For each business we provide a brief overview and examples of strategic linkage to our platforms.



IBM Software brings to life the combined value of hybrid cloud and AI with capabilities that deliver improved client outcomes: (1) AI and data to infuse generative AI at scale into applications and business processes, leveraging the power of data to drive decisions in real-time; (2) Automation and Application Modernization to improve business and IT productivity with digital labor and create outstanding customer experiences; (3) Security of all touchpoints using AI to drive real-time, automated detection, and an orchestrated response; (4) Transaction Processing software that powers IBM Z; (5) Red Hat, also reported in our Software segment, that delivers our hybrid cloud platform with OpenShift as well as market leading capabilities of Red Hat Enterprise Linux and Ansible. Our Software products differentiate our platforms. For example, our award-winning Application Resource Management product, Turbonomic, leverages AI to simultaneously improve performance while minimizing cost across a client's hybrid cloud environment. We strategically build products on OpenShift to provide clients the flexibility to consume software across clouds and on-premises. Building to that common platform also accelerates our innovation and efficiency.

IBM Consulting delivers business transformation, technology consulting, and application operations by leveraging hybrid cloud and AI technologies from IBM along with our ecosystem partners. To support our hybrid cloud strategy, we built a Red Hat business of over \$2.5 billion. We are pursuing a similar approach for our AI strategy with over 16,000 accredited consultants. We have also scaled our focus on the ecosystem to create multi-billion-dollar partnerships with AWS, Microsoft, and SAP. Our consulting capabilities help clients to realize value from their digital transformations, for example, a global provider of business decisioning data and analytics is leveraging watsonx for a procurement solution to improve savings, reduce time, and mitigate risk.

IBM Infrastructure provides trusted, performant, secure, and resilient infrastructure solutions across AI, data-intensive, and regulated mission-critical workloads. Forty-five of the world's top fifty banks run on IBM Z, where our transaction processing capability excels with integrated AI to deliver unmatched throughput, availability, and security. Our AI strategy delivers more value on IBM Z. For example, watsonx Code Assistant leverages generative AI to modernize Z applications. Our Power, Storage, and Cloud offerings accelerate client's digital transformations while our Infrastructure Support delivers lifecycle services to optimize hybrid cloud environments.

IBM Research demonstrates our ability to quickly transition from research to market-ready solutions, continuing our legacy of defining the evolution of computing. In 2023, we delivered a pipeline of AI and hybrid cloud innovations that created new business opportunities for IBM including watsonx, generative AI models, and AI infusions into our software product portfolio. In quantum computing, we delivered noteworthy progress in both hardware and software: we unveiled our lowest-error, highest-performing

flagship chips Heron and Condor, and updated Qiskit software for greater stability, reliability, and performance. We continue to leverage our world-class skills in semiconductors to achieve breakthroughs and expand our industry leading partnerships.

A key part of our strategy is to add value to our strategic platforms through **inorganic investments**. Our focus is on bolstering our hybrid cloud, and data and AI technology assets that further accelerate our organic innovation engines as well as consulting expertise that expand our position in new markets. Additionally, in line with our focus on sharpening our portfolio, we recently closed the divestiture of The Weather Company assets.

To bolster our AI strategy, we established the \$500 million Enterprise AI Venture Fund to deepen collaboration with early-stage innovators. We also collaborated to launch the AI Alliance to accelerate responsible innovation in AI throughout a broad, open community across industry, startups, academia, research, and government.

Collaborating to create value with clients and ecosystem partners

As technology becomes pervasive across businesses, we are also diversifying the ways we reach a broader client base. For example, we invest in product-led growth routes to capture new customers and expand our market reach. We also continue to build our experiential selling skills across client engineering, customer success management, and deep technical expertise to solve clients' critical challenges. We brought our next-generation innovations including watsonx to a wide range of clients and partners through our signature THINK event tour and our inaugural IBM TechXchange conference.

We set a strategic objective to increase the mix of business with our ecosystem. Our partnerships with technology resellers, systems integrators, independent software vendors (ISVs), consultancies, advisory firms, and managed service providers give clients the flexibility they seek to maximize the impact of their technology investments. We launched a redesigned Partner Plus program in 2023, providing partners with access to extensive IBM resources, incentives, training, and support to accelerate delivering innovation to clients. We continue to deepen relationships with key strategic partners such as AWS, Microsoft, SAP, Salesforce, and Adobe to amplify the joint impact for our clients by embedding IBM technology into the platforms that run their businesses. For example, in 2023 we continued to expand our software-as-a-service offerings on AWS marketplace, and our industry aligned portfolio of offerings with Microsoft.

In 2024, we will continue to advance our hybrid cloud and AI strategy. We will co-create with our clients and ecosystem to realize business value through digital transformations, as their trusted innovation partner.

Business Segments and Capabilities

IBM operates in more than 175 countries around the world. Our platform-centric hybrid cloud and AI strategy is executed through our operations and consists of four business segments: Software, Consulting, Infrastructure and Financing.

The following description of our business segments is based on our organizational structure as of December 31, 2023. Refer to "Looking Forward," for changes to our reportable segments effective January 1, 2024.

Software

Software provides software solutions that address client needs for a hybrid cloud platform, data and AI, automation, and security on their journey to hybrid cloud. It includes all software, except operating system software reported in the Infrastructure segment.

Software comprises two business areas – Hybrid Platform & Solutions and Transaction Processing, which have the following capabilities:

Hybrid Platform & Solutions: includes software, infused with AI, to help clients operate, manage and optimize their IT resources and business processes within hybrid, multi-cloud environments. It includes the following:

Red Hat: provides enterprise open-source solutions, for hybrid, multi-cloud environments, which includes Red Hat Enterprise Linux (RHEL), OpenShift, our hybrid cloud platform, as well as Ansible.

Automation: optimizes processes from business workflows to IT operations with AI-powered automation. Automation includes software for business automation, IT automation, integration and application runtimes.

Data & AI: accelerates data-driven agendas by infusing AI throughout the enterprise, empowering intelligent decision making. The portfolio includes capabilities that simplify data consumption through data fabric with data management, optimize lifecycle management, and make better predictions through business analytics. Data & AI capabilities facilitate sustainable, resilient businesses and enable intelligent management of enterprise assets and supply chains with environmental intelligence.

Security: creates a risk-aware, secure business by gaining real-time threat insights, orchestrating actions and automating responses across all touchpoints, in line with a zero-trust security strategy. Security includes software and services for threat management, data security, and identity and access management.

Transaction Processing: supports clients' mission-critical, on-premise workloads in industries such as banking, airlines and retail. This includes transaction processing software such as Customer Information Control System and storage software, as well as the analytics and integration software running on IBM operating systems such as DB2 and WebSphere running on z/OS.

Consulting

Consulting provides deep industry expertise and market-leading capabilities in business transformation and technology implementation. Consulting designs, builds and operates technology and business processes based on open, hybrid cloud architectures leveraging the power of generative AI, with IBM technology and ecosystem partner technologies. Consulting uses its IBM Garage method to convene experts to co-create solutions with clients to accelerate their digital transformations through AI and automation.

Consulting comprises three business areas – Business Transformation, Technology Consulting and Application Operations, which have the following capabilities:

Business Transformation: provides strategy, process design, system implementation and operations services to improve and transform key experiences and business processes. These services deploy AI and automation in business processes to exploit the value of data and include an ecosystem of partners alongside IBM technology, including strategic partnerships with Adobe, Oracle, Salesforce and SAP, among others.

Technology Consulting: helps clients architect and implement solutions across cloud platforms, including Amazon, Microsoft and IBM, and deploy strategies to transform the enterprise experience and enable innovation, including data transformation for AI with watsonx and application modernization for hybrid cloud with Red Hat OpenShift.

Application Operations: focuses on application and cloud platform services required to operationalize and run hybrid cloud platforms. It facilitates clients' efforts to manage, optimize and orchestrate application and data workloads across platforms and environments through both custom applications and ISV packages.

Infrastructure

Infrastructure provides trusted and secure solutions for hybrid cloud and is optimized for infusing AI into mission-critical transactions.

Infrastructure comprises two business areas – Hybrid Infrastructure and Infrastructure Support, which have the following capabilities:

Hybrid Infrastructure: provides clients with innovative infrastructure platforms to help meet the new requirements of hybrid multi-cloud and enterprise AI workloads leveraging flexible and as-a-service consumption models. Hybrid Infrastructure includes zSystems and Distributed Infrastructure.

zSystems (also referred to as IBM Z): the premier transaction processing platform with leading security, resilience and scale, highly optimized for mission-critical, high-volume transaction workloads and enabled for enterprise AI and hybrid cloud. It includes zSystems and LinuxONE, with a range of high-performance systems designed to address enterprise computing capacity, security and performance needs, z/OS, a security-rich, high-performance enterprise operating system, as well as Linux and other operating systems.

Distributed Infrastructure: includes Power, Storage and IBM Cloud Infrastructure-as-a-Service (IaaS). Power consists of high-performance servers, designed and engineered for data intensive and AI-enabled workloads and optimized for hybrid cloud and Linux. The Storage portfolio consists of a broad range of storage hardware and software-defined offerings, including Z-attach and distributed flash, tape solutions, software-defined storage controllers, data protection software and network-attach storage. IBM Cloud IaaS is built on enterprise-grade hardware with leading security and compliance capabilities and offers flexible computing options across architectures to meet client workload needs.

Infrastructure Support: delivers comprehensive, proactive and AI-enabled maintenance and support services to maintain and improve the availability and value of clients' IT infrastructure (hardware and software) both on-premises and in the cloud.

Financing

Financing facilitates IBM clients' acquisition of hardware, software and services through its financing solutions. The financing arrangements are predominantly for products or services that are critical to the end users' business operations and support IBM's hybrid cloud and AI strategy. Financing conducts a comprehensive credit evaluation of its clients prior to extending financing. As a captive financier, Financing has the benefit of both deep knowledge of its client base and a clear insight into the products and services financed. These factors allow the business to effectively manage two of the primary risks associated with financing, credit and residual value, while generating strong returns on equity.

Financing comprises the following two business areas – Client Financing and Commercial Financing:

Client Financing: lease, installment payment plan and loan financing to end-user clients for terms generally up to seven years. Assets financed are primarily new and used IBM hardware, software and services.

Commercial Financing: short-term working capital financing to business partners and distributors primarily of IBM products and services. The company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis. Refer to note L, "Financing Receivables," for additional information.

Human Capital

Employees and Related Workforce

(In thousands)

For the year ended December 31:	2023
IBM/wholly owned subsidiaries	282.2
Less-than-wholly owned subsidiaries	8.7
Complementary ⁽¹⁾	14.4

(1) The complementary workforce is an approximation of equivalent full-time employees hired under temporary, part-time and limited-term employment arrangements to meet specific business needs in a flexible and cost-effective manner.

As a globally integrated enterprise, IBM operates in more than 175 countries. Our highly skilled global workforce is reflective of the work we do for clients in support of their digital transformations and mission-critical operations through our focus on hybrid cloud and AI. Our employees are among the world's leading experts in hybrid cloud, AI, quantum computing, cybersecurity and industry-specific solutions. We believe our success depends on the caliber of our talent and the engagement and inclusion of IBMers in the workplace.

Talent and Culture

We attract, develop, engage, and retain talent in a dynamic and competitive environment. IBM provides a compelling employee value proposition, offering professionals competitive compensation and attractive career opportunities in the development and delivery of innovative technologies for clients whose businesses the world relies on. Our value proposition and talent strategy help to retain talent. In 2023, voluntary attrition decreased when compared to each of the past two years.

We are continuously transforming and developing our talent, both through learning and hiring. In 2023, we added skills in consulting and key technical areas and invested in scaling our capacity in strategically important markets. We continue to invest in upskilling and reskilling our workforce. Our digital learning and career platforms are examples of this commitment to provide employees access to the resources needed to build strategic skills and grow their careers. Our performance reflection cycles inspire further learning, growth, and development via candid feedback to help employees reach their career and business goals. Helping our employees learn and apply new skills is important for retention and critical to our ability to transform and evolve.

Employee engagement is a key indicator of employee well-being and their dedication to the company's mission, purpose and values. We conduct an annual engagement survey to assess the health of the company's growth culture and employee sentiment. We maintained strong participation with over 187,000 employees globally responding to the 2023 engagement survey, providing actionable data-driven insights to managers and leaders around factors such as workplace experience, inclusion, pride, and propensity to recommend IBM as an employer. For the third year in a row, more than eight out of ten employees who participated in the survey responded that they felt engaged at work, a testament to our industry-leading talent practices.

Diversity and Inclusion

IBM takes immense pride in its rich legacy as a trailblazer in fostering diversity and inclusion within the workplace. We work to ensure individuals from diverse backgrounds feel a sense of belonging, can embrace their true selves, nurture their talents and advance in their careers. Our efforts have resulted in nearly nine out of ten of employees who participated in the survey feeling empowered to express their authentic identities at work.

A workplace characterized by diversity and inclusivity serves as a catalyst for heightened innovation, agility, and overall performance. This environment fuels business growth. Our focus on creating a diverse and inclusive workplace has led to increased levels of inclusion for underrepresented employees, including women, who make up more than one-third of our workforce. Executive representation of women globally, and Hispanic executives in the U.S. improved by 1.1 points and 0.5 points, respectively, in 2023. Representation of Black executives in the U.S. declined 0.2 points in 2023. Our executive annual incentive program includes a diversity modifier that affirms our commitment to diverse representation in our workforce that reflects the labor pool demographics of the communities in which we operate. The design of the modifier is based on our progress in creating and developing a diverse executive population.

We are committed to pay equity and transparency, fostering an environment of equal pay for equal work regardless of gender, race, or other personal characteristics. Statistical pay equity assessments are conducted across all countries with IBM employees, reinforcing our dedication to our longstanding pay equity practice. We also empower employees to understand their pay by providing comprehensive compensation education. Employees can also directly access information about their pay, including a comparison against their market pay range, through the HR system or their direct managers.

Health, Safety and Well-Being

IBM has long established its commitment to a culture of health, safety, and well-being. This commitment is demonstrated through our health and safety policy and compliance with country legal requirements, both of which are implemented through IBM's externally certified Health & Safety Management System (HSMS). Objectives of our HSMS include providing a safe and healthy workplace, preventing work-related injuries and illnesses, enhancing worker health and productivity and providing resources to fulfill these commitments.

Our belief that there is no greater resource than our people led us to integrate employee well-being into every aspect of our business. We feel that our employees perform best at work, at home and in the communities where they live and work when their well-being is supported. We believe in not taking a one-size-fits-all approach when it comes to health, safety, and well-being and strive to provide programs that are culturally relevant and inclusive to address the needs of a diverse employee population. Our health and safety programs are driven by evidence-based strategies, real time insights and innovative solutions.

We offer a wide range of health, safety, and well-being programs, covering all aspects of employee well-being: physical, mental, and financial health. Access to well-being services and resources are offered through onsite activities and partnerships with external vendors, among other methods of delivery. We continued our focus on cardiovascular, musculoskeletal, and mental health. IBMers worldwide have confidential, 24/7 access to critical mental health support through employee assistance programs and supplemental resources. Other programs include training for employees on resilience, ergonomics, and financial well-being.

Employees are supported with around-the-clock access to IBM's world-class Health and Safety team who provide education, timely updates on new health and safety developments and forums to ask questions and raise concerns. In 2023, we enhanced our health and safety incident management program by introducing a centralized reporting and investigation system, providing IBMers an efficient, seamless and secure way to report work-related accidents, occupational illnesses and near-miss incidents, regardless of where they occur. This facilitates prompt investigation of incidents and implementation of corrective actions to prevent future occurrences.

YEAR IN REVIEW

Results of Continuing Operations

Segment Details

The table below presents each reportable segment's revenue and gross margin results, followed by an analysis of the 2023 versus 2022 reportable segment results. The segment details presented below are reported under our historical reportable segments. Refer to "Looking Forward" for changes to our reportable segments effective in the first quarter of 2024.

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent/ Margin Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Revenue				
Software	\$ 26,308	\$ 25,037	5.1 %	5.2 %
Gross margin	80.1 %	79.6 %	0.4 pts.	
Consulting	19,985	19,107	4.6 %	6.1 %
Gross margin	26.6 %	25.5 %	1.1 pts.	
Infrastructure	14,593	15,288	(4.5)%	(3.9)%
Gross margin	56.0 %	52.8 %	3.2 pts.	
Financing	741	645	14.8 %	15.0 %
Gross margin	48.1 %	38.3 %	9.8 pts.	
Other	233	453	(48.4)%	(50.6)%
Gross margin	(256.4)%	(95.3)%	(161.1)pts.	
Total revenue	\$ 61,860	\$ 60,530	2.2 %	2.9 %
Total gross profit	\$ 34,300	\$ 32,687	4.9 %	
Total gross margin	55.4 %	54.0 %	1.4 pts.	
Non-operating adjustments				
Amortization of acquired intangible assets	631	682	(7.5)%	
Operating (non-GAAP) gross profit	\$ 34,931	\$ 33,370	4.7 %	
Operating (non-GAAP) gross margin	56.5 %	55.1 %	1.3 pts.	

Software

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Software revenue	\$ 26,308	\$ 25,037	5.1 %	5.2 %
Hybrid Platform & Solutions	\$ 18,693	\$ 17,866	4.6 %	4.8 %
Red Hat			9.1	9.0
Automation			3.4	3.6
Data & AI			4.5	4.8
Security			(2.5)	(2.2)
Transaction Processing	7,615	7,171	6.2	6.3

Software revenue of \$26,308 million increased 5.1 percent as reported (5 percent adjusted for currency) in 2023 compared to the prior year, driven by growth in both Hybrid Platform & Solutions and Transaction Processing. The growth in Hybrid Platform & Solutions was led by Red Hat, Automation and Data & AI. In Transaction Processing, our zSystems platform continued to drive client demand. Our Software revenue performance in 2023 reflects growth in our high-value, recurring revenue base, which is approximately 80 percent of our annual software revenue, as well as transactional revenue. Our platform-based approach is resonating with clients and there is growing interest in our generative AI platform, watsonx.

Hybrid Platform & Solutions revenue of \$18,693 million increased 4.6 percent as reported (5 percent adjusted for currency) in 2023 compared to the prior year. Within Hybrid Platform & Solutions, Red Hat revenue increased 9.1 percent as reported (9 percent adjusted for currency) led by double-digit growth in OpenShift and Ansible, and solid growth in RHEL. OpenShift continued its strong performance with annual recurring revenue of \$1.2 billion exiting 2023. Automation revenue increased 3.4 percent as reported (4

percent adjusted for currency), with strength in AIOps and Management solutions as clients looked to optimize business performance and enhance productivity. Data & AI revenue increased 4.5 percent as reported (5 percent adjusted for currency), reflecting demand for data management as clients prepare for generative AI and strength in asset and supply chain management software which helps clients run sustainable operations. Security revenue decreased 2.5 percent as reported (2 percent adjusted for currency). While we had revenue declines in security threat management and identity and access management, we delivered revenue growth in data security.

Across Hybrid Platform & Solutions, our annual recurring revenue (ARR) was \$14.4 billion exiting 2023. ARR is a key performance metric management uses to assess the health and growth trajectory of our Hybrid Platform & Solutions business within the Software segment. ARR is calculated by estimating the current quarter's recurring, committed value for certain types of active contracts as of the period-end date and then multiplying that value by four. This value is based on each arrangement's contract value and start date, mitigating fluctuations during the contract term, and includes the following consumption models: (1) software subscription agreements, including committed term licenses, (2) as-a-service arrangements such as SaaS and PaaS, (3) maintenance and support contracts, and (4) security managed services contracts. ARR should be viewed independently of revenue as this performance metric and its inputs may not represent the amount of revenue recognized in the period and therefore is not intended to represent current period revenue or revenue that will be recognized in future periods.

Transaction Processing revenue of \$7,615 million increased 6.2 percent as reported (6 percent adjusted for currency) in 2023 compared to the prior year. Clients continue to value this portfolio of mission-critical software in support of growing workloads on our hardware platforms, such as zSystems. This, together with price increases, contributed to growth in both recurring and transactional revenue in Transaction Processing.

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent/ Margin Change
Software			
Gross profit	\$ 21,063	\$ 19,941	5.6 %
Gross profit margin	80.1 %	79.6 %	0.4 pts.
Pre-tax income	\$ 6,571	\$ 6,162	6.6 %
Pre-tax margin	25.0 %	24.6 %	0.4 pts.

Software gross profit margin of 80.1 percent in 2023 increased 0.4 points compared to the prior year, primarily driven by margin expansion in software services due to portfolio mix. Pre-tax income of \$6,571 million increased 6.6 percent and pre-tax margin of 25.0 percent increased 0.4 points compared to the prior year. The year-to-year increases in pre-tax income and pre-tax margin were driven by our solid revenue growth, higher gross profit contribution and the productivity actions we have taken, partially offset by key investments in innovation. Pre-tax margin in 2023 includes approximately 1 point of impact from currency.

Consulting

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Consulting revenue	\$ 19,985	\$ 19,107	4.6 %	6.1 %
Business Transformation	\$ 9,179	\$ 8,834	3.9 %	5.3 %
Technology Consulting	3,849	3,765	2.2	3.8
Application Operations	6,958	6,508	6.9	8.6

Consulting revenue of \$19,985 million increased 4.6 percent as reported (6 percent adjusted for currency) in 2023 compared to the prior year, with growth across all three business areas. This growth reflects the solid demand for our data and technology transformation projects with a focus on AI and analytics. Clients are also prioritizing cloud modernization and cloud-based application development projects. There has been a consistent client focus throughout the year on digital transformation and AI initiatives to drive productivity and cost savings for their enterprises. Our integrated value proposition, investments in skills and strategic partnerships and focused execution continues to differentiate us in the marketplace. Our strategic partnerships which account for approximately 40 percent of Consulting revenue, delivered double-digit growth in 2023 on a year-to-year basis in both Consulting signings and revenue.

Business Transformation revenue of \$9,179 million increased 3.9 percent as reported (5 percent adjusted for currency) compared to the prior year, led by data and technology transformations including AI and analytics-focused projects, and finance and supply chain transformations.

Technology Consulting revenue of \$3,849 million increased 2.2 percent as reported (4 percent adjusted for currency), led by cloud-based application development and cloud modernization projects.

Application Operations revenue of \$6,958 million increased 6.9 percent as reported (9 percent adjusted for currency) driven by growth in platform engineering services and cloud application management.

(\$ in millions)

	2023	2022	Yr.-to-Yr. Percent/ Margin Change
For the year ended December 31:			
Consulting			
Gross profit	\$ 5,313	\$ 4,864	9.2 %
Gross profit margin	26.6 %	25.5 %	1.1 pts.
Pre-tax income	\$ 1,918	\$ 1,677	14.4 %
Pre-tax margin	9.6 %	8.8 %	0.8 pts.

Consulting gross profit margin increased 1.1 points to 26.6 percent compared to the prior year. Pre-tax income of \$1,918 million increased 14.4 percent and pre-tax margin increased 0.8 points to 9.6 percent compared to the prior year. The increases in gross profit margin and pre-tax margin reflect benefits from pricing and productivity actions we have taken, which were partially offset by increased labor costs.

Consulting Signings and Book-to-Bill

(\$ in millions)

	2023	2022	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
For the year ended December 31:				
Total Consulting signings	\$ 23,339	\$ 20,485	13.9 %	16.7 %

Consulting signings grew 13.9 percent as reported (17 percent adjusted for currency) in 2023, and our book-to-bill ratio over the trailing twelve months was over 1.15. Book-to-bill represents the ratio of IBM Consulting signings to its revenue over the same period and is a useful indicator of the demand for our business over time.

Signings are management's initial estimate of the value of a client's commitment under a services contract within IBM Consulting. There are no third-party standards or requirements governing the calculation of signings. The calculation used by management involves estimates and judgments to gauge the extent of a client's commitment, including the type and duration of the agreement and the presence of termination charges or wind-down costs.

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

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

Infrastructure

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Infrastructure revenue	\$ 14,593	\$ 15,288	(4.5)%	(3.9)%
Hybrid Infrastructure	\$ 9,215	\$ 9,451	(2.5)%	(2.2)%
zSystems			(4.5)	(4.2)
Distributed Infrastructure			(1.0)	(0.7)
Infrastructure Support	5,377	5,837	(7.9)	(6.6)

Infrastructure revenue of \$14,593 million decreased 4.5 percent as reported (4 percent adjusted for currency) as compared to the prior year, reflecting product cycle dynamics which impacted both Hybrid Infrastructure and Infrastructure Support.

Hybrid Infrastructure revenue of \$9,215 million decreased 2.5 percent as reported (2 percent adjusted for currency) as compared to the prior year. Within Hybrid Infrastructure, zSystems revenue decreased 4.5 percent as reported (4 percent adjusted for currency) on a year-to-year basis, consistent with the z16 cycle, as it was introduced in the second quarter of 2022. Overall, across the program cycle, z16 revenue performance has significantly outperformed prior cycles, including the successful z15 program. The z16 program incorporates a number of key innovations for our clients including cloud-native development for hybrid cloud, embedded AI at scale, quantum safe cyber-resilient security, energy efficiency and strong reliability and scalability. Clients are increasingly leveraging zSystems for more workloads which drives demand for more capacity. Installed MIPS have doubled during the last two zSystems product cycles. zSystems remains an enduring platform, driving hardware adoption as well as related software, storage and services. Distributed Infrastructure revenue decreased 1.0 percent as reported (1 percent adjusted for currency). We had year-to-year declines in high-end Power and cloud platform revenue, partially offset by strong growth in high-end Storage and low- to mid-range Power.

Infrastructure Support revenue of \$5,377 million decreased 7.9 percent as reported (7 percent adjusted for currency), reflecting reduced demand for support services as a result of product cycle dynamics.

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent/ Margin Change
Infrastructure			
Gross profit	\$ 8,167	\$ 8,066	1.2 %
Gross profit margin	56.0 %	52.8 %	3.2 pts.
Pre-tax income	\$ 2,421	\$ 2,262	7.0 %
Pre-tax margin	16.6 %	14.8 %	1.8 pts.

Infrastructure gross profit margin increased 3.2 points to 56.0 percent in 2023 compared to the prior year. The increase was driven by margin expansion in Hybrid Infrastructure across both Distributed Infrastructure and zSystems, reflecting our continued focus on productivity initiatives including streamlining our supply chain, partially offset by margin decline in Infrastructure Support due to product cycle dynamics. Pre-tax income of \$2,421 million increased 7.0 percent and pre-tax margin increased 1.8 points to 16.6 percent primarily driven by the increase in gross profit contribution, an increase in IP and custom development income, a benefit from the changes in the useful life of servers and network equipment and productivity actions. Pre-tax margin in 2023 included approximately 1 point of impact from currency.

Financing

Refer to pages 38 through 40 for a discussion of Financing's segment results.

Geographic Revenue

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

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Total revenue	\$ 61,860	\$ 60,530	2.2 %	2.9 %
Americas	\$ 31,666	\$ 31,057	2.0 %	2.5 %
Europe/Middle East/Africa	18,492	17,950	3.0	1.3
Asia Pacific	11,702	11,522	1.6	6.5

Total revenue of \$61,860 million in 2023 increased 2.2 percent year to year as reported and 3 percent adjusted for currency.

Americas revenue increased 2.0 percent as reported and 2 percent adjusted for currency. The U.S. increased 1.1 percent. Canada decreased 2.5 percent as reported, but grew 1 percent adjusted for currency. Latin America increased 15.7 percent as reported and 18 percent adjusted for currency. Within Latin America, Brazil revenue increased 21.0 percent as reported and 19 percent adjusted for currency.

EMEA revenue increased 3.0 percent as reported and 1 percent adjusted for currency. France increased 1.2 percent as reported, but decreased 1 percent adjusted for currency. The UK increased 0.7 percent as reported and was flat adjusted for currency. Germany increased 0.4 percent as reported, but decreased 2 percent adjusted for currency. Italy decreased 0.8 percent as reported and 3 percent adjusted for currency.

Asia Pacific revenue increased 1.6 percent as reported and 7 percent adjusted for currency. Japan revenue increased 3.8 percent as reported and 11 percent adjusted for currency. India increased 15.1 percent as reported and 20 percent adjusted for currency. Australia decreased 6.7 percent as reported and 3 percent adjusted for currency. China decreased 19.6 percent as reported and 16 percent adjusted for currency.

Total Expense and Other (Income)

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent/ Margin Change
Total expense and other (income) ⁽¹⁾	\$ 25,610	\$ 31,531	(18.8)%
Non-operating adjustments			
Amortization of acquired intangible assets	(996)	(1,065)	(6.5)
Acquisition-related charges	(33)	(18)	83.7
Non-operating retirement-related (costs)/income ⁽¹⁾	39	(6,548)	NM
Kyndryl-related impacts	—	(351)	(100.0)
Operating (non-GAAP) expense and other (income)	\$ 24,620	\$ 23,549	4.5 %
Total expense-to-revenue ratio	41.4 %	52.1 %	(10.7)pts.
Operating (non-GAAP) expense-to-revenue ratio	39.8 %	38.9 %	0.9 pts.

(1) 2022 includes a one-time, non-cash pension settlement charge of \$5.9 billion. Refer to note V, "Retirement-Related Benefits," for additional information.

NM—Not meaningful

Our expense dynamics in 2023 reflect our continued investments to execute our hybrid cloud and AI strategy. We remain focused on our productivity initiatives as we digitally transform our business processes and scale AI within IBM. This includes simplifying our application and infrastructure environments, aligning our teams by workflow, reducing our real estate footprint and enabling a higher value-add workforce through automation and AI driven efficiencies. These productivity actions have allowed us to increase our investments in innovation, technical and industry skills and go-to-market capabilities, including our ecosystem.

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

Management Discussion

International Business Machines Corporation and Subsidiary Companies

Selling, General and Administrative Expense

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change
Selling, general and administrative expense			
Selling, general and administrative—other	\$ 15,706	\$ 15,537	1.1 %
Advertising and promotional expense	1,237	1,330	(7.0)
Workforce rebalancing charges	438	50	NM
Amortization of acquired intangible assets	995	1,062	(6.4)
Stock-based compensation	616	566	8.8
Provision for/(benefit from) expected credit loss expense	10	64	(83.6)
Total selling, general and administrative expense	\$ 19,003	\$ 18,609	2.1 %
Non-operating adjustments			
Amortization of acquired intangible assets	(995)	(1,062)	(6.4)
Acquisition-related charges	(44)	(17)	156.7
Kyndryl-related impacts	—	0	NM
Operating (non-GAAP) selling, general and administrative expense	\$ 17,964	\$ 17,529	2.5 %

NM—Not meaningful

Total selling, general and administrative (SG&A) expense increased 2.1 percent in 2023 versus 2022, driven primarily by the following factors:

- Higher workforce rebalancing charges (2 points) to address remaining stranded cost from portfolio actions; and
- Higher net spending (1 point) reflecting our continued investment to drive our hybrid cloud and AI strategy, partially offset by benefits from productivity actions.

Operating (non-GAAP) SG&A expense increased 2.5 percent year to year primarily driven by the same factors.

Provisions for expected credit loss expense was \$10 million in 2023 as compared to \$64 million in 2022. The year-to-year change was primarily driven by lower specific reserve requirements in the current year. Refer to "Receivables and Allowances" section on page 25 for additional information.

Research, Development and Engineering Expense

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change
Total research, development and engineering	\$ 6,775	\$ 6,567	3.2 %

Research, development and engineering (RD&E) expense increased 3.2 percent in 2023 versus 2022, primarily driven by higher spending (4 points) reflecting our continued investment to drive innovation in AI, hybrid cloud and quantum, partially offset by the effects of currency (1 point).

Intellectual Property and Custom Development Income

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change
Licensing of intellectual property including royalty-based fees	\$ 366	\$ 397	(7.7)%
Custom development income	485	246	97.2
Sales/other transfers of intellectual property	8	21	(60.1)
Total	\$ 860	\$ 663	29.6 %

Total Intellectual Property and Custom Development Income increased 29.6 percent in 2023 compared to 2022. The increase was primarily driven by a three-year joint development and licensing agreement signed in the fourth quarter of 2022 with a Japanese consortium to leverage our intellectual property and expertise on advanced semiconductors.

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

Other (Income) and Expense

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change
Other (income) and expense			
Foreign currency transaction losses/(gains)	\$ 116	\$ (643)	NM
(Gains)/losses on derivative instruments	(17)	225	NM
Interest income	(670)	(162)	NM
Net (gains)/losses from securities and investment assets	(39)	278	NM
Retirement-related costs/(income) ⁽¹⁾	(39)	6,548	NM
Other	(266)	(443)	(40.1)%
Total other (income) and expense	\$ (914)	\$ 5,803	NM
Non-operating adjustments			
Amortization of acquired intangible assets	(1)	(2)	(66.7)
Acquisition-related charges ⁽²⁾	11	(1)	NM
Non-operating retirement-related costs/(income) ⁽¹⁾	39	(6,548)	NM
Kyndryl-related impacts	—	(351)	(100.0)
Operating (non-GAAP) other (income) and expense	\$ (866)	\$ (1,099)	(21.3)%

(1) 2022 includes a one-time, non-cash pension settlement charge of \$5.9 billion.

(2) 2023 includes a gain of \$12 million on foreign exchange call option contracts related to the company's announced acquisition of StreamSets and webMethods from Software AG. Refer to note E, "Acquisitions & Divestitures," for additional information.

NM—Not meaningful

Total other (income) and expense was income of \$914 million in 2023 compared to expense of \$5,803 million in 2022. The year-to-year change was primarily driven by:

- Lower non-operating retirement-related cost (\$6,587 million) primarily driven by the pension settlement charge in 2022. Refer to note V, "Retirement-Related Benefits," for additional information; and
- Higher interest income (\$508 million) driven by higher average interest rates and a higher average cash balance in the current year; and
- Losses on Kyndryl retained shares (\$267 million) in the prior year; partially offset by
- Net exchange losses (including foreign exchange derivative instruments) in the current year versus net exchange gains in the prior year (\$516 million). The prior-year (gains)/losses on derivative instruments also includes a loss on the cash-settled swap related to the Kyndryl retained shares; and
- Lower gains on divestitures (\$277 million) primarily driven by the divestiture of our healthcare software assets in 2022 (included in "Other").

Operating (non-GAAP) other (income) and expense was \$866 million of income in 2023 and decreased \$234 million compared to the prior year. The year-to-year decrease was driven primarily by the effects of currency and lower gains on divestitures, partially offset by higher interest income described above.

Interest Expense

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change
Total interest expense	\$ 1,607	\$ 1,216	32.1 %

Interest expense of \$1,607 million in 2023 increased \$391 million compared to 2022. Interest expense is presented in cost of financing in the Consolidated Income Statement only if the related external borrowings are to support the Financing external

Management Discussion

International Business Machines Corporation and Subsidiary Companies

business. Overall interest expense (excluding capitalized interest) in 2023 was \$1,940 million, an increase of \$379 million year to year primarily driven by higher average interest rates and a higher average debt balance in the current year.

Stock-Based Compensation

Pre-tax stock-based compensation cost of \$1,133 million increased \$146 million compared to 2022. This was primarily due to increases from restricted stock units (\$84 million), stock options (\$32 million) and Employee Stock Purchase Plan (ESPP) (\$21 million). The increases are driven by stock-based compensation awards granted as part of our annual cycles for executives and other employees, and the ESPP being considered compensatory effective April 1, 2022. Stock-based compensation cost, and the year-to-year change, was reflected in the following categories: Cost: \$190 million, up \$26 million; SG&A expense: \$616 million, up \$50 million; and RD&E expense: \$328 million, up \$70 million.

Retirement-Related Plans

The following table provides the total pre-tax cost for all retirement-related plans. Total operating costs/(income) 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.

(\$ in millions)

For the year ended December 31:	2023	2022	Yr.-to-Yr. Percent Change
Retirement-related plans—cost			
Service cost	\$ 183	\$ 245	(25.2)%
Multi-employer plans	13	15	(10.6)
Cost of defined contribution plans	991	924	7.2
Total operating costs/(income)	\$ 1,188	\$ 1,184	0.3 %
Interest cost	\$ 2,415	\$ 1,731	39.5 %
Expected return on plan assets	(2,971)	(2,747)	8.2
Recognized actuarial losses	508	1,568	(67.6)
Amortization of prior service costs/(credits)	(9)	12	NM
Curtailments/settlements ⁽¹⁾	5	5,970	(99.9)%
Other costs	13	15	(11.8)
Total non-operating costs/(income) ⁽¹⁾	\$ (39)	\$ 6,548	NM
Total retirement-related plans—cost ⁽¹⁾	\$ 1,149	\$ 7,732	(85.1)%

(1) 2022 includes a one-time, non-cash pension settlement charge of \$5.9 billion.

NM—Not meaningful

Total pre-tax retirement-related plan cost decreased by \$6,583 million compared to 2022, primarily due to a decrease in curtailment/settlements (\$5,965 million) driven by the \$5.9 billion pension settlement charge in 2022, lower recognized actuarial losses (\$1,060 million), higher expected returns on plan assets (\$224 million) and lower service cost (\$62 million) partially offset by higher interest costs (\$684 million) and higher cost of defined contribution plans (\$67 million).

As discussed in the “Operating (non-GAAP) Earnings” section, we characterize certain retirement-related costs as operating and others as non-operating. Utilizing this characterization, operating retirement-related costs in 2023 were \$1,188 million, an increase of \$3 million compared to 2022. Non-operating income was \$39 million in 2023 as compared to cost of \$6,548 million in 2022. The year-to-year change was driven primarily by the pension settlement charge in the prior year, lower recognized actuarial losses, and lower service cost partially offset by higher interest costs and higher cost of defined contribution plans.

Income Taxes

The continuing operations effective tax rate for 2023 was 13.5 percent compared to (54.2) percent in 2022. The prior-year effective tax rate was primarily driven by the transfer of a portion of the Qualified PPP's defined benefit pension obligations and related plan assets. The operating (non-GAAP) effective tax rate for 2023 was 14.0 percent compared to 15.2 percent in 2022. For additional information, refer to note H, “Taxes.”

Financial Position

Dynamics

Our balance sheet at December 31, 2023 continues to provide us with flexibility to support and invest in the business.

Cash and cash equivalents, restricted cash and marketable securities at December 31, 2023 were \$13,462 million, an increase of \$4,622 million compared to prior-year end. Total debt of \$56,547 million increased \$5,598 million from prior-year end primarily due to net debt issuances. We were opportunistic in accessing the debt market and issued \$9,463 million of debt in the first quarter of 2023 to prudently plan for our debt maturity obligations in 2023 and 2024 as well as capital allocation priorities. We continue to manage our debt levels while being acquisitive and without sacrificing investments in our business.

During 2023, we generated \$13,931 million in cash from operating activities, an increase of \$3,496 million compared to 2022. Our free cash flow for 2023 was \$11,210 million, an increase of \$1,919 million versus the prior year. Refer to page 31 for additional information on free cash flow. Our strong cash generation has enabled us to be acquisitive and increase our investment in R&D, strengthening our AI and hybrid cloud capabilities, while supporting continued shareholder returns through dividends. We invested \$5,082 million in acquisitions and returned \$6,040 million to shareholders through dividends in 2023. Our cash generation supports investment and deployment of capital to areas with the most attractive long-term opportunities.

Consistent with accounting standards, the company remeasured the funded status of our retirement and postretirement plans at December 31. The overall net underfunded position at December 31, 2023 was \$4,006 million, an increase of \$1,855 million from the prior-year end, primarily due to lower discount rates. At year end, our qualified defined benefit pension plans were well funded and the required contributions related to these plans and multi-employer plans are expected to be \$200 million in 2024. In 2023, the return on the U.S. Personal Pension Plan assets was 4.3 percent and the plan was 123 percent funded at December 31, 2023. Overall, global asset returns were 4.5 percent and the qualified defined benefit plans worldwide were 111 percent funded at December 31, 2023.

IBM Working Capital

(\$ in millions)

At December 31:	2023	2022
Current assets	\$ 32,908	\$ 29,118
Current liabilities	34,122	31,505
Working capital	\$ (1,214)	\$ (2,387)
Current ratio	0.96:1	0.92:1

Working capital increased \$1,173 million from the year-end 2022 position. Current assets increased \$3,790 million (\$3,626 million adjusted for currency) primarily in cash and cash equivalents; partially offset by a decrease in short-term financing receivables and inventories. Current liabilities increased \$2,617 million (\$2,426 million adjusted for currency) primarily in short-term debt driven by reclassifications from long-term debt net of maturities and from deferred income.

Receivables and Allowances

Roll Forward of Total IBM Receivables Allowance for Credit Losses

(\$ in millions)

January 1, 2023	Additions/ (Releases) ⁽¹⁾	Write-offs ⁽²⁾	Foreign currency and other ⁽³⁾	December 31, 2023
\$495	\$11	\$(97)	\$48	\$457

(1) Additions/(Releases) for allowance for credit losses are recorded in expense.

(2) Refer to note A, "Significant Accounting Policies," for additional information regarding allowance for credit loss write-offs.

(3) Other includes additions/(releases) related to discontinued operations.

Excluding receivables classified as held for sale, the total IBM receivables provision coverage was 2.2 percent at December 31, 2023, a decrease of 20 basis points compared to December 31, 2022. The decrease in coverage is due to declines in reserves primarily driven by write-offs. The majority of the write-offs during the year related to receivables which had been previously reserved. Refer to Financing's "Financial Position" on page 39 for additional details regarding the Financing segment receivables and allowances.

Noncurrent Assets and Liabilities

(\$ in millions)

At December 31:	2023	2022
Noncurrent assets	\$ 102,333	\$ 98,125
Long-term debt	\$ 50,121	\$ 46,189
Noncurrent liabilities (excluding debt)	\$ 28,385	\$ 27,528

The increase in noncurrent assets of \$4,208 million (\$3,495 million adjusted for currency) was primarily due to goodwill mainly related to the Aptio acquisition; partially offset by a decrease in prepaid pension assets.

Long-term debt increased \$3,932 million (\$3,531 million adjusted for currency) primarily driven by debt issuances; partially offset by reclassifications to short-term debt to reflect upcoming maturities.

Noncurrent liabilities (excluding debt) increased \$858 million (\$605 million adjusted for currency) primarily driven by retirement and postretirement benefit obligations due to plan remeasurements.

Debt

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

(\$ in millions)

At December 31:	2023	2022
Total debt	\$ 56,547	\$ 50,949
Financing segment debt ⁽¹⁾	\$ 11,879	\$ 12,872
Non-Financing debt	\$ 44,668	\$ 38,077

(1) Refer to Financing's "Financial Position" on page 38 for additional details.

Total debt of \$56,547 million increased \$5,598 million (\$5,181 million adjusted for currency) from December 31, 2022, primarily driven by proceeds from issuances of \$9,586 million; partially offset by maturities of \$5,082 million.

Non-Financing debt of \$44,668 million increased \$6,591 million (\$6,230 million adjusted for currency) from December 31, 2022, primarily driven by our first quarter debt issuances to plan for debt maturity obligations in 2023 and 2024 as well as capital allocation priorities.

Financing segment debt of \$11,879 million decreased \$992 million (\$1,049 million adjusted for currency) from December 31, 2022, primarily due to lower funding requirements associated with financing receivables.

Financing provides financing solutions predominantly for IBM's external client assets, and the debt used to fund Financing assets is primarily composed of intercompany loans. Total debt changes generally correspond with the level of client and commercial financing receivables, the level of cash and cash equivalents, the change in intercompany and external payables and the change in intercompany investment from IBM. The terms of the intercompany loans are set by the company to substantially match the term, currency and interest rate variability underlying the financing receivable. The Financing debt-to-equity ratio remained at 9.0 to 1 at December 31, 2023.

Interest expense relating to debt supporting Financing's external client and internal business is included in the "Financing Results of Operations" and in note D, "Segments." In the Consolidated Income Statement, the external debt-related interest expense supporting Financing's internal financing to the company is classified as interest expense.

Equity

Total equity increased \$592 million from December 31, 2022, primarily driven by an increase from net income of \$7,502 million and common stock of \$1,300 million; partially offset by dividends paid of \$6,040 million and an increase in accumulated other comprehensive loss of \$2,021 million driven by retirement-related benefit plans.

Cash Flow

Our cash flows from operating, investing and financing activities, as reflected in the Consolidated Statement of Cash Flows on page 47, are summarized in the table below. These amounts also include the cash flows associated with the Financing business.

(\$ in millions)

For the year ended December 31:	2023	2022
Net cash provided by/(used in)		
Operating activities	\$ 13,931	\$ 10,435
Investing activities	(7,070)	(4,202)
Financing activities	(1,769)	(4,958)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	9	(244)
Net change in cash, cash equivalents and restricted cash	\$ 5,101	\$ 1,032

Net cash provided by operating activities increased \$3,496 million in 2023. This was due to an increase in cash provided by financing receivables, performance-related improvements within net income and sales cycle working capital efficiencies.

Net cash used in investing activities increased \$2,868 million mainly driven by the Apptio acquisition, and a decrease in cash provided by divestitures; partially offset by higher net proceeds from marketable securities and other investments.

Net cash used in financing activities decreased \$3,188 million mainly due to an increase in net cash provided by debt of \$3,276 million primarily driven by a higher level of issuances and lower level of maturities in the current year.

Discontinued Operations

Loss from discontinued operations was \$12 million in 2023 compared to \$143 million in the prior-year period. The results for both periods reflect the net impact of changes in separation-related estimates and the settlement of assets and liabilities in accordance with the separation and distribution agreement. The prior-year results also reflect a gain on sale of a joint venture historically managed by Kyndryl, which was sold to Kyndryl in the first quarter of 2022 upon receiving regulatory approval. The discontinued operations provision for income taxes for the year ended December 31, 2022 primarily reflects the impact of provision to return adjustments on the Kyndryl-related taxes. Refer to note E, "Acquisitions & Divestitures," for additional information.

Management Discussion

International Business Machines Corporation and Subsidiary Companies

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. Please refer to the "Operating (non-GAAP) Earnings" section for management's rationale for presenting operating earnings information.

(\$ in millions except per share amounts)

For the year ended December 31, 2023:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	\$34,300	\$ 631	\$ —	\$ —	\$ —	\$ 34,931
Gross profit margin	55.4 %	1.0 pts.	— pts.	— pts.	— pts.	56.5 %
SG&A	\$19,003	\$(1,039)	\$ —	\$ —	\$ —	\$ 17,964
Other (income) and expense ⁽¹⁾	(914)	10	39	—	—	(866)
Total expense and other (income)	25,610	(1,029)	39	—	—	24,620
Pre-tax income from continuing operations	8,690	1,660	(39)	—	—	10,311
Pre-tax margin from continuing operations	14.0 %	2.7 pts.	(0.1)pts.	— pts.	— pts.	16.7 %
Provision for income taxes ⁽³⁾	\$ 1,176	\$ 368	\$ (8)	\$ (95)	\$ —	\$ 1,441
Effective tax rate	13.5 %	1.4 pts.	0.0 pts.	(0.9)pts.	— pts.	14.0 %
Income from continuing operations	\$ 7,514	\$ 1,292	\$ (30)	\$ 95	\$ —	\$ 8,870
Income margin from continuing operations	12.1 %	2.1 pts.	0.0 pts.	0.2 pts.	— pts.	14.3 %
Diluted earnings per share from continuing operations	\$ 8.15	\$ 1.40	\$ (0.03)	\$ 0.10	\$ —	\$ 9.62

(\$ in millions except per share amounts)

For the year ended December 31, 2022:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments ⁽²⁾	U.S. Tax Reform Impacts	Kyndryl-Related Impacts	Operating (non-GAAP)
Gross profit	\$32,687	\$ 682	\$ —	\$ —	\$ —	\$ 33,370
Gross profit margin	54.0 %	1.1 pts.	— pts.	— pts.	— pts.	55.1 %
SG&A	\$18,609	\$(1,080)	\$ —	\$ —	\$ 0	\$ 17,529
Other (income) and expense	5,803	(3)	(6,548)	—	(351)	(1,099)
Total expense and other (income)	31,531	(1,083)	(6,548)	—	(351)	23,549
Pre-tax income from continuing operations	1,156	1,765	6,548	—	351	9,821
Pre-tax margin from continuing operations	1.9 %	2.9 pts.	10.8 pts.	— pts.	0.6 pts.	16.2 %
Provision for/(benefit from) income taxes ⁽³⁾	\$ (626)	\$ 436	\$ 1,615	\$ 70	\$ —	\$ 1,495
Effective tax rate	(54.2)%	14.2 pts.	52.6 pts.	0.7 pts.	1.9 pts.	15.2 %
Income from continuing operations	\$ 1,783	\$ 1,329	\$ 4,933	\$ (70)	\$ 351	\$ 8,326
Income margin from continuing operations	2.9 %	2.2 pts.	8.1 pts.	(0.1)pts.	0.6 pts.	13.8 %
Diluted earnings per share from continuing operations	\$ 1.95	\$ 1.46	\$ 5.41	\$ (0.08)	\$ 0.38	\$ 9.13

(1) Acquisition-Related Adjustments in 2023 includes a gain of \$12 million on foreign exchange call option contracts related to the company's planned acquisition of StreamSets and webMethods from Software AG. Refer to note E, "Acquisitions & Divestitures," for additional information.

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

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

PRIOR YEAR IN REVIEW

Refer to "Year in Review" on pages 17 through 29 of the "Management Discussion" section of our 2022 Annual Report on Form 10-K for a discussion on our financial condition and results of operations for the year ended December 31, 2022 compared to the year ended December 31, 2021.

OTHER INFORMATION

Looking Forward

Technology has proven to be a fundamental source of competitive advantage. Continued demand for technology will serve as a major driving force behind global economic and business growth as businesses look to scale, offer better services, drive efficiencies and seize new market opportunities. Our clients are asking how to boost productivity with AI and how to manage their technology stack, much of which is deployed across a hybrid environment: public, private and on-premise. These trends continue to fuel demand for both hybrid cloud and AI.

Hybrid Cloud and AI Progress

We entered 2023 intent on enhancing our Software portfolio and strengthening our Consulting position. We have accomplished both. In mid-2023, we launched watsonx, our flagship AI and data platform that enables clients to train, tune, validate and deploy AI models and we continue to build additional capabilities to help clients and partners capitalize on the AI opportunity. Consulting has delivered consistent revenue growth throughout 2023 despite an uneven macroeconomic environment. Our integrated value proposition, expanding ecosystem, skills and technical expertise, global reach and co-creation approach, set us apart and contributed to our Consulting performance outpacing that of our competitors. 2023 also underscored the enduring nature and relevance of our zSystems platform with the z16 program significantly outperforming prior cycles including the successful z15 cycle.

We continue to drive our productivity initiatives as we digitally transform our business processes and scale AI within IBM. We have achieved over \$1.5 billion in savings from these productivity initiatives through 2023 and believe we can achieve at least \$3.0 billion in annual run-rate savings by the end of 2024. The savings have allowed us to increase our investments in innovation, technical and industry skills and go-to-market capabilities, including our ecosystem. As we continue to execute productivity initiatives, we expect workforce rebalancing to be consistent with 2023 levels.

To complement our portfolio, we completed nine acquisitions in 2023, including Apptio, and we announced the acquisition of StreamSets and webMethods from Software AG which is expected to close in mid-year 2024. We also announced the Enterprise AI Venture Fund, a \$500 million fund with the goal of partnering with the startup community to understand the latest AI innovations in the market to help them scale. As we remain focused on portfolio optimization, we completed the sale of our Weather Company assets in January 2024.

We are pleased with the progress we have made. Over the last two years, we aligned our business to a platform-centric model, focused on hybrid cloud and AI. Our go-to-market is based on more technical and experiential selling. We opened our ecosystem and strategic partnerships to give our clients greater choice and technical depth. And we have invested in innovation and skills and pursued strategic acquisitions. These actions resulted in a fundamentally different company with an improved business mix, a higher value recurring revenue base and solid cash generation – a business well positioned for the future.

Effective January 1, 2024, we changed how we provide certain retirement-related benefits in the U.S. We are providing a new benefit to most U.S. employees under our existing U.S. Defined Benefit Qualified Personal Pension Plan (Qualified PPP) called the Retirement Benefit Account (RBA). This is in place of our contributions to the U.S. employees' 401(k) Plus accounts. IBM U.S. regular full-time and part-time employees with at least one year of service will participate in the RBA. Each eligible employee's RBA will be credited monthly with an amount equal to five percent of their eligible pay with no employee contribution required. Under the RBA, eligible employees will earn six percent interest through 2026 and starting in 2027, will earn interest equal to the 10-year U.S. Treasury Yield, subject to a three percent minimum per year through 2033. Eligible employees also received a salary increase effective January 1, 2024 for the difference between the IBM 401(k) Plus contribution percent they were previously entitled to receive and the five percent RBA pay credit. Since the RBA is a component of the Qualified PPP, it will be funded by the trust for the Qualified PPP along with other benefits in the Qualified PPP. At December 31, 2023, the Qualified PPP was 123 percent funded with assets exceeding liabilities by \$4.6 billion.

As a result of this change, service cost within the Qualified PPP is expected to increase by approximately \$0.4 billion and cost of defined contribution plans is expected to decline by approximately \$0.5 billion in 2024. Including the employee salary increase described above, the net impact to the company's operating costs is expected to be immaterial. In addition, inactive pension plan participants no longer represent substantially all of the participants in the U.S. Qualified PPP. As required by U.S. GAAP, this will change the amortization period of unrecognized actuarial losses from the average remaining life expectancy of inactive plan participants, to the average remaining service period of active plan participants. This will result in an increase to 2024 amortization expense of approximately \$0.3 billion. Actuarial loss amortization is reported within non-operating pension costs. There will be no impact to 2024 operating (non-GAAP) earnings, funded status, retiree benefit payments or funding requirements of the U.S. Qualified PPP due to the change in amortization period.

Our retirement-related plans remain in a strong financial position. In aggregate, our worldwide qualified plans are funded 111 percent, with the U.S. at 123 percent. Contributions for all retirement-related plans are expected to be approximately \$1.5 billion in 2024, of which approximately \$0.2 billion generally relates to legally required contributions to non-U.S. defined benefits and multi-employer plans. The expected decrease of \$0.3 billion in total contributions for 2024 is primarily driven by ongoing dynamics of our

retirement-related plans, including the change in U.S. retirement-related benefits described above. We expect 2024 pre-tax retirement-related plan cost to be approximately \$1.5 billion. This estimate reflects current pension plan assumptions at December 31, 2023. Within total retirement-related plan cost, operating retirement-related plan cost is expected to be approximately \$1.1 billion in 2024, a decrease of approximately \$0.1 billion compared to 2023. Non-operating retirement-related plan cost is expected to be approximately \$0.4 billion, an increase of approximately \$0.5 billion compared to 2023, primarily driven by higher recognized actuarial losses, partially offset by lower interest cost.

In addition, in the first quarter of 2024, we announced changes to our organizational structure and management system to better align our portfolio to the market, increase transparency and improve segment comparability to peers. These changes will not impact our Consolidated Financial Statements, but will impact our reportable segments beginning in the first quarter of 2024. The changes include: Security services, previously reported in Software segment moved to the Consulting segment; The Weather Company assets, divested in January 2024, previously reported in Software segment moved to Other - divested businesses category; and stock-based compensation expense and non-Financing net interest expense are no longer included in our reportable segment results, consistent with our management system. Since these changes did not occur until first-quarter 2024, the periods presented in this Annual Report are reported under the historical segments. Refer to note D, "Segments," for additional information.

We recognized a pre-tax gain on the sale of The Weather Company assets of approximately \$240 million at closing. The tax impact of the transaction will be included in our 2024 annual effective tax rate. On a full year basis, the gain on sale, net of tax, and forgone profit is expected to be immaterial.

Liquidity and Capital Resources

We have generated strong cash flow from operations allowing us to invest and deploy capital to areas with the most attractive long-term opportunities. We provide for additional liquidity through several sources: maintaining an adequate cash balance, access to global funding sources, committed global credit facilities and other committed and uncommitted lines of credit worldwide. The following table provides a summary of the major sources of liquidity for the years ended December 31, 2021 through 2023.

Cash Flow and Liquidity Trends

(\$ in billions)				
	2023	2022	2021	
Net cash from operating activities	\$ 13.9	\$ 10.4	\$ 12.8	
Cash and cash equivalents, restricted cash and short-term marketable securities	\$ 13.5	\$ 8.8	\$ 7.6	
Committed global credit facilities ⁽¹⁾	\$ 10.0	\$ 10.0	\$ 10.0	

(1) Refer to note P, "Borrowings," for additional information.

The indenture governing our debt securities and our 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 IBM's consolidated net tangible assets, and restrict our ability to merge or consolidate unless certain conditions are met. The credit facilities also include a covenant on our 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.

We are in compliance with all of our significant debt covenants and provide periodic certification to our lenders. The failure to comply with debt covenants could constitute an event of default with respect to our 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.

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 IBM's credit rating were to fall below investment grade. At December 31, 2023, the fair value of those instruments that were in a liability position was \$593 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.

The following table presents the major ratings agencies' ratings assigned to our debt securities as of December 31, 2023. The Moody's and Standard and Poor's ratings remain unchanged from December 31, 2022. Additionally, Fitch assigned its credit ratings on our debt securities in the fourth quarter of 2023.

IBM Ratings	Standard and Poor's	Moody's Investors Service	Fitch Ratings
Senior long-term debt	A-	A3	A-
Commercial paper	A-2	Prime-2	F1

We have ample and increased financial flexibility, supported by our strong liquidity position and cash flows, to operate at a single A credit rating. In 2023, we issued \$9.5 billion of debt to plan for our debt maturity obligations in 2023 and 2024, as well as capital allocation priorities. Debt levels increased \$5.6 billion from December 31, 2022, driven by net debt issuances. On February 5, 2024, we issued \$5.5 billion of debt to increase our financial liquidity and plan for our future debt maturities. Refer to note W, "Subsequent Events," for additional information.

We prepare our Consolidated Statement of Cash Flows in accordance with applicable accounting standards for cash flow presentation on page 47 and highlight causes and events underlying sources and uses of cash in that format on page 27. For the purpose of running its business, IBM manages, monitors and analyzes cash flows in a different manner.

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

The following is management's view of cash flows for 2023, 2022 and 2021 prepared in a manner consistent with the description above and is presented on a consolidated basis, including cash flows of discontinued operations.

(\$ in billions)

For the year ended December 31:	2023	2022 ⁽¹⁾	2021
Net cash from operating activities per GAAP ⁽²⁾	\$ 13.9	\$ 10.4	\$ 12.8
Less: the change in Financing receivables	1.2	(0.7)	3.9
Net cash from operating activities, excluding Financing receivables	12.7	11.2	8.9
Capital expenditures, net	(1.5)	(1.9)	(2.4)
Free cash flow (FCF) ⁽³⁾	11.2	9.3	6.5
Acquisitions	(5.1)	(2.3)	(3.3)
Divestitures	0.0	1.3	0.1
Dividends	(6.0)	(5.9)	(5.9)
Non-Financing debt	5.5	1.9	(1.2)
Other (includes Financing receivables and Financing debt) ⁽⁴⁾	(1.0)	(2.9)	(3.0)
Change in cash, cash equivalents, restricted cash and short-term marketable securities	\$ 4.6	\$ 1.3	\$ (6.7)

(1) Includes immaterial cash flows from discontinued operations.

(2) 2021 includes cash flows of discontinued operations of \$1.6 billion.

(3) 2021 includes cash impacts of approximately \$1.4 billion for Kyndryl-related structural actions and separation charges.

(4) 2021 includes the distribution from Kyndryl of \$0.9 billion.

From the perspective of how management views cash flow, in 2023, after investing \$1.5 billion in capital investments, we generated free cash flow of \$11.2 billion, an increase of \$1.9 billion versus the prior year. The year-to-year increase in free cash flow primarily reflects current year performance-related improvements within net income, sales cycle working capital efficiencies and a decline in capital expenditures reflecting actions to optimize our real estate portfolio. In 2023, we continued to return value to shareholders with \$6.0 billion in dividends and invested \$5.1 billion in acquisitions.

IBM's Board of Directors considers the dividend payment on a quarterly basis. In the second quarter of 2023, the Board of Directors increased the company's quarterly common stock dividend from \$1.65 to \$1.66 per share.

Events that could temporarily change the historical cash flow dynamics discussed previously include significant changes in operating results, material changes in geographic sources of cash, unexpected adverse impacts from litigation, future pension funding requirements during 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 R, "Commitments & Contingencies." With respect to pension funding, in 2023, we contributed \$70 million to our non-U.S. defined benefit plans compared to \$118 million in 2022. As highlighted in the Contractual Obligations table, we expect to make legally mandated pension plan contributions to certain non-U.S. plans of approximately \$1.3 billion in the next five years. The 2024 contributions are currently expected to be approximately \$200 million. Contributions related to all retirement-related plans are expected to be approximately \$1.5 billion in 2024, a decrease of approximately \$300 million compared to 2023. Refer to "Looking Forward" for additional information. 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 2024, 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. Our overall shareholder payout remains at a comfortable level and we remain fully committed to our long-standing dividend policy.

Contractual Obligations

(\$ in millions)

	Total Contractual Payment Stream	Payments Due In			
		2024	2025-26	2027-28	After 2028
Long-term debt obligations	\$ 57,099	\$ 6,307	\$ 10,531	\$ 9,733	\$ 30,528
Interest on long-term debt obligations	19,170	1,717	2,991	2,322	12,140
Finance lease obligations ⁽¹⁾	499	121	182	124	72
Operating lease obligations ⁽¹⁾	3,948	948	1,377	733	890
Purchase obligations	3,822	1,203	1,581	610	428
Other long-term liabilities:					
Minimum defined benefit plan pension funding (mandated) ⁽²⁾	1,300	200	600	500	
Excess 401(k) Plus Plan	1,644	207	436	464	537
Long-term termination benefits	858	191	128	97	442
Tax reserves ⁽³⁾	5,712	108			
Other	569	149	93	55	271
Total	\$ 94,622	\$ 11,151	\$ 17,920	\$ 14,639	\$ 45,308

(1) Finance lease obligations are presented on a discounted cash flow basis, whereas operating lease obligations are presented on an undiscounted cash flow basis.

(2) As funded status on plans will vary, obligations for mandated minimum pension payments after 2028 could not be reasonably estimated.

(3) These amounts represent the liability for unrecognized tax benefits. We estimate that approximately \$108 million of the liability is expected to be settled within the next 12 months. The settlement period for the noncurrent portion of the income tax liability cannot be reasonably estimated as the timing of the payments will depend on the progress of tax examinations with the various tax authorities; however, it is not expected to be due within the next 12 months.

Certain contractual obligations reported in the previous table exclude the effects of time value and therefore, may not equal the amounts reported in the Consolidated Balance Sheet. Certain noncurrent liabilities are excluded from the previous table as their future cash outflows are uncertain. This includes deferred taxes, derivatives, deferred income, disability benefits and other sundry items. Certain obligations related to our divestitures are included.

Purchase obligations include all commitments to purchase goods or services of either a fixed or minimum quantity that meet any of the following criteria: (1) they are noncancelable, (2) we would incur a penalty if the agreement was canceled, or (3) we must make specified minimum payments even if we do not take delivery of the contracted products or services (take-or-pay). If the obligation to purchase goods or services is noncancelable, the entire value of the contract is included in the previous table. If the obligation is cancelable, but we would incur a penalty if canceled, the dollar amount of the penalty is included as a purchase obligation. Contracted minimum amounts specified in take-or-pay contracts are also included in the table as they represent the portion of each contract that is a firm commitment.

In the ordinary course of business, we enter into contracts that specify that we will purchase all or a portion of our requirements of a specific product, commodity or service from a supplier or vendor. These contracts are generally entered into in order to secure pricing or other negotiated terms. They do not specify fixed or minimum quantities to be purchased and, therefore, we do not consider them to be purchase obligations.

Interest on floating-rate debt obligations is calculated using the effective interest rate at December 31, 2023, plus the interest rate spread associated with that debt, if any.

Off-Balance Sheet Arrangements

In the normal course of business, we may enter into off-balance sheet arrangements such as client financing commitments and guarantees. At December 31, 2023, we had no off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources. Refer to the table above for our contractual obligations, and note R, "Commitments & Contingencies," for detailed information about our guarantees, financial commitments and indemnification arrangements. We do not have retained interests in assets transferred to unconsolidated entities or other material off-balance sheet interests or instruments.

Critical Accounting Estimates

The application of GAAP requires IBM to make estimates and assumptions about certain items and future events that directly affect its reported financial condition. The accounting estimates and assumptions discussed in this section are those that we consider to be the most critical to our financial statements. An accounting estimate is considered critical if both (a) the nature of the estimate or assumption is material due to the levels of subjectivity and judgment involved, and (b) the impact within a reasonable range of outcomes of the estimate and assumption is material to IBM's financial condition. Senior management has discussed the development, selection and disclosure of these estimates with the Audit Committee of IBM's Board of Directors. Our significant accounting policies are described in note A, "Significant Accounting Policies."

A quantitative sensitivity analysis is provided where that information is reasonably available, can be reliably estimated and provides material information to investors. The amounts used to assess sensitivity (e.g., 1 percent, 10 percent, etc.) are included to allow users of the financial statements to understand a general direction cause and effect of changes in the estimates and do not represent management's predictions of variability. For all of these estimates, it should be noted that future events rarely develop exactly as forecasted, and estimates require regular review and adjustment.

Pension Assumptions

For our defined benefit pension plans, the measurement of the benefit obligation to plan participants and net periodic pension (income)/cost requires the use of certain assumptions, including, among others, estimates of discount rates, interest crediting rates and expected return on plan assets. Beginning in 2024, as a result of changes to the Qualified PPP as discussed in "Looking Forward" the interest crediting rate and expected return on plan assets will be based on their relationship to the plan's discount rate.

Changes in the discount rate and the interest crediting rate assumptions would impact the service cost, (gain)/loss amortization and interest cost components of the net periodic pension (income)/cost calculation and the projected benefit obligation (PBO). Changes in the expected long-term return on plan assets assumption impacts the net periodic pension (income)/cost. Expected returns on plan assets are calculated based on the market-related value of plan assets, which recognizes changes in the fair value of plan assets systematically over a five-year period in the expected return on plan assets line in net periodic pension (income)/cost. The differences between the actual return on plan assets and the expected long-term return on plan assets are recognized over five years in the expected return on plan assets line in net periodic pension (income)/cost and also as a component of actuarial (gains)/losses, which are recognized over the service lives or life expectancy of the participants, depending on the plan, provided such

amounts exceed thresholds which are based upon the benefit obligation or the value of plan assets, as provided by accounting standards.

The discount rate assumption for the IBM Personal Pension Plan (PPP), a U.S.-based defined benefit plan, decreased by 30 basis points to 5.0 percent on December 31, 2023. This change will decrease pre-tax income recognized in 2024 by an estimated \$112 million. A 25 basis point increase or decrease in the discount rate assumption for the PPP would cause a corresponding increase or decrease, respectively, in the pre-tax income recognized in 2024 by an estimated \$100 million. The impact on pre-tax income as a result of a change in discount rate includes the impact of a similar change in the interest crediting rate. The increase or decrease in the discount rate would also cause a corresponding increase or decrease, respectively, in the 2024 expected return on plan assets assumption. Further changes in the discount rate assumptions would impact the PBO which, in turn, may impact our funding decisions if the PBO exceeds plan assets. A 25 basis point increase in the discount rate would decrease the PBO by \$399 million. A 25 basis point decrease in the discount rate would increase the PBO by \$414 million. The impact on the PBO as a result of a change in discount rate includes the impact of a similar change in the interest crediting rate.

Each 50 basis point change in the expected long-term return on PPP plan assets assumption would have an estimated impact of \$136 million on the following year's pre-tax net periodic pension (income)/cost (based upon the 2024 assumptions).

We may voluntarily make contributions or be required, by law, to make contributions to our pension plans. Actual results that differ from the estimates may result in more or less future IBM funding into the pension plans than is planned by management. Impacts of these types of changes on our pension plans in other countries worldwide would vary depending upon the status of each respective plan.

In addition to the above, we evaluate other pension assumptions involving demographic factors, such as retirement age and mortality, and update these assumptions to reflect experience and expectations for the future. Actual results in any given year can differ from actuarial assumptions because of economic and other factors.

For additional information on our pension plans and the development of these assumptions, refer to note V, "Retirement-Related Benefits."

Revenue Recognition

Application of GAAP related to the measurement and recognition of revenue requires us to make judgments and estimates. Specifically, complex arrangements with nonstandard terms and conditions may require significant contract interpretation to determine the appropriate accounting, including whether promised goods and services specified in an arrangement are distinct performance obligations. Other significant judgments include determining the standalone selling price (SSP), determining whether IBM or a reseller is acting as the principal in a transaction and whether separate contracts should be combined and considered part of one arrangement.

Revenue recognition is also impacted by our ability to determine when a contract is probable of collection and to estimate variable consideration, including, for example, rebates, volume discounts, service-level penalties and performance bonuses. We consider various factors when making these judgments, including a review of specific transactions, historical experience and market and economic conditions. Evaluations are conducted each quarter to assess the adequacy of the estimates. If the estimates were changed by 10 percent in 2023, the impact on net income would have been \$42 million.

Costs to Complete Service Contracts

We enter into numerous service contracts through our services businesses. During the contractual period, revenue, cost and profits may be impacted by estimates of the ultimate profitability of each contract, especially contracts for which we use cost-to-cost measures of progress. For those contracts, if at any time these estimates indicate the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately in cost. We perform ongoing profitability analyses of these services contracts in order to determine whether the latest estimates require updating. Key factors reviewed to estimate the future costs to complete each contract are future labor costs and product costs and expected productivity efficiencies. Contract loss provisions recorded as a component of other accrued expenses and liabilities were immaterial at December 31, 2023 and 2022.

Income Taxes

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgments are required in determining the consolidated provision for income taxes.

During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. As a result, we recognize tax liabilities based on estimates of whether additional taxes and interest will be due. These tax liabilities are recognized when, despite our belief that our tax return positions are supportable, we believe that certain positions may not be fully sustained upon review by tax authorities. We believe that our accruals for tax liabilities are adequate for all open audit years based on our assessment of many factors, including past experience and interpretations of tax law. This assessment relies on

estimates and assumptions and may involve a series of complex judgments about future events. To the extent that new information becomes available which causes us to change our judgment regarding the adequacy of existing tax liabilities, such changes to tax liabilities will impact income tax expense in the period in which such determination is made.

Significant judgment is also required in determining any valuation allowance recorded against deferred tax assets. In assessing the need for a valuation allowance, management considers all available evidence for each jurisdiction including past operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies/actions. In the event that we change our determination as to the amount of deferred tax assets that can be realized, we will adjust the valuation allowance with a corresponding impact to income tax expense in the period in which such determination is made.

The consolidated provision for income taxes will change period to period based on non-recurring events, such as the settlement of income tax audits and changes in tax laws, as well as recurring factors including the geographic mix of income before taxes, state and local taxes and the effects of various global income tax strategies.

To the extent that the provision for income taxes increases/decreases by 1 percent of income from continuing operations before income taxes, consolidated net income would have decreased/improved by \$87 million in 2023.

Valuation of Assets

The application of business combination and impairment accounting requires the use of significant estimates and assumptions. The acquisition method of accounting for business combinations requires us to estimate the fair value of assets acquired including separately identifiable intangible assets, liabilities assumed, and any noncontrolling interest in the acquiree to properly allocate purchase price consideration. Impairment testing for assets, other than goodwill, requires the allocation of cash flows to those assets or group of assets and if required, an estimate of fair value for the assets or group of assets. Our estimates are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable. These valuations require the use of management's assumptions, which would not reflect unanticipated events and circumstances that may occur.

Valuation of Goodwill

We review goodwill for impairment annually and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable. We first assess qualitative factors in each of our reporting units that carry goodwill including relevant events and circumstances that affect the fair value of the reporting units to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. Judgment in the assessment of qualitative factors of impairment include entity specific factors, industry, market and other macroeconomic conditions, legal and regulatory actions, as well as other individual factors impacting each reporting unit such as loss of key personnel and overall financial performance. If we do not perform a qualitative assessment, or if the qualitative assessment indicates it is more likely than not that the fair value of a reporting unit is less than its carrying amount, we perform a quantitative test.

In the quantitative test, we compare the fair value of each reporting unit to its carrying amount. Estimating the fair value of a reporting unit is judgmental in nature and involves the use of significant estimates and assumptions. We estimate the fair value of our reporting units using the income approach. When circumstances warrant, we may also use a combination of the income approach and certain market approaches. Under the income approach, we estimate the fair value of a reporting unit based on the present value of estimated discounted future cash flows. The discounted cash flow methodology includes the use of projections, which require the use of significant estimates and assumptions specific to the reporting unit as well as those based on general economic conditions. Factors specific to each reporting unit include revenue growth rates, gross margins, discount rates, terminal value growth rates, capital expenditures projections, assumed tax rates and other assumptions deemed reasonable by management.

After performing the annual goodwill impairment qualitative analysis during the fourth quarter of 2023, the company determined it was not necessary to perform the quantitative goodwill impairment test.

Loss Contingencies

We are currently involved in various claims and legal proceedings. At least quarterly, we review the status of each significant matter and assess our potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. Significant judgment is required in both the determination of probability and the determination as to whether an exposure is reasonably estimable. Because of uncertainties related to these matters, accruals are based only on the best information available at the time. As additional information becomes available, we reassess the potential liability related to our pending claims and litigation, and may revise our estimates. These revisions in the estimates of the potential liabilities could have a material impact on our results of operations and financial position.

Financing Receivables Allowance for Credit Losses

The Financing business reviews its financing receivables portfolio on a regular basis in order to assess collectibility and records adjustments to the allowance for credit losses at least quarterly. A description of the methods used by management to estimate the amount of uncollectible receivables is included in note A, "Significant Accounting Policies." Factors that could result in actual receivable losses that are materially different from the estimated reserve include significant changes in the economy, or a sudden change in the economic health of a client that represents a significant concentration in Financing's receivables portfolio.

To the extent that actual collectibility differs from management's estimates currently provided for by 10 percent, Financing's segment pre-tax income and our income from continuing operations before income taxes would be higher or lower by an estimated \$16 million depending upon whether the actual collectibility was better or worse, respectively, than the estimates.

Change in Accounting Estimate

Effective January 1, 2023, due to advances in technology, we increased the estimated useful lives of our server and network equipment. Refer to note A, "Significant Accounting Policies," for additional information on this change in accounting estimate.

Currency Rate Fluctuations

Changes in the relative values of non-U.S. currencies to the USD affect our financial results and financial position. At December 31, 2023, currency changes resulted in assets and liabilities denominated in local currencies being translated into more dollars than at year-end 2022. We use financial hedging instruments to limit specific currency risks related to foreign currency-based transactions.

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

We translate revenue, cost and expense in our non-U.S. operations at current exchange rates in the reported period. References to "adjusted for currency" or "constant currency" reflect adjustments based upon a simple mathematical formula. However, this constant currency methodology that we utilize to disclose this information does not incorporate any operational actions that management could take to mitigate fluctuating currency rates. Based on the currency rate movements in 2023, revenue from continuing operations increased 2.2 percent as reported and 2.9 percent at constant currency versus 2022. Currency translation and hedging impacted year-to-year pre-tax income growth and operating (non-GAAP) pre-tax income growth by approximately \$700 million in 2023. From a segment perspective, in 2023, currency translation and hedging impacted our Software and Infrastructure pre-tax income margin year-to-year growth by approximately one point each. We view these amounts as a theoretical maximum impact to our as-reported financial results. Hedging and certain underlying foreign currency transaction gains and losses are allocated to our segment results. Considering the operational responses mentioned above, movements of exchange rates, and the nature and timing of hedging instruments, it is difficult to predict future currency impacts on any particular period.

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

Market Risk

In the normal course of business, our financial position is routinely subject to a variety of risks, including the market risk associated with interest rate and currency movements on outstanding debt and non-U.S. dollar denominated assets and liabilities, and other risks such as collectibility of accounts receivable.

We regularly assess these risks and have established policies and business practices to protect against the adverse effects of these and other potential exposures. As a result, we do not anticipate any material losses from these risks.

Our debt, in support of the geographic breadth of our operations and our Financing business, contains an element of market risk from changes in interest and currency rates. We manage this risk, in part, through the use of a variety of financial instruments including derivatives, as described in note T, "Derivative Financial Instruments."

To meet disclosure requirements, we perform a sensitivity analysis to determine the effects that market risk exposures may have on the fair values of our debt and other financial instruments.

The financial instruments that are included in the sensitivity analysis are comprised of our cash and cash equivalents, marketable securities, short-term and long-term loans, commercial financing and installment payment receivables, investments, long-term and short-term debt and derivative financial instruments. Our derivative financial instruments generally include interest rate swaps, foreign currency swaps, forward contracts, and options.

To perform the sensitivity analysis, we assess the risk of loss in fair values from the effect of hypothetical changes in interest rates and foreign currency exchange rates on market-sensitive instruments. The market values for interest and foreign currency exchange risk are computed based on the present value of future cash flows as affected by the changes in rates that are attributable to the market risk being measured. The discount rates used for the present value computations were selected based on market interest and foreign currency exchange rates in effect at December 31, 2023 and 2022. The differences in this comparison are the hypothetical losses associated with each type of risk.

Information provided by the sensitivity analysis does not necessarily represent the actual changes in fair value that we would incur under normal market conditions because, due to practical limitations, all variables other than the specific market risk factor are held constant. In addition, the results of the model are constrained by the fact that certain items are specifically excluded from the analysis, while the financial instruments relating to the financing or hedging of those items are included by definition. Excluded items include short-term and long-term receivables from sales-type and direct financing leases, forecasted foreign currency cash flows and the company's net investment in foreign operations. As a consequence, reported changes in the values of some of the financial instruments impacting the results of the sensitivity analysis are not matched with the offsetting changes in the values of the items that those instruments are designed to finance or hedge.

The results of the sensitivity analysis at December 31, 2023 and 2022, are as follows:

Interest Rate Risk

A hypothetical 10 percent adverse change in the levels of interest rates, with all other variables held constant, would result in a decrease in the fair value of our financial instruments of approximately \$0.3 billion and \$0.2 billion at December 31, 2023 and 2022, respectively. Changes in the relative sensitivity of the fair value of our financial instrument portfolio for these theoretical changes in the level of interest rates from the prior year are primarily driven by changes in debt maturities, interest rate profile and amount.

Foreign Currency Exchange Rate Risk

A hypothetical 10 percent adverse change in the levels of foreign currency exchange rates relative to the U.S. dollar, with all other variables held constant, would result in a decrease in the fair value of our financial instruments of approximately \$1.6 billion and \$1.4 billion at December 31, 2023 and 2022, respectively. The theoretical changes from the prior year are primarily driven by changes in foreign currency activities related to long-term debt and derivatives.

Financing Risks

Refer to the "Description of Business" on page 15 for a discussion of the financing risks associated with the Financing business and management's actions to mitigate such risks.

FINANCING

Financing is a reportable segment that facilitates IBM clients' acquisition of hardware, software and services by providing financing solutions, while generating solid returns on equity.

Results of Operations

(\$ in millions)

	2023	2022	Yr.-to-Yr. Percent Change
For the year ended December 31:			
Revenue	\$ 741	\$ 645	14.8 %
Pre-tax income	\$ 374	\$ 340	10.1 %

Financing revenue increased 14.8 percent (15 percent adjusted for currency) to \$741 million compared to the prior year, primarily driven by client financing up \$89 million to \$728 million. The increase in client financing revenue was primarily driven by an increase in client financing asset yields.

Financing pre-tax income increased 10.1 percent to \$374 million compared to the prior year and the pre-tax margin of 50.5 percent decreased 2.2 points year to year. The increase in pre-tax income in 2023 is primarily driven by a decrease in selling, general and administrative expenses and settlements on non-accrual assets.

Financial Position

(\$ in millions)

	2023	2022
At December 31:		
Cash and cash equivalents	\$ 555	\$ 699
Client financing receivables		
Net investment in sales-type and direct financing leases ⁽¹⁾	4,237	4,047
Client loans	6,486	8,329
Total client financing receivables	\$ 10,723	\$ 12,376
Commercial financing receivables		
Held for investment	1,155	293
Held for sale	692	939
Other receivables	26	66
Total external receivables ⁽²⁾	\$ 12,596	\$ 13,674
Intercompany assets ⁽³⁾⁽⁴⁾	963	988
Other assets ⁽⁴⁾	294	395
Total assets	\$ 14,409	\$ 15,757
Intercompany payables ⁽³⁾	\$ 426	\$ 637
Debt ⁽⁵⁾	11,879	12,872
Other liabilities	783	814
Total liabilities	\$ 13,088	\$ 14,323
Total equity	\$ 1,321	\$ 1,433
Total liabilities and equity	\$ 14,409	\$ 15,757

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

(2) The difference between the decrease in total external receivables of \$1.1 billion (from \$13.7 billion in 2022 to \$12.6 billion in 2023) and the \$1.2 billion change in Financing segment receivables disclosed in the free cash flow presentation on page 31 is primarily attributable to currency impacts.

(3) This entire amount is eliminated for purposes of IBM's consolidated financial results and therefore does not appear in the Consolidated Balance Sheet.

(4) Prior period amounts have been recast to conform to 2023 presentation.

(5) Financing segment debt is primarily composed of intercompany loans.

Financing Segment Receivables and Allowances

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

(\$ in millions)

At December 31:	2023	2022
Amortized cost ⁽¹⁾	\$ 12,034	\$ 12,843
Specific allowance for credit losses	111	127
Unallocated allowance for credit losses	45	46
Total allowance for credit losses	156	173
Net financing receivables	\$ 11,878	\$ 12,670
Allowance for credit losses coverage	1.3 %	1.3 %

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

Roll Forward of Financing Segment Receivables Allowance for Credit Losses

(\$ in millions)

January 1, 2023	Additions/ (Releases) ⁽¹⁾	Write-offs ⁽²⁾	Foreign currency and other	December 31, 2023
\$173	\$(12)	\$(18)	\$12	\$156

(1) Additions/(Releases) for allowance for credit losses are recorded in expense.

(2) Refer to note A, "Significant Accounting Policies," for additional information regarding allowance for credit loss write-offs.

We continue to apply our rigorous credit policies. Approximately 72 percent of the total external portfolio was with investment-grade clients, a decrease of 1 point compared to December 31, 2022. This investment grade percentage is based on the credit ratings of the companies in the portfolio and reflects certain mitigating actions taken to reduce the risk to IBM.

We have a long-standing practice of taking mitigation actions, in certain circumstances, to transfer credit risk to third parties. These actions may include credit insurance, financial guarantees, nonrecourse secured borrowings, transfers of receivables recorded as true sales in accordance with accounting guidance or sales of equipment under operating lease. Sale of receivables arrangements are also utilized in the normal course of business as part of our cash and liquidity management. For additional information related to the company's sales of receivables, refer to "Transfer of Financial Assets" in note L, "Financing Receivables."

Return on Equity Calculation

(\$ in millions)

At December 31:	2023	2022
Numerator		
Financing after-tax income (A) ⁽¹⁾	\$ 312	\$ 279
Denominator		
Average Financing equity (B) ⁽²⁾	\$ 1,238	\$ 1,389
Financing return on equity (A)/(B)	25.2 %	20.1 %

(1) Calculated based upon an estimated tax rate, which is a function of IBM's provision for income taxes determined on a consolidated basis.

(2) Average of the ending equity for Financing for the last five quarters.

Return on equity was 25.2 percent compared to 20.1 percent for the years ended December 31, 2023 and 2022, respectively. The increase was driven by an increase in net income and a lower average equity balance.

Management Discussion

International Business Machines Corporation and Subsidiary Companies

Residual Value

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

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

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

Unguaranteed Residual Value

(\$ in millions)

	At December 31, 2022	At December 31, 2023	Estimated Run Out of December 31, 2023 Balance			
			2024	2025	2026	2027 and Beyond
Sales-type and direct financing leases	\$ 422	\$ 458	\$ 67	\$ 146	\$ 124	\$ 121

Management Responsibility for Financial Information

Responsibility for the integrity and objectivity of the financial information presented in this Annual Report rests with IBM management. The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America, applying certain estimates and judgments as required.

IBM maintains an effective internal control structure. It consists, in part, of organizational arrangements with clearly defined lines of responsibility and delegation of authority, and comprehensive systems and control procedures. An important element of the control environment is an ongoing internal audit program. Our system also contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

To assure the effective administration of internal controls, we carefully select and train our employees, develop and disseminate written policies and procedures, provide appropriate communication channels and foster an environment conducive to the effective functioning of controls. We believe that it is essential for the company to conduct its business affairs in accordance with the highest ethical standards, as set forth in the IBM Business Conduct Guidelines. These guidelines, translated into numerous languages, are distributed to employees throughout the world, and reemphasized through internal programs to assure that they are understood and followed.

The Audit Committee of the Board of Directors is composed solely of independent, non-management directors, and is responsible for recommending to the Board the independent registered public accounting firm to be retained for the coming year, subject to stockholder ratification. The Audit Committee meets regularly and privately with the independent registered public accounting firm, with the company's internal auditors, as well as with IBM management, to review accounting, auditing, internal control structure and financial reporting matters.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting of the company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

The company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of internal control over financial reporting based on the criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management concluded that the company's internal control over financial reporting was effective as of December 31, 2023.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, is retained to audit IBM's Consolidated Financial Statements and the effectiveness of the internal control over financial reporting. Its accompanying report is based on audits conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States).

To the Board of Directors and Stockholders of International Business Machines Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of International Business Machines Corporation and its subsidiaries (the "Company") as of December 31, 2023 and 2022, and the related consolidated statements of income, of comprehensive income, of equity and of cash flows for each of the three years in the period ended December 31, 2023, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Income Taxes – Uncertain Tax Positions

As described in Notes A and H to the consolidated financial statements, the Company is subject to income taxes in the United States and numerous foreign jurisdictions. As disclosed by management, during the ordinary course of business there are many transactions and calculations for which the ultimate tax determination is uncertain. As a result, management recognizes tax liabilities based on estimates of whether additional taxes and interest will be due. As further described by management, these tax liabilities are recognized when, despite management's belief that the tax return positions are supportable, management believes that certain positions may not be fully sustained upon review by tax authorities. Management bases its assessment of the accruals for tax liabilities on many factors, including past experience and interpretations of tax law. These assessments rely on estimates and assumptions and may involve a series of complex judgments about future events. As of December 31, 2023, unrecognized tax benefits were \$8.8 billion.

The principal considerations for our determination that performing procedures relating to uncertain tax positions is a critical audit matter are the significant judgment by management when estimating the uncertain tax positions, including applying complex tax laws, and a high degree of estimation uncertainty based on potential for significant adjustments as a result of audits by tax authorities or other forms of tax settlement. This in turn led to a high degree of auditor judgment, effort, and subjectivity in performing procedures to evaluate management's timely identification and measurement of uncertain tax positions. Also, the evaluation of audit evidence available to support the uncertain tax positions is complex and required significant auditor judgment as the nature of the evidence is often inherently subjective, and the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the identification and recognition of the uncertain tax positions, and controls addressing completeness of the uncertain tax positions, as well as controls over measurement of the amount recorded. These procedures also included, among others (i) testing the information used in the calculation of the uncertain tax positions, including intercompany agreements and international, federal, and state filing positions; (ii) testing the calculation of the uncertain tax positions by jurisdiction, including management's assessment of the technical merits of tax positions and estimates of the amount of tax benefit expected to be sustained; (iii) testing the completeness of management's assessment of both the identification of uncertain tax positions and possible outcomes of each uncertain tax position; and (iv) evaluating the status and results of income tax audits pending in various tax jurisdictions. Professionals with specialized skill and knowledge were used to assist in the evaluation of the completeness and measurement of the Company's uncertain tax positions, including evaluating the reasonableness of management's assessment of whether tax positions are more-likely-than-not of being sustained and the amount of potential benefit to be realized.



PricewaterhouseCoopers LLP
New York, New York
February 26, 2024

We, or firms that we have ultimately acquired, have served as the Company's auditor since 1923. For the period from 1923 to 1958, the Company was audited by firms that a predecessor firm to PricewaterhouseCoopers LLP ultimately acquired.

Consolidated Income Statement
International Business Machines Corporation and Subsidiary Companies

(\$ in millions except per share amounts)

For the year ended December 31:	Notes	2023	2022	2021
Revenue				
Services		\$ 30,378	\$ 30,206	\$ 29,225
Sales		30,745	29,673	27,346
Financing		737	651	780
Total revenue	C	61,860	60,530	57,350
Cost				
Services		21,051	21,062	19,147
Sales		6,127	6,374	6,184
Financing		382	406	534
Total cost		27,560	27,842	25,865
Gross profit		34,300	32,687	31,486
Expense and other (income)				
Selling, general and administrative		19,003	18,609	18,745
Research, development and engineering	G	6,775	6,567	6,488
Intellectual property and custom development income		(860)	(663)	(612)
Other (income) and expense	F	(914)	5,803	873
Interest expense	P&T	1,607	1,216	1,155
Total expense and other (income)		25,610	31,531	26,649
Income from continuing operations before income taxes		8,690	1,156	4,837
Provision for/(benefit from) income taxes	H	1,176	(626)	124
Income from continuing operations		7,514	1,783	4,712
Income/(loss) from discontinued operations, net of tax	E	(12)	(143)	1,030
Net income ⁽¹⁾		\$ 7,502	\$ 1,639	\$ 5,743
Earnings/(loss) per share of common stock ⁽¹⁾				
Assuming dilution				
Continuing operations	I	\$ 8.15	\$ 1.95	\$ 5.21
Discontinued operations	I	(0.01)	(0.16)	1.14
Total	I	\$ 8.14	\$ 1.80	\$ 6.35
Basic				
Continuing operations	I	\$ 8.25	\$ 1.97	\$ 5.26
Discontinued operations	I	(0.01)	(0.16)	1.15
Total	I	\$ 8.23	\$ 1.82	\$ 6.41
Weighted-average number of common shares outstanding				
Assuming dilution		922,073,828	912,269,062	904,641,001
Basic		911,210,319	902,664,190	895,990,771

(1) 2022 includes the impact of a one-time, non-cash pension settlement charge. Refer to note V, "Retirement-Related Benefits," for additional information.

Amounts may not add due to rounding.

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

(\$ in millions)

For the year ended December 31:	Notes	2023	2022	2021 ⁽¹⁾
Net income		\$ 7,502	\$ 1,639	\$ 5,743
Other comprehensive income/(loss), before tax				
Foreign currency translation adjustments	S	3	176	987
Net changes related to available-for-sale securities	S			
Unrealized gains/(losses) arising during the period		0	(1)	0
Reclassification of (gains)/losses to net income		—	—	—
Total net changes related to available-for-sale securities		0	(1)	0
Unrealized gains/(losses) on cash flow hedges	S			
Unrealized gains/(losses) arising during the period		207	241	344
Reclassification of (gains)/losses to net income		(159)	(400)	243
Total unrealized gains/(losses) on cash flow hedges		47	(158)	587
Retirement-related benefit plans	S			
Prior service costs/(credits)		2	463	(51)
Net (losses)/gains arising during the period		(3,115)	878	2,433
Curtailments and settlements		5	5,970	94
Amortization of prior service (credits)/costs		(9)	12	9
Amortization of net (gains)/losses		515	1,596	2,484
Total retirement-related benefit plans		(2,602)	8,919	4,969
Other comprehensive income/(loss), before tax	S	(2,552)	8,936	6,542
Income tax (expense)/benefit related to items of other comprehensive income	S	531	(2,442)	(1,703)
Other comprehensive income/(loss)	S	(2,021)	6,494	4,839
Total comprehensive income		\$ 5,481	\$ 8,134	\$ 10,582

(1) Amounts presented have not been recast to exclude discontinued operations.

Amounts may not add due to rounding.

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

Consolidated Balance Sheet
International Business Machines Corporation and Subsidiary Companies

(\$ in millions except per share amounts)

At December 31:	Notes	2023	2022
Assets			
Current assets			
Cash and cash equivalents		\$ 13,068	\$ 7,886
Restricted cash		21	103
Marketable securities	J	373	852
Notes and accounts receivable—trade (net of allowances of \$192 in 2023 and \$233 in 2022)		7,214	6,541
Short-term financing receivables	L		
Held for investment (net of allowances of \$129 in 2023 and \$145 in 2022)		6,102	6,851
Held for sale		692	939
Other accounts receivable (net of allowances of \$109 in 2023 and \$89 in 2022)		640	817
Inventory	K	1,161	1,552
Deferred costs	C	998	967
Prepaid expenses and other current assets		2,639	2,611
Total current assets		32,908	29,118
Property, plant and equipment	M	18,122	18,695
Less: Accumulated depreciation	M	12,621	13,361
Property, plant and equipment—net	M	5,501	5,334
Operating right-of-use assets—net	N	3,220	2,878
Long-term financing receivables (net of allowances of \$27 in 2023 and \$28 in 2022)	L	5,766	5,806
Prepaid pension assets	V	7,506	8,236
Deferred costs	C	842	866
Deferred taxes	H	6,656	6,256
Goodwill	O	60,178	55,949
Intangible assets—net	O	11,036	11,184
Investments and sundry assets		1,626	1,617
Total assets		\$ 135,241	\$ 127,243
Liabilities and equity			
Current liabilities			
Taxes	H	\$ 2,270	\$ 2,196
Short-term debt	J&P	6,426	4,760
Accounts payable		4,132	4,051
Compensation and benefits		3,501	3,481
Deferred income		13,451	12,032
Operating lease liabilities	N	820	874
Other accrued expenses and liabilities		3,521	4,111
Total current liabilities		34,122	31,505
Long-term debt	J&P	50,121	46,189
Retirement and nonpension postretirement benefit obligations	V	10,808	9,596
Deferred income		3,533	3,499
Operating lease liabilities	N	2,568	2,190
Other liabilities	Q	11,475	12,243
Total liabilities		112,628	105,222
Commitments and Contingencies	R		
Equity	S		
IBM stockholders' equity			
Common stock, par value \$.20 per share, and additional paid-in capital		59,643	58,343
Shares authorized: 4,687,500,000			
Shares issued (2023—2,266,911,160; 2022—2,257,116,920)			
Retained earnings		151,276	149,825
Treasury stock, at cost (shares: 2023—1,351,897,514; 2022—1,351,024,943)		(169,624)	(169,484)
Accumulated other comprehensive income/(loss)		(18,761)	(16,740)
Total IBM stockholders' equity		22,533	21,944
Noncontrolling interests	A	80	77
Total equity		22,613	22,021
Total liabilities and equity		\$ 135,241	\$ 127,243

Amounts may not add due to rounding.

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

(\$ in millions)			
For the year ended December 31:	2023	2022	2021
Cash flows from operating activities			
Net income	\$ 7,502	\$ 1,639	\$ 5,743
Adjustments to reconcile net income to cash provided by operating activities			
Pension settlement charge	—	5,894	—
Depreciation ⁽¹⁾	2,109	2,407	3,888
Amortization of capitalized software and acquired intangible assets	2,287	2,395	2,529
Stock-based compensation	1,133	987	982
Deferred taxes	(1,114)	(2,726)	(2,001)
Net (gain)/loss on asset sales and other ⁽²⁾	(170)	(363)	(136)
Change in operating assets and liabilities, net of acquisitions/divestitures			
Receivables (including financing receivables)	725	(539)	1,372
Retirement related	(462)	331	1,038
Inventory	390	71	138
Other assets/other liabilities ⁽²⁾	1,466	126	(842)
Accounts payable	65	213	85
Net cash provided by operating activities	13,931	10,435	12,796
Cash flows from investing activities			
Payments for property, plant and equipment	(1,245)	(1,346)	(2,062)
Proceeds from disposition of property, plant and equipment	321	111	387
Investment in software	(565)	(626)	(706)
Purchases of marketable securities and other investments	(11,143)	(5,930)	(3,561)
Proceeds from disposition of marketable securities and other investments	10,647	4,665	3,147
Acquisition of businesses, net of cash acquired	(5,082)	(2,348)	(3,293)
Divestiture of businesses, net of cash transferred	(4)	1,272	114
Net cash provided by/(used in) investing activities	(7,070)	(4,202)	(5,975)
Cash flows from financing activities			
Proceeds from new debt	9,586	7,804	522
Payments to settle debt	(5,082)	(6,800)	(8,597)
Short-term borrowings/(repayments) less than 90 days—net	(7)	217	(40)
Common stock repurchases for tax withholdings	(402)	(407)	(319)
Financing—other	176	176	70
Distribution from Kyndryl ⁽³⁾	—	—	879
Cash dividends paid	(6,040)	(5,948)	(5,869)
Net cash provided by/(used in) financing activities	(1,769)	(4,958)	(13,354)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	9	(244)	(185)
Net change in cash, cash equivalents and restricted cash	5,101	1,032	(6,718)
Cash, cash equivalents and restricted cash at January 1	7,988	6,957	13,675
Cash, cash equivalents and restricted cash at December 31	\$ 13,089	\$ 7,988	\$ 6,957
Supplemental data			
Income taxes paid—net of refunds received	\$ 1,564	\$ 1,865	\$ 2,103
Interest paid on debt	\$ 1,668	\$ 1,401	\$ 1,512

(1) Includes operating lease right-of-use assets amortization expense of \$0.9 billion in 2023 and 2022. 2021 is not comparable as it includes Kyndryl discontinued operations.

(2) Prior periods have been reclassified to conform to the change in 2023 presentation.

(3) Amount in 2021 represents \$0.9 billion net cash proceeds from Kyndryl dividend payments to IBM, funded from the proceeds of \$2.9 billion of debt issued and retained by Kyndryl.

Cash flows above are presented on an IBM consolidated basis. Refer to note E, "Acquisitions & Divestitures," for additional information related to cash flows from Kyndryl discontinued operations.

Amounts may not add due to rounding.

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

Consolidated Statement of Equity
International Business Machines Corporation and Subsidiary Companies

(\$ 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
2021							
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		5,743			5,743		5,743
Other comprehensive income/ (loss)				4,839	4,839		4,839
Total comprehensive income					\$ 10,582		\$10,582
Cash dividends paid—common stock (\$6.55 per share)		(5,869)			(5,869)		(5,869)
Common stock issued under employee plans (5,608,845 shares)	762				762		762
Purchases (2,286,912 shares) and sales (2,093,243 shares) of treasury stock under employee plans—net		22	(53)		(31)		(31)
Separation of Kyndryl ⁽¹⁾		(8,404)		1,264	(7,140)	(62)	(7,203)
Changes in noncontrolling interests						28	28
Equity, December 31, 2021	\$ 57,319	\$154,209	\$(169,392)	\$ (23,234)	\$ 18,901	\$ 95	\$18,996

(1) Refer to note E, "Acquisitions & Divestitures," for additional information.

Amounts may not add due to rounding.

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

(\$ 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
2022							
Equity, January 1, 2022	\$ 57,319	\$154,209	\$(169,392)	\$ (23,234)	\$ 18,901	\$ 95	\$18,996
Net income plus other comprehensive income/(loss)							
Net income		1,639			1,639		1,639
Other comprehensive income/ (loss)				6,494	6,494		6,494
Total comprehensive income					\$ 8,134		\$ 8,134
Cash dividends paid—common stock (\$6.59 per share)		(5,948)			(5,948)		(5,948)
Common stock issued under employee plans (8,539,072 shares)	962				962		962
Purchases (3,027,994 shares) and sales (2,512,300 shares) of treasury stock under employee plans—net		(12)	(92)		(104)		(104)
Other equity	63	(63)			0		0
Changes in noncontrolling interests						(18)	(18)
Equity, December 31, 2022	\$ 58,343	\$149,825	\$(169,484)	\$ (16,740)	\$ 21,944	\$ 77	\$22,021

Amounts may not add due to rounding.

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

Consolidated Statement of Equity
International Business Machines Corporation and Subsidiary Companies

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(\$ 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
2023							
Equity, January 1, 2023	\$ 58,343	\$149,825	\$(169,484)	\$ (16,740)	\$ 21,944	\$ 77	\$22,021
Net income plus other comprehensive income/(loss)							
Net income		7,502			7,502		7,502
Other comprehensive income/ (loss)				(2,021)	(2,021)		(2,021)
Total comprehensive income					\$ 5,481		\$ 5,481
Cash dividends paid—common stock (\$6.63 per share)		(6,040)			(6,040)		(6,040)
Common stock issued under employee plans (9,794,240 shares)	1,300				1,300		1,300
Purchases (2,953,554 shares) and sales (2,080,983 shares) of treasury stock under employee plans—net		(11)	(140)		(152)		(152)
Changes in noncontrolling interests						3	3
Equity, December 31, 2023	\$ 59,643	\$151,276	\$(169,624)	\$ (18,761)	\$ 22,533	\$ 80	\$22,613

Amounts may not add due to rounding.

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

NOTE A. SIGNIFICANT ACCOUNTING POLICIES

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).

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-year amounts have been reclassified to conform to the change in current year presentation. This is annotated where applicable.

On November 3, 2021 we completed the separation of our managed infrastructure services unit into a new public company, Kyndryl. The accounting requirements for reporting the separation of Kyndryl as a discontinued operation were met when the separation was completed. Accordingly, the historical results of Kyndryl are presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. Refer to note E, "Acquisitions & Divestitures," for additional information.

In September 2022, the IBM Qualified Personal Pension Plan (Qualified PPP) purchased two separate nonparticipating single premium group annuity contracts from The Prudential Insurance Company of America and Metropolitan Life Insurance Company (collectively, the Insurers) and irrevocably transferred to the Insurers approximately \$16 billion of the Qualified PPP's defined benefit pension obligations and related plan assets, thereby reducing the company's pension obligations and assets by the same amount. The group annuity contracts were purchased using assets of the Qualified PPP and no additional funding contribution was required from the company. As a result of this transaction the company recognized a one-time, non-cash, pre-tax pension settlement charge of \$5.9 billion (\$4.4 billion net of tax) in the third quarter of 2022, primarily related to the accelerated recognition of accumulated actuarial losses of the Qualified PPP. The \$1.5 billion tax effect associated with the settlement charge is reflected as an adjustment to reconcile net income to net cash provided by operating activities within deferred taxes in the Consolidated Statement of Cash Flows for the year ended December 31, 2022. Refer to note V, "Retirement-Related Benefits," for additional information.

In the fourth quarter of 2022, the company completed its annual assessment of the useful lives of its information technology equipment. Due to advances in technology, the company determined it should increase the estimated useful lives of its server and network equipment from five to six years for new assets and from three to four years for used assets. This change in accounting estimate was effective beginning January 1, 2023. Based on the carrying amount of server and network equipment included in property, plant and equipment-net in the company's Consolidated Balance Sheet as of December 31, 2022, the effect of this change in estimate was an increase in income from continuing operations before income taxes of \$208 million or \$0.18 per basic and diluted share for the year ended December 31, 2023.

The company reported a provision for income taxes of \$1,176 million for the year ended December 31, 2023. The company reported a benefit from income taxes of \$626 million for the year ended December 31, 2022. This tax benefit was primarily due to the transfer of a portion of the Qualified PPP's defined benefit pension obligations and related plan assets, as described above. Refer to note H, "Taxes," for additional information.

Noncontrolling interest amounts of \$16 million, \$20 million and \$19 million, net of tax, for the years ended December 31, 2023, 2022 and 2021, respectively, are included as a reduction within other (income) and expense in the Consolidated Income Statement.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of IBM and its controlled subsidiaries, which are primarily majority owned. Any noncontrolling interest in the equity of a subsidiary is reported as a component of total equity in the Consolidated Balance Sheet. Net income and losses attributable to the noncontrolling interest is reported as described above in the Consolidated Income Statement. The accounts of variable interest entities (VIEs) are included in the Consolidated Financial Statements, if required. Investments in business entities in which the company does not have control but has the ability to exercise significant influence over operating and financial policies, are accounted for using the equity method and the company's proportionate share of income or loss is recorded in other (income) and expense. At December 31, 2023 and 2022, equity method investments were \$125 million and \$142 million, respectively. Equity investments in non-publicly traded entities lacking controlling financial interest or significant influence are primarily measured at cost, absent other indicators of fair value, net of impairment, if any. At December 31, 2023 and 2022, equity investments measured at cost were \$131 million and \$63 million, respectively. Equity method investments and equity investments measured at cost are included in investments and sundry assets in the Consolidated Balance Sheet. The accounting policy for other investments in equity securities is described within the "Marketable Securities" section of this note. All intercompany transactions and accounts have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect amounts that are reported in the Consolidated Financial Statements and accompanying disclosures. Estimates are made for the following, among others: revenue, costs to complete service contracts, income taxes, pension assumptions, valuation of assets including goodwill and intangible assets, loss contingencies, allowance for credit losses and other matters. 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. Actual results may be different from these estimates.

Revenue

The company accounts for a contract with a client when it has written approval, the contract is committed, the rights of the parties, including payment terms, are identified, the contract has commercial substance and consideration is probable of collection.

Revenue is recognized when, or as, control of a promised product or service transfers to a client, in an amount that reflects the consideration to which the company expects to be entitled in exchange for transferring those products or services. If the consideration promised in a contract includes a variable amount, the company estimates the amount to which it expects to be entitled using either the expected value or most likely amount method. The company's contracts may include terms that could cause variability in the transaction price, including, for example, rebates, volume discounts, service-level penalties, and performance bonuses or other forms of contingent revenue.

The company only includes estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. The company may not be able to reliably estimate contingent revenue in certain long-term arrangements due to uncertainties that are not expected to be resolved for a long period of time or when the company's experience with similar types of contracts is limited. The company's arrangements infrequently include contingent revenue. Changes in estimates of variable consideration are included in note C, "Revenue Recognition."

The company's standard billing terms are that payment is due upon receipt of invoice, payable within 30 days. Invoices are generally issued as control transfers and/or as services are rendered. Additionally, in determining the transaction price, the company adjusts the promised amount of consideration for the effects of the time value of money if the billing terms are not standard and the timing of payments agreed to by the parties to the contract provide the client or the company with a significant benefit of financing, in which case the contract contains a significant financing component. As a practical expedient, the company does not account for significant financing components if the period between when the company transfers the promised product or service to the client and when the client pays for that product or service will be one year or less. Most arrangements that contain a financing component are financed through the company's Financing business and include explicit financing terms.

The company may include subcontractor services or third-party vendor equipment or software in certain integrated services arrangements. In these types of arrangements, revenue from sales of third-party vendor products or services is recorded net of costs when the company is acting as an agent between the client and the vendor, and gross when the company is the principal for the transaction. To determine whether the company is an agent or principal, the company considers whether it obtains control of the products or services before they are transferred to the customer. In making this evaluation, several factors are considered, most notably whether the company has primary responsibility for fulfillment to the client, as well as inventory risk and pricing discretion.

The company recognizes revenue on sales to solution providers, resellers and distributors (herein referred to as resellers) when the reseller has economic substance apart from the company and the reseller is considered the principal for the transaction with the end-user client.

The company reports revenue net of any revenue-based taxes assessed by governmental authorities that are imposed on and concurrent with specific revenue-producing transactions.

In addition to the aforementioned general policies, the following are the specific revenue recognition policies for arrangements with multiple performance obligations and for each major category of revenue.

Arrangements with Multiple Performance Obligations

The company's global capabilities as a hybrid cloud platform and AI company include services, software, hardware and related financing. The company enters into revenue arrangements that may consist of any combination of these products and services based on the needs of its clients.

The company continues to develop new products and offerings and their associated consumption and delivery methods, including the use of cloud and as-a-Service models. These are not separate businesses; they are offerings across the segments that address market opportunities in areas such as analytics, data, cloud, security, AI and sustainability. Revenue from these offerings follows

the specific revenue recognition policies for arrangements with multiple performance obligations and for each major category of revenue, depending on the type of offering, which are comprised of services, software and/or hardware.

To the extent that a product or service in multiple performance obligation arrangements is subject to other specific accounting guidance, such as leasing guidance, that product or service is accounted for in accordance with such specific guidance. For all other products or services in these arrangements, the company determines if the products or services are distinct and allocates the consideration to each distinct performance obligation on a relative standalone selling price basis.

When products and services are not distinct, the company determines an appropriate measure of progress based on the nature of its overall promise for the single performance obligation.

The revenue policies in the Services, Hardware and/or Software sections below are applied to each performance obligation, as applicable.

Services

The company's primary services offerings include consulting services, including business transformation; technology consulting and application operations including the design and development of complex IT environments to a client's specifications (e.g., design and build); cloud services; business process outsourcing; and infrastructure support. Many of these services can be delivered entirely or partially through cloud or as-a-Service delivery models. The company's services are provided on a time-and-material basis, as a fixed-price contract or as a fixed-price per measure of output contract and the contract terms generally range from less than one year to 5 years.

In services arrangements, the company typically satisfies the performance obligation and recognizes revenue over time. In design and build arrangements, the performance obligation is satisfied over time either because the client controls the asset as it is created (e.g., when the asset is built at the customer site) or because the company's performance does not create an asset with an alternative use and the company has an enforceable right to payment plus a reasonable profit for performance completed to date. In most other services arrangements, the performance obligation is satisfied over time because the client simultaneously receives and consumes the benefits provided as the company performs the services.

Revenue from time-and-material contracts is recognized on an output basis as labor hours are delivered and/or direct expenses are incurred. Revenue from as-a-Service type contracts, such as Infrastructure-as-a-Service, is recognized either on a straight-line basis or on a usage basis, depending on the terms of the arrangement (such as whether the company is standing ready to perform or whether the contract has usage-based metrics). If an as-a-Service contract includes setup activities, those promises in the arrangement are evaluated to determine if they are distinct.

In areas such as application management, business process outsourcing and other cloud-based services arrangements, the company determines whether the services performed during the initial phases of the arrangement, such as setup activities, are distinct. In most cases, the arrangement is a single performance obligation comprised of a series of distinct services that are substantially the same and that have the same pattern of transfer (i.e., distinct days of service). The company applies a measure of progress (typically time-based) to any fixed consideration and allocates variable consideration to the distinct periods of service based on usage. As a result, revenue is generally recognized over the period the services are provided on a usage basis. This results in revenue recognition that corresponds with the value to the client of the services transferred to date relative to the remaining services promised.

Revenue related to maintenance and technology lifecycle support and extended warranty is recognized on a straight-line basis over the period of performance because the company is standing ready to provide services.

In design and build contracts, revenue is recognized based on progress toward completion of the performance obligation using a cost-to-cost measure of progress. Revenue is recognized based on the labor costs incurred to date as a percentage of the total estimated labor costs to fulfill the contract. Due to the nature of the work performed in these arrangements, the estimation of cost at completion is complex, subject to many variables and requires significant judgment. Key factors reviewed by the company to estimate costs to complete each contract are future labor and product costs and expected productivity efficiencies. Changes in original estimates are reflected in revenue on a cumulative catch-up basis in the period in which the circumstances that gave rise to the revision become known by the company. Refer to note C, "Revenue Recognition," for the amount of revenue recognized in the reporting period on a cumulative catch-up basis (i.e., from performance obligations satisfied, or partially satisfied, in previous periods).

The company performs ongoing profitability analyses of its design and build services contracts accounted for using a cost-to-cost measure of progress in order to determine whether the latest estimates of revenues, costs and profits require updating. If at any time these estimates indicate that the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately. For other types of services contracts, any losses are recorded as incurred.

In some services contracts, the company bills the client prior to recognizing revenue from performing the services. Deferred income of \$3,444 million and \$3,241 million at December 31, 2023 and 2022, respectively, is included in the Consolidated Balance Sheet. In other services contracts, the company performs the services prior to billing the client. When the company performs services prior to billing the client in design and build contracts, the right to consideration is typically subject to milestone completion or client acceptance and the unbilled accounts receivable is classified as a contract asset. At December 31, 2023 and 2022, contract assets for services contracts of \$420 million and \$426 million, respectively, are included in prepaid expenses and other current assets in the Consolidated Balance Sheet. The remaining amount of unbilled accounts receivable of \$816 million and \$788 million at December 31, 2023 and 2022, respectively, is included in notes and accounts receivable—trade in the Consolidated Balance Sheet.

Billings usually occur in the month after the company performs the services or in accordance with specific contractual provisions.

Hardware

The company's hardware offerings include the sale or lease of Hybrid Infrastructure solutions including zSystems as well as Distributed Infrastructure solutions such as Power and Storage solutions. The capabilities of these products can also be delivered through as-a-Service or cloud delivery models, such as Infrastructure-as-a-Service and Storage-as-a-Service. The company also offers installation services for its more complex hardware products. Hardware offerings are often sold with distinct maintenance services, described in the Services section above.

Revenue from hardware sales is recognized when control has transferred to the customer which typically occurs when the hardware has been shipped to the client, risk of loss has transferred to the client and the company has a present right to payment for the hardware. In limited circumstances when a hardware sale includes client acceptance provisions, revenue is recognized either when client acceptance has been obtained, client acceptance provisions have lapsed, or the company has objective evidence that the criteria specified in the client acceptance provisions have been satisfied. Revenue from hardware sales-type leases is recognized at the beginning of the lease term. Revenue from rentals and operating leases is recognized on a straight-line basis over the term of the rental or lease.

Revenue from as-a-Service arrangements is recognized either on a straight-line basis or on a usage basis as described in the Services section above. Installation services are accounted for as distinct performance obligations with revenue recognized as the services are performed. Shipping and handling activities that occur after the client has obtained control of a product are accounted for as an activity to fulfill the promise to transfer the product rather than as an additional promised service and, therefore, no revenue is deferred and recognized over the shipping period.

Software

The company's software offerings include hybrid platform software solutions, which contain many of the company's strategic areas including Red Hat, automation, data and AI, security and sustainability; transaction processing, which primarily supports mission-critical systems for clients; and distributed infrastructure software, which provides operating systems for zSystems and Power Systems hardware. These offerings include proprietary software and open-source software, and many can be delivered entirely or partially through as-a-Service or cloud delivery models, while others are delivered as on-premise software licenses.

Revenue from proprietary perpetual (one-time charge) license software is recognized at a point in time at the inception of the arrangement when control transfers to the client, if the software license is distinct from the post-contract support (PCS) offered by the company.

Revenue from proprietary term license software is recognized at a point in time for the committed term of the contract, unless consideration depends on client usage, in which case revenue is recognized when the usage occurs.

Proprietary term licenses often have a one-month contract term due to client termination rights, in which case, revenue would be recognized in that month for both the license and PCS. Clients may contract to convert their existing IBM term license software into perpetual license software plus PCS. When proprietary term license software is converted to perpetual license software, the consideration becomes fixed with no cancellability and, therefore, revenue for the perpetual license is recognized upon conversion, consistent with the accounting for other perpetual licenses, as described above. PCS revenue is recognized as described below.

The company also has open-source software offerings. Since open-source software is offered under an open-source licensing model and therefore, the license is available for free, the standalone selling price is zero. As such, when the license is sold with PCS or other products and services, no consideration is allocated to the license when it is a distinct performance obligation and therefore no revenue is recognized when control of the license transfers to the client. Revenue is recognized over the PCS period. In certain cases, open-source software is bundled with proprietary software and, if the open-source software is not considered distinct, the software bundle is accounted for under a proprietary software model.

Revenue from PCS is recognized over the contract term on a straight-line basis because the company is providing a service of standing ready to provide support, when-and-if needed, and is providing unspecified software upgrades on a when-and-if available basis over the contract term.

Revenue from software hosting or Software-as-a-Service (SaaS) arrangements is recognized either on a straight-line basis or on a usage basis as described in the Services section above. In software hosting arrangements, the rights provided to the client (e.g., ownership of a license, contract termination provisions and the feasibility of the client to operate the software) are considered in determining whether the arrangement includes a license. In arrangements that include a software license, the associated revenue is recognized in accordance with the software license recognition policy above rather than over time as a service.

Financing

Financing income attributable to sales-type leases, direct financing leases and loans is recognized on the accrual basis using the effective interest method. Operating lease income is recognized on a straight-line basis over the term of the lease.

Standalone Selling Price

The company allocates the transaction price to each performance obligation on a relative standalone selling price basis. The standalone selling price (SSP) is the price at which the company would sell a promised product or service separately to a client. In most cases, the company is able to establish SSP based on the observable prices of products or services sold separately in comparable circumstances to similar clients. The company typically establishes SSP ranges for its products and services which are reassessed on a periodic basis or when facts and circumstances change.

In certain instances, the company may not be able to establish a SSP range based on observable prices, and as a result, the company estimates SSP. The company estimates SSP by considering multiple factors including, but not limited to, overall market conditions, including geographic or regional specific factors, internal costs, profit objectives and pricing practices. Additionally, in certain circumstances, the company may estimate SSP for a product or service by applying the residual approach. Estimating SSP is a formal process that includes review and approval by the company's management.

Services Costs

Recurring operating costs for services contracts are recognized as incurred. For fixed-price design and build contracts, the costs of external hardware and software accounted for under the cost-to-cost measure of progress are deferred and recognized based on the labor costs incurred to date (i.e., the measure of progress), as a percentage of the total estimated labor costs to fulfill the contract as control transfers over time for these performance obligations. Certain eligible, non-recurring costs (i.e., setup costs) incurred in the initial phases of business process outsourcing contracts and other cloud-based services contracts, including Software-as-a-Service arrangements, are capitalized when the costs relate directly to the contract, the costs generate or enhance resources of the company that will be used in satisfying the performance obligation in the future, and the costs are expected to be recovered. These costs consist of transition and setup costs related to the provisioning, configuring, implementation and training and other deferred fulfillment costs, including, for example, prepaid assets used in services contracts (i.e., prepaid software or prepaid maintenance). Capitalized costs are amortized on a straight-line basis over the expected period of benefit, which can include anticipated contract renewals or extensions, consistent with the transfer to the client of the services to which the asset relates. Additionally, fixed assets associated with these contracts are capitalized and depreciated on a straight-line basis over the expected useful life of the asset. If an asset is contract specific, then the depreciation period is the shorter of the useful life of the asset or the contract term. Amounts paid to clients in excess of the fair value of acquired assets used in business process outsourcing arrangements are deferred and amortized on a straight-line basis as a reduction of revenue over the expected period of benefit. The company performs periodic reviews to assess the recoverability of deferred contract transition and setup costs. If the carrying amount is deemed not recoverable, an impairment loss is recognized. Refer to note C, "Revenue Recognition," for the amount of deferred costs to fulfill a contract at December 31, 2023 and 2022.

In situations in which a business process outsourcing or other cloud-based services contract is terminated, the terms of the contract may require the client to reimburse the company for the recovery of unbilled accounts receivable, unamortized deferred contract costs and additional costs incurred by the company to transition the services.

Software Costs

Costs that are related to the conceptual formulation and design of licensed software programs are expensed as incurred to research, development and engineering expense; costs that are incurred to produce the finished product after technological feasibility has been established are capitalized as an intangible asset. Capitalized amounts are amortized on a straight-line basis over periods ranging up to three years and are recorded in software cost within cost of sales. The company performs periodic reviews to ensure that unamortized program costs remain recoverable from future revenue. Costs to support or service licensed programs are charged to software cost within cost of sales as incurred.

The company capitalizes certain costs that are incurred to purchase or develop internal-use software. Internal-use software programs also include software used by the company to deliver Software-as-a-Service when the client does not receive a license to

the software and the company has no substantive plans to market the software externally. Capitalized costs are amortized on a straight-line basis over periods ranging up to three years and are recorded in selling, general and administrative expense or cost of sales, depending on whether the software is used by the company in revenue generating transactions. Additionally, the company may capitalize certain types of implementation costs and amortize them over the term of the arrangement when the company is a customer in a cloud-computing arrangement.

Incremental Costs of Obtaining a Contract

Incremental costs of obtaining a contract (e.g., sales commissions) are capitalized and amortized on a straight-line basis over the expected customer relationship period if the company expects to recover those costs. The expected customer relationship period, determined based on the average customer relationship period, including expected renewals, for each offering type, is three years. Expected renewal periods are only included in the expected customer relationship period if commission amounts paid upon renewal are not commensurate with amounts paid on the initial contract. Incremental costs of obtaining a contract include only those costs the company incurs to obtain a contract that it would not have incurred if the contract had not been obtained. The company has determined that certain commissions programs meet the requirements to be capitalized. Some commission programs are not subject to capitalization as the commission expense is paid and recognized as the related revenue is recognized. Additionally, as a practical expedient, the company expenses costs to obtain a contract as incurred if the amortization period would have been a year or less. These costs are included in selling, general and administrative expenses.

Product Warranties

The company offers warranties for its hardware products that generally range up to three years, with the majority being either one or three years. Any cost of standard warranties is accrued when the corresponding revenue is recognized. The company estimates its standard warranty costs for products based on historical warranty claim experience and estimates of future spending and applies this estimate to the revenue stream for products under warranty. Estimated future costs for warranties applicable to revenue recognized in the current period are charged to cost of sales. The warranty liability is reviewed quarterly to verify that it properly reflects the remaining obligation based on the anticipated expenditures over the balance of the obligation period. Adjustments are made when actual warranty claim experience differs from estimates. Costs from fixed-price support or maintenance contracts, including extended warranty contracts, are recognized as incurred.

Revenue from extended warranty contracts is initially recorded as deferred income and subsequently recognized on a straight-line basis over the delivery period because the company is providing a service of standing ready to provide services over such term.

Refer to note R, "Commitments & Contingencies," for additional information.

Shipping and Handling

Costs related to shipping and handling are recognized as incurred and included in cost in the Consolidated Income Statement.

Expense and Other Income

Selling, General and Administrative

Selling, general and administrative (SG&A) expense is charged to income as incurred, except for certain sales commissions, which are capitalized and amortized. For further information regarding capitalizing sales commissions, see "Incremental Costs of Obtaining a Contract" above. Expenses of promoting and selling products and services are classified as selling expense and, in addition to sales commissions, include such items as compensation, advertising and travel. General and administrative expense includes such items as compensation, legal costs, office supplies, non-income taxes, insurance and office rental. In addition, general and administrative expense includes other operating items such as an allowance for credit losses, workforce rebalancing charges for contractually obligated payments to employees terminated in the ongoing course of business, acquisition costs related to business combinations, amortization of certain intangible assets and environmental remediation costs.

Advertising and Promotional Expense

The company expenses advertising and promotional costs as incurred. Cooperative advertising reimbursements from vendors are recorded net of advertising and promotional expense in the period in which the related advertising and promotional expense is incurred.

Advertising and promotional expense, which includes media, agency and promotional expense, was \$1,237 million, \$1,330 million and \$1,413 million in 2023, 2022 and 2021, respectively, and is recorded in SG&A expense in the Consolidated Income Statement.

Research, Development and Engineering

Research, development and engineering (RD&E) costs are expensed as incurred. Software costs that are incurred to produce the finished product after technological feasibility has been established are capitalized as an intangible asset.

Intellectual Property and Custom Development Income

The company licenses and sells the rights to certain of its intellectual property (IP) including internally developed patents, trade secrets and technological know-how. Certain IP transactions to third parties are licensing/royalty-based and others are transaction-based sales/other transfers. Income from licensing arrangements is recognized at the inception of the license term if the nature of the company's promise is to provide a right to use the company's intellectual property as it exists at that point in time (i.e., the license is functional intellectual property) and control has transferred to the client. Income is recognized over time if the nature of the company's promise is to provide a right to access the company's intellectual property throughout the license period (i.e., the license is symbolic intellectual property), such as a trademark license. Income from royalty-based fee arrangements is recognized at the later of when the subsequent sale or usage occurs or the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). The company also enters into cross-licensing arrangements of patents, and income from these arrangements is recognized when control transfers to the customer. In addition, the company earns income from certain custom development projects with strategic technology partners and specific clients. The company records the income from these projects over time as the company satisfies the performance obligation if there are no repayment provisions and the fee is not dependent upon the ultimate success of the project.

Government Assistance

The company receives grants from governments and government agencies (government) in support of certain of the company's business activities, primarily related to research, job creation, or job training. Grants are generally received in the form of cash as either a recovery for expenses incurred or as an incentive for meeting certain requirements as agreed to in the grant, with terms ranging from one to five years. Grants are recorded as credits against Cost, SG&A and RD&E in the Consolidated Income Statement based on the nature of the grant and the expense being offset once the conditions and restrictions of the grant have been met and payment has been received from the government. When a grant is received before conditions of the grant have been met, the grant is recorded in other accrued expenses and liabilities or other liabilities in the Consolidated Balance Sheet. For the years ended December 31, 2023 and 2022, grants recorded in the company's Consolidated Financial Statements were not material.

Business Combinations and Intangible Assets Including Goodwill

The company accounts for business combinations using the acquisition method and accordingly, the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree are generally recorded at their acquisition date fair values. Contract assets and contract liabilities are measured in accordance with the guidance on revenue recognition. Goodwill represents the excess of the purchase price over the fair value of net assets, including the amount assigned to identifiable intangible assets. The primary drivers that generate goodwill are the value of synergies between the acquired entities and the company and the acquired assembled workforce, neither of which qualifies as a separately identifiable intangible asset. Goodwill recorded in an acquisition is assigned to applicable reporting units based on expected revenues or expected cash flows. Identifiable intangible assets with finite lives are amortized over their useful lives. Amortization of completed technology is recorded in cost, and amortization of all other intangible assets is recorded in SG&A expense. Acquisition-related costs, including advisory, legal, accounting, valuation and pre-close and other costs, are typically expensed in the periods in which the costs are incurred and are recorded in SG&A expense. The results of operations of acquired businesses are included in the Consolidated Financial Statements from the acquisition date.

Impairment

Long-lived assets, other than goodwill, are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The impairment test is typically based on undiscounted cash flows and, if impaired, the asset is written down to fair value based on either discounted cash flows or appraised values. Goodwill is tested for impairment at least annually, in the fourth quarter and whenever changes in circumstances indicate an impairment may exist. The goodwill impairment test is performed at the reporting unit level, which is generally at the level of or one level below an operating segment.

Depreciation and Amortization

Property, plant and equipment are carried at cost and depreciated over their estimated useful lives using the straight-line method. The estimated useful lives of certain depreciable assets are as follows: buildings, 30 to 50 years; building equipment, 10 to 20 years; land improvements, 20 years; production, engineering, office and other equipment, 2 to 20 years; and information technology equipment, 1.5 to 6 years. Leasehold improvements are amortized over the shorter of their estimated useful lives or the related lease term, rarely exceeding 25 years. Refer to the "Basis of Presentation" section above for additional information about the useful lives of information technology equipment.

As noted within the "Software Costs" section of this note, capitalized software costs are amortized on a straight-line basis over periods ranging up to 3 years. Other intangible assets are amortized over periods between 1 and 20 years.

Environmental

The cost of internal environmental protection programs that are preventative in nature are expensed as incurred. When a cleanup program becomes likely, and it is probable that the company will incur cleanup costs and those costs can be reasonably estimated, the company accrues remediation costs for known environmental liabilities.

Asset Retirement Obligations

Asset retirement obligations (ARO) are legal obligations associated with the retirement of long-lived assets and the liability is initially recorded at fair value. The related asset retirement costs are capitalized by increasing the carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Subsequent to initial recognition, the company records period-to-period changes in the ARO liability resulting from the passage of time in interest expense and revisions to either the timing or the amount of the original expected cash flows to the related assets.

Defined Benefit Pension and Nonpension Postretirement Benefit Plans

The funded status of the company's defined benefit pension plans and nonpension postretirement benefit plans (retirement-related benefit plans) is recognized in the Consolidated Balance Sheet. The funded status is measured as the difference between the fair value of plan assets and the benefit obligation at December 31, the measurement date. For defined benefit pension plans, the benefit obligation is the projected benefit obligation (PBO), which represents the actuarial present value of benefits expected to be paid upon retirement based on employee services already rendered and estimated future compensation levels. For the nonpension postretirement benefit plans, the benefit obligation is the accumulated postretirement benefit obligation (APBO), which represents the actuarial present value of postretirement benefits attributed to employee services already rendered. The fair value of plan assets represents the current market value of assets held in an irrevocable trust fund, held for the sole benefit of participants, which are invested by the trust fund. Overfunded plans, with the fair value of plan assets exceeding the benefit obligation, are aggregated and recorded as a prepaid pension asset equal to this excess. Underfunded plans, with the benefit obligation exceeding the fair value of plan assets, are aggregated and recorded as a retirement and nonpension postretirement benefit obligation equal to this excess.

The current portion of the retirement and nonpension postretirement benefit obligations represents the actuarial present value of benefits payable in the next 12 months exceeding the fair value of plan assets, measured on a plan-by-plan basis. This obligation is recorded in compensation and benefits in the Consolidated Balance Sheet.

Net periodic pension and nonpension postretirement benefit cost/(income) is recorded in the Consolidated Income Statement and includes service cost, interest cost, expected return on plan assets, amortization of prior service costs/(credits) and (gains)/losses previously recognized as a component of other comprehensive income/(loss) (OCI) and amortization of the net transition asset remaining in accumulated other comprehensive income/(loss) (AOCI). The service cost component of net benefit cost is recorded in Cost, SG&A and RD&E in the Consolidated Income Statement (unless eligible for capitalization) based on the employees' respective functions. The other components of net benefit cost are presented separately from service cost within other (income) and expense in the Consolidated Income Statement.

(Gains)/losses and prior service costs/(credits) are recognized as a component of OCI in the Consolidated Statement of Comprehensive Income as they arise. Those (gains)/losses and prior service costs/(credits) are subsequently recognized as a component of net periodic cost/(income) pursuant to the recognition and amortization provisions of applicable accounting guidance. (Gains)/losses arise as a result of differences between actual experience and assumptions or as a result of changes in actuarial assumptions. Prior service costs/(credits) represent the cost of benefit changes attributable to prior service granted in plan amendments.

The measurement of benefit obligations and net periodic cost/(income) is based on estimates and assumptions approved by the company's management. These valuations reflect the terms of the plans and use participant-specific information such as compensation, age and years of service, as well as certain assumptions, including estimates of discount rates, expected return on plan assets, rate of compensation increases, interest crediting rates and mortality rates.

Defined Contribution Plans

The company's contribution for defined contribution plans is recorded when the employee renders service to the company. The charge is recorded in Cost, SG&A and RD&E in the Consolidated Income Statement based on the employees' respective functions.

Stock-Based Compensation

Stock-based compensation represents the cost related to stock-based awards granted to employees. The company measures stock-based compensation cost at the grant date, based on the estimated fair value of the award and recognizes the cost on a straight-line basis (net of estimated forfeitures) over the employee requisite service period. The company grants its employees Restricted Stock Units (RSUs), including Retention Restricted Stock Units (RRSUs); Performance Share Units (PSUs); and stock options. RSUs are stock awards granted to employees that entitle the holder to shares of common stock as the award vests,

typically over a one- to four-year period. PSUs are stock awards where the number of shares ultimately received by the employee depends on performance against specified targets and typically vest over a three-year period. Over the performance period, the number of shares that will be issued is adjusted based upon the probability of achievement of performance targets. The ultimate number of shares issued and the related compensation cost recognized as expense will be based on a comparison of the final performance metrics to the specified targets. Dividend equivalents are not paid on the stock awards described above. The fair value of the awards is determined and fixed on the grant date based on the company's stock price, adjusted for the exclusion of dividend equivalents where applicable and for PSUs assumes that performance targets will be achieved. The company estimates the fair value of stock options using a Black-Scholes valuation model. Stock-based compensation cost is recorded in Cost, SG&A, and RD&E in the Consolidated Income Statement based on the employees' respective functions.

The company records deferred tax assets for awards that result in deductions on the company's income tax returns, based on the amount of compensation cost recognized and the relevant statutory tax rates. The differences between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on the income tax return are recorded as a benefit or expense to the provision for income taxes in the Consolidated Income Statement.

Income Taxes

Income tax expense is based on reported income before income taxes. Deferred income taxes reflect the tax effect of temporary differences between asset and liability amounts that are recognized for financial reporting purposes and the amounts that are recognized for income tax purposes. These deferred taxes are measured by applying currently enacted tax laws. The company includes Global Intangible Low-Taxed Income (GILTI) in measuring deferred taxes. Valuation allowances are recognized to reduce deferred tax assets to the amount that will more likely than not be realized. In assessing the need for a valuation allowance, management considers all available evidence for each jurisdiction including past operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies/actions. When the company changes its determination as to the amount of deferred tax assets that can be realized, the valuation allowance is adjusted with a corresponding impact to income tax expense in the period in which such determination is made.

The company recognizes additional tax liabilities when the company believes that certain positions may not be fully sustained upon review by tax authorities. Benefits from tax positions are measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon settlement. The noncurrent portion of tax liabilities is included in other liabilities in the Consolidated Balance Sheet. To the extent that new information becomes available which causes the company to change its judgment regarding the adequacy of existing tax liabilities, such changes to tax liabilities will impact income tax expense in the period in which such determination is made. Interest and penalties, if any, related to accrued liabilities for potential tax assessments are included in income tax expense.

Translation of Non-U.S. Currency Amounts

Assets and liabilities of non-U.S. subsidiaries that have a local functional currency are translated to U.S. dollars at year-end exchange rates. Translation adjustments are recorded in OCI. Income and expense items are translated at weighted-average rates of exchange prevailing during the year.

Inventory, property, plant and equipment—net and other non-monetary assets and liabilities of non-U.S. subsidiaries and branches that operate in U.S. dollars are translated at the approximate exchange rates prevailing when the company acquired the assets or liabilities. All other assets and liabilities denominated in a currency other than U.S. dollars are translated at year-end exchange rates with the transaction gain or loss recognized in other (income) and expense. Income and expense items are translated at the weighted-average rates of exchange prevailing during the year. These translation gains and losses are included in net income for the period in which exchange rates change.

Derivative Financial Instruments

The company uses derivative financial instruments primarily to manage foreign currency and interest rate risk, and to a lesser extent, equity and credit risk. The company does not use derivative financial instruments for trading or speculative purposes. Derivatives that qualify for hedge accounting can be designated as either cash flow hedges, net investment hedges, or fair value hedges. The company may enter into derivative contracts that economically hedge certain of its risks, even when hedge accounting does not apply, or the company elects not to apply hedge accounting.

Derivatives are recognized in the Consolidated Balance Sheet at fair value on a gross basis as either assets or liabilities and classified as current or noncurrent based upon whether the maturity of the instrument is less than or greater than 12 months.

Changes in the fair value of derivatives designated as a cash flow hedge are recorded, net of applicable taxes, in OCI and subsequently reclassified into the same income statement line as the hedged exposure when the underlying hedged item is recognized in earnings. For forward contracts designated as cash flow hedges of the principal associated with foreign currency denominated debt, the company excludes the initial forward points from the assessment of hedge effectiveness and recognizes it in other (income) and expense in the Consolidated Income Statement on a straight-line basis over the life of the hedging instrument.

Changes in the fair value of the amounts excluded from the assessment of hedge effectiveness are recognized in OCI. Effectiveness for net investment hedging derivatives is measured on a spot-to-spot basis. Changes in the fair value of highly effective net investment hedging derivatives and other non-derivative financial instruments designated as net investment hedges are recorded as foreign currency translation adjustments in AOCI. Changes in the fair value of the portion of a net investment hedging derivative excluded from the assessment of effectiveness are recorded in interest expense and cost of financing. Changes in the fair value of interest rate derivatives designated as a fair value hedge and the offsetting changes in the fair value of the underlying hedged exposure are recorded in interest expense and cost of financing. Changes in the fair value of derivatives not designated as hedges are reported in earnings primarily in other (income) and expense. See note T, "Derivative Financial Instruments," for further information.

The cash flows associated with derivatives designated as fair value and cash flow hedges are reported in cash flows from operating activities in the Consolidated Statement of Cash Flows. Cash flows from derivatives designated as net investment hedges and derivatives not designated as hedges are reported in cash flows from investing activities in the Consolidated Statement of Cash Flows. Cash flows from derivatives designated as hedges of foreign currency denominated debt directly associated with the settlement of the principal are reported in payments to settle debt in cash flows from financing activities in the Consolidated Statement of Cash Flows.

Financial Instruments

In determining the fair value of its financial instruments, the company uses a variety of methods and assumptions that are based on market conditions and risks existing at each balance sheet date. See note J, "Financial Assets & Liabilities," for further information. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.

Fair Value Measurement

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.

Available-for-sale securities are measured for impairment on a recurring basis by comparing the security's fair value with its amortized cost basis. If the fair value of the security falls below its amortized cost basis, the change in fair value is recognized in the period the impairment is identified when the loss is due to credit factors. The change in fair value due to non-credit factors is recorded in other comprehensive income when the company does not intend to sell and has the ability to hold the investment. The

company's standard practice is to hold all of its debt security investments classified as available-for-sale until maturity. There were no impairments for credit losses and no material non-credit impairments recognized for the years ended December 31, 2023, 2022 and 2021.

Certain nonfinancial assets such as property, plant and equipment, land, goodwill and intangible assets are subject to non-recurring fair value measurements if they are deemed to be impaired. The impairment models used for nonfinancial assets depend on the type of asset. There were no material impairments of nonfinancial assets for the years ended December 31, 2023, 2022 and 2021.

Cash Equivalents

All highly liquid investments with maturities of three months or less at the date of purchase are considered to be cash equivalents.

Marketable Securities

The company measures equity investments at fair value with changes recognized in net income.

Debt securities included in current assets represent securities that are expected to be realized in cash within one year of the balance sheet date. Long-term debt securities are included in investments and sundry assets. Debt securities are considered available-for-sale and are reported at fair value with unrealized gains and losses, net of applicable taxes, in OCI. The realized gains and losses on available-for-sale debt securities are included in other (income) and expense in the Consolidated Income Statement. Realized gains and losses are calculated based on the specific identification method. Refer to note J, "Financial Assets & Liabilities," for additional information.

Inventory

Raw materials, work in process and finished goods are stated at the lower of average cost or net realizable value.

Notes and Accounts Receivable—Trade and Contract Assets

The company classifies the right to consideration in exchange for products or services transferred to a client as either a receivable or a contract asset. A receivable is a right to consideration that is unconditional as compared to a contract asset which is a right to consideration that is conditional upon factors other than the passage of time. The majority of the company's contract assets represent unbilled amounts related to design and build services contracts when the cost-to-cost method of revenue recognition is utilized, revenue recognized exceeds the amount billed to the client, and the right to consideration is subject to milestone completion or client acceptance. Contract assets are generally classified as current and are recorded on a net basis with deferred income (i.e., contract liabilities) at the contract level.

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. Leases are accounted for in accordance with lease accounting standards. Loans, which are generally unsecured, are primarily for IBM hardware, software and services. Commercial financing receivables are primarily for working capital financing to business partners and distributors of IBM products and services. Financing receivables are classified as either held for sale or held for investment, depending on the company's intent and ability to hold the underlying contract for the foreseeable future or until maturity or payoff. Loans and commercial financing receivables are recorded at amortized cost, which approximates fair value.

Transfers of Financial Assets

The company enters into arrangements to sell certain financial assets (primarily notes and accounts receivable—trade and financing receivables) to third-party financial institutions. For a transfer of financial assets to be considered a sale, the asset must be legally isolated from the company and the purchaser must have control of the asset. Determining whether all the requirements have been met includes an evaluation of legal considerations, the extent of the company's continuing involvement with the assets transferred and any other relevant consideration. When the true sale criteria are met, the company derecognizes the carrying value of the financial asset transferred and recognizes a net gain or loss on the sale. The proceeds from these arrangements are reflected as cash provided by operating activities in the Consolidated Statement of Cash Flows. If the true sale criteria are not met, the transfer is considered a secured borrowing and the financial asset remains on the Consolidated Balance Sheet with proceeds from the sale recognized as debt and recorded as cash flows from financing activities in the Consolidated Statement of Cash Flows.

Arrangements to sell notes and accounts receivable—trade are used in the normal course of business as part of the company's cash and liquidity management. Facilities primarily in the U.S. and several countries in Europe enable the company to sell certain notes and accounts receivable—trade, without recourse, to third parties in order to manage credit, collection, concentration and currency risk. The gross amounts sold (the gross proceeds) under these arrangements were \$3.4 billion, \$3.3 billion and \$1.8 billion for the years ended December 31, 2023, 2022 and 2021, respectively. Within the notes and accounts receivables—trade sold and derecognized from the Consolidated Balance Sheet, \$0.5 billion, \$1.0 billion, and \$0.7 billion remained uncollected from customers at December 31, 2023, 2022 and 2021, respectively. The fees and the net gains and losses associated with the transfer of notes

and accounts receivables-trade were not material for any of the periods presented. Refer to note L, "Financing Receivables," for more information on transfers of financing receivables.

Allowance for Credit Losses

Receivables are recorded concurrent with billing and shipment of a product and/or delivery of a service to customers. An allowance for uncollectible trade receivables and contract assets, if needed, is estimated based on specific customer situations, current and future expected economic conditions, past experiences of losses, as well as an assessment of potential recoverability of the balance due.

The company estimates its allowances for expected credit losses for financing receivables by considering past events, including any historical default, historical concessions and resulting troubled debt restructurings, current economic conditions, any non-freestanding mitigating credit enhancements, and certain forward-looking information, including reasonable and supportable forecasts. The methodologies that the company uses to calculate its financing receivables reserves, which are applied consistently to its different portfolios, are as follows:

Individually Evaluated—The company reviews all financing receivables considered at risk quarterly, and performs an analysis based upon current information available about the client, such as financial statements, news reports, published credit ratings, current market-implied credit analysis, as well as collateral net of repossession cost, prior collection history and current and future expected economic conditions. For loans that are collateral dependent, impairment is measured using the fair value of the collateral when foreclosure is probable. Using this information, the company determines the expected cash flow for the receivable and calculates an estimate of the potential loss and the probability of loss. For those accounts in which the loss is probable, the company records a specific reserve.

Collectively Evaluated—The company determines its allowances for credit losses for collectively evaluated financing receivables (unallocated) based on two portfolio segments: client financing receivables and commercial financing receivables. The company further segments the portfolio into three classes: Americas, Europe/Middle East/Africa (EMEA) and Asia Pacific.

For client financing receivables, the company uses a credit loss model to calculate allowances based on its internal loss experience and current conditions and forecasts, by class of financing receivable. The company records an unallocated reserve that is calculated by applying a reserve rate to its portfolio, excluding accounts that have been individually evaluated and specifically reserved. This reserve rate is based upon credit rating, probability of default, term and loss history. The allowance is adjusted quarterly for expected recoveries of amounts that were previously written off or are expected to be written off. Recoveries cannot exceed the aggregated amount of the previous write-off or expected write-off.

The company considers forward-looking macroeconomic variables such as gross domestic product, unemployment rates, equity prices and corporate profits when quantifying the impact of economic forecasts on its client financing receivables allowance for expected credit losses. Macroeconomic variables may vary by class of financing receivables based on historical experiences, portfolio composition and current environment. The company also considers the impact of current conditions and economic forecasts relating to specific industries, geographical areas, and client credit ratings, in addition to performing a qualitative review of credit risk factors across the portfolio. Under this approach, forecasts of these variables over two years are considered reasonable and supportable. Beyond two years, the company reverts to long-term average loss experience. Forward-looking estimates require the use of judgment, particularly in times of economic uncertainty.

The portfolio of commercial financing receivables is short term in nature and any allowance for these assets is estimated based on a combination of write-off history and current economic conditions, excluding any individually evaluated accounts.

Other Credit-Related Policies

Past Due—The company views client financing receivables as past due when payment has not been received after 90 days, measured from the original billing date.

Non-Accrual—Non-accrual assets include those receivables (impaired loans or nonperforming leases) with specific reserves and other accounts for which it is likely that the company will be unable to collect all amounts due according to original terms of the lease or loan agreement. Interest income recognition is discontinued on these receivables. Cash collections are first applied as a reduction to principal outstanding. Any cash received in excess of principal payments outstanding is recognized as interest income. Receivables may be removed from non-accrual status, if appropriate, based upon changes in client circumstances, such as a sustained history of payments.

Write-Off—Receivable losses are charged against the allowance in the period in which the receivable is deemed uncollectible. Subsequent recoveries, if any, are credited to the allowance. Write-offs of receivables and associated reserves occur to the extent that the customer is no longer in operation and/or there is no reasonable expectation of additional collections or repossession.

Supplier Financing

The company has supplier finance programs with third-party financial institutions where the company agrees to pay the financial institutions the stated amounts of invoices from participating suppliers on the originally invoiced maturity date, which have an average term of 90 to 120 days, consistent with the company's standard payment terms. The financial institutions offer earlier payment of the invoices at the sole discretion of the supplier for a discounted amount. The company does not provide secured legal assets or other forms of guarantees under the arrangements. The company is not a party to the arrangements between its suppliers and the financial institutions. These obligations are recognized as accounts payable in the Consolidated Balance Sheet. The obligations outstanding under these programs at December 31, 2023 and December 31, 2022 were \$101 million and \$60 million, respectively.

Leases

The company conducts business as both a lessee and a lessor. In its ordinary course of business, the company enters into leases as a lessee for property, plant and equipment. The company is also the lessor of certain equipment, mainly through its Financing segment.

When procuring goods or services, or upon entering into a contract with its clients, the company determines whether an arrangement contains a lease at its inception. As part of that evaluation, the company considers whether there is an implicitly or explicitly identified asset in the arrangement and whether the company, as the lessee, or the client, if the company is the lessor, has the right to control the use of that asset.

Accounting for Leases as a Lessee

When the company is the lessee, all leases with a term of more than 12 months are recognized as right-of-use (ROU) assets and associated lease liabilities in the Consolidated Balance Sheet. The lease liabilities are measured at the lease commencement date and determined using the present value of the lease payments not yet paid and the company's incremental borrowing rate, which approximates the rate at which the company would borrow on a secured basis in the country where the lease was executed. The interest rate implicit in the lease is generally not determinable in transactions where the company is the lessee. The ROU asset equals the lease liability adjusted for any initial direct costs (IDCs), prepaid rent and lease incentives. The company's variable lease payments generally relate to payments tied to various indexes, non-lease components and payments above a contractual minimum fixed amount.

Operating leases are included in operating right-of-use assets-net, current operating lease liabilities and operating lease liabilities in the Consolidated Balance Sheet. Finance leases are included in property, plant and equipment, short-term debt and long-term debt in the Consolidated Balance Sheet. The lease term includes options to extend or terminate the lease when it is reasonably certain that the company will exercise that option.

The company made a policy election to not recognize leases with a lease term of 12 months or less in the Consolidated Balance Sheet.

For all asset classes, the company has elected the lessee practical expedient to combine lease and non-lease components (e.g., maintenance services) and account for the combined unit as a single lease component. A significant portion of the company's lease portfolio is real estate, which are mainly accounted for as operating leases, and are primarily used for corporate offices and data centers. The average term of the real estate leases is approximately five years. The company also has equipment leases, such as IT equipment and vehicles, which have lease terms that range from two to six years. For certain of these operating and finance leases, the company applies a portfolio approach to account for the lease assets and lease liabilities.

Accounting for Leases as a Lessor

The company typically enters into leases as an alternative means of realizing value from equipment that it would otherwise sell. Assets under lease primarily include new and used IBM equipment. IBM equipment generally consists of zSystems, Power and Storage products.

Lease payments due to IBM are typically fixed and paid in equal installments over the lease term. The majority of the company's leases do not contain variable payments that are dependent on an index or a rate. Variable lease payments that do not depend on an index or a rate (e.g., property taxes), that are paid directly by the company and are reimbursed by the client, are recorded as revenue, along with the related cost, in the period in which collection of these payments is probable. Payments that are made directly by the client to a third party, including certain property taxes and insurance, are not considered part of variable payments and therefore are not recorded by the company. The company has made a policy election to exclude from consideration in contracts all collections from sales and other similar taxes.

The company's payment terms for leases are typically unconditional. Therefore, in an instance when the client requests to terminate the lease prior to the end of the lease term, the client would typically be required to pay the remaining lease payments in full. At the

end of the lease term, the company allows the client to either return the equipment, purchase the equipment at the then-current fair market value or at a pre-stated purchase price, or renew the lease based on mutually agreed upon terms.

When lease arrangements include multiple performance obligations, the company allocates the consideration in the contract between the lease components and the non-lease components on a relative standalone selling price basis.

Sales-Type and Direct Financing Leases

For a sales-type or direct financing lease, the carrying amount of the asset is derecognized from inventory and a net investment in the lease is recorded. For a sales-type lease, the net investment in the lease is measured at commencement date as the sum of the lease receivable and the estimated residual value of the equipment less unearned income and allowance for credit losses. Any selling profit or loss arising from a sales-type lease is recorded at lease commencement. Selling profit or loss is presented on a gross basis when the company enters into a lease to realize value from a product that it would otherwise sell in its ordinary course of business. For segment reporting, the net investment in sales-type leases excluding the allowance for credit losses is recognized as hardware revenue in the Infrastructure segment, while the estimated residual value less related unearned income is recognized as a reduction in revenue in the Other revenue category and represents the portion of fair value retained by the company. In transactions where the company enters into a lease for the purpose of generating revenue by providing financing, the selling profit or loss is presented on a net basis. Under a sales-type lease, initial direct costs are expensed at lease commencement. Over the term of the lease, the company recognizes finance income on the net investment in the lease and any variable lease payments, which are not included in the net investment in the lease.

For a direct financing lease, the net investment in the lease is measured similarly to a sales-type lease, however, the net investment in the lease is reduced by any selling profit. In a direct financing lease, the selling profit and initial direct costs are deferred at commencement and recognized over the lease term. The company rarely enters into direct financing leases.

The estimated residual value represents the estimated fair value of the equipment under lease at the end of the lease. The company estimates the future fair value of leased equipment by using historical models, analyzing the current market for new and used equipment and obtaining forward-looking product information such as marketing plans and technology innovations. The company optimizes the recovery of residual values by extending lease arrangements with, or selling leased equipment to existing clients, and periodically reassesses the realizable value of its lease residual values. Anticipated decreases in specific future residual values that are considered to be other-than-temporary are recognized immediately upon identification and are recorded as adjustments to the residual value estimate and unearned income, which reduces current period and future period financing income, respectively.

Common Stock

Common stock refers to the \$.20 par value per share capital stock as designated in the company's Certificate of Incorporation. Treasury stock is accounted for using the cost method. When treasury stock is reissued, the value is computed and recorded using a weighted-average basis.

Earnings Per Share of Common Stock

Earnings per share (EPS) is computed using the two-class method, which determines EPS for each class of common stock and participating securities according to dividends and dividend equivalents and their respective participation rights in undistributed earnings. Basic EPS of common stock is computed by dividing net income by the weighted-average number of common shares outstanding for the period. Diluted EPS of common stock is computed on the basis of the weighted-average number of shares of common stock plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding stock awards, convertible notes and stock options.

NOTE B. ACCOUNTING CHANGES

New Standards to be Implemented

Income Tax Disclosures

Standard/Description—Issuance date: December 2023. This guidance requires disaggregated disclosure of the tax rate reconciliation into eight categories, with further disaggregation required for items greater than a specific threshold. Additionally, the guidance requires the disclosure of income taxes paid disaggregated by federal, state and foreign jurisdictions.

Effective Date and Adoption Considerations—The guidance is effective January 1, 2025 and early adoption is permitted. The company expects to adopt the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters—As the guidance is a change to disclosures only, it will impact note H, "Taxes," but will not impact the consolidated financial results.

Segment Reporting Disclosures

Standard/Description—Issuance date: November 2023. This guidance requires the disclosure of significant segment expenses that are regularly provided to a company's chief operating decision maker and included within each reported measure of segment profit

or loss. The company must also disclose "other segment items," which is the difference between segment revenue less significant expenses for each reported measure of segment profit or loss, and a description of its composition. This guidance also requires all segment annual disclosures to be provided on an interim basis.

Effective Date and Adoption Considerations—The guidance is effective for annual periods beginning in 2024, and for interim periods beginning January 1, 2025, and is required to be applied on a retrospective basis to all prior periods presented. Early adoption is permitted. The company will adopt the guidance as of the effective date.

Effect on Financial Statements or Other Significant Matters—As the guidance is a change to disclosures only, it will impact note D, "Segments," but will not have an impact in the consolidated financial results.

Standards Implemented

Disclosures of Supplier Finance Program Obligations

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

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

Effect on Financial Statements or Other Significant Matters—The guidance did not have a material impact in the consolidated financial results. Refer to note A, "Significant Accounting Policies," for additional information.

Troubled Debt Restructurings and Vintage Disclosures

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

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

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

NOTE C. REVENUE RECOGNITION

Disaggregation of Revenue

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

Revenue by Major Products/Service Offerings

(\$ in millions)				
For the year ended December 31:	2023	2022	2021	
Hybrid Platform & Solutions	\$ 18,693	\$ 17,866	\$ 17,036	
Transaction Processing	7,615	7,171	6,390	
Total Software	\$ 26,308	\$ 25,037	\$ 23,426	
Business Transformation	\$ 9,179	\$ 8,834	\$ 8,284	
Application Operations	6,958	6,508	6,095	
Technology Consulting	3,849	3,765	3,466	
Total Consulting	\$ 19,985	\$ 19,107	\$ 17,844	
Hybrid Infrastructure	\$ 9,215	\$ 9,451	\$ 8,167	
Infrastructure Support	5,377	5,837	6,021	
Total Infrastructure	\$ 14,593	\$ 15,288	\$ 14,188	
Financing⁽¹⁾	\$ 741	\$ 645	\$ 774	
Other	\$ 233	\$ 453	\$ 1,119	
Total Revenue	\$ 61,860	\$ 60,530	\$ 57,350	

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

Revenue by Geography

(\$ in millions)

For the year ended December 31:	2023	2022	2021
Americas	\$ 31,666	\$ 31,057	\$ 28,299
Europe/Middle East/Africa	18,492	17,950	17,447
Asia Pacific	11,702	11,522	11,604
Total	\$ 61,860	\$ 60,530	\$ 57,350

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 December 31, 2023, the aggregate amount of the transaction price allocated to RPO related to customer contracts that are unsatisfied or partially unsatisfied was approximately \$60 billion, of which approximately 70 percent is expected to be recognized as revenue in the subsequent two years, approximately 27 percent in the subsequent three to five years, and the balance thereafter.

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

For the year ended December 31, 2023, revenue was reduced by \$16 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. Refer to note A, "Significant Accounting Policies," for additional information on these contracts and estimates of costs to complete.

Reconciliation of Contract Balances

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

(\$ in millions)

At December 31:	2023	2022
Notes and accounts receivable — trade (net of allowances of \$192 in 2023 and \$233 in 2022)	\$ 7,214	\$ 6,541
Contract assets ⁽¹⁾	505	464
Deferred income (current)	13,451	12,032
Deferred income (noncurrent)	3,533	3,499

(1) Included within prepaid expenses and other current assets in the Consolidated Balance Sheet.

The amount of revenue recognized during the year ended December 31, 2023 that was included within the deferred income balance at December 31, 2022 was \$10.5 billion and 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 years ended December 31, 2023 and 2022.

(\$ in millions)

January 1, 2023	Additions/(Releases)	Write-offs	Foreign currency and Other	December 31, 2023
\$233	\$32	\$(79)	\$6	\$192

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

The contract assets allowance for expected credit losses was not material in the years ended December 31, 2023 and 2022.

Deferred Costs

(\$ in millions)

At December 31:	2023	2022
Capitalized costs to obtain a contract	\$ 686	\$ 563
Deferred costs to fulfill a contract		
Deferred setup costs	399	456
Other deferred fulfillment costs	755	814
Total deferred costs ⁽¹⁾	\$ 1,841	\$ 1,833

(1) Of the total deferred costs, \$998 million was current and \$842 million was noncurrent at December 31, 2023 and \$967 million was current and \$866 million was noncurrent at December 31, 2022.

The amount of total deferred costs amortized during the year ended December 31, 2023 was \$1,493 million and there were no material impairment losses incurred. Refer to note A, "Significant Accounting Policies," for additional information on deferred costs to fulfill a contract and capitalized costs of obtaining a contract.

NOTE D. SEGMENTS

The segments represent components of the company for which separate financial information is available that is utilized on a regular basis by the chief operating decision maker (the chief executive officer) in determining how to allocate resources and evaluate performance. The segments are determined based on several factors, including client base, homogeneity of products, technology, delivery channels and similar economic characteristics.

Certain transactions between the segments are recorded to other (income) and expense and are reflected in segment pre-tax income. The company utilizes globally integrated support organizations to realize economies of scale and efficient use of resources. As a result, a considerable amount of expense is shared by all of the segments. This shared expense includes sales coverage, certain marketing functions and support functions such as Accounting, Treasury, Procurement, Legal, Human Resources, Chief Information Office, and Billing and Collections. Where practical, shared expenses are allocated based on measurable drivers of expense, e.g., headcount. When a clear and measurable driver cannot be identified, shared expenses are allocated on a financial basis that is consistent with the company's management system, e.g., advertising expense is allocated based on the gross profits of the segments. A portion of the shared expenses, which are recorded in net income, are not allocated to the segments. These expenses are associated with the elimination of internal transactions and other miscellaneous items.

In the first quarter of 2024, the company announced changes to its organizational structure and management system to better align its portfolio to the market, increase transparency and improve segment comparability to peers. These changes will not impact the company's Consolidated Financial Statements, but will impact its reportable segments beginning in the first quarter of 2024. The changes include: Security services, previously reported in the Software segment moved to the Consulting segment; The Weather Company assets divested in January 2024 previously reported in the Software segment moved to the Other—divested businesses category; and stock-based compensation expense and non-Financing net interest expense are no longer included in the company's reportable segment results, consistent with the company's management system. Since these changes did not occur until first-quarter 2024, the periods presented in this Annual Report are reported under the historical segments.

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

Management System Segment View

(\$ in millions)

For the year ended December 31:	Software	Consulting	Infrastructure	Financing	Total Segments
2023					
Revenue	\$ 26,308	\$ 19,985	\$ 14,593	\$ 741	\$ 61,627
Pre-tax income from continuing operations	6,571	1,918	2,421	374	11,283
Revenue year-to-year change	5.1 %	4.6 %	(4.5)%	14.8 %	2.6 %
Pre-tax income year-to-year change	6.6 %	14.4 %	7.0 %	10.1 %	8.1 %
Pre-tax income margin	25.0 %	9.6 %	16.6 %	50.5 %	18.3 %
2022					
Revenue	\$ 25,037	\$ 19,107	\$ 15,288	\$ 645	\$ 60,077
Pre-tax income from continuing operations	6,162	1,677	2,262	340	10,441
Revenue year-to-year change	6.9 %	7.1 %	7.8 %	(16.6)%	6.8 %
Pre-tax income year-to-year change	27.1 %	15.7 %	11.7 %	(22.9)%	19.1 %
Pre-tax income margin	24.6 %	8.8 %	14.8 %	52.6 %	17.4 %
2021					
Revenue	\$ 23,426	\$ 17,844	\$ 14,188	\$ 774	\$ 56,231
Pre-tax income from continuing operations	4,849	1,449	2,025	441	8,765

Reconciliations of IBM as Reported

(\$ in millions)

For the year ended December 31:	2023	2022	2021
Revenue			
Total reportable segments	\$ 61,627	\$ 60,077	\$ 56,231
Other—divested businesses	(2)	318	785
Other revenue	235	135	335
Total revenue	\$ 61,860	\$ 60,530	\$ 57,350

(\$ in millions)

For the year ended December 31:	2023	2022	2021
Pre-tax income from continuing operations			
Total reportable segments	\$ 11,283	\$ 10,441	\$ 8,765
Amortization of acquired intangible assets	(1,627)	(1,747)	(1,838)
Acquisition-related charges	(33)	(18)	(43)
Non-operating retirement-related (costs)/income ⁽¹⁾	39	(6,548)	(1,282)
Kyndryl-related impacts ⁽²⁾	—	(351)	118
Workforce rebalancing charges ⁽³⁾	(435)	—	—
Other—divested businesses	5	91	(102)
Unallocated corporate amounts and other	(541)	(712)	(782)
Total pre-tax income from continuing operations	\$ 8,690	\$ 1,156	\$ 4,837

(1) 2022 includes a one-time, non-cash, pre-tax pension settlement charge of \$5.9 billion. See note V, "Retirement-Related Benefits," for additional information.

(2) Net impacts for Kyndryl retained shares and related swaps. Refer to note E, "Acquisitions & Divestitures," and note T, "Derivative Financial Instruments," for additional information.

(3) Beginning in the first quarter of 2023, the company updated its measure of segment pre-tax income, consistent with its management system, to no longer allocate workforce rebalancing charges to its reportable segments. Workforce rebalancing charges of \$40 million and \$182 million for 2022 and 2021, respectively, were included in the segments.

Immaterial Items

Equity Method Investments and Equity Method Investments Gains/(Losses)

The equity method investments and the resulting gains and (losses) from these investments that are attributable to the segments did not have a material effect on the financial position or the financial results of the segments.

Segment Assets and Other Items

Software assets are mainly goodwill, acquired intangible assets and accounts receivable. Consulting assets are primarily goodwill and accounts receivable. Infrastructure assets are primarily goodwill, plant, property and equipment, accounts receivable and manufacturing inventory. Financing assets are primarily financing receivables, and cash and marketable securities.

To ensure the efficient use of the company's space and equipment, several segments may share leased or owned plant, property and equipment assets. Where assets are shared, landlord ownership of the assets is assigned to one segment and is not allocated to each user segment. This is consistent with the company's management system and is reflected accordingly in the table below. In those cases, there will not be a precise correlation between segment pre-tax income and segment assets.

Depreciation expense and capital expenditures that are reported by each segment also are consistent with the landlord ownership basis of asset assignment.

Financing interest income of \$680 million, \$582 million and \$628 million for the years ended December 31, 2023, 2022 and 2021, respectively, reflect the income associated with Financing's external client transactions, as well as the income from investment in cash and marketable securities. Financing interest expense of \$298 million, \$175 million and \$129 million for the years ended December 31, 2023, 2022 and 2021, respectively, reflect the expense associated with intercompany loans and secured borrowings supporting Financing's external client transactions. These secured borrowings are included in note P, "Borrowings." Intercompany financing activities are recorded to other (income) and expense and are reflected in segment pre-tax income.

Management System Segment View

(\$ in millions)

For the year ended December 31:	Software	Consulting	Infrastructure	Financing	Total Segments
2023					
Assets	\$ 61,141	\$ 14,342	\$ 11,991	\$ 14,409	\$ 101,883
Depreciation/amortization of intangibles	526	106	1,018	8	1,659
Capital expenditures/investments in intangibles	385	20	836	15	1,255
2022					
Assets	\$ 57,186	\$ 13,481	\$ 12,243	\$ 15,757	\$ 98,667
Depreciation/amortization of intangibles ⁽¹⁾	564	108	1,250	14	1,936
Capital expenditures/investments in intangibles	446	33	853	27	1,359
2021					
Assets	\$ 58,420	\$ 11,914	\$ 11,766	\$ 16,880	\$ 98,980
Depreciation/amortization of intangibles ⁽¹⁾	598	97	1,257	49	2,001
Capital expenditures/investments in intangibles	559	55	792	33	1,439

(1) Recast to conform to 2023 presentation to remove amortization of acquired intangible assets.

Reconciliations of IBM as Reported

(\$ in millions)

At December 31:	2023	2022
Assets		
Total reportable segments	\$ 101,883	\$ 98,667
Elimination of internal transactions	(1,028)	(1,062)
Other—divested businesses	19	100
Unallocated amounts		
Cash and marketable securities	12,907	8,138
Deferred tax assets	6,468	6,078
Plant, other property and equipment	1,838	1,760
Operating right-of-use assets	2,085	1,586
Pension assets	7,506	8,236
Other ⁽¹⁾	3,563	3,740
Total IBM consolidated assets	\$ 135,241	\$ 127,243

(1) Prior period has been reclassified to conform to the change in 2023 presentation.

Major Clients

No single client represented 10 percent or more of the company's total revenue in 2023, 2022 or 2021.

Geographic Information

The following tables provide information for those countries that are 10 percent or more of the specific category.

Revenue ⁽¹⁾

(\$ in millions)

For the year ended December 31:	2023	2022	2021
United States	\$ 25,309	\$ 25,098	\$ 22,893
Other countries ⁽²⁾	36,551	35,432	34,457
Total revenue	\$ 61,860	\$ 60,530	\$ 57,350

(1) Revenues are attributed to countries based on the location of the client.

(2) Prior periods reclassified to conform to the changes in 2023 presentation.

Plant and Other Property—Net ⁽¹⁾

(\$ in millions)

At December 31:	2023	2022	2021
United States	\$ 3,466	\$ 3,209	\$ 3,375
Other countries	2,027	2,100	2,293
Total	\$ 5,492	\$ 5,308	\$ 5,668

(1) Excludes rental machines.

Operating Right-of-Use Assets—Net

(\$ in millions)

At December 31:	2023	2022	2021
United States	\$ 1,249	\$ 1,074	\$ 1,148
Japan	340	259	398
Other countries	1,631	1,545	1,676
Total	\$ 3,220	\$ 2,878	\$ 3,222

Revenue by Classes of Similar Products or Services

The following table presents external revenue for similar classes of products or services within the company's reportable segments. Client solutions often include IBM software and systems and other suppliers' products if the client solution requires it. For each of the segments that include services, Software-as-a-Service, consulting, education, training and other product-related services are included as services. For each of these segments, software includes product license charges and ongoing subscriptions.

(\$ in millions)

For the year ended December 31:	2023	2022	2021
Software			
Software	\$ 22,483	\$ 21,374	\$ 19,845
Services	3,764	3,575	3,485
Systems	62	88	96
Consulting			
Services	\$ 19,691	\$ 18,857	\$ 17,563
Software	212	170	173
Systems	82	80	108
Infrastructure			
Maintenance	\$ 4,138	\$ 4,590	\$ 4,743
Servers	4,253	4,471	3,483
Services	2,463	2,653	2,616
Storage	2,081	1,989	1,919
Software	1,658	1,585	1,426
Financing			
Financing	\$ 680	\$ 582	\$ 628
Used equipment sales	\$ 60	\$ 64	\$ 145

NOTE E. 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.

2023

In 2023, the company completed nine acquisitions at an aggregate cost of \$5,197 million. Each acquisition is expected to enhance the company's portfolio of products and services capabilities and further advance IBM's hybrid cloud and AI strategy.

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

At December 31, 2023, the remaining cash to be remitted by the company related to 2023 acquisitions was not material.

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2023.

(\$ in millions)

	Amortization Life (in Years)	Apptio, Inc.	Other Acquisitions
Current assets		\$ 146	\$ 80
Property, plant and equipment/noncurrent assets		4	12
Intangible assets			
Goodwill	N/A	3,541	401
Client relationships	6–10	770	44
Completed technology	5–7	530	108
Trademarks	1–5	35	2
Total assets acquired		\$ 5,027	\$ 647
Current liabilities		249	41
Noncurrent liabilities		166	20
Total liabilities assumed		\$ 415	\$ 62
Total purchase price		\$ 4,612	\$ 585

N/A—Not applicable

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.

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

Apptio, Inc.—Goodwill of \$3,170 million and \$371 million was assigned to the Software and Consulting segments, respectively. It is expected that one percent of the goodwill will be deductible for tax purposes. The overall weighted-average useful life of the identified amortizable intangible assets acquired was 8.7 years.

Other Acquisitions—Goodwill of \$358 million, \$31 million and \$12 million was assigned to the Software, Consulting and Infrastructure segments, respectively. It is expected that none of the goodwill will be deductible for tax purposes. The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.6 years.

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

Transactions Announced—Each of the announced acquisitions is subject to customary closing conditions, including regulatory clearance.

On December 18, 2023, the company entered into a definitive agreement with Software AG to acquire StreamSets and webMethods, Software AG's Super iPaaS (integration platform-as-a-service) enterprise technology platforms, for approximately €2.13 billion in cash. StreamSets will add data ingestion capabilities to watsonx, and webMethods will provide clients and partners additional integration and API management tools for their hybrid multi-cloud environments. The acquisition is expected to close in mid-year 2024 and upon closing, StreamSets and webMethods will be integrated into the Software segment.

In connection with the planned acquisition, on December 18, 2023 the company entered into foreign exchange call option contracts for a premium of \$49 million to purchase a total of €2.13 billion on June 18, 2024 at a strike price of 1.095. Refer to note T, "Derivative Financial Instruments," for additional information.

In January 2024, the company entered into a definitive agreement to acquire application modernization capabilities from Advanced, which brings a combination of talent, tools and knowledge to enhance the company's Consulting mainframe application and data modernization services. The acquisition is expected to close in the second quarter of 2024 and will be integrated into the Consulting segment upon closing.

2022

In 2022, the company completed eight acquisitions at an aggregate cost of \$2,651 million. Each acquisition is expected to enhance the company's portfolio of products and services capabilities and further advance IBM's hybrid cloud and AI strategy.

Acquisition	Segment	Description of Acquired Business
<u>First Quarter</u>		
Envizi	Software	Data and analytics software provider for environmental performance management
Sentaca	Consulting	Telco consulting services and solutions provider specializing in automation, cloud migration, and future networks for telecommunications providers
Neudesic	Consulting	Application development and cloud computing services company
<u>Second Quarter</u>		
Randori	Software	Leading attack surface management (ASM) and cybersecurity provider
Databand.ai	Software	Proactive data observability platform that isolates data errors and issues to alert relevant stakeholders
<u>Third Quarter</u>		
Omnio	Software	Developer of software connectors used in the collection of raw data for various Industrial Internet of Things (IoT) applications
<u>Fourth Quarter</u>		
Dialexa	Consulting	Digital product engineering services firm
Octo	Consulting	IT modernization and digital transformation services provider exclusively serving the U.S. federal government

At December 31, 2022, the remaining cash to be remitted by the company related to certain 2022 acquisitions was \$238 million, of which \$103 million was paid in 2023 and the remaining amount is expected to be paid in 2024.

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2023. Net purchase price adjustments recorded in 2023 were not material.

(\$ in millions)

	Amortization Life (in Years)	Octo	Other Acquisitions
Current assets		\$ 119	\$ 87
Property, plant and equipment/noncurrent assets		8	8
Intangible assets			
Goodwill	N/A	829	1,055
Client relationships	7–10	365	204
Completed technology	4–7	30	90
Trademarks	2–3	15	10
Total assets acquired		\$ 1,366	\$ 1,454
Current liabilities		53	52
Noncurrent liabilities		50	15
Total liabilities assumed		\$ 103	\$ 67
Total purchase price		\$ 1,264	\$ 1,387

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.

Octo—The overall weighted-average useful life of the identified amortizable intangible assets acquired was 9.3 years. Goodwill of \$709 million and \$120 million was assigned to the Consulting and Software segments, respectively. It is expected that 24 percent of the goodwill will be deductible for tax purposes.

Other acquisitions—The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.7 years. Goodwill of \$625 million and \$431 million was assigned to the Consulting and Software segments, respectively. It is expected that 52 percent of the goodwill will be deductible for tax purposes.

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

2021

In 2021, the company completed fifteen acquisitions at an aggregate cost of \$3,341 million.

Acquisition	Segment	Description of Acquired Business
<u>First Quarter</u>		
Nordcloud	Consulting	Consulting company providing services in cloud implementation, application transformation and managed services
Taos Mountain, LLC (Taos)	Consulting	Leading cloud professional and managed services provider
StackRox	Software	Innovator in container and Kubernetes-native security
<u>Second Quarter</u>		
Turbonomic, Inc. (Turbonomic)	Software	Application Resource Management and Network Performance Management software provider
ECX Copy Data Management business from Catalogic Software, Inc.	Software	Smart data protection solution
Waeg	Consulting	Leading Salesforce consulting partner
myInvenio	Software	Process mining software company
<u>Third Quarter</u>		
VEVRE Software business from Volta, Inc.	Software	Cloud-native virtual routing engine
BoxBoat Technologies	Consulting	Premier DevOps consultancy and enterprise Kubernetes certified service provider
Bluetab Solutions Group	Consulting	Data solutions service provider
<u>Fourth Quarter</u>		
SXiQ Digital Pty Ltd	Consulting	Digital transformation services company specializing in cloud applications, cloud platforms and cloud cybersecurity
McD Tech Labs from McDonald's	Software	Asset purchase to accelerate the development and deployment of McDonald's Automated Order Taking (AOT) technology
ReaQta	Software	Provider of endpoint security solutions designed to leverage AI to automatically identify and manage threats
Adobe Workfront practice from Rego Consulting Corporation	Consulting	Work management software consulting for enterprise clients
Phlyt	Software	Cloud-native development consultancy

The following table reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2022. Net purchase price adjustments recorded in 2022 primarily related to deferred tax assets and liabilities.

(\$ in millions)

	Amortization Life (in Years)	Turbonomic	Other Acquisitions
Current assets		\$ 115	\$ 112
Property, plant and equipment/noncurrent assets		11	18
Intangible assets			
Goodwill	N/A	1,390	1,073
Client relationships	4–10	309	196
Completed technology	4–7	117	206
Trademarks	1–6	15	31
Total assets acquired		\$ 1,957	\$ 1,636
Current liabilities		73	68
Noncurrent liabilities		55	56
Total liabilities assumed		\$ 128	\$ 124
Total purchase price		\$ 1,829	\$ 1,512

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.

Turbonomic—The overall weighted-average useful life of the identified amortizable intangible assets acquired was 9.0 years. Goodwill of \$1,325 million and \$65 million was assigned to the Software and Consulting segments, respectively. It is expected that none of the goodwill will be deductible for tax purposes.

Other acquisitions—The overall weighted-average useful life of the identified amortizable intangible assets acquired was 6.6 years. Goodwill of \$633 million and \$440 million was assigned to the Consulting and Software segments, respectively. It is expected that nine percent of the goodwill will be deductible for tax purposes.

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

Divestitures

Transactions Closed in 2024—In August 2023, IBM and Zephyr Buyer, L.P., a wholly-owned subsidiary of Francisco Partners (collectively, Francisco), entered into a definitive agreement under which Francisco would acquire The Weather Company assets from IBM for \$1,100 million inclusive of \$250 million of contingent consideration, of which \$200 million is contingent on Francisco's attainment of certain investment return metrics. The assets, reported within the company's Software segment, include The Weather Company's digital consumer-facing offerings, The Weather Channel mobile and cloud-based digital properties including Weather.com, Weather Underground and Storm Radar, as well as its enterprise offerings for broadcast, media, aviation, advertising technology and data solutions for other emerging industries.

At December 31, 2023, the business continued to meet the criteria for held-for-sale classification. Held-for-sale assets of approximately \$545 million, which consist primarily of goodwill, prepaid and other current assets, intangible assets-net and plant, property and equipment-net of approximately \$464 million, \$50 million, \$21 million and \$10 million, respectively, and held-for-sale liabilities of \$19 million consisting primarily of deferred income, were included in the company's Consolidated Balance Sheet at December 31, 2023.

The transaction closed on January 31, 2024. Upon closing, the company received cash proceeds of \$750 million and provided seller financing to Francisco in the form of a \$100 million loan with a term of 7 years. The company recognized a pre-tax gain on sale of approximately \$240 million at closing. As discussed in note D, "Segments," in the first quarter of 2024, The Weather Company assets previously reported in the Software segment moved to the Other—divested businesses category.

2023

The company completed two divestitures in the second quarter of 2023. The financial terms related to each of these transactions did not have a material impact to IBM's Consolidated Financial Statements.

2022

Healthcare Software Assets—In January 2022, IBM and Francisco Partners (Francisco) signed a definitive agreement in which Francisco would acquire IBM's healthcare data and analytics assets reported within Other—divested businesses for \$1,065 million. The assets included Health Insights, MarketScan, Clinical Development, Social Program Management, Micromedex, and imaging software offerings. In addition, IBM is providing Francisco with transition services including IT and other services. The closing completed for the U.S. and Canada on June 30, 2022 and the company received a cash payment of \$1,065 million. Subsequent closings were completed in most other countries in the second half of 2022, with the remaining country closings completed in 2023. The total pre-tax gain recognized on this transaction as of December 31, 2023 was \$303 million and was recorded in other (income) and expense in the Consolidated Income Statement.

Other Divestitures—In the first quarter of 2022, the Infrastructure segment completed one divestiture. The financial terms related to this transaction did not have a material impact to IBM's Consolidated Financial Statements.

2021

Separation of Kyndryl—On November 3, 2021, the company completed the separation of its managed infrastructure services unit into a new public company, Kyndryl. The company retained 19.9 percent of the shares of Kyndryl common stock immediately following the separation. During 2022, the company fully disposed of its retained interest in Kyndryl common stock pursuant to exchange agreements with a third-party financial institution, which were completed within twelve months of separation. The historical results of Kyndryl have been presented as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented.

IBM provided transition services to Kyndryl predominantly consisting of information technology services for a period of two years after the separation. All transition services concluded in the fourth quarter of 2023. The impact of these transition services on the company's Consolidated Financial Statements for the years ended December 31, 2023, 2022 and 2021 was not material.

At separation, IBM and Kyndryl entered into various commercial agreements pursuant to which Kyndryl will purchase hardware, software and services from IBM and under which IBM will receive hosting and information infrastructure services from Kyndryl. As part of the separation, IBM also committed to provide upgraded hardware at no cost to Kyndryl over a two-year period after the separation. The agreement concluded in the fourth quarter of 2023.

The following table presents the major categories of income/(loss) from discontinued operations, net of tax.

(\$ in millions)				
For the year ended December 31:	2023	2022	2021 ⁽¹⁾	
Revenue	\$ —	\$ 7	\$	14,994
Cost of sales	—	24		11,270
Selling, general and administrative expense ⁽²⁾	22	86		1,900
RD&E and Other (income) and expense	(1)	(84)		80
Income/(loss) from discontinued operations before income taxes	\$ (20)	\$ (20)	\$	1,744
Provision for/(benefit from) income taxes ⁽³⁾	(9)	124		714
Income/(loss) from discontinued operations, net of tax	\$ (12)	\$ (143)	\$	1,030

(1) Excludes intercompany transactions between IBM and Kyndryl and general corporate overhead costs transferred to Kyndryl.

(2) Prior periods recast to conform to 2023 presentation.

(3) 2021 includes tax charges related to the Kyndryl separation.

Loss from discontinued operations before income taxes for the year ended December 31, 2023 reflects the net impact of changes in separation-related estimates and the settlement of assets and liabilities in accordance with the separation and distribution agreement. Loss from discontinued operations, net of tax, for the year ended December 31, 2022 reflects the same drivers above and also reflects a gain on sale of a joint venture historically managed by Kyndryl, which was sold to Kyndryl in the first quarter of 2022 upon receiving regulatory approval.

Separation costs of \$5 million and \$1,042 million were incurred during the years ended December 31, 2022 and 2021, respectively, and are included in income/(loss) from discontinued operations, net of tax, in the Consolidated Income Statement. There were no separation charges incurred for the year ended December 31, 2023.

Notes to the Consolidated Financial Statements
International Business Machines Corporation and Subsidiary Companies

The following table presents selected financial information related to cash flows from discontinued operations.

(\$ in millions)				
For the year ended December 31:	2023	2022	2021	
Net cash provided by/(used in) operating activities	\$ —	\$ —	\$ 1,612	
Net cash provided by/(used in) investing activities	—	48	(380)	

Other Divestitures—In 2021, the company completed two divestitures reported in the Software segment and one divestiture reported in Other—divested businesses. In the third quarter of 2021, IBM completed the sale of the company's remaining OEM commercial financing capabilities reported within the Financing segment. The financial terms related to each of these transactions did not have a material impact to IBM's Consolidated Financial Statements.

NOTE F. OTHER (INCOME) AND EXPENSE

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

(\$ in millions)				
For the year ended December 31:	2023	2022	2021	
Other (income) and expense				
Foreign currency transaction losses/(gains) ⁽¹⁾	\$ 116	\$ (643)	\$ (204)	
(Gains)/losses on derivative instruments ⁽¹⁾	(17)	225	205	
Interest income	(670)	(162)	(52)	
Net (gains)/losses from securities and investment assets	(39)	278	(133)	
Retirement-related costs/(income) ⁽²⁾	(39)	6,548	1,282	
Other ⁽³⁾	(266)	(443)	(225)	
Total other (income) and expense	\$ (914)	\$ 5,803	\$ 873	

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

(2) 2022 includes a one-time, non-cash pension settlement charge of \$5.9 billion. Refer to note V, "Retirement-Related Benefits," for additional information.

(3) Other primarily consists of (gains)/losses from divestitures and sales of land/buildings.

NOTE G. RESEARCH, DEVELOPMENT & ENGINEERING

RD&E expense was \$6,775 million in 2023, \$6,567 million in 2022 and \$6,488 million in 2021.

The company incurred total expense of \$6,342 million, \$6,267 million and \$6,216 million in 2023, 2022 and 2021, respectively, for scientific research and the application of scientific advances to the development of new and improved products and their uses, as well as services and their application. Within these amounts, software-related expense was \$3,866 million, \$3,971 million and \$3,922 million in 2023, 2022 and 2021, respectively.

Expense for product-related engineering was \$432 million, \$299 million and \$272 million in 2023, 2022 and 2021, respectively.

NOTE H. TAXES

(\$ in millions)				
For the year ended December 31:	2023	2022	2021	
Income/(loss) from continuing operations before income taxes				
U.S. operations ⁽¹⁾	\$ (227)	\$ (6,602)	\$ (2,654)	
Non-U.S. operations	8,917	7,758	7,491	
Total income from continuing operations before income taxes	\$ 8,690	\$ 1,156	\$ 4,837	

(1) 2022 includes the impact of a one-time, non-cash pension settlement charge. Refer to note V, "Retirement-Related Benefits," for additional information.

The income from continuing operations provision for/(benefit from) income taxes by geographic operations was as follows:

(\$ in millions)				
For the year ended December 31:	2023	2022	2021	
U.S. operations	\$ (574)	\$ (2,272)	\$ (969)	
Non-U.S. operations	1,750	1,645	1,093	
Total continuing operations provision for/(benefit from) income taxes	\$ 1,176	\$ (626)	\$ 124	

The components of the income from continuing operations provision for/(benefit from) income taxes by taxing jurisdiction were as follows:

(\$ in millions)				
For the year ended December 31:	2023	2022	2021	
U.S. federal				
Current	\$ 560	\$ 391	\$ 374	
Deferred	(1,371)	(2,645)	(1,358)	
	\$ (811)	\$ (2,253)	\$ (984)	
U.S. state and local				
Current	\$ 127	\$ 184	\$ 161	
Deferred	(162)	(486)	(370)	
	\$ (34)	\$ (302)	\$ (209)	
Non-U.S.				
Current	\$ 1,594	\$ 1,676	\$ 1,342	
Deferred	428	252	(25)	
	\$ 2,022	\$ 1,929	\$ 1,317	
Total continuing operations provision for/(benefit from) income taxes	\$ 1,176	\$ (626)	\$ 124	
Discontinued operations provision for/(benefit from) income taxes	\$ (9)	\$ 124	\$ 714	
Total provision for/(benefit from) income taxes	\$ 1,167	\$ (503)	\$ 838	

In addition to the total provision for/(benefit from) income taxes, the company recorded a provision included in net income for social security, real estate, personal property and other taxes of approximately \$2.9 billion in 2023. The total taxes included in net income was approximately \$4.0 billion in 2023.

A reconciliation of the statutory U.S. federal tax rate to the company's effective tax rate from continuing operations was as follows:

For the year ended December 31:	2023	2022	2021
Statutory rate	21 %	21 %	21 %
Tax differential on foreign income ⁽¹⁾	(3)	(29)	(10)
Domestic incentives ⁽¹⁾	(5)	(24)	(5)
State and local ⁽¹⁾	0	(21)	(3)
Other ⁽¹⁾	1	(1)	0
Effective rate	14 %	(54)%	3 %

(1) 2022 includes the impacts of the pension settlement charge on tax differential on foreign income, domestic incentives, state and local, and other of (24) points, (20) points, (21) points, and (1) point, respectively.

Percentages rounded for disclosure purposes.

The significant components reflected within the tax rate reconciliation labeled "Tax differential on foreign income" include the effects of foreign subsidiaries' earnings taxed at rates other than the U.S. statutory rate, U.S. taxes on foreign income and any net impacts of intercompany transactions. These items also reflect audit settlements or changes in the amount of unrecognized tax benefits associated with each of these items.

The continuing operations effective tax rate for 2023 was 13.5 percent compared to (54.2) percent in 2022. The prior-year effective tax rate was primarily driven by the transfer of a portion of the Qualified PPP's defined benefit pension obligations and related plan assets. Refer to note V, "Retirement-Related Benefits," for additional information. The 2021 effective tax rate was primarily driven by tax benefits related to audit settlements in multiple jurisdictions.

The effect of tax law changes on deferred tax assets and liabilities did not have a material impact on the company's 2023 effective tax rate.

Deferred Tax Assets

(\$ in millions)

At December 31:	2023	2022
Retirement benefits	\$ 2,269	\$ 1,954
Leases	1,055	927
Share-based and other compensation	720	608
Domestic tax loss/credit carryforwards	2,194	1,798
Deferred income	682	633
Foreign tax loss/credit carryforwards	651	845
Bad debt, inventory and warranty reserves	305	383
Depreciation	205	247
Restructuring charges	94	101
Accruals	253	215
Intangible assets	2,774	2,879
Capitalized research and development	3,524	3,012
Other	1,141	1,157
Gross deferred tax assets	15,868	14,759
Less: valuation allowance	765	770
Net deferred tax assets	\$ 15,103	\$ 13,989

Deferred Tax Liabilities

(\$ in millions)

At December 31:	2023	2022
Goodwill and intangible assets	\$ 3,054	\$ 3,156
GILTI deferred taxes	2,195	2,483
Leases and right-of-use assets	1,369	1,174
Depreciation	523	505
Retirement benefits	1,443	1,609
Deferred transition costs	47	56
Undistributed foreign earnings	192	87
Other	770	955
Gross deferred tax liabilities	\$ 9,593	\$ 10,025

For financial reporting purposes, the company had foreign and domestic loss carryforwards, the tax effect of which was \$681 million, as well as foreign and domestic credit carryforwards of \$2,164 million. Substantially all of these carryforwards are available for at least two years and the majority are available for 10 years or more.

The valuation allowances as of December 31, 2023, 2022 and 2021 were \$765 million, \$770 million and \$883 million, respectively. The amounts principally apply to certain foreign and domestic loss carryforwards and credits. In the opinion of management, it is more likely than not that these assets will not be realized. However, to the extent that tax benefits related to these carryforwards and credits are realized in the future, the reduction in the valuation allowance will reduce income tax expense.

The amount of unrecognized tax benefits at December 31, 2023 increased by \$44 million in 2023 to \$8,772 million. A reconciliation of the beginning and ending amount of unrecognized tax benefits was as follows:

(\$ in millions)					
	2023		2022		2021
Balance at January 1	\$	8,728	\$	8,709	\$ 8,568
Additions based on tax positions related to the current year		296		355	934
Additions for tax positions of prior years		231		174	247
Reductions for tax positions of prior years (including impacts due to a lapse of statute)		(457)		(470)	(688)
Settlements		(26)		(41)	(352)
Balance at December 31	\$	8,772	\$	8,728	\$ 8,709

The additions to unrecognized tax benefits related to the current and prior years were primarily attributable to U.S. federal and state and non-U.S. tax matters, including transfer pricing. The settlements and reductions to unrecognized tax benefits for tax positions of prior years were primarily attributable to non-U.S. and U.S. federal and state tax matters, including impacts due to lapse of statute of limitations.

The unrecognized tax benefits at December 31, 2023 of \$8,772 million can be reduced by \$567 million associated with timing adjustments, potential transfer pricing adjustments and state income taxes. The net amount of \$8,205 million, if recognized, would favorably affect the company's effective tax rate. The net amounts at December 31, 2022 and 2021 were \$8,191 million and \$8,163 million, respectively.

Interest and penalties related to income tax liabilities are included in income tax expense. During the years ended December 31, 2023, 2022 and 2021, the company recognized \$379 million, \$185 million and \$125 million, respectively, in interest expense and penalties. The company had \$1,321 million and \$956 million for the payment of interest and penalties accrued at December 31, 2023 and December 31, 2022, respectively.

Within the next 12 months, the company believes it is reasonably possible that the total amount of unrecognized tax benefits associated with certain positions may be reduced. The potential decrease in the amount of unrecognized tax benefits is associated with certain non-U.S. positions that are expected to be recognized due to a lapse in statute of limitations, as well as anticipated resolution of various audits. The company estimates that the unrecognized tax benefits at December 31, 2023 could be reduced by \$143 million.

During the fourth quarter of 2020, the U.S. Internal Revenue Service (IRS) concluded its examination of the company's U.S. income tax returns for 2013 and 2014 and issued a final Revenue Agent's Report (RAR) proposing adjustments related to certain cross-border transactions that occurred in 2013. The company filed its IRS Appeals protest in the first quarter of 2021, and in October of 2023, the IRS issued a revised RAR. These adjustments, if sustained, would increase the company's income subject to tax by approximately \$4.2 billion, with tax calculated at the relevant federal income tax rate. The company continues to strongly disagree with the IRS position and will pursue resolution at IRS Appeals and then court, if necessary. In the first quarter of 2024, the IRS concluded its examination of the company's U.S. income tax returns for 2015 and 2016 and issued a final RAR proposing adjustments related to certain cross-border transactions that occurred in 2015. The proposed adjustments, if sustained, would increase the company's income subject to tax by approximately \$1.2 billion, with tax calculated at the relevant federal income tax rate. The company strongly disagrees with the IRS position and will pursue resolution at IRS Appeals and then court, if necessary. In the fourth quarter of 2021, the IRS commenced its audit of the company's U.S. tax returns for 2017 and 2018. With respect to major U.S. state and foreign taxing jurisdictions, the company is generally no longer subject to tax examinations for years prior to 2016. The company is no longer subject to income tax examination of its U.S. federal tax return for years prior to 2013. The open years contain matters that could be subject to differing interpretations of applicable tax laws and regulations as 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 December 31, 2023, the company had recorded \$557 million as prepaid income taxes in India. A significant portion of this balance represents cash tax deposits paid over time to protect the company's right to appeal various income tax assessments made by the India Tax Authorities. Although the outcome of tax audits is always uncertain, the company believes that adequate amounts of tax, interest and penalties have been provided for any adjustments that are expected to result for these years.

Within consolidated retained earnings at December 31, 2023 were undistributed after-tax earnings from certain non-U.S. subsidiaries that were not indefinitely reinvested. At December 31, 2023, the company had a deferred tax liability of \$192 million

for the estimated taxes associated with the repatriation of these earnings. Undistributed earnings of approximately \$799 million and other outside basis differences in foreign subsidiaries were indefinitely reinvested in foreign operations. Quantification of the deferred tax liability, if any, associated with indefinitely reinvested earnings and outside basis differences was not practicable.

NOTE I. EARNINGS PER SHARE

The following table presents the computation of basic and diluted earnings per share of common stock.

(\$ in millions except per share amounts)

For the year ended December 31:	2023	2022 ⁽¹⁾	2021
Weighted-average number of shares on which earnings per share calculations are based			
Basic	911,210,319	902,664,190	895,990,771
Add—incremental shares under stock-based compensation plans	8,700,951	7,593,455	6,883,290
Add—incremental shares associated with contingently issuable shares	2,162,558	2,011,417	1,766,940
Assuming dilution	922,073,828	912,269,062	904,641,001
Income from continuing operations	\$ 7,514	\$ 1,783	\$ 4,712
Income/(loss) from discontinued operations, net of tax	(12)	(143)	1,030
Net income on which basic earnings per share is calculated	\$ 7,502	\$ 1,639	\$ 5,743
Income from continuing operations	\$ 7,514	\$ 1,783	\$ 4,712
Net income applicable to contingently issuable shares	—	—	—
Income from continuing operations on which diluted earnings per share is calculated	\$ 7,514	\$ 1,783	\$ 4,712
Income/(loss) from discontinued operations, net of tax, on which diluted earnings per share is calculated	(12)	(143)	1,030
Net income on which diluted earnings per share is calculated	\$ 7,502	\$ 1,639	\$ 5,743
Earnings/(loss) per share of common stock			
Assuming dilution			
Continuing operations	\$ 8.15	\$ 1.95	\$ 5.21
Discontinued operations	(0.01)	(0.16)	1.14
Total	\$ 8.14	\$ 1.80	\$ 6.35
Basic			
Continuing operations	\$ 8.25	\$ 1.97	\$ 5.26
Discontinued operations	(0.01)	(0.16)	1.15
Total	\$ 8.23	\$ 1.82	\$ 6.41

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

Weighted-average stock options to purchase 1,761,463 common shares in 2023, 814,976 common shares in 2022 and 980,505 common shares in 2021 were outstanding, but were not included in the computation of diluted earnings per share because the exercise price of the options was greater than the average market price of the common shares for the full year, and therefore, the effect would have been antidilutive.

NOTE J. FINANCIAL ASSETS & LIABILITIES

Fair Value Measurements

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

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

(\$ in millions)

At December 31:	Fair Value Hierarchy Level	2023		2022	
		Assets ⁽⁶⁾	Liabilities ⁽⁷⁾	Assets ⁽⁶⁾	Liabilities ⁽⁷⁾
Cash equivalents ⁽¹⁾					
Time deposits and certificates of deposit ⁽²⁾	2	\$ 7,206	N/A	\$ 3,712	N/A
Money market funds	1	494	N/A	306	N/A
Total cash equivalents		\$ 7,699	N/A	\$ 4,018	N/A
Equity investments	1	25	N/A	—	N/A
Debt securities—current ⁽²⁾⁽³⁾	2	373	N/A	852	N/A
Debt securities—noncurrent ⁽²⁾⁽⁴⁾	2,3	8	N/A	31	N/A
Derivatives designated as hedging instruments					
Interest rate contracts	2	2	299	3	336
Foreign exchange contracts	2	131	275	184	674
Derivatives not designated as hedging instruments					
Foreign exchange contracts ⁽⁵⁾	2	115	19	42	16
Equity contracts	2	93	—	49	8
Total		\$ 8,446	\$ 593	\$ 5,179	\$ 1,034

(1) Included within cash and cash equivalents in the Consolidated Balance Sheet.

(2) Available-for-sale debt securities with carrying values that approximate fair value.

(3) U.S. treasury bills and term deposits that are reported within marketable securities in the Consolidated Balance Sheet.

(4) Includes immaterial activity related to private company investments reported within investments and sundry assets in the Consolidated Balance Sheet.

(5) 2023 assets include \$62 million related to foreign exchange call option contracts entered into in connection with the planned acquisition of StreamSets and webMethods from Software AG. Refer to note T, "Derivative Financial Instruments," for additional information.

(6) 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 December 31, 2023 were \$304 million and \$37 million, respectively, and at December 31, 2022 were \$271 million and \$7 million, respectively.

(7) The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Balance Sheet at December 31, 2023 were \$294 million and \$299 million, respectively, and at December 31, 2022 were \$546 million and \$488 million, respectively.

N/A—Not applicable

Financial Assets and Liabilities Not Measured at Fair Value

Short-Term Receivables and Payables

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

Loans and Long-Term Receivables

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

Long-Term Debt

Fair value of publicly traded long-term debt is based on quoted market prices for the identical liability when traded as an asset in an active market. For other long-term debt (including long-term finance lease liabilities) for which a quoted market price is not available, an expected present value technique that uses rates currently available to the company for debt with similar terms and remaining maturities is used to estimate fair value. The carrying amount of long-term debt was \$50,121 million and \$46,189 million, and the estimated fair value was \$48,284 million and \$42,514 million at December 31, 2023 and 2022, respectively. If measured at fair value in the financial statements, long-term debt (including the current portion) would be classified as Level 2 in the fair value hierarchy.

NOTE K. INVENTORY

(\$ in millions)

At December 31:	2023	2022
Finished goods	\$ 78	\$ 158
Work in process and raw materials	\$ 1,083	\$ 1,394
Total	\$ 1,161	\$ 1,552

NOTE L. FINANCING RECEIVABLES

Financing receivables primarily consist of client loan and installment payment receivables (loans), investment in sales-type and direct financing leases (collectively referred to as client financing receivables) and commercial financing receivables. Loans are provided primarily to clients to finance the purchase of IBM hardware, software and services. Payment terms on these financing arrangements are for terms generally up to seven years. Investment in sales-type and direct financing leases relate principally to the company's Infrastructure products and are for terms generally up to five years. Commercial financing receivables, which consist of both held-for-investment and held-for-sale receivables, relate primarily to working capital financing for business partners and distributors of IBM products and services. Payment terms for working capital financing generally range from 30 to 60 days.

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

(\$ in millions)

	Client Financing Receivables			Commercial Financing Receivables		
	Client Loan and Installment Payment Receivables (Loans)	Investment in Sales-Type and Direct Financing Leases		Held for Investment	Held for Sale ⁽³⁾	Total
At December 31, 2023:						
Financing receivables, gross	\$ 7,060	\$ 4,261	\$	1,160	\$ 692	\$ 13,173
Unearned income	(486)	(429)		—	—	(915)
Unguaranteed residual value	—	458		—	—	458
Amortized cost	\$ 6,574	\$ 4,290	\$	1,160	\$ 692	\$ 12,716
Allowance for credit losses	(87)	(63)		(6)	—	(156)
Total financing receivables, net	\$ 6,486	\$ 4,227	\$	1,155	\$ 692	\$ 12,560
Current portion	\$ 3,427	\$ 1,520	\$	1,155	\$ 692	\$ 6,793
Noncurrent portion	\$ 3,059	\$ 2,707	\$	—	\$ —	\$ 5,766

(\$ in millions)

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

(1) The carrying value of the receivables classified as held for sale approximates fair value.

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

Financing receivables pledged as collateral for secured borrowings were \$232 million and \$349 million at December 31, 2023 and 2022, respectively. These borrowings are included in note P, "Borrowings."

Transfer of Financial Assets

The company has an existing agreement with a third-party investor to sell IBM short-term commercial financing receivables on a revolving basis. This agreement allowed for sales up to \$3.0 billion. In December 2023, the company amended and renewed its agreement to sell up to \$1.9 billion and reducing to \$1.3 billion in January 2024, for one year. In addition, the company enters into agreements with third-party financial institutions to sell certain of its client financing receivables, including both loan and lease receivables, for cash proceeds. There were no material client financing receivables transferred for the years ended December 31, 2023 and 2022.

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

(\$ in millions)			
For the year ended December 31:		2023	2022
Commercial financing receivables			
Receivables transferred during the period	\$	9,248	\$ 9,029
Receivables uncollected at end of period ⁽¹⁾	\$	1,600	\$ 1,561

(1) Of the total amount of commercial financing receivables sold and derecognized from the Consolidated Balance Sheet, the amounts presented remained uncollected from business partners as of December 31, 2023 and 2022.

The transfer of these receivables qualified as true sales and therefore reduced financing receivables. The cash proceeds from the sales are included in cash flows from operating activities. For the twelve months ended December 31, 2023 and 2022, the net loss, including fees, associated with the transfer of commercial financing receivables was \$98 million and \$62 million, respectively, and is included in other (income) and expense in the Consolidated Income Statement.

Financing Receivables by Portfolio Segment

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

(\$ in millions)					
At December 31, 2023:		Americas	EMEA	Asia Pacific	Total
Amortized cost	\$	6,488	\$ 3,007	\$ 1,368	\$ 10,863
Allowance for credit losses					
Beginning balance at January 1, 2023	\$	88	\$ 60	\$ 20	\$ 168
Write-offs		(9)	(1)	(8)	(18)
Recoveries		0	2	3	5
Additions/(releases)		5	(14)	(4)	(12)
Other ⁽¹⁾		7	1	(1)	8
Ending balance at December 31, 2023	\$	92	\$ 48	\$ 11	\$ 150

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

(1) Primarily represents translation adjustments.

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

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.

(\$ in millions)

	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⁾
At December 31, 2023:					
Americas	\$ 6,488	\$ 111	\$ 40	\$ 6	\$ 71
EMEA	3,007	31	1	1	31
Asia Pacific	1,368	9	1	0	8
Total client financing receivables	\$ 10,863	\$ 151	\$ 43	\$ 7	\$ 110

(\$ in millions)

	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⁾
At December 31, 2022:					
Americas	\$ 7,281	\$ 272	\$ 198	\$ 22	\$ 74
EMEA	3,546	52	8	1	46
Asia Pacific	1,704	20	3	1	17
Total client financing receivables	\$ 12,531	\$ 344	\$ 208	\$ 23	\$ 137

(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 \$106 million and \$122 million at December 31, 2023 and 2022, respectively. Financing income recognized on these receivables was immaterial for the years ended December 31, 2023 and 2022.

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

(\$ in millions)

	Americas		EMEA		Asia Pacific	
At December 31, 2023:	Aaa - Baa3	Ba1 - C	Aaa - Baa3	Ba1 - C	Aaa - Baa3	Ba1 - C
Vintage year						
2023	\$ 2,292	\$ 1,028	\$ 750	\$ 520	\$ 501	\$ 70
2022	1,645	268	687	374	386	42
2021	655	85	284	83	110	40
2020	205	79	106	60	97	22
2019	104	23	58	38	40	8
2018 and prior	55	50	16	30	39	12
Total	\$ 4,955	\$ 1,533	\$ 1,901	\$ 1,106	\$ 1,174	\$ 195

(\$ in millions)

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

Modifications and Troubled Debt Restructurings

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

NOTE M. PROPERTY, PLANT & EQUIPMENT

(\$ in millions)

At December 31:	2023	2022
Land and land improvements	\$ 182	\$ 213
Buildings and building and leasehold improvements	5,333	5,678
Information technology equipment	9,223	9,643
Production, engineering, office and other equipment	3,385	3,161
Total—gross	18,122	18,695
Less: Accumulated depreciation	12,621	13,361
Total—net	\$ 5,501	\$ 5,334

NOTE N. LEASES

Accounting for Leases as a Lessee

The following table presents the various components of lease costs.

(\$ in millions)

For the year ended December 31:	2023	2022	2021
Finance lease cost	\$ 114	\$ 67	\$ 52
Operating lease cost	1,013	1,050	1,126
Short-term lease cost	9	7	21
Variable lease cost	331	262	336
Sublease income	(61)	(72)	(46)
Total lease cost	\$ 1,406	\$ 1,315	\$ 1,489

The company recorded net gains on sale and leaseback transactions of \$145 million, \$41 million and \$7 million for the years ended December 31, 2023, 2022 and 2021, respectively.

The following table presents supplemental information relating to the cash flows arising from lease transactions. Cash payments related to variable lease costs and short-term leases are not included in the measurement of operating and finance lease liabilities, and, as such, are excluded from the amounts below.

(\$ in millions)			
For the year ended December 31:	2023	2022	2021
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash outflows from finance leases	\$ 16	\$ 9	\$ 8
Financing cash outflows from finance leases	75	55	42
Operating cash outflows from operating leases	961	1,020	1,135
ROU assets obtained in exchange for new finance lease liabilities ⁽¹⁾	355	196	46
ROU assets obtained in exchange for new operating lease liabilities ⁽¹⁾	1,220	705	779

(1) Includes the impact of currency.

The following table presents the weighted-average lease term and discount rate for finance and operating leases.

At December 31:	2023	2022
Finance leases		
Weighted-average remaining lease term (in years)	5.1	3.7
Weighted-average discount rate	4.62 %	3.57 %
Operating leases		
Weighted-average remaining lease term (in years)	6.2	4.5
Weighted-average discount rate	4.46 %	3.77 %

The following table presents a maturity analysis of expected undiscounted cash flows for operating and finance leases on an annual basis for the next five years and thereafter.

(\$ in millions)								
	2024	2025	2026	2027	2028	Thereafter	Imputed Interest ⁽¹⁾	Total ⁽²⁾
Finance leases	\$ 145	\$ 126	\$ 90	\$ 80	\$ 61	\$ 78	\$ (82)	\$ 499
Operating leases	948	761	616	452	281	890	(560)	3,389

(1) Imputed interest represents the difference between undiscounted cash flows and discounted cash flows.

(2) The company entered into lease agreements for certain facilities and equipment with payments totaling approximately \$247 million that have not yet commenced as of December 31, 2023, and therefore are not included in this table.

The following table presents information on the company's finance leases recognized in the Consolidated Balance Sheet.

(\$ in millions)			
At December 31:	2023	2022	
ROU Assets—Property, plant and equipment	\$ 481	\$ 223	
Lease Liabilities			
Short-term debt	121	75	
Long-term debt	379	164	

Accounting for Leases as a Lessor

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

(\$ in millions)

For the year ended December 31:	2023	2022	2021
Lease income—sales-type and direct financing leases			
Sales-type lease selling price	\$ 1,280	\$ 1,636	\$ 1,355
Less: Carrying value of underlying assets ⁽¹⁾	(245)	(385)	(300)
Gross profit	1,034	1,251	1,055
Interest income on lease receivables	242	200	179
Total sales-type and direct financing lease income	1,276	1,451	1,234
Lease income—operating leases	93	116	169
Variable lease income	68	87	120
Total lease income	\$ 1,437	\$ 1,653	\$ 1,523

(1) Excludes unguaranteed residual value.

Sales-Type and Direct Financing Leases

At December 31, 2023 and 2022, the unguaranteed residual values of sales-type and direct financing leases were \$458 million and \$422 million, respectively. Refer to note L, “Financing Receivables,” for additional information on the company’s net investment in leases.

For the years ended December 31, 2023 and 2022, impairment of residual values was immaterial.

The following table presents a maturity analysis of the lease payments due to IBM on sales-type and direct financing leases over the next five years and thereafter, as well as a reconciliation of the undiscounted cash flows to the financing receivables recognized in the Consolidated Balance Sheet at December 31, 2023.

(\$ in millions)

	Total
2024	\$ 1,735
2025	1,360
2026	713
2027	353
2028	91
Thereafter	9
Total undiscounted cash flows	\$ 4,261
Present value of lease payments (recognized as financing receivables) ⁽¹⁾	3,832
Difference between undiscounted cash flows and discounted cash flows	\$ 429

(1) The present value of the lease payments will not equal the financing receivables balances in the Consolidated Balance Sheet due to certain items including IDCs, allowance for credit losses and residual values, which are included in the financing receivable balance, but are not included in the future lease payments.

NOTE O. INTANGIBLE ASSETS INCLUDING GOODWILL

Intangible Assets

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

(\$ in millions)

At December 31, 2023:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount ⁽¹⁾
Intangible asset class			
Capitalized software	\$ 1,636	\$ (762)	\$ 874
Client relationships	9,053	(3,500)	5,553
Completed technology	5,713	(2,510)	3,203
Patents/trademarks	1,821	(436)	1,385
Other ⁽²⁾	41	(20)	22
Total	\$ 18,265	\$ (7,229)	\$ 11,036

(\$ in millions)

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

(1) Amounts as of December 31, 2023 and December 31, 2022 include an increase in net intangible asset balance of \$50 million and a decrease in net intangible asset balance of \$198 million, respectively, due to foreign currency translation.

(2) Other intangibles are primarily acquired proprietary and nonproprietary data, business processes, methodologies and systems.

There was no impairment of intangible assets recorded in 2023 and 2022. The net carrying amount of intangible assets decreased \$147 million during the year ended December 31, 2023, primarily due to intangible asset amortization, partially offset by additions of acquired intangibles of \$1,509 million primarily related to the acquisition of Apptio, Inc. and capitalized software. The aggregate intangible amortization expense was \$2,287 million and \$2,397 million for the years ended December 31, 2023 and 2022, respectively. In addition, in 2023 and 2022, respectively, the company retired \$1,505 million and \$1,301 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 December 31, 2023:

(\$ in millions)

	Capitalized Software	Acquired Intangibles	Total
2024	\$ 514	\$ 1,743	\$ 2,257
2025	260	1,713	1,973
2026	100	1,690	1,790
2027	—	1,671	1,671
2028	—	1,368	1,368
Thereafter	—	1,979	1,979

Goodwill

The changes in the goodwill balances by reportable segment for the years ended December 31, 2023 and 2022 are as follows:

(\$ in millions)

Segment	Balance at January 1, 2023	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments ⁽¹⁾	Balance at December 31, 2023
Software	\$ 43,657	\$ 3,538	\$ (17)	\$ —	\$ 214	\$ 47,392
Consulting	7,928	403	2	—	69	8,403
Infrastructure	4,363	12	—	—	8	4,384
Other	—	—	—	—	—	—
Total	\$ 55,949	\$ 3,953	\$ (15)	\$ —	\$ 291	\$ 60,178

(\$ in millions)

Segment	Balance at January 1, 2022	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments ⁽¹⁾	Balance at December 31, 2022
Software	\$ 43,966	\$ 568	\$ (118)	\$ —	\$ (760)	\$ 43,657
Consulting	6,797	1,366	(42)	—	(192)	7,928
Infrastructure	4,396	—	—	(1)	(32)	4,363
Other ⁽²⁾	484	—	—	(484)	—	—
Total	\$ 55,643	\$ 1,934	\$ (159)	\$ (485)	\$ (984)	\$ 55,949

(1) Primarily driven by foreign currency translation.

(2) The company derecognized goodwill related to the divestiture of its healthcare software assets in the second quarter of 2022.

There were no goodwill impairment losses recorded during 2023 or 2022 and the company has no accumulated impairment losses.

Purchase price adjustments recorded in 2023 and 2022 were related to acquisitions that were still subject to the measurement period that ends at the earlier of 12 months from the acquisition date or when information becomes available. Net purchase price adjustments recorded in 2023 were not material. Net purchase price adjustments recorded in 2022 primarily related to deferred tax assets and liabilities associated with the Turbonomic acquisition.

NOTE P. BORROWINGS

Short-Term Debt

The company's total short-term debt at December 31, 2023 and December 31, 2022 was \$6,426 million and \$4,760 million, respectively, and primarily consisted of current maturities of long-term debt detailed in "Long-Term Debt" below.

Long-Term Debt

Pre-Swap Borrowing

(\$ in millions)

At December 31:	Maturities	2023	2022
U.S. dollar debt (weighted-average interest rate at December 31, 2023): ⁽¹⁾			
3.4%	2023	\$ —	\$ 1,529
3.3%	2024	5,003	5,009
5.1%	2025	1,601	1,603
3.5%	2026	5,201	4,351
3.1%	2027	3,619	3,620
5.0%	2028	1,313	313
3.5%	2029	3,250	3,250
2.0%	2030	1,350	1,350
4.4%	2032	1,850	1,850
4.8%	2033	750	—
8.0%	2038	83	83
4.5%	2039	2,745	2,745
2.9%	2040	650	650
4.0%	2042	1,107	1,107
7.0%	2045	27	27
4.7%	2046	650	650
4.3%	2049	3,000	3,000
3.0%	2050	750	750
4.2%	2052	1,400	1,400
5.1%	2053	650	—
7.1%	2096	316	316
		\$ 35,317	\$ 33,605
Euro debt (weighted-average interest rate at December 31, 2023): ⁽¹⁾			
0.7%	2023	\$ —	\$ 2,937
1.1%	2024	829	801
1.6%	2025	3,315	3,204
2.3%	2027	2,210	1,068
0.7%	2028	1,989	1,922
1.5%	2029	1,105	1,068
0.9%	2030	1,105	1,068
2.7%	2031	2,762	1,335
0.7%	2032	1,768	1,709
1.3%	2034	1,105	1,068
3.8%	2035	1,105	—
1.2%	2040	939	908
4.0%	2043	1,105	—
		\$ 19,335	\$ 17,087
Other currencies (weighted-average interest rate at December 31, 2023, in parentheses): ⁽¹⁾			
Pound sterling (4.9%)	2038	\$ 955	\$ —
Japanese yen (0.5%)	2024–2028	1,251	694
Other (14.2%)	2024–2026	241	361
		\$ 57,099	\$ 51,747
Finance lease obligations (4.5%)	2024–2034	499	239
		\$ 57,598	\$ 51,986
Less: net unamortized discount		838	835
Less: net unamortized debt issuance costs		154	138
Add: fair value adjustment ⁽²⁾		(60)	(73)
		\$ 56,546	\$ 50,940
Less: current maturities		6,425	4,751
Total		\$ 50,121	\$ 46,189

(1) Includes notes, debentures, bank loans and secured borrowings.

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

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

Post-Swap Borrowing (Long-Term Debt, Including Current Portion)

(\$ in millions)

	2023		2022	
	Amount	Weighted-Average Interest Rate	Amount	Weighted-Average Interest Rate
At December 31:				
Fixed-rate debt	\$ 48,803	3.0 %	\$ 43,898	2.7 %
Floating-rate debt ⁽¹⁾	7,743	6.1 %	7,042	5.9 %
Total	\$ 56,546		\$ 50,940	

(1) Includes \$6,725 million and \$6,525 million in 2023 and 2022, respectively, of notional interest-rate swaps that effectively convert fixed-rate long-term debt into floating-rate debt. Refer to note T, "Derivative Financial Instruments," for additional information.

Pre-swap annual contractual obligations of long-term debt outstanding at December 31, 2023, are as follows:

(\$ in millions)

	Total
2024	\$ 6,427
2025	5,090
2026	5,624
2027	5,898
2028	3,959
Thereafter	30,600
Total	\$ 57,598

Interest on Debt

(\$ in millions)

For the year ended December 31:	2023	2022	2021
Cost of financing	\$ 334	\$ 346	\$ 392
Interest expense	1,607	1,216	1,155
Interest capitalized	9	5	3
Total interest paid and accrued	\$ 1,949	\$ 1,566	\$ 1,550

Refer to the related discussion in note D, "Segments," for interest expense of the Financing segment. Refer to note T, "Derivative Financial Instruments," for a discussion of the use of foreign currency denominated debt designated as a hedge of net investment, as well as a discussion of the use of currency and interest-rate swaps in the company's debt risk management program.

Lines of Credit

On June 15, 2023, the company amended its existing \$2.5 billion Three-Year Credit Agreement and \$7.5 billion Five-Year Credit Agreement (the Credit Agreements) to extend the maturity dates to June 20, 2026 and June 22, 2028, respectively. The Credit Agreements permit the company and its subsidiary borrowers to borrow up to \$10 billion on a revolving basis. The total expense

recorded by the company related to these agreements was \$8 million, \$11 million and \$12 million in 2023, 2022 and 2021, respectively. Subject to certain conditions stated in the Credit Agreements, the borrower may borrow, prepay and re-borrow amounts under the Credit Agreements at any time during the term of such agreements. Funds borrowed may be used for the general corporate purposes of the borrower.

Interest rates on borrowings under the Credit Agreements will be based on prevailing market interest rates, as further described in the Credit Agreements. The Credit Agreements contain customary representations and warranties, covenants, events of default, and indemnification provisions. The company believes that circumstances that might give rise to breach of these covenants or an event of default, as specified in the Credit Agreements, are remote. As of December 31, 2023, there were no borrowings by the company under the Credit Agreements.

The company also has other committed lines of credit in some of the geographies which are not significant in the aggregate. Interest rates and other terms of borrowing under these lines of credit vary from country to country, depending on local market conditions. As of December 31, 2023, there were no material borrowings by the company under these credit facilities.

NOTE Q. OTHER LIABILITIES

(\$ in millions)

At December 31:	2023	2022
Income tax reserves ⁽¹⁾	\$ 6,916	\$ 6,404
Deferred taxes	1,146	2,292
Excess 401(k) Plus Plan	1,437	1,307
Disability benefits	308	303
Derivative liabilities	299	488
Workforce reductions	526	524
Environmental accruals	206	243
Other ⁽²⁾	639	681
Total	\$ 11,475	\$ 12,243

(1) Refer to note H, "Taxes," for additional information.

(2) Prior-period amounts have been reclassified to conform to the change in 2023 presentation.

In response to changing business needs, the company periodically takes workforce reduction actions to improve productivity, cost competitiveness and to rebalance skills. The noncurrent contractually obligated future payments associated with these activities are reflected in the workforce reductions caption in the previous table. The noncurrent liabilities are workforce accruals primarily related to terminated employees who are no longer working for the company and who were granted annual payments to supplement their incomes in certain countries. Depending on the individual country's legal requirements, these required payments will continue until the former employee begins receiving pension benefits or passes away. The total amounts accrued for workforce reductions, including amounts classified as other accrued expenses and liabilities in the Consolidated Balance Sheet, were \$725 million and \$701 million at December 31, 2023 and 2022, respectively.

The company employs extensive internal environmental protection programs that primarily are preventive in nature. The company also participates in environmental assessments and cleanups at a number of locations, including operating facilities, previously owned facilities and Superfund sites. The company's maximum exposure for all environmental liabilities cannot be estimated and no amounts have been recorded for non-ARO environmental liabilities that are not probable or estimable. The total amounts accrued for non-ARO environmental liabilities, including amounts classified as current in the Consolidated Balance Sheet, that do not reflect actual or anticipated insurance recoveries, were \$244 million and \$271 million at December 31, 2023 and 2022, respectively. Estimated environmental costs are not expected to materially affect the consolidated financial position or consolidated results of the company's operations in future periods. However, estimates of future costs are subject to change due to protracted cleanup periods, changing environmental remediation regulations and changes in assumptions.

As of December 31, 2023, the company was unable to estimate the range of settlement dates and the related probabilities for certain asbestos remediation AROs. These conditional AROs are primarily related to the encapsulated structural fireproofing that is not subject to abatement unless the buildings are demolished and non-encapsulated asbestos that the company would remediate only if it performed major renovations of certain existing buildings. Because these conditional obligations have indeterminate settlement dates, the company could not develop a reasonable estimate of their fair values. The company will continue to assess its ability to estimate fair values at each future reporting date. The related liability will be recognized once sufficient additional information becomes available. The total amounts accrued for ARO liabilities, including amounts classified as current in the Consolidated Balance Sheet, were \$113 million and \$107 million at December 31, 2023 and 2022, respectively.

NOTE R. COMMITMENTS & CONTINGENCIES

Commitments

The company's extended lines of credit to third-party entities include unused amounts of \$1.4 billion and \$1.6 billion at December 31, 2023 and 2022, respectively. A portion of these amounts was available to the company's business partners to support their working capital needs. In addition, the company has committed to provide future financing to its clients in connection with client purchase agreements for \$1.9 billion and \$2.1 billion at December 31, 2023 and 2022, 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," for additional information. The allowance for these commitments is recorded in other liabilities in the Consolidated Balance Sheet and was not material at December 31, 2023 and 2022.

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 December 31, 2023 and 2022 was not material.

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

Standard Warranty Liability

(\$ in millions)

	2023		2022	
Balance at January 1	\$	79	\$	77
Current period accruals		84		84
Accrual adjustments to reflect experience		(14)		(2)
Charges incurred		(83)		(81)
Balance at December 31	\$	65	\$	79

Extended Warranty Liability (Deferred Income)

(\$ in millions)			
	2023		2022
Balance at January 1	\$	272	\$ 350
Revenue deferred for new extended warranty contracts		70	100
Amortization of deferred revenue		(158)	(163)
Other ⁽¹⁾		0	(15)
Balance at December 31	\$	184	\$ 272
Current portion	\$	110	\$ 137
Noncurrent portion	\$	74	\$ 135

(1) Other consists primarily of foreign currency translation adjustments.

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, AI, privacy and data protection laws, regulations and threat actors, the company and its clients have been and will continue to be subject to actions or proceedings in various jurisdictions. Also, as is typical for companies of IBM's scope and scale, the company is party to actions and proceedings in various jurisdictions involving a wide range of labor and employment issues (including matters related to contested employment decisions, country-specific labor and employment laws, and the company's pension, retirement and other benefit plans), as well as actions with respect to contracts, product liability, cybersecurity, data privacy, 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 years ended December 31, 2023, 2022 and 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.

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

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

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

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

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

NOTE S. EQUITY ACTIVITY

The authorized capital stock of IBM consists of (i) 4,687,500,000 shares of common stock with a \$0.20 per share par value, of which 915,013,646 shares were outstanding at December 31, 2023, and (ii) 150,000,000 shares of preferred stock with a \$0.01 per share par value, whereby 75,000,000 shares have been designated as Series A Preferred Stock, of which 57,916,244 shares of Series A Preferred Stock were issued to a wholly owned subsidiary of the company but were not outstanding at December 31, 2023. The company does not intend to issue or transfer any shares of Series A Preferred Stock to any third parties.

Stock Repurchases

The Board of Directors authorizes the company to repurchase IBM common stock. The company suspended its share repurchase program at the time of the Red Hat acquisition in 2019. At December 31, 2023, \$2,008 million of Board common stock repurchase authorization was available.

Other Stock Transactions

The company issued the following shares of common stock as part of its stock-based compensation plans and employees stock purchase plan: 9,794,240 shares in 2023, 8,539,072 shares in 2022, and 5,608,845 shares in 2021. The company issued 2,080,983 treasury shares in 2023, 2,512,300 treasury shares in 2022, and 2,093,243 treasury shares in 2021, as a result of restricted stock unit releases and exercises of stock options by employees of certain acquired businesses and by non-U.S. employees. Also, as part of the company's stock-based compensation plans, 2,953,554 common shares at a cost of \$402 million, 3,027,994 common shares at a cost of \$407 million, and 2,286,912 common shares at a cost of \$319 million in 2023, 2022 and 2021, respectively, were remitted by employees to the company in order to satisfy minimum statutory tax withholding requirements. These amounts are included in the treasury stock balance in the Consolidated Balance Sheet and the Consolidated Statement of Equity.

Reclassifications and Taxes Related to Items of Other Comprehensive Income

(\$ in millions)

For the year ended December 31, 2023:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	\$ 3	\$ 100	\$ 103
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	\$ 207	\$ (63)	\$ 144
Reclassification of (gains)/losses to:			
Cost of services	5	(1)	5
Cost of sales	(22)	8	(14)
Cost of financing	14	(3)	10
SG&A expense	(12)	4	(8)
Other (income) and expense	(209)	53	(157)
Interest expense	66	(17)	49
Total unrealized gains/(losses) on cash flow hedges	\$ 47	\$ (19)	\$ 28
Retirement-related benefit plans ⁽¹⁾			
Prior service costs/(credits)	\$ 2	\$ 0	\$ 2
Net (losses)/gains arising during the period	(3,115)	536	(2,579)
Curtailments and settlements	5	(1)	4
Amortization of prior service (credits)/costs	(9)	3	(6)
Amortization of net (gains)/losses	515	(88)	427
Total retirement-related benefit plans	\$ (2,602)	\$ 450	\$ (2,152)
Other comprehensive income/(loss)	\$ (2,552)	\$ 531	\$ (2,021)

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

(\$ in millions)

For the year ended December 31, 2022:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	\$ 176	\$ (406)	\$ (229)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	\$ (1)	\$ 0	\$ (1)
Reclassification of (gains)/losses to other (income) and expense	—	—	—
Total net changes related to available-for-sale securities	\$ (1)	\$ 0	\$ (1)
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	\$ 241	\$ (64)	\$ 178
Reclassification of (gains)/losses to:			
Cost of services	(24)	6	(18)
Cost of sales	(99)	28	(70)
Cost of financing	24	(6)	18
SG&A expense	(38)	11	(28)
Other (income) and expense	(349)	88	(261)
Interest expense	86	(22)	64
Total unrealized gains/(losses) on cash flow hedges	\$ (158)	\$ 41	\$ (117)
Retirement-related benefit plans ⁽¹⁾			
Prior service costs/(credits)	\$ 463	\$ (99)	\$ 364
Net (losses)/gains arising during the period	878	(183)	695
Curtailments and settlements	5,970	(1,490)	4,480
Amortization of prior service (credits)/costs	12	(3)	9
Amortization of net (gains)/losses	1,596	(304)	1,293
Total retirement-related benefit plans	\$ 8,919	\$ (2,078)	\$ 6,841
Other comprehensive income/(loss)	\$ 8,936	\$ (2,442)	\$ 6,494

(1) These AOCI components are included in the computation of net periodic pension cost and include the impact of a one-time, non-cash pension settlement charge of \$5.9 billion (\$4.4 billion net of tax). Refer to note V, "Retirement-Related Benefits," for additional information.

(\$ in millions)

For the year ended December 31, 2021:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	\$ 987	\$ (414)	\$ 573
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	\$ 344	\$ (89)	\$ 256
Reclassification of (gains)/losses to:			
Cost of services	(43)	11	(32)
Cost of sales	16	(3)	13
Cost of financing	22	(6)	17
SG&A expense	24	(6)	19
Other (income) and expense	157	(40)	118
Interest expense	65	(16)	49
Total unrealized gains/(losses) on cash flow hedges	\$ 587	\$ (149)	\$ 438
Retirement-related benefit plans ⁽¹⁾			
Prior service costs/(credits)	\$ (51)	\$ (1)	\$ (52)
Net (losses)/gains arising during the period	2,433	(601)	1,832
Curtailments and settlements	94	(11)	83
Amortization of prior service (credits)/costs	9	0	9
Amortization of net (gains)/losses	2,484	(528)	1,956
Total retirement-related benefit plans	\$ 4,969	\$ (1,140)	\$ 3,828
Other comprehensive income/(loss)	\$ 6,542	\$ (1,703)	\$ 4,839

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

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

(\$ in millions)

	Net Unrealized Gains/(Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments ⁽¹⁾	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/(Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/(Loss)
December 31, 2020	\$ (456)	\$ (4,665)	\$ (24,216)	\$ 0	\$ (29,337)
Other comprehensive income before reclassifications	256	573	1,780	0	2,608
Amount reclassified from accumulated other comprehensive income	183	—	2,049	—	2,231
Separation of Kyndryl	—	730	534	—	1,264
Total change for the period	438	1,303	4,362	0	6,103
December 31, 2021	(18)	(3,362)	(19,854)	(1)	(23,234)
Other comprehensive income before reclassifications	178	(229)	1,059	(1)	1,007
Amount reclassified from accumulated other comprehensive income ⁽²⁾	(295)	—	5,782	—	5,487
Total change for the period	(117)	(229)	6,841	(1)	6,494
December 31, 2022	(135)	(3,591)	(13,013)	(1)	(16,740)
Other comprehensive income before reclassifications	144	103	(2,577)	0	(2,331)
Amount reclassified from accumulated other comprehensive income	(115)	—	425	—	310
Total change for the period	28	103	(2,152)	0	(2,021)
December 31, 2023	\$ (106)	\$ (3,488)	\$ (15,165)	\$ (1)	\$ (18,761)

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

(2) Net change in retirement-related benefit plans includes the impact of a one-time, non-cash pension settlement charge of \$5.9 billion (\$4.4 billion net of tax). Refer to note V, "Retirement-Related Benefits," for additional information.

NOTE T. DERIVATIVE FINANCIAL INSTRUMENTS

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

In the Consolidated Balance Sheet, the company does not offset derivative assets against liabilities in master netting arrangements nor does it offset receivables or payables recognized upon payment or receipt of cash collateral against the fair values of the related derivative instruments. The amount recognized in other accounts receivable for the right to reclaim cash collateral was \$11 million and \$140 million at December 31, 2023 and 2022, respectively. The amount recognized in accounts payable for the obligation to return cash collateral was \$7 million and \$8 million at December 31, 2023 and 2022, respectively. The company restricts the use of cash collateral received to rehypothecation, and therefore reports it in restricted cash in the Consolidated Balance Sheet. The amount rehypothecated was \$7 million and \$8 million at December 31, 2023 and 2022, respectively. Additionally, if derivative exposures covered by a qualifying master netting agreement had been netted in the Consolidated Balance Sheet at December 31, 2023 and 2022, the total derivative asset and liability positions each would have been reduced by \$235 million and \$220 million, respectively.

As discussed in note E, "Acquisitions and Divestitures," in December 2023, in connection with the announced acquisition of StreamSets and webMethods from Software AG, the company entered into foreign exchange call option contracts (the call options) with a total notional amount of \$2.3 billion (€2.13 billion) and a total premium paid of \$49 million. The call options are being accounted for as non-hedge derivatives. For the year ended December 31, 2023, the company recorded an unrealized gain of \$12 million in other (income) and expense in the Consolidated Income Statement. At December 31, 2023, the fair value of the call options was \$62 million and is included in prepaid expenses and other current assets in the Consolidated Balance Sheet.

On May 19, 2022, in connection with the disposition of 22.3 million shares of Kyndryl common stock, the company entered into a cash-settled swap that maintained IBM's continued economic exposure in those shares. The notional value of the swap was \$311 million. For the year ended December 31, 2022, IBM recognized a loss of \$83 million related to the swap which was settled on November 2, 2022.

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

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

Interest Rate Risk

Fixed and Variable Rate Borrowings

The company issues debt in the global capital markets to fund its operations and financing business. Access to cost-effective financing can result in interest rate mismatches with the underlying assets. To manage these mismatches and to reduce overall interest cost, the company may use interest-rate swaps to convert specific fixed-rate debt issuances into variable-rate debt (i.e., fair value hedges) and to convert specific variable-rate debt issuances into fixed-rate debt (i.e., cash flow hedges). At December 31, 2023 and 2022, the total notional amount of the company's interest-rate swaps was \$6.7 billion and \$6.5 billion, respectively. The weighted-average remaining maturity of these instruments at December 31, 2023 and 2022 was approximately 5.5 years and 6.0 years, respectively. These interest-rate contracts were accounted for as fair value hedges. The company did not have any cash flow hedges relating to this program outstanding at December 31, 2023 and 2022.

Forecasted Debt Issuance

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

In connection with cash flow hedges of forecasted interest payments related to the company's borrowings, the company recorded net losses (before taxes) of \$121 million and \$139 million at December 31, 2023 and 2022, respectively, in AOCI. The company estimates that \$15 million of the deferred net losses (before taxes) on derivatives in AOCI at December 31, 2023 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying interest payments.

Foreign Exchange Risk

Long-Term Investments in Foreign Subsidiaries (Net Investment)

A large portion of the company's foreign currency denominated debt portfolio is designated as a hedge of net investment in foreign subsidiaries to reduce the volatility in stockholders' equity caused by changes in foreign currency exchange rates in the functional currency of major foreign subsidiaries with respect to the U.S. dollar. At December 31, 2023 and 2022, the carrying value of debt designated as hedging instruments was \$15.9 billion and \$13.4 billion, respectively. The company also uses cross-currency swaps and foreign exchange forward contracts for this risk management purpose. At December 31, 2023 and 2022, the total notional amount of derivative instruments designated as net investment hedges was \$4.9 billion and \$4.7 billion, respectively. At both December 31, 2023 and 2022, the weighted-average remaining maturity of these instruments was approximately 0.1 years.

Anticipated Royalties and Cost Transactions

The company's operations generate significant nonfunctional currency, third-party vendor payments and intercompany payments for royalties and goods and services among the company's non-U.S. subsidiaries and with the company. In anticipation of these foreign currency cash flows and in view of the volatility of the currency markets, the company selectively employs foreign exchange forward contracts to manage its currency risk. These forward contracts are accounted for as cash flow hedges. At December 31, 2023, the maximum remaining length of time over which the company has hedged its exposure to the variability in future cash flows is approximately two years. At December 31, 2023 and 2022, the total notional amount of forward contracts designated as cash flow hedges of forecasted royalty and cost transactions was \$9.2 billion and \$8.1 billion, respectively. At both December 31, 2023 and 2022, the weighted-average remaining maturity of these instruments was approximately 0.6 years.

At December 31, 2023 and 2022, in connection with cash flow hedges of anticipated royalties and cost transactions, the company recorded net gains (before taxes) of \$40 million and \$66 million, respectively, in AOCI. The company estimates that \$20 million of deferred net losses (before taxes) on derivatives in AOCI at December 31, 2023 will be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying anticipated transactions.

Foreign Currency Denominated Borrowings

The company is exposed to exchange rate volatility on foreign currency denominated debt. To manage this risk, the company may employ forward contracts or cross-currency swaps to convert the principal, or principal and interest payments of foreign currency denominated debt to debt denominated in the functional currency of the borrowing entity. These derivatives are accounted for as cash flow hedges.

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

At December 31, 2023 and 2022, in connection with cross-currency swaps, the company recorded net losses (before taxes) of \$68 million and \$101 million, respectively, in AOCI, of which \$23 million of deferred net losses (before taxes) is estimated to be reclassified to net income within the next 12 months.

At December 31, 2023, in connection with forward contracts, the company has recorded net gains (before taxes) of \$23 million in AOCI. Approximately \$69 million of losses (before taxes) related to the initial forward points excluded from the assessment of hedge effectiveness is expected to be amortized to other (income) and expenses within the next 12 months. There was no activity associated with forward contracts recorded in AOCI at December 31, 2022.

Subsidiary Cash and Foreign Currency Asset/Liability Management

The company uses its Global Treasury Centers to manage the cash of its subsidiaries. These centers principally use currency swaps to convert cash flows in a cost-effective manner. In addition, the company uses 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 December 31, 2023 and 2022, the total notional amount of derivative instruments in economic hedges of foreign currency exposure was \$6.7 billion and \$5.9 billion, respectively.

Equity Risk Management

The company is exposed to market price changes in certain broad market indices and in the company's own stock primarily related to certain obligations to employees. Changes in the overall value of these employee compensation obligations are recorded in SG&A expense in the Consolidated Income Statement. Although not designated as accounting hedges, the company utilizes derivatives, including equity swaps and futures, to economically hedge the exposures related to its employee compensation obligations. The

derivatives are linked to the total return on certain broad market indices or the total return on the company's common stock, and are recorded at fair value with gains or losses also reported in SG&A expense in the Consolidated Income Statement. At December 31, 2023 and 2022, the total notional amount of derivative instruments in economic hedges of these compensation obligations was \$1.2 billion and \$1.1 billion, respectively.

Cumulative Basis Adjustments for Fair Value Hedges

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

(\$ in millions)

At December 31:	2023	2022
Short-term debt		
Carrying amount of the hedged item	\$ (1)	\$ (199)
Cumulative hedging adjustments included in the carrying amount—assets/(liabilities)	(1)	1
Long-term debt		
Carrying amount of the hedged item	(6,629)	(6,216)
Cumulative hedging adjustments included in the carrying amount—assets/(liabilities) ⁽¹⁾	61	72

(1) Includes (\$200) million and (\$250) million of hedging adjustments on discontinued hedging relationships at December 31, 2023 and 2022, respectively.

The Effect of Derivative Instruments in the Consolidated Income Statement

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

(\$ in millions)

For the year ended December 31:	Total			Gains/(Losses) of Total Hedge Activity		
	2023	2022	2021	2023	2022	2021
Cost of services	\$ 21,051	\$ 21,062	\$ 19,147	\$ (5)	\$ 24	\$ 43
Cost of sales	6,127	6,374	6,184	22	99	(16)
Cost of financing	382	406	534	(11)	2	1
SG&A expense	19,003	18,609	18,745	165	(211)	176
Other (income) and expense	(914)	5,803	873	17	(225)	(205)
Interest expense	1,607	1,216	1,155	(54)	6	3

(\$ in millions)

		Gain/(Loss) Recognized in Consolidated Income Statement						
		Consolidated Income Statement Line Item	Recognized on Derivatives			Attributable to Risk Being Hedged ⁽²⁾		
For the year ended December 31:			2023	2022	2021	2023	2022	2021
Derivative instruments in fair value hedges ⁽¹⁾								
Interest rate contracts	Cost of financing	\$ (17)	\$ (73)	\$ (1)	\$ (2)	\$ 85	\$ 18	
	Interest expense	(83)	(257)	(2)	(11)	299	53	
Derivative instruments not designated as hedging instruments								
Foreign exchange contracts	Other (income) and expense	(192)	(492)	(48)	N/A	N/A	N/A	
Equity contracts	SG&A expense	153	(249)	201	N/A	N/A	N/A	
	Other (income) and expense	—	(83)	—	N/A	N/A	N/A	
Total		\$ (140)	\$(1,153)	\$ 150	\$ (13)	\$ 384	\$ 71	

(\$ in millions)

	Gain/(Loss) Recognized in Consolidated Income Statement and Other Comprehensive Income									
For the year ended	Recognized in OCI			Consolidated Income Statement Line Item	Reclassified from AOCI			Amounts Excluded from Effectiveness Testing ⁽³⁾		
December 31:	2023	2022	2021		2023	2022	2021	2023	2022	2021
Derivative instruments in cash flow hedges										
Interest rate contracts	\$ —	\$ —	\$ —	Cost of financing	\$ (3)	\$ (4)	\$ (4)	\$ —	\$ —	\$ —
				Interest expense	(15)	(14)	(13)	—	—	—
Foreign exchange contracts				Cost of services	(5)	24	43	—	—	—
Amount included in the assessment of effectiveness	213	241	344	Cost of sales	22	99	(16)	—	—	—
Amount excluded from the assessment of effectiveness	(6)	—	—	Cost of financing	(11)	(21)	(18)	—	—	—
				SG&A expense	12	38	(24)	—	—	—
				Other (income) and expense	239	349	(157)	(29)	—	—
				Interest expense	(51)	(72)	(52)	—	—	—
Instruments in net investment hedges ⁽⁴⁾										
Foreign exchange contracts	(397)	1,613	1,644	Cost of financing	—	—	—	22	14	6
				Interest expense	—	—	—	105	50	17
Total	\$ (190)	\$ 1,854	\$ 1,989		\$ 189	\$ 400	\$ (243)	\$ 98	\$ 64	\$ 23

(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 years ending December 31, 2023 and 2022, there were no material gains or losses excluded from the assessment of hedge effectiveness (for fair value or cash flow hedges), or associated with an underlying exposure that did not or was not expected to occur (for cash flow hedges); nor are there any anticipated in the normal course of business.

NOTE U. STOCK-BASED COMPENSATION

The following table presents total stock-based compensation cost included in income from continuing operations.

(\$ in millions)

For the year ended December 31:	2023	2022	2021
Cost	\$ 190	\$ 164	\$ 145
SG&A expense	616	566	555
RD&E expense	328	258	218
Pre-tax stock-based compensation cost	1,133	987	919
Income tax benefits	(290)	(249)	(223)
Net stock-based compensation cost	\$ 843	\$ 738	\$ 695

The company's total unrecognized compensation cost related to non-vested awards at December 31, 2023 was \$1.7 billion and is expected to be recognized over a weighted-average period of approximately 2.5 years.

Capitalized stock-based compensation cost was not material at December 31, 2023, 2022 and 2021.

Incentive Awards

Stock-based incentive awards are provided to employees under the terms of the company's long-term performance plans (the Plans). The Plans are administered by the Executive Compensation and Management Resources Committee of the Board of Directors. Awards available under the Plans principally include restricted stock units, performance share units, stock options or any combination thereof.

There were 293 million shares originally authorized to be awarded under the company's existing Plans and 66 million shares granted under previous plans that, if and when those awards were cancelled, could be reissued under the existing Plans. At December 31, 2023, 50 million unused shares were available to be granted.

Stock Awards

Stock awards for the periods presented were made in the form of Restricted Stock Units (RSUs), including Retention Restricted Stock Units (RRSUs), or Performance Share Units (PSUs).

The following table summarizes RSU and PSU activity under the Plans during the years ended December 31, 2023, 2022 and 2021.

	RSUs		PSUs	
	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units ⁽¹⁾
Balance at January 1, 2021	\$ 117	16,896,704	\$ 120	3,551,500
Awards granted	125	9,566,307	129	1,561,120
Awards released	120	(4,582,159)	129	(581,397)
Awards canceled/forfeited/performance adjusted ⁽²⁾	119	(2,072,800)	124	(453,178)
Kyndryl separation - adjustment	—	660,089	—	120,428
Kyndryl separation - cancellation	119	(1,429,661)	119	(469,616)
Balance at December 31, 2021	\$ 116	19,038,480	\$ 118	3,728,857
Awards granted	112	11,447,966	110	1,237,019
Awards released	114	(7,013,530)	114	(679,601)
Awards canceled/forfeited/performance adjusted ⁽²⁾	116	(2,420,002)	116	(720,197)
Balance at December 31, 2022	\$ 115	21,052,914	\$ 117	3,566,078
Awards granted	118	10,915,958	117	1,295,937
Awards released	114	(7,383,980)	113	(840,111)
Awards canceled/forfeited/performance adjusted ⁽²⁾	115	(1,527,249)	114	(548,865)
Balance at December 31, 2023	\$ 116	23,057,643	\$ 118	3,473,039

(1) The balances at December 31 for each period presented represent the number of shares expected to be issued based on achievement of grant date performance targets. The actual number of shares issued will depend on final performance against specified targets over the vesting period.

(2) Includes adjustments of (404,655), (362,247) and (223,397) for PSUs in 2023, 2022 and 2021, respectively, because final performance metrics were above or below specified targets.

The total fair value of RSUs and PSUs granted and vested during the years ended December 31, 2023, 2022 and 2021 were as follows:

(\$ in millions)				
For the year ended December 31:	2023	2022	2021	
RSUs				
Granted	\$ 1,293	\$ 1,288	\$ 1,195	
Vested	845	801	549	
PSUs				
Granted	\$ 151	\$ 136	\$ 201	
Vested	95	77	75	

In connection with vesting and release of RSUs and PSUs, the tax benefits realized by the company for the years ended December 31, 2023, 2022 and 2021 were \$256 million, \$249 million and \$175 million, respectively.

Stock Options

Stock options are awards which allow the employee to purchase shares of the company's stock at a fixed price. Stock options are granted at an exercise price equal to the company's average high and low stock price on the date of grant. These awards generally vest in four equal increments on the first four anniversaries of the grant date and have a contractual term of 10 years. The company estimates the fair value of stock options at the date of grant using a Black-Scholes valuation model. Key inputs and assumptions used to estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the company's stock, the risk-free rate and the company's dividend yield. For the stock options granted for the years ended December 31, 2023 and 2022, the expected option term was determined from historical exercise patterns, volatility was based on an analysis of the company's historical stock prices over the expected option term, the risk-free rate was obtained from the U.S. Treasury yield curve in effect at the time of grant and the dividend yield was based on the company's expectation of paying dividends in the foreseeable future. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards, and subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the company. During the year ended December 31, 2021, the company did not grant stock options and no stock options were exercised, forfeited or cancelled. In 2023 and 2022, stock options were primarily granted by the company as part of its executive compensation programs.

The weighted-average fair value of stock options granted for the years ended December 31, 2023 and 2022 was \$22.75 and \$14.29, respectively. The fair value was estimated based on the following weighted-average assumptions:

For the year ended December 31:	2023	2022
Expected term (in years)	6.3	6.3
Expected volatility	26.0%	25.5%
Risk-free rate	4.2%	2.0%
Dividend yield	5.0%	5.3%

The following table summarizes option activity under the Plans during the years ended December 31, 2023 and 2022.

	Weighted-Average Exercise Price	Number of Shares Under Option
Balance at January 1, 2022	\$ 135	1,549,732
Options granted	125	5,044,353
Options exercised	—	—
Options forfeited/cancelled/expired	125	(319,560)
Balance at December 31, 2022	\$ 128	6,274,525
Options granted	133	4,574,756
Options exercised	125	(408,045)
Options forfeited/cancelled/expired	129	(584,674)
Balance at December 31, 2023	\$ 130	9,856,562
Vested and exercisable at December 31, 2023	\$ 132	2,297,818

The weighted-average remaining contractual term and the aggregate intrinsic value of stock options outstanding was 7.8 years and \$328 million, respectively, at December 31, 2023. The weighted-average remaining contractual term and the aggregate intrinsic value of stock options vested and exercisable was 4.6 years and \$73 million, respectively, at December 31, 2023.

Exercises of Stock Options

The total intrinsic value of options exercised for the year ended December 31, 2023 was \$10 million. No stock options were exercised for the years ended December 31, 2022 and 2021. The total cash received from employees as a result of stock option exercises for the year ended December 31, 2023 was approximately \$51 million. In connection with these exercises, the tax benefits realized by the company for the year ended December 31, 2023 were immaterial. The company settles employee stock option exercises primarily with newly issued common shares and, occasionally, with treasury shares. Total treasury shares held at December 31, 2023 and 2022 were approximately 1,352 million and 1,351 million shares, respectively.

Acquisitions

In connection with various acquisition transactions, there were 0.4 million stock options outstanding at December 31, 2023, as a result of the company's conversion of stock-based awards previously granted by acquired entities. The weighted-average exercise price of these stock options was \$24 per share. No material stock awards were outstanding at December 31, 2023.

IBM Employees Stock Purchase Plan

Effective April 1, 2022, the company increased the discount for eligible participants to purchase shares of IBM common stock under its Employee Stock Purchase Plan (ESPP) from 5 percent to 15 percent off the average market price on the date of purchase. With this change, the ESPP is considered compensatory under the accounting requirements for stock-based compensation. The ESPP enables eligible participants to purchase shares of IBM common stock through payroll deductions of up to 10 percent of eligible compensation. Eligible compensation includes any compensation received by the employee during the year. The ESPP provides for semi-annual offering periods during which shares may be purchased and continues as long as shares remain available under the ESPP, unless terminated earlier at the discretion of the Board of Directors. Individual ESPP participants are restricted from purchasing more than \$25,000 of common stock in one calendar year or 1,000 shares in an offering period.

Employees purchased approximately 3.1 million, 2.4 million and 1.0 million shares under the ESPP during the years ended December 31, 2023, 2022 and 2021, respectively. For the years ended December 31, 2023 and 2022, the average market price of shares purchased was \$117 and \$114 per share, respectively, and the total stock-based compensation cost was \$64 million and \$43 million, respectively. Cash dividends declared and paid by the company on its common stock also include cash dividends on the company stock purchased through the ESPP. Dividends are paid on full and fractional shares and can be reinvested. The company stock purchased through the ESPP is considered outstanding and is included in the weighted-average outstanding shares for purposes of computing basic and diluted earnings per share.

Approximately 11.3 million shares were available for purchase under the ESPP at December 31, 2023.

NOTE V. RETIREMENT-RELATED BENEFITS

Description of Plans

IBM sponsors the following retirement-related plans/benefits:

Plan		Eligibility	Funding	Benefit Calculation	Other
U.S. Defined Benefit (DB) Pension Plans	Qualified Personal Pension Plan (Qualified PPP) ⁽¹⁾	U.S. regular, full-time and part-time employees hired prior to January 1, 2005	Company contributes to irrevocable trust fund, held for sole benefit of participants and beneficiaries	Vary based on the participant: Five-year, final pay formula based on salary, years of service, mortality and other participant-specific factors Cash balance formula based on percentage of employees' annual salary, as well as an interest crediting rate	Benefit accruals ceased December 31, 2007 ⁽¹⁾ Certain defined benefit pension obligations and related plan assets were transferred in 2022, as described below
	Excess Personal Pension Plan (Excess PPP)		Unfunded, provides benefits in excess of IRS limitations for qualified plans		
	Supplemental Executive Retention Plan (Retention Plan)	Eligible U.S. executives	Unfunded	Based on average earnings, years of service and age at termination of employment	
U.S. Defined Contribution (DC) Plans	401(k) Plus ⁽¹⁾	U.S. regular, full-time and part-time employees	All contributions are made in cash and invested in accordance with participants' investment elections	Dollar-for-dollar match, generally 5 or 6 percent of eligible compensation and automatic contribution of 1, 2 or 4 percent of eligible compensation, depending on date of hire	Employees generally receive contributions after one year of service
	Excess 401(k) Plus ⁽²⁾	U.S. employees whose eligible compensation is expected to exceed IRS compensation limit for qualified plans	Unfunded, non-qualified amounts deferred are record-keeping (notional) accounts and are not held in trust for the participants, but may be invested in accordance with participants' investment elections (under the 401(k) Plus Plan options)	Company match and automatic contributions (at the same rate under 401(k) Plus Plan) on eligible compensation deferred and on compensation earned in excess of the IRC pay limit. The percentage varies depending on eligibility and years of service	Employees generally receive contributions after one year of service. Amounts deferred into the Plan, including company contributions, are recorded as liabilities
U.S. Nonpension Postretirement Benefit Plan	Nonpension Postretirement Plan	Medical and dental benefits for eligible U.S. retirees and eligible dependents, as well as life insurance for eligible U.S. retirees	Company contributes to irrevocable trust fund, held for the sole benefit of participants and beneficiaries	Varies based on plan design formulas and eligibility requirements	Since January 1, 2004, new hires are not eligible for these benefits
Non-U.S. Plans	DB or DC	Eligible regular employees in certain non-U.S. subsidiaries or branches	Company deposits funds under various fiduciary-type arrangements, purchases annuities under group contracts or provides reserves for these plans	Based either on years of service and the employee's compensation (generally during a fixed number of years immediately before retirement) or on annual credits	In certain countries, benefit accruals have ceased and/or have been closed to new hires as of various dates
	Nonpension Postretirement Plan	Medical and dental benefits for eligible non-U.S. retirees and eligible dependents, as well as life insurance for certain eligible non-U.S. retirees	Primarily unfunded except for a few select countries where the company contributes to irrevocable trust funds held for the sole benefit of participants and beneficiaries	Varies based on plan design formulas and eligibility requirements by country	Most non-U.S. retirees are covered by local government sponsored and administered programs

(1) Beginning January 1, 2024, the company changed how it will provide retirement benefits to certain U.S. eligible employees. Refer to IBM U.S. Retirement Plan Changes section below for additional information.

(2) Beginning January 1, 2024, the company's match contribution on eligible compensation deferred and earned will be 5 percent for all eligible employees.

Plan Financial Information**Summary of Financial Information**

The following table presents a summary of the total retirement-related benefits net periodic (income)/cost recorded in the Consolidated Income Statement.

(\$ in millions)

For the year ended December 31:	U.S. Plans			Non-U.S. Plans			Total		
	2023	2022	2021	2023	2022	2021	2023	2022	2021
Total defined benefit pension plans (income)/cost ⁽¹⁾	\$ (329)	\$ 5,857	\$ 319	\$ 359	\$ 836	\$ 1,119	\$ 30	\$ 6,693	\$ 1,438
Total defined contribution plans cost	\$ 615	\$ 555	\$ 582	\$ 376	\$ 369	\$ 409	\$ 991	\$ 924	\$ 992
Nonpension postretirement benefit plans cost	\$ 92	\$ 85	\$ 127	\$ 36	\$ 30	\$ 44	\$ 128	\$ 115	\$ 172
Total retirement-related benefits net periodic cost ⁽¹⁾	\$ 378	\$ 6,497	\$ 1,029	\$ 771	\$ 1,235	\$ 1,573	\$ 1,149	\$ 7,732	\$ 2,601

(1) 2022 includes the impact of a one-time, non-cash, pre-tax pension settlement charge of \$5.9 billion related to the Qualified PPP, as described below.

The following table presents a summary of the total PBO for defined benefit pension plans, APBO for nonpension postretirement benefit plans, fair value of plan assets and the associated funded status recorded in the Consolidated Balance Sheet.

(\$ in millions)

At December 31:	Benefit Obligations		Fair Value of Plan Assets		Funded Status ⁽¹⁾	
	2023	2022	2023	2022	2023	2022
U.S. Plans						
Overfunded plans						
Qualified PPP	\$ 19,854	\$ 20,091	\$ 24,437	\$ 25,094	\$ 4,584	\$ 5,002
Underfunded plans						
Nonqualified defined benefit pension plans ⁽²⁾	1,382	1,402	—	—	(1,382)	(1,402)
Nonpension postretirement benefit plan	2,233	2,369	10	10	(2,224)	(2,359)
Total underfunded U.S. plans	\$ 3,615	\$ 3,771	\$ 10	\$ 10	\$ (3,605)	\$ (3,761)
Non-U.S. Plans						
Overfunded plans						
Qualified defined benefit pension plans ⁽³⁾	\$ 16,515	\$ 15,443	\$ 19,438	\$ 18,677	\$ 2,923	\$ 3,234
Nonpension postretirement benefit plans	—	7	—	7	—	0
Total overfunded non-U.S. plans	\$ 16,515	\$ 15,450	\$ 19,438	\$ 18,684	\$ 2,923	\$ 3,234
Underfunded plans						
Qualified defined benefit pension plans ⁽³⁾	\$ 11,946	\$ 11,361	\$ 9,621	\$ 9,694	\$ (2,325)	\$ (1,667)
Nonqualified defined benefit pension plans ⁽³⁾	5,018	4,457	—	—	(5,018)	(4,457)
Nonpension postretirement benefit plans	586	524	23	22	(564)	(502)
Total underfunded non-U.S. plans	\$ 17,550	\$ 16,342	\$ 9,643	\$ 9,716	\$ (7,907)	\$ (6,626)
Total overfunded plans	\$ 36,369	\$ 35,541	\$ 43,875	\$ 43,778	\$ 7,506	\$ 8,236
Total underfunded plans	\$ 21,165	\$ 20,113	\$ 9,653	\$ 9,726	\$ (11,512)	\$ (10,387)

(1) Funded status is recognized in the Consolidated Balance Sheet as follows: Asset amounts as prepaid pension assets; (Liability) amounts as compensation and benefits (current liability) and retirement and nonpension postretirement benefit obligations (noncurrent liability).

(2) Excess PPP and Retention Plan.

(3) Non-U.S. qualified plans represent plans funded outside of the U.S. Non-U.S. nonqualified plans are unfunded.

At December 31, 2023, the company's qualified defined benefit pension plans worldwide were 111 percent funded compared to the benefit obligations, with the U.S. Qualified PPP 123 percent funded. Overall, including nonqualified plans, the company's defined benefit pension plans worldwide were 98 percent funded.

Defined Benefit Pension and Nonpension Postretirement Benefit Plan Financial Information

The following tables through page 112 represent financial information for the company's retirement-related benefit plans, excluding defined contribution plans. The defined benefit pension plans under U.S. Plans consist of the Qualified PPP, the Excess PPP and the Retention Plan. The defined benefit pension plans and the nonpension postretirement benefit plans under non-U.S. Plans consist of all plans sponsored by the company's subsidiaries. The nonpension postretirement benefit plan under U.S. Plan consists of only the U.S. Nonpension Postretirement Benefit Plan.

The following tables present the components of net periodic (income)/cost of the retirement-related benefit plans recognized in the Consolidated Income Statement, excluding defined contribution plans.

(\$ in millions)

For the year ended December 31:	Defined Benefit Pension Plans					
	U.S. Plans			Non-U.S. Plans		
	2023	2022	2021	2023	2022	2021
Service cost	\$ —	\$ —	\$ —	\$ 177	\$ 237	\$ 300
Interest cost ⁽¹⁾	1,090	1,129	1,109	1,170	493	424
Expected return on plan assets ⁽¹⁾	(1,529)	(1,729)	(1,802)	(1,440)	(1,016)	(1,115)
Amortization of prior service costs/(credits) ⁽¹⁾	0	8	16	20	14	(12)
Recognized actuarial losses ⁽¹⁾	109	527	996	400	1,031	1,392
Curtailments and settlements ^{(1) (2)}	—	5,923	—	7	47	94
Multi-employer plans	—	—	—	13	15	17
Other costs/(credits) ⁽¹⁾	—	—	—	13	15	18
Total net periodic (income)/cost ⁽²⁾	\$ (329)	\$ 5,857	\$ 319	\$ 359	\$ 836	\$ 1,119

(\$ in millions)

For the year ended December 31:	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
	2023	2022	2021	2023	2022	2021
Service cost	\$ 4	\$ 5	\$ 7	\$ 2	\$ 3	\$ 4
Interest cost ⁽¹⁾	117	85	65	39	24	27
Expected return on plan assets ⁽¹⁾	—	—	—	(2)	(2)	(3)
Amortization of prior service costs/(credits) ⁽¹⁾	(29)	(10)	4	0	0	0
Recognized actuarial losses ⁽¹⁾	—	5	52	(1)	4	15
Curtailments and settlements ⁽¹⁾	—	—	—	(2)	0	0
Other costs/(credits) ⁽¹⁾	—	—	—	0	0	0
Total net periodic cost	\$ 92	\$ 85	\$ 127	\$ 36	\$ 30	\$ 44

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

(2) 2022 includes the impact of a one-time, non-cash, pre-tax pension settlement charge of \$5.9 billion related to the Qualified PPP, as described below.

IBM U.S. Retirement Plan Changes

Over the past several years, the company has taken actions to reduce the risk profile of its worldwide retirement-related plans, while at the same time increasing the funded status of the plans.

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

Upon issuance of the group annuity contracts, the Qualified PPP's benefit obligations and administration for approximately 100,000 of the company's retirees and beneficiaries (the Transferred Participants) were transferred to the Insurers. Under the group annuity contracts, each Insurer has made an irrevocable commitment, and is solely responsible, to pay 50 percent of the pension benefits of each Transferred Participant due on and after January 1, 2023. The transaction resulted in no changes to the benefits to be received by the Transferred Participants. The company recognized a one-time, non-cash, pretax pension settlement charge of \$5.9 billion (\$4.4 billion net of tax) in the third quarter of 2022 primarily related to the accelerated recognition of actuarial losses included within AOCI in the Consolidated Statement of Equity.

In September 2022, the company amended its U.S. Nonpension Postretirement Plan to transition coverage for Medicare-eligible participants to a new IBM-sponsored group Medicare Advantage program administered by UnitedHealthcare, as of January 1, 2023. The changes were intended to provide an enhanced member experience, better value and more comprehensive benefits to IBM participants. This change resulted in a decrease in nonpension postretirement benefit obligations and a corresponding decrease in AOCI in 2022.

Effective January 1, 2024, IBM changed how it provides certain retirement-related benefits in the U.S. IBM is providing a new benefit to most U.S. employees under its existing U.S. Qualified PPP called the Retirement Benefit Account (RBA). This is in place of any IBM contributions to the U.S. employees' 401(k) Plus accounts. IBM U.S. regular full-time and part-time employees with at least one year of service will participate in the RBA. Each eligible employee's RBA will be credited monthly with an amount equal to five percent of their eligible pay with no employee contribution required. Under the RBA, eligible employees will earn six percent interest through 2026 and starting in 2027, will earn interest equal to the 10-year U.S. Treasury Yield, subject to a three percent minimum per year through 2033. Eligible employees also received a salary increase effective January 1, 2024 for the difference between the IBM 401(k) Plus contribution percent they were previously entitled to receive and the five percent RBA pay credit. Since the RBA is a component of the Qualified PPP, it will be funded by the trust for the Qualified PPP along with all other benefits in the Qualified PPP. At December 31, 2023, the Qualified PPP was 123 percent funded with assets exceeding liabilities by \$4.6 billion.

As a result of this change, inactive pension plan participants no longer represent substantially all of the participants in the U.S. Qualified PPP. As required by U.S. GAAP, this will change the amortization period of unrecognized actuarial losses from the average remaining life expectancy of inactive plan participants to the average remaining service period of active plan participants in 2024. This will result in an increase to 2024 amortization expense of approximately \$0.3 billion. There will be no impact to funded status, retiree benefit payments or funding requirements of the U.S. Qualified PPP due to the change in amortization period.

The following table presents the changes in benefit obligations and plan assets of the company's retirement-related benefit plans, excluding DC plans.

(\$ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2023	2022	2023	2022	2023	2022	2023	2022
Change in benefit obligation								
Benefit obligation at January 1	\$21,493	\$48,182	\$31,261	\$45,097	\$ 2,369	\$ 3,404	\$ 531	\$ 638
Service cost	—	—	177	237	4	5	2	3
Interest cost	1,090	1,129	1,170	493	117	85	39	24
Plan participants' contributions	—	—	17	14	38	43	—	—
Acquisitions/divestitures, net	—	—	(20)	(45)	—	—	—	—
Actuarial losses/(gains)	486	(7,849)	2,077	(8,819)	(19)	(780)	35	(87)
Benefits paid from trust	(1,424)	(3,133)	(1,629)	(1,572)	(274)	(385)	(7)	(6)
Direct benefit payments	(122)	(123)	(396)	(418)	(3)	(2)	(31)	(32)
Foreign exchange impact	—	—	1,021	(3,463)	—	—	22	(10)
Amendments/curtailments/ settlements/other ⁽¹⁾	(288)	(16,712)	(198)	(262)	—	0	(4)	(1)
Benefit obligation at December 31	\$21,235	\$21,493	\$33,479	\$31,261	\$ 2,233	\$ 2,369	\$ 586	\$ 531
Change in plan assets								
Fair value of plan assets at January 1	\$25,094	\$51,852	\$28,371	\$39,979	\$ 10	\$ 8	\$ 29	\$ 31
Actual return on plan assets	1,055	(6,914)	1,391	(6,737)	—	—	3	3
Employer contributions	—	—	57	103	233	344	—	—
Acquisitions/divestitures, net	—	—	(24)	(20)	—	—	—	—
Plan participants' contributions	—	—	17	14	38	43	—	—
Benefits paid from trust	(1,424)	(3,133)	(1,629)	(1,572)	(274)	(385)	(7)	(6)
Foreign exchange impact	—	—	1,058	(3,154)	—	—	3	2
Amendments/curtailments/ settlements/other ⁽¹⁾	(288)	(16,712)	(181)	(243)	2	0	(6)	0
Fair value of plan assets at December 31	\$24,437	\$25,094	\$29,059	\$28,371	\$ 10	\$ 10	\$ 23	\$ 29
Funded status at December 31	\$ 3,202	\$ 3,600	\$ (4,420)	\$ (2,891)	\$(2,224)	\$(2,359)	\$ (564)	\$ (501)
Accumulated benefit obligation ⁽²⁾	\$21,235	\$21,493	\$33,128	\$30,961	N/A	N/A	N/A	N/A

(1) 2022 amount related to U.S. Defined Benefit Pension Plans primarily represents the transfer of Qualified PPP pension obligations and related plan assets to the Insurers pursuant to group annuity contracts.

(2) Represents the benefit obligation assuming no future participant compensation increases.

N/A—Not applicable

The following table presents the net funded status recognized in the Consolidated Balance Sheet.

(\$ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2023	2022	2023	2022	2023	2022	2023	2022
At December 31:								
Prepaid pension assets	\$ 4,584	\$ 5,002	\$ 2,923	\$ 3,234	\$ 0	\$ 0	\$ 0	\$ 0
Current liabilities—compensation and benefits	(119)	(121)	(366)	(347)	(202)	(307)	(17)	(16)
Noncurrent liabilities—retirement and nonpension postretirement benefit obligations	(1,262)	(1,281)	(6,977)	(5,777)	(2,022)	(2,052)	(547)	(486)
Funded status—net	\$ 3,202	\$ 3,600	\$ (4,420)	\$ (2,891)	\$(2,224)	\$(2,359)	\$ (564)	\$ (501)

The following table presents the pre-tax net loss, prior service costs/(credits) and transition (assets)/liabilities recognized in OCI and the changes in the pre-tax net loss, prior service costs/(credits) and transition (assets)/liabilities recognized in AOCI for the retirement-related benefit plans.

(\$ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2023	2022	2023	2022	2023	2022	2023	2022
Net loss at January 1	\$ 8,617	\$ 14,273	\$ 11,219	\$ 13,412	\$ 94	\$ 464	\$ 86	\$ 183
Current period loss/(gain)	959	794	2,125	(1,115)	(20)	(365)	34	(93)
Curtailments and settlements ⁽¹⁾	—	(5,923)	(7)	(47)	—	—	2	0
Amortization of net loss included in net periodic (income)/cost	(109)	(527)	(400)	(1,031)	—	(5)	1	(4)
Net loss at December 31	\$ 9,467	\$ 8,617	\$ 12,937	\$ 11,219	\$ 73	\$ 94	\$ 123	\$ 86
Prior service costs/(credits) at January 1	\$ 0	\$ 8	\$ 330	\$ 397	\$ (379)	\$ 26	\$ 0	\$ (4)
Current period prior service costs/(credits)	—	—	(1)	(53)	—	(415)	(1)	5
Curtailments, settlements and other	—	—	—	—	—	—	—	—
Amortization of prior service (costs)/credits included in net periodic (income)/cost	0	(8)	(20)	(14)	29	10	0	0
Prior service costs/(credits) at December 31	\$ 0	\$ 0	\$ 309	\$ 330	\$ (350)	\$ (379)	\$ (1)	\$ 0
Transition (assets)/liabilities at January 1	\$ —	\$ —	\$ 0	\$ 0	\$ —	\$ —	\$ 0	\$ 0
Transition (assets)/liabilities at December 31	\$ —	\$ —	\$ 0	\$ 0	\$ —	\$ —	\$ 0	\$ 0
Total loss recognized in accumulated other comprehensive income/(loss) ⁽²⁾	\$ 9,467	\$ 8,617	\$ 13,245	\$ 11,549	\$ (276)	\$ (285)	\$ 122	\$ 86

(1) 2022 amount related to U.S. Defined Benefit Pension Plans includes the impact of a one-time, non-cash, pre-tax pension settlement charge of \$5.9 billion related to the Qualified PPP, as described above.

(2) Refer to note S, "Equity Activity," for the total change in AOCI, and the Consolidated Statement of Comprehensive Income for the components of net periodic (income)/cost, including the related tax effects, recognized in OCI for the retirement-related benefit plans.

Assumptions Used to Determine Plan Financial Information

Underlying both the measurement of benefit obligations and net periodic (income)/cost are actuarial valuations. These valuations use participant-specific information such as salary, age and years of service, as well as certain assumptions, the most significant of which include estimates of discount rates, expected return on plan assets, rate of compensation increases, interest crediting rates and mortality rates. The company evaluates these assumptions, at a minimum, annually, and makes changes as necessary.

The following tables present the assumptions used to measure the net periodic (income)/cost and the year-end benefit obligations for retirement-related benefit plans.

	Defined Benefit Pension Plans					
	U.S. Plans			Non-U.S. Plans		
	2023	2022	2021	2023	2022	2021
Weighted-average assumptions used to measure net periodic (income)/cost for the year ended December 31						
Discount rate ⁽¹⁾	5.30 %	3.30 %	2.20 %	3.80 %	1.26 %	0.87 %
Expected long-term returns on plan assets ⁽¹⁾	5.50 %	4.33 %	3.75 %	4.44 %	2.97 %	2.85 %
Rate of compensation increase	N/A	N/A	N/A	4.00 %	3.02 %	2.59 %
Interest crediting rate ⁽¹⁾	4.40 %	2.07 %	1.10 %	0.34 %	0.26 %	0.26 %
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	5.00 %	5.30 %	2.60 %	3.36 %	3.80 %	1.26 %
Rate of compensation increase	5.00 %	N/A	N/A	4.18 %	4.00 %	3.02 %
Interest crediting rate	3.80 %	4.40 %	1.10 %	0.28 %	0.34 %	0.26 %

(1) The U.S. Plans Qualified PPP discount rate, expected long-term return on plan assets and interest crediting rate of 2.60 percent, 4.00 percent and 1.10 percent, respectively, for the period January 1, 2022 through August 31, 2022, changed to 4.70 percent, 5.00 percent and 4.00 percent, respectively, for the period September 1, 2022 through December 31, 2022 due to remeasurement of the plan as a result of the changes described on page 109.

N/A—Not applicable

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
	2023	2022	2021	2023	2022	2021
Weighted-average assumptions used to measure net periodic cost for the year ended December 31						
Discount rate ⁽¹⁾	5.30 %	3.05 %	1.80 %	7.25 %	5.35 %	4.55 %
Expected long-term returns on plan assets	N/A	N/A	N/A	8.05 %	6.64 %	6.62 %
Interest crediting rate ⁽¹⁾	4.40 %	2.16 %	1.10 %	N/A	N/A	N/A
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	5.00 %	5.30 %	2.30 %	7.66 %	7.25 %	5.35 %
Interest crediting rate	3.80 %	4.40 %	1.10 %	N/A	N/A	N/A

(1) The U.S. Nonpension Postretirement Plan discount rate and interest crediting rate of 2.30 percent and 1.10 percent, respectively, for the period January 1, 2022 through July 31, 2022, changed to 4.10 percent and 3.65 percent, respectively, for the period August 1, 2022 through December 31, 2022 due to remeasurement of the plan as a result of the changes described on page 109.

N/A—Not applicable

Item	Description of Assumptions
Discount Rate	<p>Changes in discount rate assumptions impact net periodic (income)/cost and the PBO.</p> <p>For the U.S. and certain non-U.S. countries, a portfolio of high-quality corporate bonds is used to construct a yield curve. Cash flows from the company's expected benefit obligation payments are matched to the yield curve to derive the discount rates.</p> <p>In other non-U.S. countries where the markets for high-quality long-term bonds are not as well developed, a portfolio of long-term government bonds is used as a base, and a credit spread is added to simulate corporate bond yields at these maturities in the jurisdiction of each plan. This is the benchmark for developing the respective discount rates.</p>
Expected Long-Term Returns on Plan Assets	<p>Represents the expected long-term returns on plan assets based on the calculated market-related value of plan assets and considers long-term expectations for future returns and the investment policies and strategies discussed on pages 114 to 115. These rates of return are developed and tested for reasonableness against historical returns by the company.</p> <p>The use of expected returns may result in pension income that is greater or less than the actual return of those plan assets in a given year. Over time, however, the expected long-term returns are designed to approximate the actual long-term returns, and therefore result in a pattern of income or loss recognition that more closely matches the pattern of the services provided by the employees.</p> <p>The difference between actual and expected returns is recognized as a component of net loss or gain in AOCI, which is amortized as a component of net periodic (income)/cost over the service lives or life expectancy of the plan participants, depending on the plan, provided such amounts exceed certain thresholds provided by accounting standards. The market-related value of plan assets recognizes changes in the fair value of plan assets systematically over a five-year period in the expected return on plan assets line in net periodic (income)/cost.</p> <p>The projected long-term rate of return on plan assets for 2024 is 5.00 percent for U.S. and 4.90 percent for non-U.S. DB Plans.</p>
Rate of Compensation Increases and Mortality Assumptions	<p>Compensation rate increases are determined based on the company's long-term plans for such increases.</p> <p>Mortality assumptions are based on life expectancy and death rates for different types of participants and are periodically updated based on actual experience.</p>
Interest Crediting Rate	<p>Benefits for participants in Cash Balance Plans are calculated using a cash balance formula. An assumption underlying this formula is an interest crediting rate, which impacts both net periodic (income)/cost and the PBO. This provides the basis for projecting the expected interest rate that plan participants will earn on the benefits that they are expected to receive in the following year.</p>
Healthcare Cost Trend Rate	<p>For nonpension postretirement benefit plans, the company determines healthcare cost trend rates based on medical cost inflation expectations in each market and IBM's plan characteristics. The healthcare cost trend rate is an important consideration when setting future expectations for plan costs or benefit obligations, taking into account the terms of the plan which limit the company's future obligations to the participants.</p> <p>The company's U.S. healthcare cost trend rate assumption for 2024 is 6.69 percent and is expected to decrease to 4.50 percent over approximately 14 years.</p>

Plan Assets

Retirement-related benefit plan assets are recognized and measured at fair value. Because of the inherent uncertainty of valuations, these fair value measurements may not necessarily reflect the amounts the company could realize in current market transactions.

Investment Policies and Strategies

The investment objectives of the Qualified PPP portfolio are designed to generate returns that will enable the plan to meet its future obligations. The precise amount for which these obligations will be settled depends on future events, including the retirement dates and life expectancy of the plan participants. The obligations are estimated using actuarial assumptions, based on the current economic environment and other pertinent factors described above. The Qualified PPP portfolio's investment strategy balances the requirement to generate returns, using assets with higher expected returns such as equity securities, with the need to control risk in the portfolio with less volatile assets, such as fixed-income securities. Risks include, among others, inflation, volatility in equity values and changes in interest rates that could cause the plan to become underfunded, thereby increasing its dependence on contributions from the company. To mitigate any potential concentration risk, careful consideration is given to balancing the portfolio among industry sectors, companies and geographies, taking into account interest rate sensitivity, dependence on economic growth, currency and other factors that affect investment returns. There were no significant changes to investment

strategy made in 2023 and none are planned for 2024. The Qualified PPP portfolio's target allocation is 8 percent equity securities, 83 percent fixed-income securities, 3 percent real estate and 6 percent other investments.

The assets are managed by professional investment firms and investment professionals who are employees of the company. They are bound by investment mandates determined by the company's management and are measured against specific benchmarks. Among these managers, consideration is given, but not limited to, balancing security concentration, issuer concentration, investment style and reliance on particular active and passive investment strategies.

Market liquidity risks are tightly controlled, with \$1,717 million of the Qualified PPP portfolio as of December 31, 2023 invested in private market assets consisting of private equities and private real estate investments, which are less liquid than publicly traded securities. In addition, the Qualified PPP portfolio had \$866 million in commitments for future investments in private markets to be made over a number of years. These commitments are expected to be funded from plan assets.

Derivatives are used as an effective means to achieve investment objectives and/or as a component of the plan's risk management strategy. The primary reasons for the use of derivatives are fixed income management, including duration, interest rate management and credit exposure, cash equitization and to manage currency strategies.

Outside the U.S., the investment objectives are similar to those described previously, subject to local regulations. The weighted-average target allocation for the non-U.S. plans is 16 percent equity securities, 63 percent fixed-income securities, 3 percent real estate, 13 percent insurance contracts and 5 percent other investments, which is consistent with the allocation decisions made by the company's management. In some countries, a higher percentage allocation to fixed income is required to manage solvency and funding risks. In others, the responsibility for managing the investments typically lies with a board that may include up to 50 percent of members elected by employees and retirees. This can result in slight differences compared with the strategies previously described. The percentage of non-U.S. plans investment in assets that are less liquid is consistent with the U.S. plan. The use of derivatives is also consistent with the U.S. plan and mainly for currency hedging, interest rate risk management, credit exposure and alternative investment strategies.

The company's nonpension postretirement benefit plans are underfunded or unfunded. For some plans, the company maintains a nominal, highly liquid trust fund balance to ensure timely benefit payments.

Defined Benefit Pension Plan Assets

The following table presents the company's defined benefit pension plans' asset classes and their associated fair value at December 31, 2023. The U.S. Plan consists of the Qualified PPP and the non-U.S. Plans consist of all plans sponsored by the company's subsidiaries.

(\$ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Equity								
Equity securities ⁽¹⁾	\$ 631	\$ —	\$ —	\$ 631	\$ 243	\$ —	\$ —	\$ 243
Equity mutual funds ⁽²⁾	155	—	—	155	5	—	—	5
Fixed income								
Government and related ⁽³⁾	—	9,861	—	9,861	—	7,700	—	7,700
Corporate bonds ⁽⁴⁾	—	7,074	709	7,783	—	2,691	—	2,691
Mortgage and asset-backed securities	—	178	—	178	—	9	—	9
Fixed income mutual funds ⁽⁵⁾	251	—	—	251	—	—	75	75
Insurance contracts ⁽⁶⁾	—	—	—	—	—	3,774	—	3,774
Cash and short-term investments ⁽⁷⁾	495	119	—	614	264	315	—	579
Private equity	—	—	13	13	—	—	—	—
Real estate	—	—	—	—	—	—	4	4
Derivatives ⁽⁸⁾	—	—	—	—	51	258	—	309
Other mutual funds ⁽⁹⁾	—	—	—	—	20	—	—	20
Subtotal	1,532	17,231	722	19,485	584	14,747	78	15,409
Investments measured at net asset value using the NAV practical expedient ⁽¹⁰⁾	—	—	—	4,952	—	—	—	13,709
Other ⁽¹¹⁾	—	—	—	0	—	—	—	(59)
Fair value of plan assets	\$ 1,532	\$17,231	\$ 722	\$24,437	\$ 584	\$14,747	\$ 78	\$29,059

(1) Represents U.S. and international securities. The U.S. Plan includes IBM common stock of \$1 million. Non-U.S. Plans include IBM common stock of \$2 million.

(2) Invests in predominantly equity securities.

(3) Includes debt issued by national, state and local governments and agencies.

(4) The U.S. Plans include IBM corporate bonds of \$16 million. Non-U.S. Plans include IBM corporate bonds of \$5 million.

(5) Invests predominantly in fixed-income securities.

(6) Primarily represents insurance policy contracts (Buy-In) in certain non-U.S. plans.

(7) Includes cash, cash equivalents and short-term marketable securities.

(8) Includes interest-rate derivatives, forwards, exchange-traded and other over-the-counter derivatives.

(9) Invests in both equity and fixed-income securities.

(10) Investments measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient, including commingled funds, hedge funds, private equity and real estate partnerships.

(11) Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

The U.S. nonpension postretirement benefit plan assets of \$10 million were invested primarily in cash equivalents, categorized as Level 1 in the fair value hierarchy. The non-U.S. nonpension postretirement benefit plan assets of \$23 million, primarily in Brazil, and, to a lesser extent, in Mexico and South Africa, were invested primarily in government and related fixed-income securities and corporate bonds, categorized as Level 2 in the fair value hierarchy.

The following table presents the company's defined benefit pension plans' asset classes and their associated fair value at December 31, 2022. The U.S. Plan consists of the Qualified PPP and the non-U.S. Plans consist of all plans sponsored by the company's subsidiaries.

(\$ in millions)								
	U.S. Plan				Non-U.S. Plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Equity								
Equity securities ⁽¹⁾	\$ 518	\$ —	\$ —	\$ 518	\$ 247	\$ —	\$ —	\$ 247
Equity mutual funds ⁽²⁾	114	—	—	114	0	—	—	0
Fixed income								
Government and related ⁽³⁾	—	9,074	—	9,074	—	6,837	—	6,837
Corporate bonds ⁽⁴⁾	—	6,885	721	7,606	—	2,546	—	2,546
Mortgage and asset-backed securities	—	238	—	238	—	2	—	2
Fixed income mutual funds ⁽⁵⁾	234	—	—	234	—	—	9	9
Insurance contracts ⁽⁶⁾	—	—	—	—	—	3,654	—	3,654
Cash and short-term investments ⁽⁷⁾	72	570	—	643	286	263	—	549
Private equity	—	—	421	421	—	—	—	—
Real estate	—	8	—	8	—	—	145	145
Derivatives ⁽⁸⁾	—	—	—	—	32	262	—	294
Other mutual funds ⁽⁹⁾	—	—	—	—	25	—	—	25
Subtotal	937	16,776	1,142	18,855	590	13,563	155	14,308
Investments measured at net asset value using the NAV practical expedient ⁽¹⁰⁾	—	—	—	6,242	—	—	—	14,141
Other ⁽¹¹⁾	—	—	—	(4)	—	—	—	(78)
Fair value of plan assets	\$ 937	\$16,776	\$1,142	\$25,094	\$ 590	\$13,563	\$ 155	\$28,371

(1) Represents U.S. and international securities. The U.S. Plan includes IBM common stock of \$1 million. Non-U.S. Plans include IBM common stock of \$2 million.

(2) Invests in predominantly equity securities.

(3) Includes debt issued by national, state and local governments and agencies.

(4) The U.S. Plans include IBM corporate bonds of \$6 million. Non-U.S. Plans include IBM corporate bonds of \$3 million.

(5) Invests in predominantly fixed-income securities.

(6) Primarily represents insurance policy contracts (Buy-In) in certain non-U.S. plans.

(7) Includes cash, cash equivalents and short-term marketable securities.

(8) Includes interest-rate derivatives, forwards, exchange-traded and other over-the-counter derivatives.

(9) Invests in both equity and fixed-income securities.

(10) Investments measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient, including commingled funds, hedge funds, private equity and real estate partnerships.

(11) Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

The U.S. nonpension postretirement benefit plan assets of \$10 million were invested in cash equivalents, categorized as Level 1 in the fair value hierarchy. The non-U.S. nonpension postretirement benefit plan assets of \$29 million, primarily in Brazil, and, to a lesser extent, in Mexico and South Africa, were invested primarily in government and related fixed-income securities and corporate bonds, categorized as Level 2 in the fair value hierarchy.

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2023 and 2022 for the U.S. Plan.

(\$ in millions)

	Corporate Bonds	Private Equity	Total
Balance at January 1, 2023	\$ 721	\$ 421	\$ 1,142
Return on assets held at end of year	(18)	(5)	(23)
Return on assets sold during the year	10	0	10
Purchases, sales and settlements, net	(5)	(404)	(409)
Transfers, net	2	—	2
Balance at December 31, 2023	\$ 709	\$ 13	\$ 722

(\$ in millions)

	Corporate Bonds	Private Equity	Total
Balance at January 1, 2022	\$ 598	\$ —	\$ 598
Return on assets held at end of year	(114)	—	(114)
Return on assets sold during the year	(2)	—	(2)
Purchases, sales and settlements, net	206	—	206
Transfers, net	33	421	454
Balance at December 31, 2022	\$ 721	\$ 421	\$ 1,142

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2023 and 2022 for the non-U.S. Plans.

(\$ in millions)

	Fixed Income Mutual Funds	Real Estate	Total
Balance at January 1, 2023	\$ 9	\$ 145	\$ 155
Return on assets held at end of year	1	(66)	(65)
Return on assets sold during the year	—	56	56
Purchases, sales and settlements, net	63	(137)	(74)
Transfers, net	—	0	0
Foreign exchange impact	2	5	7
Balance at December 31, 2023	\$ 75	\$ 4	\$ 78

(\$ in millions)

	Fixed Income Mutual Funds	Real Estate	Total
Balance at January 1, 2022	\$ —	\$ 174	\$ 174
Return on assets held at end of year	0	6	6
Return on assets sold during the year	—	(1)	(1)
Purchases, sales and settlements, net	10	(16)	(7)
Transfers, net	—	0	0
Foreign exchange impact	0	(18)	(19)
Balance at December 31, 2022	\$ 9	\$ 145	\$ 155

Valuation Techniques

The following is a description of the valuation techniques used to measure plan assets at fair value. There were no changes in valuation techniques during 2023 and 2022.

Equity securities are valued at the closing price reported on the stock exchange on which the individual securities are traded. IBM common stock is valued at the closing price reported on the New York Stock Exchange. Mutual funds are typically valued based on quoted market prices. These assets are generally classified as Level 1.

The fair value of fixed-income securities is typically estimated using pricing models, quoted prices of securities with similar characteristics or discounted cash flows and are generally classified as Level 2. If available, they are valued using the closing price reported on the major market on which the individual securities are traded.

Cash includes money market accounts that are valued at their cost plus interest on a daily basis, which approximates fair value. Short-term investments represent securities with original maturities of one year or less. These assets are classified as Level 1 or Level 2.

Real estate valuations require significant judgment due to the absence of quoted market prices, the inherent lack of liquidity and the long-term nature of such assets. These assets are initially valued at cost and are reviewed periodically utilizing available and relevant market data, including appraisals, to determine if the carrying value of these assets should be adjusted. These assets are classified as Level 3.

Exchange-traded derivatives are valued at the closing price reported on the exchange on which the individual securities are traded, while forward contracts are valued using a mid-close price. Over-the-counter derivatives are typically valued using pricing models. The models require a variety of inputs, including, for example, yield curves, credit curves, measures of volatility and foreign exchange rates. These assets are classified as Level 1 or Level 2 depending on availability of quoted market prices.

Certain investments are measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient. These investments, which include commingled funds, hedge funds, private equity and real estate partnerships, are typically valued using the NAV provided by the administrator of the fund and reviewed by the company. The NAV is based on the value of the underlying assets owned by the fund, minus liabilities and divided by the number of shares or units outstanding.

Contributions and Direct Benefit Payments

It is the company's general practice to fund amounts for pensions sufficient to meet the minimum requirements set forth in applicable employee benefits laws and local tax laws. From time to time, the company contributes additional amounts as it deems appropriate.

The following table presents the contributions made to the non-U.S. DB plans, nonpension postretirement benefit plans, multi-employer plans, DC plans and direct benefit payments for 2023 and 2022. The cash contributions to the multi-employer plans represent the annual cost included in the net periodic (income)/cost recognized in the Consolidated Income Statement. The company's participation in multi-employer plans has no material impact on the company's financial statements.

(\$ in millions)

For the years ended December 31:	2023	2022
Non-U.S. DB plans	\$ 57	\$ 103
Nonpension postretirement benefit plans	233	344
Multi-employer plans	13	15
DC plans	991	924
Direct benefit payments	552	576
Total	\$ 1,847	\$ 1,962

In 2023 and 2022, \$256 million and \$349 million, respectively, of contributions to the non-U.S. DB plans and U.S. nonpension postretirement benefit plans were made in U.S. Treasury securities. Additionally, in 2023 and 2022, contributions of \$682 million and \$557 million, respectively, were made to the Active Medical Trust in U.S. Treasury securities. Contributions made with U.S. Treasury securities are considered a non-cash transaction.

Defined Benefit Pension Plans

In 2024, the company is not legally required to make any contributions to the U.S. defined benefit pension plans. However, depending on market conditions, or other factors, the company may elect to make discretionary contributions to the Qualified PPP during the year.

In 2024, the company estimates contributions to its non-U.S. defined benefit and multi-employer plans to be approximately \$200 million, the largest of which will be contributed to defined benefit pension plans in Japan and India. This amount generally represents legally mandated minimum contributions.

Financial market performance in 2024 could increase the legally mandated minimum contribution in certain countries which require monthly or daily remeasurement of the funded status. The company could also elect to contribute more than the legally mandated amount based on market conditions or other factors.

Expected Benefit Payments
Defined Benefit Pension Plan Expected Payments

The following table presents the total expected benefit payments to defined benefit pension plan participants subsequent to the U.S. retirement plan changes, as described above. These payments have been estimated based on the same assumptions used to measure the plans' PBO at December 31, 2023 and include benefits attributable to estimated future compensation increases, where applicable.

(\$ in millions)

	Qualified U.S. Plan Payments	Nonqualified U.S. Plans Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2024	\$ 1,769	\$ 122	\$ 1,995	\$ 375	\$ 4,260
2025	1,830	121	1,977	359	4,286
2026	1,848	119	1,954	362	4,283
2027	1,822	116	1,933	354	4,225
2028	1,780	113	1,903	349	4,145
2029-2033	8,284	522	9,131	1,654	19,591

The 2024 expected benefit payments to defined benefit pension plan participants not covered by the respective plan assets (underfunded plans) represent a component of compensation and benefits, within current liabilities, in the Consolidated Balance Sheet.

Nonpension Postretirement Benefit Plan Expected Payments

The following table presents the total expected benefit payments to nonpension postretirement benefit plan participants. These payments have been estimated based on the same assumptions used to measure the plans' APBO at December 31, 2023.

(\$ in millions)

	U.S. Plan Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2024	\$ 217	\$ 20	\$ 24	\$ 261
2025	215	21	24	260
2026	213	22	24	259
2027	208	23	24	255
2028	233	24	24	281
2029-2033	1,085	134	129	1,349

The 2024 expected benefit payments to nonpension postretirement benefit plan participants not covered by the respective plan assets represent a component of compensation and benefits, within current liabilities, in the Consolidated Balance Sheet.

Other Plan Information

The following table presents information for defined benefit pension plans with accumulated benefit obligations (ABO) in excess of plan assets. For a more detailed presentation of the funded status of the company's defined benefit pension plans, refer to the table on page 111.

(\$ in millions)

	2023		2022	
At December 31:	Benefit Obligation	Plan Assets	Benefit Obligation	Plan Assets
Plans with PBO in excess of plan assets	\$ 18,345	\$ 9,621	\$ 17,220	\$ 9,694
Plans with ABO in excess of plan assets	18,029	9,604	16,979	9,694
Plans with plan assets in excess of PBO	36,369	43,875	35,534	43,770

The following table presents information for the nonpension postretirement benefit plan with APBO in excess of plan assets. For a more detailed presentation of the funded status of the company's nonpension postretirement benefit plans, refer to the table on page 111.

(\$ in millions)

	2023		2022	
At December 31:	Benefit Obligation	Plan Assets	Benefit Obligation	Plan Assets
Plans with APBO in excess of plan assets	\$ 2,820	\$ 32	\$ 2,893	\$ 32
Plans with plan assets in excess of APBO	—	—	7	7

NOTE W. SUBSEQUENT EVENTS

On January 30, 2024, the company announced that the Board of Directors approved a quarterly dividend of \$1.66 per common share. The dividend is payable March 9, 2024 to stockholders of record on February 9, 2024.

On February 5, 2024, IBM International Capital Pte. Ltd, a wholly owned finance subsidiary of the company, issued \$5.5 billion of U.S. dollar fixed rate notes in tranches with maturities ranging from 2 to 30 years and coupons ranging from 4.6 to 5.3 percent. These notes are fully and unconditionally guaranteed by the company.

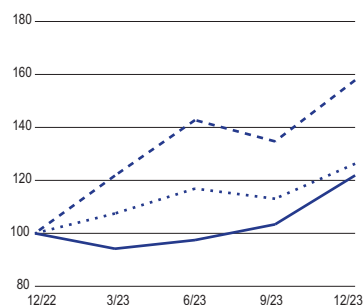
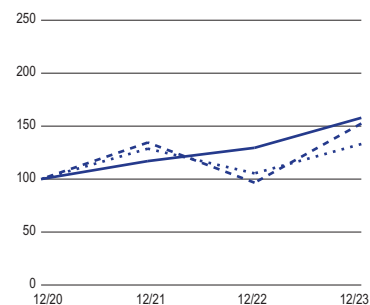
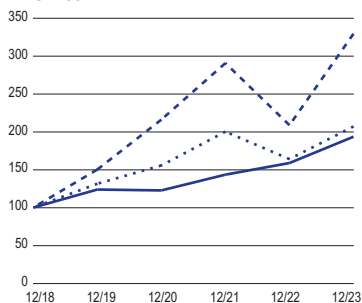
Performance Graphs

International Business Machines Corporation and Subsidiary Companies

COMPARISON OF ONE-, THREE- AND FIVE-YEAR CUMULATIVE TOTAL RETURN FOR IBM, S&P 500 STOCK INDEX AND S&P INFORMATION TECHNOLOGY INDEX

The following graphs compare the one-, three- and five-year cumulative total returns for IBM common stock with the comparable cumulative returns of certain Standard & Poor's (S&P) indices. Due to the fact that IBM is a company included in the S&P 500 Stock Index, the SEC's rules require the use of that index for the required five-year graph. Under those rules, the second index used for comparison may be a published industry or line-of-business index. The S&P Information Technology Index is such an index. IBM is also included in this index.

The graph assumes \$100 invested on December 31 (of the initial year shown in the graph) in IBM common stock and \$100 invested on the same date in each of the S&P indices. The comparisons assume that all dividends are reinvested. On November 3, 2021, we completed the separation of Kyndryl. IBM stockholders received one share of common stock in Kyndryl for every five shares of IBM common stock held at the close of business on October 25, 2021, the record date for the distribution. The effect of the Kyndryl transaction is reflected in the cumulative total return as reinvested dividends.

One-Year**Three-Year****Five-Year****One-Year**

(U.S. Dollar)		12/2022	3/2023	6/2023	9/2023	12/2023
—	International Business Machines	\$ 100.00	\$ 94.19	\$ 97.46	\$ 103.38	\$ 121.88
....	S & P 500	\$ 100.00	\$ 107.50	\$ 116.89	\$ 113.07	\$ 126.29
- - - -	S & P Information Technology	\$ 100.00	\$ 121.82	\$ 142.77	\$ 134.72	\$ 157.84

Three-Year

(U.S. Dollar)		2020	2021	2022	2023
—	International Business Machines	\$ 100.00	\$ 117.00	\$ 129.53	\$ 157.86
....	S & P 500	\$ 100.00	\$ 128.71	\$ 105.40	\$ 133.10
- - - -	S & P Information Technology	\$ 100.00	\$ 134.53	\$ 96.60	\$ 152.48

Five-Year

(U.S. Dollar)		2018	2019	2020	2021	2022	2023
—	International Business Machines	\$ 100.00	\$ 123.84	\$ 122.66	\$ 143.51	\$ 158.87	\$ 193.63
....	S & P 500	\$ 100.00	\$ 131.49	\$ 155.68	\$ 200.37	\$ 164.08	\$ 207.21
- - - -	S & P Information Technology	\$ 100.00	\$ 150.29	\$ 216.25	\$ 290.92	\$ 208.90	\$ 329.73

IBM Stockholder Services

Stockholders with questions about their accounts should contact:

Computershare Trust Company, N.A., P.O. Box 43078, Providence, Rhode Island 02940-3078, (888) IBM-6700.

Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727.

Stockholders can also reach Computershare Trust Company, N.A. via e-mail at: ibm@computershare.com

Hearing-impaired stockholders with access to a telecommunications device (TDD) can communicate directly with Computershare Trust Company, N.A., by calling (800) 490-1493. Stockholders residing outside the United States, Canada and Puerto Rico should call (781) 575-2694.

IBM on the Internet

Topics featured in this Annual Report can be found online at www.ibm.com. Financial results, news on IBM products, services and other activities can also be found at that website.

IBM files reports with the Securities and Exchange Commission (SEC), including the annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any other filings required by the SEC.

IBM's website (www.ibm.com/investor) contains a significant amount of information about IBM, including the company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. These materials are available free of charge on or through IBM's website.

The SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Computershare Investment Plan (CIP) (formerly IBM Investor Services Program)

The Computershare Investment Plan brochure outlines a number of services provided for IBM stockholders and potential IBM investors, including the reinvestment of dividends, direct purchase and the deposit of IBM stock certificates for safekeeping. The brochure is available at www.computershare.com/ibmcip or by calling (888) IBM-6700. Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727.

Investors with other requests may write to: IBM Stockholder Relations, New Orchard Road, M/D 325, Armonk, New York 10504.

IBM Stock

IBM common stock is listed on the New York Stock Exchange and the NYSE Chicago under the symbol "IBM".

Stockholder Communications

Stockholders can get quarterly financial results and voting results from the Annual Meeting by calling (914) 499-7777, by sending an e-mail to infoibm@us.ibm.com, or by writing to IBM Stockholder Relations, New Orchard Road, M/D 325, Armonk, New York 10504.

Annual Meeting

The IBM Annual Meeting of Stockholders will be held on Tuesday, April 30, 2024, at 1 p.m. (ET).

Literature for IBM Stockholders

The literature mentioned below on IBM is available without charge from:

Computershare Trust Company, N.A., P.O. Box 43078, Providence, Rhode Island 02940-3078, (888) IBM-6700.

Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727.

The company's annual report on Form 10-K and the quarterly reports on Form 10-Q provide additional information on IBM's business. The 10-K report is released by the end of February; 10-Q reports are released by the end of April, July and October.

The IBM ESG Report reflects IBM's belief that corporate responsibility drives long-term value not just in our business, but also for IBM stakeholders. Our 2022 ESG Report, *IBM Impact*, and the related addendum are available online at <https://www.ibm.com/impact>.

General Information

Stockholders of record can receive account information and answers to frequently asked questions regarding stockholder accounts online at www.ibm.com/investor. Stockholders of record can also consent to receive future IBM Annual Reports and Proxy Statements online through this site.

For answers to general questions about IBM from within the continental United States, call (800) IBM-4YOU. From outside the United States, Canada and Puerto Rico, call (914) 499-1900.

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International Business Machines Corporation and Subsidiary Companies

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*Term on the Board ends on April 30, 2024.



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Printed in U.S.A. COL03002-USEN-21

